

# HOW TO READ THE STANDARD OF GROOVING AND CUTTING OFF

- How this section page is organized
  - ① Classified according to external or internal applications.
  - ② Sub-classified according to product series.  
(Refer to the index on the next page.)

[For External Grooving / Cutting Off]

[For Internal Grooving]

FIGURE SHOWING THE TOOLING APPLICATION uses illustrations and arrows to depict available machining applications such as cutting off, grooving, and copying.

INDICATION OF HOLDER TYPE ACCORDING TO APPLICATION indicates the holder types, such as the standard type or the L type, according to machining application.

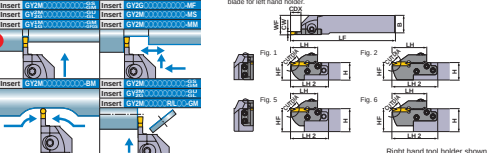
TITLE OF PRODUCT

PRODUCT SECTION

GROOVING / CUTTING OFF

**GY** SERIES (EXTERNAL)

1-1 00° type holder (inch)



| Seat Size | CW (inch) | CDX (inch) | CUTDIA (inch) | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|-----------|------------|---------------|------------|------------|------------------|-------|---------------|-------|------|
|           |           |            |               |            |            | Holder           | Stock | Modular Blade | Stock |      |
| D         | .236      | .472       |               | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-D06   | ●     | 3    |
|           |           |            |               | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-D06   | ●     | 3    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-D06   | ●     | 1    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-D06   | ●     | 1    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-D06   | ●     | 3    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-D06   | ●     | 3    |
|           | .394      | .787       |               | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-D06   | ●     | 1    |
|           |           |            |               | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-D06   | ●     | 1    |
|           |           |            |               | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-D06   | ●     | 3    |
|           |           |            |               | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-D06   | ●     | 3    |
|           |           |            |               | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-D06   | ●     | 5    |
|           |           |            |               | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-D06   | ●     | 5    |
| D         | .472      | .945       |               | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-D10   | ●     | 3    |
|           |           |            |               | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-D10   | ●     | 3    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-D10   | ●     | 1    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-D10   | ●     | 1    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-D12   | ●     | 3    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-D12   | ●     | 3    |
| D         | .709      | 1.417      |               | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RB-D18   | ●     | 4    |
|           |           |            |               | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LB-D18   | ●     | 4    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RB-D18   | ●     | 2    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LB-D18   | ●     | 2    |
|           |           |            |               | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-D20   | ●     | 4    |
|           |           |            |               | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-D20   | ●     | 4    |
| F040      | .787      | 1.575      |               | Mono Block | L          | GYQLUS16D00-D20  | ●     | —             | —     | 7    |
|           |           |            |               | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-D20   | ●     | 2    |
|           |           |            |               | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-D20   | ●     | 2    |
|           |           |            |               | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-D20   | ●     | 6    |
|           |           |            |               | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-D20   | ●     | 6    |
|           |           |            |               | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-D20   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter  
#1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.  
#2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.  
#3 Dimensions shown are when the gauge insert is used. If other insert geometries are used than LF, LH and LH 2 values may vary.  
#4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F008.

F040 ● : USA Stock

PRODUCT FEATURES

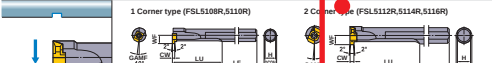
MIN. CUTTING DIAMETER is colour-coded to let you find, at a glance, the minimum cutting diameters for internal machining.

GEOMETRY

GROOVING / CUTTING OFF

**F** TYPE BORING BAR

FSL51 Internal grooving, Threading



| Metric Standard |       |               |          |           |      |      |                 |      |     |    |     |       | Right hand tool holder only |             |        |        |
|-----------------|-------|---------------|----------|-----------|------|------|-----------------|------|-----|----|-----|-------|-----------------------------|-------------|--------|--------|
| Order Number    | Stock | Insert Number |          |           |      |      | Dimensions (mm) |      |     |    |     | CDMN* | Max Groove Depth (mm)       | Clamp Screw | Wrench |        |
|                 |       | R             | Grooving | Threading | DCON | H    | LF              | LU   | WF  | CW |     |       |                             |             |        |        |
| FSL5108R        | ●     | MLG           | 10       | L         | MLT  | 100L | 8               | 7    | 125 | 30 | 4.8 | 1.2   | 10                          | 1.0         | TS25   | TKY08F |
| FSL5110R        | ●     | MLG           | 10       | L         | MLT  | 100L | 10              | 9    | 150 | 40 | 5.8 | 1.5   | 12                          | 1.0         | TS25   | TKY08F |
| FSL5112R        | ●     | MLG           | 14       | L         | MLT  | 140L | 12              | 10.8 | 180 | 50 | 6.8 | 1.5   | 14                          | 2.0         | TS32   | TKY08F |
| FSL5114R        | ●     | MLG           | 14       | L         | MLT  | 140L | 14              | 12.4 | 180 | 60 | 7.8 | 2.0   | 16                          | 2.0         | TS32   | TKY08F |
| FSL5116R        | ●     | MLG           | 20       | L         | MLT  | 200L | 16              | 14   | 200 | 70 | 9.7 | 3.0   | 20                          | 3.0         | TS43   | TKY15F |

\*CDMN : Min. Cutting Diameter

GROOVING / CUTTING OFF

**F** TYPE BORING BAR

FSL52 (Carbide shank) Internal grooving, Threading



| FSL5208R | ★ | MLG | 10 | ° L | MLT | 100L | 8  | 7    | 125 | 60  | 4.8 | 1.2 | 10 | 1.0 | TS25 | TKY08F |
|----------|---|-----|----|-----|-----|------|----|------|-----|-----|-----|-----|----|-----|------|--------|
| FSL5210R | ★ | MLG | 10 | ° L | MLT | 100L | 10 | 9    | 150 | 70  | 5.8 | 1.5 | 12 | 1.0 | TS25 | TKY08F |
| FSL5212R | ★ | MLG | 14 | ° L | MLT | 140L | 12 | 10.8 | 180 | 80  | 6.8 | 1.5 | 14 | 2.0 | TS32 | TKY08F |
| FSL5214R | ★ | MLG | 14 | ° L | MLT | 140L | 14 | 12.4 | 180 | 85  | 7.8 | 2.0 | 16 | 2.0 | TS32 | TKY08F |
| FSL5216R | ★ | MLG | 20 | ° L | MLT | 200L | 16 | 14   | 200 | 115 | 9.7 | 3.0 | 20 | 3.0 | TS43 | TKY15F |

\*CDMN : Min. Cutting Diameter

\*CDMN : Min. Cutting Diameter

F238 ● : USA Stock ★ : Stocked in Japan

PRODUCT STANDARDS

indicates order numbers, stock status (per right/left hand), holders, Modular Blade, cutting widths, maximum groove depths, maximum cut-off diameters, dimensions, applicable inserts, and cutting edge shapes.

LEGEND FOR

STOCK STATUS MARK is shown on the left hand page of each double-page spread.

- To Order : For holder, please specify order number and hand of tool (right/left).  
For insert, please specify insert number and grade.

# TURNING TOOLS

## GROOVING AND CUTTING OFF

CLASSIFICATION (EXTERNAL)..... F002

CLASSIFICATION (INTERNAL)..... F003

### STANDARD OF GROOVING AND CUTTING OFF TOOLS

#### EXTERNAL

FEATURES OF THE GY SERIES..... F004

IDENTIFICATION OF GY SERIES ..... F008

GY SERIES INSERTS ..... F011

GY SERIES REFERENCE DATA ..... F015

QUICK INDEX..... F016

GY SERIES..... F038, F186

**NEW** GW SERIES..... F228

#### INTERNAL

GY SERIES..... F170

FSL51/52 TYPE..... F238

S-SL5N TYPE..... F239

MICRO-MINI TWIN BORING BARS ..... F241

Arranged by Alphabetical order.

|      |                      |
|------|----------------------|
| F241 | <b>CG</b>            |
| F238 | <b>FSL5</b>          |
| F038 | <b>GY (Holders)</b>  |
| F011 | <b>GY (Inserts)</b>  |
| F232 | <b>GW (Blades)</b>   |
| F235 | <b>GW (Inserts)</b>  |
| F240 | <b>MLG (Inserts)</b> |
| F240 | <b>MLT (Inserts)</b> |
| F239 | <b>S-SL5N</b>        |



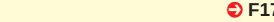
**F001**

# CLASSIFICATION

## EXTERNAL

| Name of Tool Holder                                                                                                            | Insert Shape                                                                       | Features                                                                                                                                                                                                                                            | Cutting Width According to Cutting Mode (inch)                                                                                                                                                                              |               |             |                                                                                                                                                     |                                                                                                                                     |                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                |                                                                                    |                                                                                                                                                                                                                                                     | Shallow Grooving                                                                                                                                                                                                            | Deep Grooving | Cutting Off | Copying                                                                                                                                             | Recessing                                                                                                                           | Face Grooving                                                                                                                                                                                      |
| <b>GY Series</b><br><br>➔ F038<br>➔ F186      |   | <b>Modular type</b><br>● Clamp-on type.<br>● High accuracy and rigidity due to the modular blade. (Tri-lock system)<br>● Various insert types.<br><b>Mono block type</b><br>● Spring clamp type.                                                    | .059"<br>.079" (2.0 mm)<br>.088"<br>.094"<br>.098" (2.5 mm)<br>.108"<br>.118" (3.0 mm)<br>.125"<br>.128"<br>.157" (4.0 mm)<br>.167"<br>.187"<br>.197" (5.0 mm)<br>.206"<br>.236" (6.0 mm)<br>.248"<br>.250"<br>.315" (8 mm) |               |             | .079" (2.0 mm)<br>.098" (2.5 mm)<br>.118" (3.0 mm)<br>.125"<br>.157" (4.0 mm)<br>.187"<br>.197" (5.0 mm)<br>.236" (6.0 mm)<br>.250"<br>.315" (8 mm) | .079" (2.0 mm)<br>.098" (2.5 mm)<br>.118" (3.0 mm)<br>.125"<br>.157" (4.0 mm)<br>.187"<br>.197" (5.0 mm)<br>.236" (6.0 mm)<br>.250" | .079" (2.0 mm)<br>.088"<br>.094"<br>.098" (2.5 mm)<br>.108"<br>.118" (3.0 mm)<br>.125"<br>.128"<br>.157" (4.0 mm)<br>.167"<br>.187"<br>.197" (5.0 mm)<br>.206"<br>.236" (6.0 mm)<br>.248"<br>.250" |
| <b>GW Series</b><br><b>NEW</b><br><br>➔ F228 |  | ● Spring clamp type.<br>● Simple insert clamping method.<br>● The blade is possible to use with both external or through coolant.<br>● Breaker system offering excellent chip disposal properties.<br>● Maximum cut off diameter : 4.724" (120 mm). | .079" (2.0 mm)<br>.118" (3.0 mm)<br>.157" (4.0 mm)<br>.197" (5.0 mm)                                                                                                                                                        |               |             |                                                                                                                                                     |                                                                                                                                     |                                                                                                                                                                                                    |

## INTERNAL

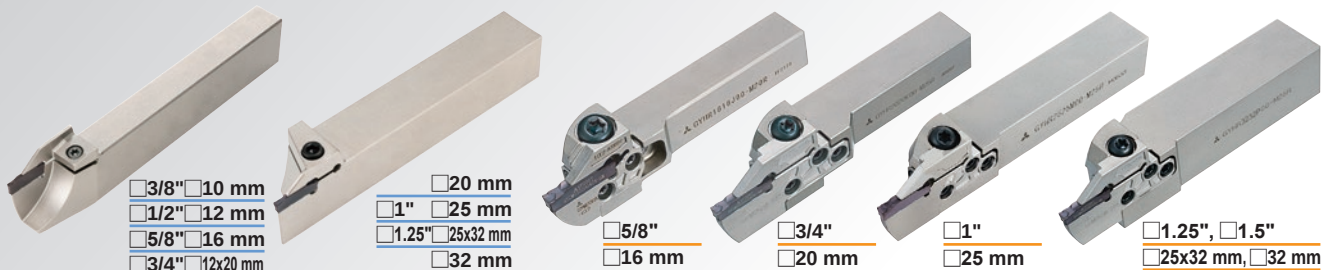
| Name of Tool Holder                                                                                                                                                                                                                                                                                            | Insert Shape | Features                                                                                                                                                                                         | Min. Cutting Diameter<br>(inch) | Cutting Width<br>(inch)                                                                                                                                                                            | Max. Groove Depth<br>(inch) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>GY Series</b><br><br><br> F170                           |              | <b>Modular type</b><br>● Clamp-on type.<br>● High accuracy and rigidity due to the modular blade. (Tri-lock system)<br>● Various insert types.<br><b>Mono block type</b><br>● Spring clamp type. | .984"<br>(25 mm)                | .079" (2.0 mm)<br>.088"<br>.094"<br>.098" (2.5 mm)<br>.108"<br>.118" (3.0 mm)<br>.125"<br>.128"<br>.157" (4.0 mm)<br>.167"<br>.187"<br>.197" (5.0 mm)<br>.206"<br>.236" (6.0 mm)<br>.248"<br>.250" | .157"<br> <br>.512"         |
| <b>FSL5/S-SL5 Boring Bars</b><br><br><br> F238             |              | ● Screw-on type.<br>● Precision class insert.<br>● Holder is capable of performing both grooving and threading.<br>● Maximum groove depth .118 inch.                                             | .394"                           | .047" (1.2 mm)<br>.059" (1.5 mm)<br>.062"<br>.079" (2.0 mm)<br>.094"<br>.118" (3.0 mm)<br>.125"<br>.156"<br>.157" (4.0 mm)                                                                         | .039"<br> <br>.118"         |
| <b>MICRO-MINI TWIN Boring Bars</b><br><br> —<br> F241 |              | ● Solid carbide type.<br>● Economical due to single holder with two cutting edges.                                                                                                               | .118"                           | .04"<br> <br>.08"                                                                                                                                                                                  | .04"<br> <br>.08"           |
| <b>MICRO-MINI Boring Bars</b><br><br> —<br> E031      |              | ● Solid carbide type.<br>● Insert can be ground to suit the application.                                                                                                                         | .126"                           | .08"<br> <br>.12"                                                                                                                                                                                  | .04"<br> <br>.08"           |

# GY SERIES

A wide selection of holders and inserts available for diverse grooving and cutting off applications

## External • Face holders

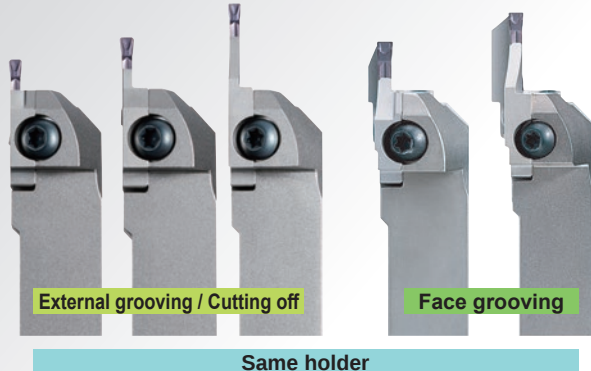
Corresponding blades to a variety of modular holders with different shank sizes



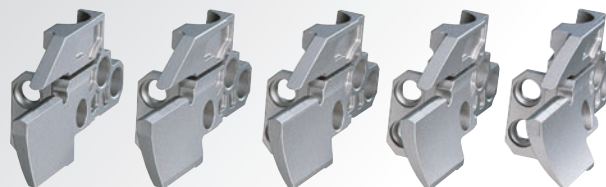
### Mono block type

### Modular type

A wide selection of holders and inserts available for diverse grooving and cutting off applications



Applicable for various diameters of face grooves by the wide array of modular blades with different grooving diameters



## Internal holders

A wide range of holders available from minimum diameter of  $\varnothing 25$  mm

### Mono block type

Min. cutting diameter  
(Inch)  
 $\varnothing 1.000"$   
 $\varnothing 1.250"$

(Metric)  
 $\varnothing 25$  mm  
 $\varnothing 32$  mm



### Modular type

Min. cutting diameter  
(Inch)  
 $\varnothing 1.625"$   
 $\varnothing 2.000"$   
 $\varnothing 2.500"$   
 $\varnothing 2.750"$

(Metric)  
 $\varnothing 40$  mm  
 $\varnothing 50$  mm  
 $\varnothing 60$  mm  
 $\varnothing 70$  mm

Short shank types are standard stocked

### Mono block type

### Modular type



Short

Standard

Short

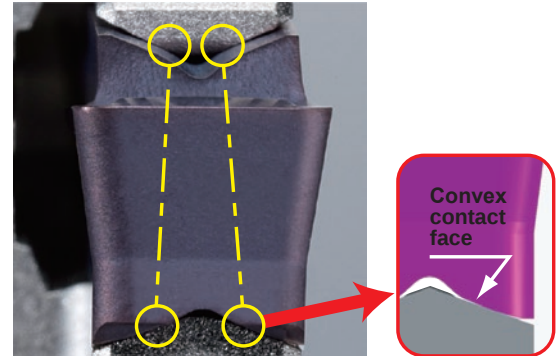
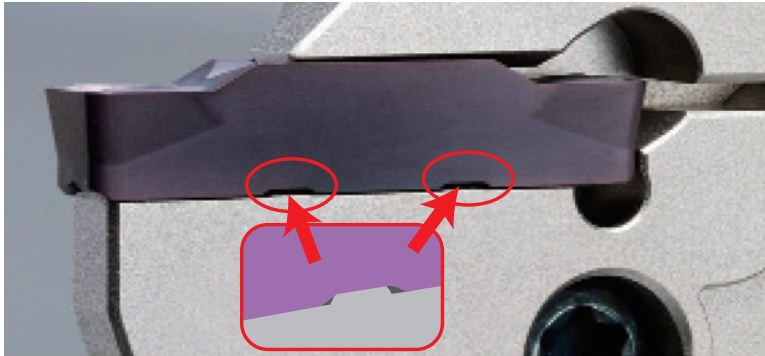
Standard

# Original insert design leading the way to new grooving and cutting off applications

## Highly reliable insert clamping

Safety keys prevent insert movement.

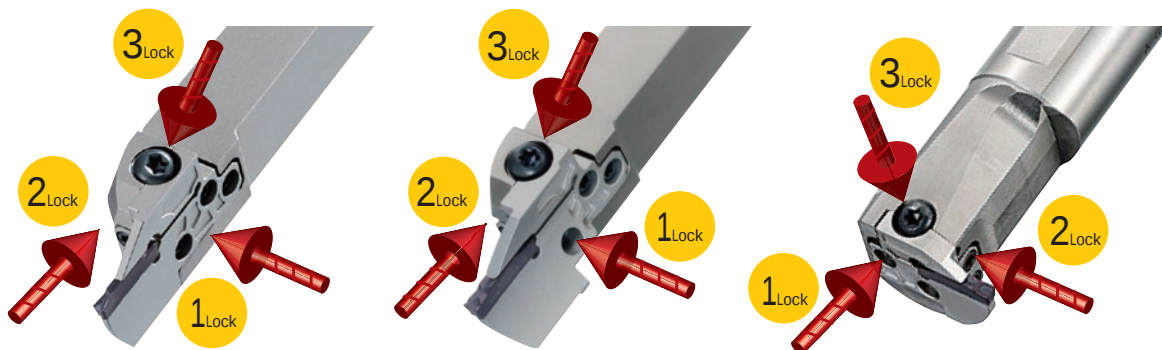
The convex geometry ensures high precision clamping.



## New TRI-LOCK System for increased stability and performance!

### TRI-LOCK System

The TRI-LOCK system ensures the blade is securely fixed in 3 directions (side, front and top), giving high rigidity for stable grooving and cutting off performance.



## A WIDE SELECTION OF INSERTS

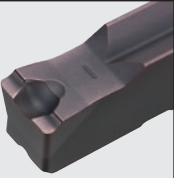
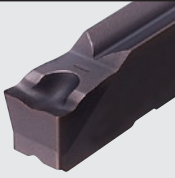
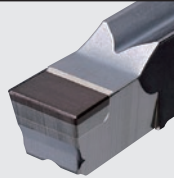
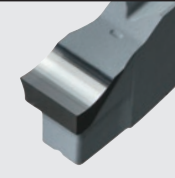
● Selection of groove widths



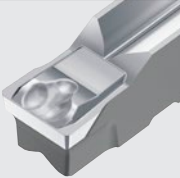
● Different corner radii available



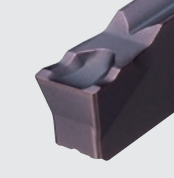
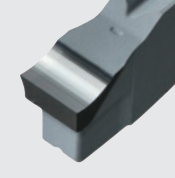
## INSERT BREAKER SYSTEM

| Grooving                                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |
| <b>GUBreaker</b><br>(For Gummy Steel)                                             | <b>GSBreaker</b><br>(Low feeds)                                                   | <b>GMBreaker</b><br>(Medium feeds)                                                | <b>GFGS</b><br>(CBN)                                                              | <b>GLBreaker</b><br>(For Aluminum Alloy)                                            |

| For Multifunctional Grooving                                                      |                                                                                   |                                                                                   | Copying/Recessing                                                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |  |  |
| <b>MFBreaker</b><br>(G class)                                                     | <b>MSBreaker</b><br>(Low feeds)                                                   | <b>MMBreaker</b><br>(Medium feeds)                                                | <b>BMBreaker</b>                                                                  |

| Cutting Off                                                                        |                                                                                    |                                                                                    |                                                                                    |                                                                                      |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |  |  |
| <b>GUBreaker</b><br>(For Gummy Steel)                                              | <b>GSBreaker</b><br>(Low feeds)                                                    | <b>GMBreaker</b><br>(Medium feeds)                                                 | <b>R/L05-GMBreaker</b><br>(Medium feeds)                                           | <b>GLBreaker</b><br>(For Aluminum Alloy)                                             |

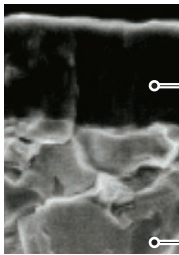
## INSERT GRADE

| Work Material<br>Machining Condition                | P<br>Steel                                                       | M<br>Stainless Steel               | K<br>Cast Iron                                      | N<br>Aluminum Alloy | S<br>Heat resistant Alloy / Titanium Alloy      | H<br>Hardened Steel            |
|-----------------------------------------------------|------------------------------------------------------------------|------------------------------------|-----------------------------------------------------|---------------------|-------------------------------------------------|--------------------------------|
| Stable<br>↑<br>Machining Condition<br>↓<br>Unstable | <b>NX2525</b><br><b>MY5015</b><br><b>VP10RT</b><br><b>VP20RT</b> | <br><b>VP10RT</b><br><b>VP20RT</b> | <br><b>MY5015</b><br><b>VP10RT</b><br><b>VP20RT</b> | <br><b>RT9010</b>   | <b>VP10RT</b><br><b>RT9010</b><br><b>VP20RT</b> | <b>BC8110</b><br><b>MB8025</b> |

Note1) VP20RT is the first recommended grade for materials other than hardened steels.

Note2) For RT9010, VP10RT, VP20RT and MY5015, wet cutting is recommended.

### VP20RT (1st Recommendation)

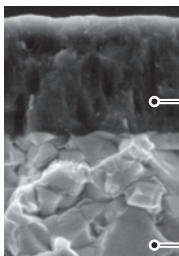


- PVD coated grade suitable for a wide range of applications. The combination of a special tough cemented carbide substrate with MIRACLE coating provides an excellent balance of wear and fracture resistance.

MIRACLE Coating

Carbide substrate (90.5HRA)

### VP10RT (2nd Recommendation)

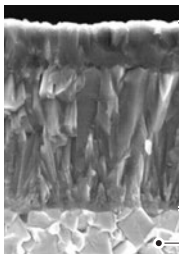


- PVD coated grade with a cemented carbide substrate harder than VP20RT. For use on difficult to cut materials and for extending tool life.

MIRACLE Coating

Carbide substrate (92.0HRA)

### MY5015



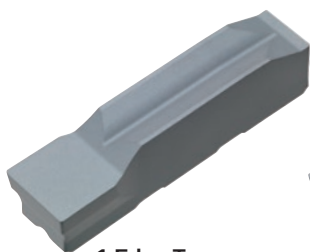
- MY5015 is a CVD coated grade with excellent wear resistance even at high temperatures. It provides longer tool life when machining cast and ductile cast irons. Also suitable for high speed continuous cutting of steels.

CVD Coated Carbide

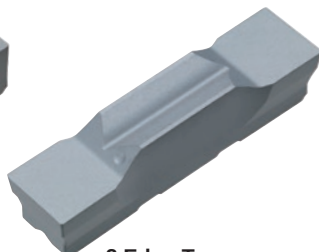
Carbide substrate

## BLANK INSERTS

- Blank inserts for custom grinding



1 Edge Type



2 Edge Type

★1 Insert blank is not suitable for machining without grinding.

### RT9010

- First recommended grade for titanium and aluminum alloys.

### NX2525

- NX2525, a cermet grade for finish machining of steels and for good surface finishes at lower cutting speeds.

### BC8110

- A CBN coated grade for continuous cutting, which provides longer life when machining hardened steel.

### MB8025

- MB8025 is a sintered CBN grade for hardened steel.

### RT9010/RT9020 for blank insert

- First recommendation for blanks inserts is RT9020 due to the tougher carbide substrate that is suitable for a wider range of applications. RT9010 has a harder substrate than RT9020 and is ideal for longer tool life on stable cutting applications. Both grades are recommended to have a coating applied that is suitable for the required application.

# IDENTIFICATION OF GY SERIES

## ■ INSERT

① **GY** ② **2** ③ **M** ④ **0300** ⑤ **F** ⑥ **030** ⑦ **N** ⑧ **05** - ⑨ **M** ⑩ **F**

① **Series Description**

② **Number of Teeth**

|   |             |
|---|-------------|
| 1 | 1 Edge Type |
| 2 | 2 Edge Type |

③ **Peripheral**

|   |          |
|---|----------|
| G | Ground   |
| M | Sintered |
| B | Blank    |

④ **Groove Width**

|      | Inch  | Metric  |
|------|-------|---------|
| 0150 | .059" | 1.50 mm |
| 0200 | .079" | 2.00 mm |
| ⋮    | ⋮     | ⋮       |
| 0800 | .315" | 8.00 mm |

⑤ **Seat Size \*1**

|   | Inch                    | Metric                        |
|---|-------------------------|-------------------------------|
| C | .059"                   | 1.50 mm                       |
| D | .079"<br>.088"          | 2.00 mm<br>2.24 mm            |
| E | .094"<br>.098"<br>.108" | 2.39 mm<br>2.50 mm<br>2.74 mm |
| F | .118"<br>.125"<br>.128" | 3.00 mm<br>3.18 mm<br>3.24 mm |
| G | .157"<br>.167"          | 4.00 mm<br>4.24 mm            |
| H | .187"<br>.197"<br>.206" | 4.75 mm<br>5.00 mm<br>5.24 mm |
| J | .236"<br>.248"<br>.250" | 6.00 mm<br>6.31 mm<br>6.35 mm |
| K | .315"                   | 8.00 mm                       |

⑥ **Corner Radius**

|     | Inch  | Metric  |
|-----|-------|---------|
| 010 | .004" | 0.10 mm |
| 015 | .006" | 0.15 mm |
| ⋮   | ⋮     | ⋮       |
| 400 | .157" | 4.00 mm |

⑦ **Hand**

|   |         |
|---|---------|
| N | Neutral |
| R | Right   |
| L | Left    |

⑧ **Lead angle (R/L type insert)**

|    |    |
|----|----|
| 05 | 5° |
|----|----|

⑨ **Application 1**

|   |                      |
|---|----------------------|
| G | Grooving/Cutting off |
| M | Multifunctional      |
| B | Copying (Ball nose)  |

⑩ **Application 2**

|   |                 |
|---|-----------------|
| U | For Gummy Steel |
| F | Finishing       |
| S | Low feeds       |
| M | Medium feeds    |

## ■ CBN INSERT

① **GY** ② **1** ③ **G** ④ **0300** ⑤ **F** ⑥ **020** ⑦ **N** - ⑧ **G** ⑨ **F** ⑩ **GS**

⑪ **Application 3**

|   |          |
|---|----------|
| F | Flat Top |
|---|----------|

⑫ **Honing Type**

|    |                 |
|----|-----------------|
| GS | General Purpose |
|----|-----------------|

\*1 Select a seat size with the same symbol as that of the modular blade and mono block holder.

## ■ MODULAR BLADE

### ● EXTERNAL/INTERNAL/RECESSING

① **GY** ② **M25** ③ **R** ④ **A** - ⑤ **F** ⑥ **12** \*3

① **Series Description**

② **Modular Blade Size**

|     |
|-----|
| M20 |
| M25 |

③ **Hand**

|   |       |
|---|-------|
| R | Right |
| L | Left  |

④ **Modular Blade Type**

|   |                    |
|---|--------------------|
| A | Standard Type      |
| B | Reinforced Type    |
| C | External Recessing |
| D | Face Grooving      |

⑤ **Seat Size \*1**

|   | Inch                    | Metric                        |
|---|-------------------------|-------------------------------|
| D | .079"<br>.088"          | 2.00 mm<br>2.24 mm            |
| E | .094"<br>.098"<br>.108" | 2.39 mm<br>2.50 mm<br>2.74 mm |
| F | .118"<br>.125"<br>.128" | 3.00 mm<br>3.18 mm<br>3.24 mm |
| G | .157"<br>.167"          | 4.00 mm<br>4.24 mm            |
| H | .187"<br>.197"<br>.206" | 4.75 mm<br>5.00 mm<br>5.24 mm |
| J | .236"<br>.248"<br>.250" | 6.00 mm<br>6.31 mm<br>6.35 mm |

⑥ **Max. Groove Depth \*2**

|     | Inch  | Metric  |
|-----|-------|---------|
| 005 | .197" | 0.5 mm  |
| 06  | .236" | 6 mm    |
| ⋮   | ⋮     | ⋮       |
| 25  | .984" | 25.0 mm |

### ● FACE GROOVING

① **GY** ② **M25** ③ **R** ④ **D** - ⑤ **F** ⑥ **12** - ⑦ **050**

⑦ **Min. Groove Diameter**

|     | Inch   | Metric |
|-----|--------|--------|
| 035 | 1.378" | 35 mm  |
| 040 | 1.575" | 40 mm  |
| ⋮   | ⋮      | ⋮      |
| 250 | 9.843" | 250 mm |

\*1 Select a seat size with the same symbol as that of the insert.

\*2 The maximum groove depth is a value when used for external grooving and changes according to the insert used.

For internal grooving, refer to the maximum groove depth on pages F170—F185.

\*3 GYM20R/LA-○10, GYM20R/LA-○12, GYM25R/LA-○12 and GYM25R/LA-○14 can be used for both external and internal grooving.

## EXTERNAL/FACE GROOVING/RECESSING

### ● MONO BLOCK HOLDER

(Inch) **GY** **P** **R** **US16** **D** **00** - **K** **25**  
 (Metric) **2525** **M**

#### ① Series Description

| ② Holder Type |                                         |
|---------------|-----------------------------------------|
| S             | Mono Block Holder for Swiss Style Lathe |
| P             | Offset Mono Block Holder                |
| Q             | Zero Offset Mono Block Holder           |
| H             | Modular Type Holder                     |

| ③ Hand of Holder |       |
|------------------|-------|
| R                | Right |
| L                | Left  |

| ④ Holder Size |               |        |             |
|---------------|---------------|--------|-------------|
|               | Inch          | Metric |             |
| US06          | .375"x.375"   | 1010   | 10 mmx10 mm |
| US08          | .500"x.500"   | 1212   | 12 mmx12 mm |
| US10          | .625"x.625"   | 1616   | 16 mmx16 mm |
| US12          | .750"x.750"   | 2012   | 20 mmx12 mm |
| US16          | 1.000"x1.000" | 2020   | 20 mmx20 mm |
| US20          | 1.250"x1.250" | 2525   | 25 mmx25 mm |
| US24          | 1.500"x1.500" | 3225   | 32 mmx25 mm |
|               |               | 3232   | 32 mmx32 mm |

| ⑤ Holder Length |      |        |        |
|-----------------|------|--------|--------|
|                 | Inch | Metric |        |
| B               | 4.5" | J      | 110 mm |
| C               | 5.0" | JX     | 120 mm |
| D               | 6.0" | K      | 125 mm |
| E               | 7.0" | M      | 150 mm |
|                 |      | P      | 170 mm |

| ⑥ Angle (degree) |     |
|------------------|-----|
| 00               | 0°  |
| 50               | 50° |
| 90               | 90° |

| ⑦ Seat Size *1 |                         |                               |
|----------------|-------------------------|-------------------------------|
|                | Inch                    | Metric                        |
| C              | .059"                   | 1.50 mm                       |
| D              | .079"<br>.088"          | 2.00 mm<br>2.24 mm            |
| E              | .094"<br>.098"<br>.108" | 2.39 mm<br>2.50 mm<br>2.74 mm |
| F              | .118"<br>.125"<br>.128" | 3.00 mm<br>3.18 mm<br>3.24 mm |
| G              | .157"<br>.167"          | 4.00 mm<br>4.24 mm            |
| H              | .187"<br>.197"<br>.206" | 4.75 mm<br>5.00 mm<br>5.24 mm |
| J              | .236"<br>.248"<br>.250" | 6.00 mm<br>6.31 mm<br>6.35 mm |
| K              | .315"                   | 8.00 mm                       |

| ⑧ Max. Grooving Depth |       |        |
|-----------------------|-------|--------|
|                       | Inch  | Metric |
| 06                    | .236" | 6 mm   |
| 08                    | .315" | 8 mm   |
| ⋮                     | ⋮     | ⋮      |
| 25                    | .984" | 25 mm  |

### ● MODULAR TYPE HOLDER

(Inch) **GY** **H** **R** **US16** **M** **00** - **M25** **R**  
 (Metric) **2525**

| ⑨ Modular Blade Size |  |
|----------------------|--|
| M20                  |  |
| M25                  |  |

| ⑩ Hand of Modular Blade |       |
|-------------------------|-------|
| R                       | Right |
| L                       | Left  |

\*1 Select a seat size with the same symbol as that of the insert.

## INTERNAL

### ● MONO BLOCK HOLDER

(Inch) **GY** **A** **R** **US16** **K** **90** **A** - **F** **06**  
 (Metric) **20**

#### ① Series Description

| ② Holder Type |                     |
|---------------|---------------------|
| A             | Mono Block          |
| D             | Modular Type Holder |

| ③ Hand of Holder |       |
|------------------|-------|
| R                | Right |
| L                | Left  |

| ④ Shank Size |        |        |       |
|--------------|--------|--------|-------|
|              | Inch   | Metric |       |
| US12         | .750"  | 20     | 20 mm |
| US16         | 1.000" | 25     | 25 mm |
| US20         | 1.250" | 32     | 32 mm |
| US24         | 1.500" | 40     | 40 mm |
| US32         | 2.000" | 50     | 50 mm |

| ⑤ Holder Length |       |        |  |
|-----------------|-------|--------|--|
|                 | Inch  | Metric |  |
| K               | 5.0"  | 125 mm |  |
| L               | 5.5"  | 140 mm |  |
| M               | 6.0"  | 150 mm |  |
| P               | 6.75" | 170 mm |  |
| Q               | 7.0"  | 180 mm |  |
| R               | 8.0"  | 200 mm |  |
| S               | 10.0" | 250 mm |  |
| T               | 12.0" | 300 mm |  |

| ⑥ Angle (degree) |     |
|------------------|-----|
| 90               | 90° |

| ⑦ Neck Length |        |        |
|---------------|--------|--------|
|               | Inch   | Metric |
| A             | 1.250" | 30 mm  |
| B             | 1.500" | 40 mm  |
| C             | 2.000" | 50 mm  |
| D             | 2.500" | 60 mm  |
| F             | 3.250" | 80 mm  |

| ⑧ Seat Size *1 |                         |                               |
|----------------|-------------------------|-------------------------------|
|                | Inch                    | Metric                        |
| D              | .079"<br>.088"          | 2.00 mm<br>2.24 mm            |
| E              | .094"<br>.098"<br>.108" | 2.39 mm<br>2.50 mm<br>2.74 mm |
| F              | .118"<br>.125"<br>.128" | 3.00 mm<br>3.18 mm<br>3.24 mm |
| G              | .157"<br>.167"          | 4.00 mm<br>4.24 mm            |
| H              | .187"<br>.197"<br>.206" | 4.75 mm<br>5.00 mm<br>5.24 mm |
| J              | .236"<br>.248"<br>.250" | 6.00 mm<br>6.31 mm<br>6.35 mm |

| ⑨ Max. Grooving Depth |       |        |
|-----------------------|-------|--------|
|                       | Inch  | Metric |
| 06                    | .236" | 6 mm   |
| 07                    | .276" | 7 mm   |

### ● MODULAR TYPE HOLDER

(Inch) **GY** **D** **R** **US20** **M** **90** **D** - **M25** **L**  
 (Metric) **40**

| ⑩ Modular Blade Size |  |
|----------------------|--|
| M20                  |  |
| M25                  |  |

| ⑪ Hand of Modular Blade |       |
|-------------------------|-------|
| R                       | Right |
| L                       | Left  |

\*1 Select a seat size with the same symbol as that of the insert.

# IDENTIFICATION OF GY-PSC Holder

■ EXTERNAL

● GY-PSC HOLDER

① C4 - ② GY ③ H ④ R ⑤ EX ⑥ 00 - ⑦ M25 ⑧ R

| ①Coupling Size |
|----------------|
| C3             |
| C4             |
| C5             |
| C6             |

②Series Description

| ③Holder Type         |
|----------------------|
| H Modular blade type |

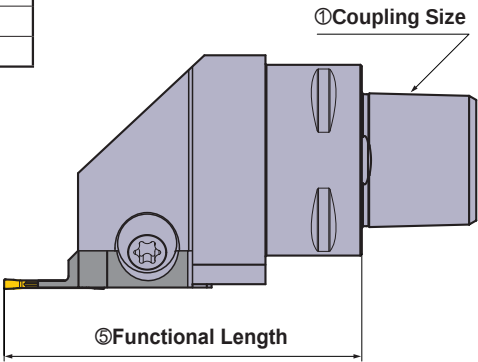
| ④Hand of Holder |
|-----------------|
| R Right         |
| L Left          |

| ⑥Angle (degree) |
|-----------------|
| 00 0°           |
| 90 90°          |

| ⑤Functional Length |
|--------------------|
| CX 2.165"          |
| D 2.362"           |
| DX 2.559"          |
| E 2.756"           |
| EX 2.953"          |
| F 3.150"           |

| ⑧Hand of Modular Blade |
|------------------------|
| R Right                |
| L Left                 |

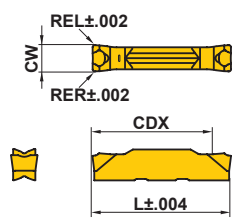
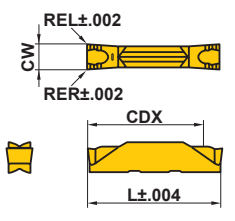
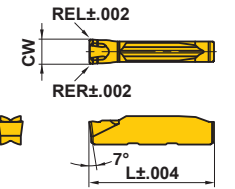
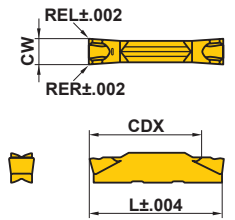
| ⑦Modular Blade Size |
|---------------------|
| M20                 |
| M25                 |



# GY SERIES INSERTS

## INSERTS

(inch)

| Applications               | Geometry                                                                                                                    | Order Number     | Stock  |        |        |        |        |        |        |        | Seat Size | CW      |        | RER/L | CDX   | L     | ★2 |     |  |                |           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|---------|--------|-------|-------|-------|----|-----|--|----------------|-----------|
|                            |                                                                                                                             |                  | Coated |        |        |        | Cermet |        |        |        |           | Carbide |        |       |       |       |    | CBN |  | Grooving Width | Tolerance |
|                            |                                                                                                                             |                  | VP10RT | VP20RT | MY5015 | NX2525 | RT9010 | RT9020 | BC8110 | MB8025 |           |         |        |       |       |       |    |     |  |                |           |
| For Grooving / Cutting off | <b>GU Breaker</b><br>(For Gummy Steel)<br> | GY2M0200D020N-GU | ●      | ●      | ●      |        |        |        |        |        | D         | .079    | ±.0012 | .008  | .776  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0239E020N-GU | ●      | ●      | ●      |        |        |        |        |        | E         | .094    | ±.0012 | .008  | .780  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0250E020N-GU | ●      | ●      | ●      |        |        |        |        |        | E         | .098    | ±.0012 | .008  | .768  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0300F030N-GU | ●      | ●      | ●      |        |        |        |        |        | F         | .118    | ±.0012 | .012  | .760  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0318F030N-GU | ●      | ●      | ●      |        |        |        |        |        | F         | .125    | ±.0012 | .012  | .760  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0400G030N-GU | ●      | ●      | ●      |        |        |        |        |        | G         | .157    | ±.0016 | .012  | .953  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0475H040N-GU | ●      | ●      | ●      |        |        |        |        |        | H         | .187    | ±.0016 | .016  | .953  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0500H040N-GU | ●      | ●      | ●      |        |        |        |        |        | H         | .197    | ±.0016 | .016  | .953  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0600J040N-GU | ●      | ●      | ●      |        |        |        |        |        | J         | .236    | ±.0016 | .016  | .953  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0635J040N-GU | ●      | ●      | ●      |        |        |        |        |        | J         | .250    | ±.0016 | .016  | .953  | 1.010 |    |     |  |                |           |
|                            | <b>GS Breaker</b><br>(Low feeds)<br>      | GY2M0150C010N-GS | ●      | ●      | ●      |        |        |        |        |        | C         | .059    | ±.0012 | .004  | .528  | .579  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0200D020N-GS | ●      | ●      | ●      |        |        |        |        |        | D         | .079    | ±.0012 | .008  | .736  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0239E020N-GS | ●      | ●      | ●      |        |        |        |        |        | E         | .094    | ±.0012 | .008  | .728  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0250E020N-GS | ●      | ●      | ●      |        |        |        |        |        | E         | .098    | ±.0012 | .008  | .728  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0300F020N-GS | ●      | ●      | ●      |        |        |        |        |        | F         | .118    | ±.0012 | .008  | .728  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0318F020N-GS | ●      | ●      | ●      |        |        |        |        |        | F         | .125    | ±.0012 | .008  | .728  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0400G020N-GS | ●      | ●      | ●      |        |        |        |        |        | G         | .157    | ±.0016 | .008  | .941  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0475H030N-GS | ●      | ●      | ●      |        |        |        |        |        | H         | .187    | ±.0016 | .012  | .941  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0500H030N-GS | ●      | ●      | ●      |        |        |        |        |        | H         | .197    | ±.0016 | .012  | .945  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0600J030N-GS | ●      | ●      | ●      |        |        |        |        |        | J         | .236    | ±.0016 | .012  | .949  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0635J030N-GS | ●      | ●      | ●      |        |        |        |        |        | J         | .250    | ±.0016 | .012  | .949  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0800K030N-GS | ●      | ●      |        |        |        |        |        |        | K         | .315    | ±.0016 | .012  | 1.146 | 1.201 |    |     |  |                |           |
|                            | <b>GM Breaker</b><br>(Medium feeds)<br>  | GY1M0200D020N-GM | ●      | ●      | ●      |        |        |        |        |        | D         | .079    | ±.0012 | .008  | —     | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY1M0250E020N-GM | ●      | ●      | ●      |        |        |        |        |        | E         | .098    | ±.0012 | .008  | —     | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY1M0300F030N-GM | ●      | ●      | ●      |        |        |        |        |        | F         | .118    | ±.0012 | .012  | —     | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY1M0400G030N-GM | ●      | ●      | ●      |        |        |        |        |        | G         | .157    | ±.0016 | .012  | —     | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY1M0500H040N-GM | ●      | ●      | ●      |        |        |        |        |        | H         | .197    | ±.0016 | .016  | —     | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             |                  |        |        |        |        |        |        |        |        |           |         |        |       |       |       |    |     |  |                |           |
|                            | <b>GM Breaker</b><br>(Medium feeds)<br>  | GY2M0150C020N-GM | ●      | ●      | ●      |        |        |        |        |        | C         | .059    | ±.0012 | .008  | .547  | .579  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0200D020N-GM | ●      | ●      | ●      | ●      |        |        |        |        | D         | .079    | ±.0012 | .008  | .764  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0239E020N-GM | ●      | ●      | ●      | ●      |        |        |        |        | E         | .094    | ±.0012 | .008  | .764  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0250E020N-GM | ●      | ●      | ●      | ●      |        |        |        |        | E         | .098    | ±.0012 | .008  | .764  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0300F030N-GM | ●      | ●      | ●      | ●      |        |        |        |        | F         | .118    | ±.0012 | .012  | .764  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0318F030N-GM | ●      | ●      | ●      | ●      |        |        |        |        | F         | .125    | ±.0012 | .012  | .764  | .815  |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0400G030N-GM | ●      | ●      | ●      | ●      |        |        |        |        | G         | .157    | ±.0016 | .012  | .961  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0475H040N-GM | ●      | ●      | ●      | ●      |        |        |        |        | H         | .187    | ±.0016 | .016  | .957  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0500H040N-GM | ●      | ●      | ●      | ●      |        |        |        |        | H         | .197    | ±.0016 | .016  | .957  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0600J040N-GM | ●      | ●      | ●      | ●      |        |        |        |        | J         | .236    | ±.0016 | .016  | .957  | 1.010 |    |     |  |                |           |
|                            |                                                                                                                             | GY2M0635J040N-GM | ●      | ●      | ●      | ●      |        |        |        |        | J         | .250    | ±.0016 | .016  | .957  | 1.010 |    |     |  |                |           |
| GY2M0800K050N-GM           |                                                                                                                             | ●                | ●      | ●      |        |        |        |        |        | K      | .315      | ±.0016  | .020   | 1.154 | 1.201 |       |    |     |  |                |           |

★2 The dimension depends on the breaker. Refer to the F015 "L dimension tolerance conversion table".

● : USA Stock

<10 inserts in one case>

F

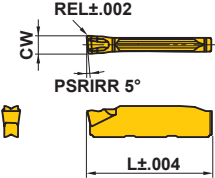
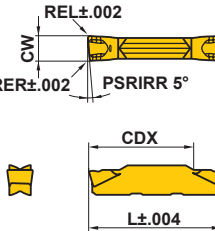
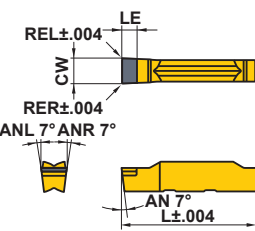
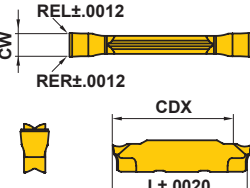
GROOVING / CUTTING OFF

F011

# GY SERIES INSERTS

## INSERTS

(inch)

| Applications     | Geometry                                                                                                                    | Order Number                                                                                                                                   | Stock            |        |        |        |         |        |        |        | Seat Size | CW             |           | RER/L  | CDX  | *2    |      |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|--------|--------|---------|--------|--------|--------|-----------|----------------|-----------|--------|------|-------|------|
|                  |                                                                                                                             |                                                                                                                                                | Coated           |        | Cermet |        | Carbide |        | CBN    |        |           | Grooving Width | Tolerance |        |      | L     | LE   |
|                  |                                                                                                                             |                                                                                                                                                | VP10RT           | VP20RT | MY5015 | NX2525 | RT9010  | RT9020 | BC8110 | MB8025 |           |                |           |        |      |       |      |
| For Cutting off  | <b>R/L05-GM Breaker</b><br>                | GY1M0200D020R05-GM                                                                                                                             | ●                | ●      |        |        |         |        |        |        | D         | .079           | ±.0012    | .008   | —    | .819  | —    |
|                  | GY1M0200D020L05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | D      | .079      | ±.0012         | .008      | —      | .819 | —     |      |
|                  | GY1M0300F030R05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | F      | .118      | ±.0012         | .012      | —      | .821 | —     |      |
|                  | GY1M0300F030L05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | F      | .118      | ±.0012         | .012      | —      | .821 | —     |      |
|                  |                                                                                                                             |                                                                                                                                                |                  |        |        |        |         |        |        |        |           |                |           |        |      |       |      |
|                  | <b>R/L05-GM Breaker</b><br>                | GY2M0200D020R05-GM                                                                                                                             | ●                | ●      |        |        |         |        |        |        | D         | .079           | ±.0012    | .008   | .768 | .819  | —    |
|                  | GY2M0200D020L05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | D      | .079      | ±.0012         | .008      | .768   | .819 | —     |      |
|                  | GY2M0250E020R05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | E      | .098      | ±.0012         | .008      | .768   | .820 | —     |      |
|                  | GY2M0250E020L05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | E      | .098      | ±.0012         | .008      | .768   | .820 | —     |      |
|                  | GY2M0300F030R05-GM                                                                                                          | ●                                                                                                                                              | ●                |        |        |        |         |        |        | F      | .118      | ±.0012         | .012      | .768   | .821 | —     |      |
| For Grooving     | <b>Flat Top (For Hardened Steel)</b><br> | GY1G0200D020N-GFGS                                                                                                                             |                  |        |        |        |         |        | ●      | ●      | D         | .079           | ±.0012    | .008   | —    | .815  | .106 |
|                  | GY1G0239E020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | E         | .094           | ±.0012    | .008   | —    | .815  | .106 |
|                  | GY1G0250E020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | E         | .098           | ±.0012    | .008   | —    | .815  | .106 |
|                  | GY1G0300F020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | F         | .118           | ±.0012    | .008   | —    | .815  | .106 |
|                  | GY1G0318F020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | F         | .125           | ±.0012    | .008   | —    | .815  | .106 |
|                  | GY1G0400G020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | G         | .157           | ±.0012    | .008   | —    | 1.010 | .106 |
|                  | GY1G0475H020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | H         | .187           | ±.0012    | .008   | —    | 1.010 | .106 |
|                  | GY1G0500H020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      | ●      | H         | .197           | ±.0012    | .008   | —    | 1.010 | .106 |
|                  | GY1G0600J020N-GFGS                                                                                                          |                                                                                                                                                |                  |        |        |        |         |        | ●      |        | J         | .236           | ±.0012    | .008   | —    | 1.010 | .106 |
|                  | For Grooving / Cutting Off                                                                                                  | <b>GL Breaker (For Aluminum Alloy)</b> <span>NEW</span><br> | GY2G0200D005N-GL |        |        |        |         |        | ●      |        |           | D              | .079      | ±.0008 | .002 | .768  | .829 |
| GY2G0250E005N-GL |                                                                                                                             |                                                                                                                                                |                  |        |        |        |         | ●      |        |        | E         | .098           | ±.0008    | .002   | .752 | .829  | —    |
| GY2G0300F005N-GL |                                                                                                                             |                                                                                                                                                |                  |        |        |        |         | ●      |        |        | F         | .118           | ±.0008    | .002   | .744 | .829  | —    |

★2 The dimension depends on the breaker. Refer to the F015 "L dimension tolerance conversion table".

● : USA Stock

F012

&lt;10 inserts in one case&gt; &lt;CBN inserts are available in 1 piece in one case.&gt;

(inch)

| Applications                 | Geometry                  | Order Number       | Stock  |        |        |        |         |        |        |        | Seat Size | CW             |           | RER/L | CDX   | L | ✱2 |
|------------------------------|---------------------------|--------------------|--------|--------|--------|--------|---------|--------|--------|--------|-----------|----------------|-----------|-------|-------|---|----|
|                              |                           |                    | Coated |        | Cermet |        | Carbide |        | CBN    |        |           | Grooving Width | Tolerance |       |       |   |    |
|                              |                           |                    | VP10RT | VP20RT | MY5015 | NX2525 | RT9010  | RT9020 | BC8110 | MB8025 |           |                |           |       |       |   |    |
| For Multifunctional Grooving | MF Breaker<br>(Finishing) | GY2G0200D020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | D      | .079      | ±.0008         | .008      | .768  | .829  |   |    |
|                              |                           | ✱1GY2G0224D015N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | D      | .088      | ±.0008         | .006      | .780  | .829  |   |    |
|                              |                           | GY2G0239E020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | E      | .094      | ±.0008         | .008      | .756  | .829  |   |    |
|                              |                           | GY2G0250E020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | E      | .098      | ±.0008         | .008      | .764  | .829  |   |    |
|                              |                           | ✱1GY2G0274E020N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | E      | .108      | ±.0008         | .008      | .776  | .829  |   |    |
|                              |                           | GY2G0300F020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .118      | ±.0008         | .008      | .768  | .829  |   |    |
|                              |                           | GY2G0300F040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .118      | ±.0008         | .016      | .760  | .829  |   |    |
|                              |                           | GY2G0318F020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .125      | ±.0008         | .008      | .768  | .829  |   |    |
|                              |                           | GY2G0318F040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .125      | ±.0008         | .016      | .760  | .829  |   |    |
|                              |                           | ✱1GY2G0324F020N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .128      | ±.0008         | .008      | .768  | .829  |   |    |
|                              |                           | GY2G0400G020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .157      | ±.0008         | .008      | .980  | 1.022 |   |    |
|                              |                           | GY2G0400G040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .157      | ±.0008         | .016      | .972  | 1.022 |   |    |
|                              |                           | GY2G0400G080N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .157      | ±.0008         | .031      | .957  | 1.022 |   |    |
|                              |                           | ✱1GY2G0424G020N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .167      | ±.0008         | .008      | .980  | 1.022 |   |    |
|                              |                           | GY2G0475H020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .187      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0475H040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .187      | ±.0008         | .016      | .953  | 1.022 |   |    |
|                              |                           | GY2G0475H080N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .187      | ±.0008         | .031      | .937  | 1.022 |   |    |
|                              |                           | GY2G0500H020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .197      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0500H040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .197      | ±.0008         | .016      | .953  | 1.022 |   |    |
|                              |                           | GY2G0500H080N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .197      | ±.0008         | .031      | .937  | 1.022 |   |    |
|                              |                           | ✱1GY2G0524H020N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .206      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0600J020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .236      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0600J040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .236      | ±.0008         | .016      | .953  | 1.022 |   |    |
|                              |                           | GY2G0600J080N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .236      | ±.0008         | .031      | .937  | 1.022 |   |    |
|                              |                           | ✱1GY2G0631J020N-MF | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .248      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0635J020N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .250      | ±.0008         | .008      | .961  | 1.022 |   |    |
|                              |                           | GY2G0635J040N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .250      | ±.0008         | .016      | .953  | 1.022 |   |    |
|                              |                           | GY2G0635J080N-MF   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .250      | ±.0008         | .031      | .937  | 1.022 |   |    |
|                              | MS Breaker<br>(Low feeds) | GY2M0200D020N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | D      | .079      | ±.0012         | .008      | .752  | .815  |   |    |
|                              |                           | GY2M0250E020N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | E      | .098      | ±.0012         | .008      | .752  | .815  |   |    |
|                              |                           | GY2M0300F020N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .118      | ±.0012         | .008      | .756  | .815  |   |    |
|                              |                           | GY2M0300F040N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | F      | .118      | ±.0012         | .016      | .744  | .815  |   |    |
|                              |                           | GY2M0400G020N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .157      | ±.0016         | .008      | .953  | 1.010 |   |    |
|                              |                           | GY2M0400G040N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | G      | .157      | ±.0016         | .016      | .941  | 1.010 |   |    |
|                              |                           | GY2M0500H040N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .197      | ±.0016         | .016      | .941  | 1.010 |   |    |
|                              |                           | GY2M0500H080N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | H      | .197      | ±.0016         | .031      | .925  | 1.010 |   |    |
|                              |                           | GY2M0600J040N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .236      | ±.0016         | .016      | .941  | 1.010 |   |    |
|                              |                           | GY2M0600J080N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | J      | .236      | ±.0016         | .031      | .925  | 1.010 |   |    |
|                              |                           | GY2M0800K080N-MS   | ●      | ●      | ●      | ●      | ●       | ●      | ●      | K      | .315      | ±.0016         | .031      | 1.122 | 1.201 |   |    |

★1 Groove width corresponding to the circlip.

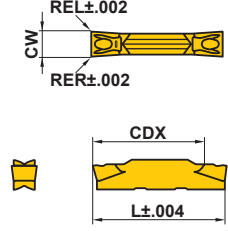
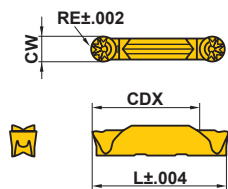
★2 The dimension depends on the breaker. Refer to the F015 "L dimension tolerance conversion table".

F  
GROOVING / CUTTING OFF

# GY SERIES INSERTS

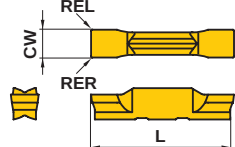
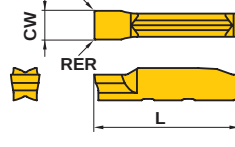
## INSERTS

(inch)

| Applications                 | Geometry                                                                                                                 | Order Number     | Stock  |        |        |         |        |        |        |                | Seat Size | CW        |        | RE<br>RER/L | CDX   | L     | ★2 |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|--------|--------|--------|---------|--------|--------|--------|----------------|-----------|-----------|--------|-------------|-------|-------|----|
|                              |                                                                                                                          |                  | Coated |        | Cermet | Carbide |        | CBN    |        | Grooving Width |           | Tolerance |        |             |       |       |    |
|                              |                                                                                                                          |                  | VP10RT | VP20RT | MY5015 | NX2525  | RT9010 | RT9020 | BC8110 |                |           |           | MB8025 |             |       |       |    |
| For Multifunctional Grooving | <b>MM Breaker</b><br>(Medium feeds)<br> | GY2M0200D020N-MM | ●      | ●      | ●      | ●       |        |        |        |                | D         | .079      | ±.0012 | .008        | .752  | .815  |    |
|                              |                                                                                                                          | GY2M0250E020N-MM | ●      | ●      | ●      | ●       |        |        |        |                | E         | .098      | ±.0012 | .008        | .752  | .815  |    |
|                              |                                                                                                                          | GY2M0300F020N-MM | ●      | ●      | ●      | ●       |        |        |        |                | F         | .118      | ±.0012 | .008        | .752  | .815  |    |
|                              |                                                                                                                          | GY2M0300F040N-MM | ●      | ●      | ●      | ●       |        |        |        |                | F         | .118      | ±.0012 | .016        | .744  | .815  |    |
|                              |                                                                                                                          | GY2M0300F080N-MM | ●      | ●      | ●      | ●       |        |        |        |                | F         | .118      | ±.0012 | .031        | .728  | .815  |    |
|                              |                                                                                                                          | GY2M0400G020N-MM | ●      | ●      | ●      | ●       |        |        |        |                | G         | .157      | ±.0016 | .008        | .949  | 1.010 |    |
|                              |                                                                                                                          | GY2M0400G040N-MM | ●      | ●      | ●      | ●       |        |        |        |                | G         | .157      | ±.0016 | .016        | .941  | 1.010 |    |
|                              |                                                                                                                          | GY2M0400G080N-MM | ●      | ●      | ●      | ●       |        |        |        |                | G         | .157      | ±.0016 | .031        | .925  | 1.010 |    |
|                              |                                                                                                                          | GY2M0500H040N-MM | ●      | ●      | ●      | ●       |        |        |        |                | H         | .197      | ±.0016 | .016        | .941  | 1.010 |    |
|                              |                                                                                                                          | GY2M0500H080N-MM | ●      | ●      | ●      | ●       |        |        |        |                | H         | .197      | ±.0016 | .031        | .925  | 1.010 |    |
|                              |                                                                                                                          | GY2M0600J040N-MM | ●      | ●      | ●      | ●       |        |        |        |                | J         | .236      | ±.0016 | .016        | .941  | 1.010 |    |
|                              |                                                                                                                          | GY2M0600J080N-MM | ●      | ●      | ●      | ●       |        |        |        |                | J         | .236      | ±.0016 | .031        | .925  | 1.010 |    |
|                              |                                                                                                                          | GY2M0800K080N-MM | ●      | ●      | ●      |         |        |        |        |                | K         | .315      | ±.0016 | .031        | 1.122 | 1.201 |    |
|                              |                                                                                                                          | GY2M0800K120N-MM | ●      | ●      | ●      |         |        |        |        |                | K         | .315      | ±.0016 | .047        | 1.106 | 1.201 |    |
| For Copying / Recessing      | <b>BM Breaker</b><br>                  | GY2M0200D100N-BM | ●      | ●      | ●      | ●       |        |        |        |                | D         | .079      | ±.0012 | .039        | .768  | .815  |    |
|                              |                                                                                                                          | GY2M0250E125N-BM | ●      | ●      | ●      | ●       |        |        |        |                | E         | .098      | ±.0012 | .049        | .760  | .815  |    |
|                              |                                                                                                                          | GY2M0300F150N-BM | ●      | ●      | ●      | ●       |        |        |        |                | F         | .118      | ±.0012 | .059        | .748  | .823  |    |
|                              |                                                                                                                          | GY2M0318F159N-BM | ●      | ●      | ●      | ●       |        |        |        |                | F         | .125      | ±.0012 | .063        | .744  | .823  |    |
|                              |                                                                                                                          | GY2M0400G200N-BM | ●      | ●      | ●      | ●       |        |        |        |                | G         | .157      | ±.0016 | .079        | .921  | 1.016 |    |
|                              |                                                                                                                          | GY2M0475H238N-BM | ●      | ●      | ●      | ●       |        |        |        |                | H         | .187      | ±.0016 | .094        | .902  | 1.016 |    |
|                              |                                                                                                                          | GY2M0500H250N-BM | ●      | ●      | ●      | ●       |        |        |        |                | H         | .197      | ±.0016 | .098        | .898  | 1.016 |    |
|                              |                                                                                                                          | GY2M0600J300N-BM | ●      | ●      | ●      | ●       |        |        |        |                | J         | .236      | ±.0016 | .118        | .886  | 1.020 |    |
|                              |                                                                                                                          | GY2M0635J318N-BM | ●      | ●      | ●      | ●       |        |        |        |                | J         | .250      | ±.0016 | .125        | .878  | 1.020 |    |
|                              |                                                                                                                          | GY2M0800K400N-BM | ●      | ●      | ●      |         |        |        |        |                | K         | .315      | ±.0016 | .157        | 1.043 | 1.213 |    |

★2 The dimension depends on the breaker. Refer to the F015 "L dimension tolerance conversion table".

(inch)

| Applications    | Geometry                                                                                                  | Order Number      | Stock  |  |                  | Seat Size | CW             |           | RER/L | L     |
|-----------------|-----------------------------------------------------------------------------------------------------------|-------------------|--------|--|------------------|-----------|----------------|-----------|-------|-------|
|                 |                                                                                                           |                   | Cermet |  | Carbide          |           | Grooving Width | Tolerance |       |       |
|                 |                                                                                                           |                   | NX2525 |  | RT9010<br>RT9020 |           |                |           |       |       |
| ★1<br><br>Blank | <div>2 Edge Type</div>   | GY2B0220D020N     | ★      |  | ★ ★              | D         | .087           | ± .0039   | .008  | .829  |
|                 |                                                                                                           | NEW GY2B0250D020N | ★      |  | ★ ★              | D         | .100           | ± .0039   | .008  | .838  |
|                 |                                                                                                           | GY2B0270E020N     | ★      |  | ★ ★              | E         | .106           | ± .0039   | .008  | .829  |
|                 |                                                                                                           | NEW GY2B0300E020N | ★      |  | ★ ★              | E         | .120           | ± .0039   | .008  | .838  |
|                 |                                                                                                           | GY2B0340F020N     | ★      |  | ★ ★              | F         | .134           | ± .0039   | .008  | .829  |
|                 |                                                                                                           | NEW GY2B0360F020N | ★      |  | ★ ★              | F         | .144           | ± .0039   | .008  | .838  |
|                 |                                                                                                           | GY2B0420G020N     | ★      |  | ★ ★              | G         | .165           | ± .0039   | .008  | 1.024 |
|                 |                                                                                                           | NEW GY2B0460G020N | ★      |  | ★ ★              | G         | .183           | ± .0039   | .008  | 1.031 |
|                 |                                                                                                           | GY2B0520H020N     | ★      |  | ★ ★              | H         | .205           | ± .0039   | .008  | 1.024 |
|                 |                                                                                                           | NEW GY2B0560H020N | ★      |  | ★ ★              | H         | .222           | ± .0039   | .008  | 1.031 |
|                 |                                                                                                           | GY2B0655J020N     | ★      |  | ★ ★              | J         | .258           | ± .0039   | .008  | 1.025 |
|                 |                                                                                                           | NEW GY2B0680J020N | ★      |  | ★ ★              | J         | .270           | ± .0039   | .008  | 1.031 |
|                 |                                                                                                           | NEW GY2B0880K020N |        |  | ★ ★              | K         | .348           | ± .0039   | .008  | 1.216 |
|                 | <div>1 Edge Type</div>  | GY1B0220D020N     | ★      |  | ★ ★              | D         | .087           | ± .0039   | .008  | .830  |
|                 |                                                                                                           | GY1B0270E020N     | ★      |  | ★ ★              | E         | .106           | ± .0039   | .008  | .831  |
|                 |                                                                                                           | GY1B0340F020N     | ★      |  | ★ ★              | F         | .134           | ± .0039   | .008  | .827  |
|                 |                                                                                                           | GY1B0420G020N     | ★      |  | ★ ★              | G         | .165           | ± .0039   | .008  | 1.018 |
|                 |                                                                                                           | GY1B0520H020N     | ★      |  | ★ ★              | H         | .205           | ± .0039   | .008  | 1.020 |
|                 |                                                                                                           | GY1B0655J020N     | ★      |  | ★ ★              | J         | .258           | ± .0039   | .008  | 1.020 |

★1 Insert blank is not suitable for machining without grinding.

F  
GROOVING / CUTTING OFF

## REFERENCE DATA

## L dimension tolerance conversion table

| Grooving Width<br>CW | Dimensions<br>L (inch) ★1 | Dimensional tolerance (inch) versus standard dimension (L) of each breaker ★2 |       |       |        |          |      |      |      |
|----------------------|---------------------------|-------------------------------------------------------------------------------|-------|-------|--------|----------|------|------|------|
|                      |                           | GU                                                                            | GS/GM | MS/MM | R/L-GM | Flat Top | MF   | BM   | GL   |
| .059", 1.50 mm       | .579                      |                                                                               | 0     |       |        |          |      |      |      |
| .079", 2.00 mm       | .815                      | 0                                                                             | 0     | 0     | .004   | -.012    | .014 | .008 | .014 |
| .088", 2.24 mm       | ★3 (.815)                 |                                                                               |       |       |        |          | .014 |      |      |
| .094", 2.39 mm       | .815                      | 0                                                                             | 0     |       |        | -.012    | .014 |      |      |
| .098", 2.50 mm       | .815                      | 0                                                                             | 0     | 0     | .005   | -.012    | .014 | .008 | .014 |
| .108", 2.74 mm       | ★3 (.815)                 |                                                                               |       |       |        |          | .014 |      |      |
| .118", 3.00 mm       | .815                      | 0                                                                             | 0     | 0     | .006   | -.012    | .014 | .008 | .014 |
| .125", 3.18 mm       | .815                      | 0                                                                             | 0     |       |        | -.012    | .014 | .008 |      |
| .128", 3.24 mm       | ★3 (.815)                 |                                                                               |       |       |        |          | .014 |      |      |
| .157", 4.00 mm       | 1.010                     | 0                                                                             | 0     | 0     | .008   | -.014    | .012 | .006 |      |
| .167", 4.24 mm       | ★3 (1.010)                |                                                                               |       |       |        |          | .012 |      |      |
| .187", 4.75 mm       | 1.010                     | 0                                                                             | 0     |       |        | -.014    | .012 | .006 |      |
| .197", 5.00 mm       | 1.010                     | 0                                                                             | 0     | 0     | .012   | -.014    | .012 | .006 |      |
| .206", 5.24 mm       | ★3 (1.010)                |                                                                               |       |       |        |          | .012 |      |      |
| .236", 6.00 mm       | 1.010                     | 0                                                                             | 0     | 0     |        |          | .012 | .010 |      |
| .248", 6.31 mm       | ★3 (1.010)                |                                                                               |       |       |        |          | .012 |      |      |
| .250", 6.35 mm       | 1.010                     | 0                                                                             | 0     |       |        |          | .012 | .010 |      |
| .315", 8.00 mm       | 1.201                     |                                                                               | 0     | 0     |        |          |      | .012 |      |

★1 This value is used at the described holder dimension.

★2 ■ when there is no applicable breaker.

★3 The dimension is the value for approximate cutting width.

## QUICK INDEX

Modular Blades Selection Chart  
(For External and Internal Grooving)

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| D         | GYM20RA-D06   | External | 00°   | Inch           | GYHRUS10B00-M20R  | R              | F040 |
|           |               |          |       | Inch           | GYHRUS12C00-M20R  | R              | F186 |
|           |               |          |       | Inch           | C3-GYHRDX00-M20R  | R              | F064 |
|           |               |          | 90°   | Metric         | GYHR1616J00-M20R  | R              | F054 |
|           |               |          |       | Metric         | GYHR2020K00-M20R  | R              | F196 |
|           |               |          |       | Metric         | GYHLUS12C90-M20R  | L              | F078 |
|           | GYM20LA-D06   | External | 00°   | Inch           | C3-GYHLCX90-M20R  | L              | F040 |
|           |               |          |       | Inch           | GYHLUS10B00-M20L  | L              | F186 |
|           |               |          |       | Inch           | GYHLUS12C00-M20L  | L              | F064 |
|           |               |          | 90°   | Metric         | C3-GYHLDX00-M20L  | L              | F054 |
|           |               |          |       | Metric         | GYHL1616J00-M20L  | L              | F196 |
|           |               |          |       | Metric         | GYHL2020K00-M20L  | L              | F078 |
|           | GYM20RA-D10   | External | 00°   | Inch           | GYHRUS10B00-M20R  | R              | F040 |
|           |               |          |       | Inch           | GYHRUS12C00-M20R  | R              | F186 |
|           |               |          |       | Inch           | C3-GYHRDX00-M20R  | R              | F064 |
|           |               |          | 90°   | Metric         | GYHR1616J00-M20R  | R              | F054 |
|           |               |          |       | Metric         | GYHR2020K00-M20R  | R              | F196 |
|           |               |          |       | Metric         | GYHLUS12C90-M20R  | L              | F078 |
|           | GYM20LA-D10   | Internal | 90°   | Inch           | GYDLUS20L90C-M20R | L              | F170 |
|           |               |          |       | Inch           | GYDLUS20S90C-M20R | L              | F178 |
|           |               |          |       | Inch           | GYDLUS24M90D-M20R | L              | F178 |
|           |               |          | 90°   | Metric         | GYDL32L90C-M20R   | L              | F040 |
|           |               |          |       | Metric         | GYDL32S90C-M20R   | L              | F186 |
|           |               |          |       | Metric         | GYDL40M90D-M20R   | L              | F064 |
|           | GYM20LA-D10   | External | 00°   | Inch           | GYDL40T90D-M20R   | L              | F078 |
|           |               |          |       | Inch           | GYHLUS10B00-M20L  | L              | F040 |
|           |               |          |       | Inch           | GYHLUS12C00-M20L  | L              | F186 |
|           |               |          | 90°   | Metric         | C3-GYHLDX00-M20L  | L              | F064 |
|           |               |          |       | Metric         | GYHL1616J00-M20L  | L              | F054 |
|           |               |          |       | Metric         | GYHL2020K00-M20L  | L              | F196 |
|           | GYM20RA-D18   | External | 00°   | Inch           | GYHRUS10B00-M20R  | R              | F040 |
|           |               |          |       | Inch           | GYHRUS12C00-M20R  | R              | F186 |
|           |               |          |       | Inch           | C3-GYHRDX00-M20R  | R              | F064 |
|           |               |          | 90°   | Metric         | GYHR1616J00-M20R  | R              | F054 |
|           |               |          |       | Metric         | GYHR2020K00-M20R  | R              | F196 |
|           |               |          |       | Metric         | GYHLUS12C90-M20R  | L              | F078 |
|           | GYM20LB-D18   | External | 00°   | Inch           | GYHLUS10B00-M20L  | L              | F040 |
|           |               |          |       | Inch           | GYHLUS12C00-M20L  | L              | F186 |
|           |               |          |       | Inch           | C3-GYHLDX00-M20L  | L              | F064 |
|           |               |          | 90°   | Metric         | GYHL1616J00-M20L  | L              | F054 |
|           |               |          |       | Metric         | GYHL2020K00-M20L  | L              | F196 |
|           |               |          |       | Metric         | GYHR2020K90-M20L  | R              | F078 |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| D         | GYM25RA-D06   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F040 |
|           |               |          |       | Inch           | GYHRUS16D00-M25R  | R              | F186 |
|           |               |          |       | Inch           | GYHRUS20D00-M25R  | R              | F064 |
|           |               |          | 90°   | Metric         | GYHRUS24E00-M25R  | R              | F054 |
|           |               |          |       | Metric         | C4-GYHREX00-M25R  | R              | F196 |
|           |               |          |       | Metric         | C5-GYHREX00-M25R  | R              | F078 |
|           | GYM25LA-D06   | External | 00°   | Inch           | C6-GYHRF00-M25R   | R              | F040 |
|           |               |          |       | Inch           | GYHR2020K00-M25R  | R              | F186 |
|           |               |          |       | Inch           | GYHR2525M00-M25R  | R              | F064 |
|           |               |          | 90°   | Metric         | GYHR3225P00-M25R  | R              | F054 |
|           |               |          |       | Metric         | GYHR3232P00-M25R  | R              | F196 |
|           |               |          |       | Metric         | GYHLUS16D90-M25R  | L              | F078 |
|           | GYM25RA-D12   | External | 00°   | Inch           | C4-GYHLD90-M25R   | L              | F040 |
|           |               |          |       | Inch           | C5-GYHLD90-M25R   | L              | F186 |
|           |               |          |       | Inch           | C6-GYHLE90-M25R   | L              | F064 |
|           |               |          | 90°   | Metric         | GYHL2525M90-M25R  | L              | F054 |
|           |               |          |       | Metric         | GYHLUS12C00-M25L  | L              | F196 |
|           |               |          |       | Metric         | GYHLUS16D00-M25L  | L              | F078 |
|           | GYM25LA-D10   | Internal | 90°   | Inch           | GYHLUS20D00-M25L  | L              | F040 |
|           |               |          |       | Inch           | GYHLUS24E00-M25L  | L              | F186 |
|           |               |          |       | Inch           | C4-GYHLEX00-M25L  | L              | F064 |
|           |               |          | 90°   | Metric         | C5-GYHLEX00-M25L  | L              | F054 |
|           |               |          |       | Metric         | C6-GYHLF00-M25L   | L              | F196 |
|           |               |          |       | Metric         | GYHL2020K00-M25L  | L              | F078 |
|           | GYM25RA-D12   | Internal | 90°   | Inch           | GYDLUS20L90C-M25R | L              | F040 |
|           |               |          |       | Inch           | GYDLUS20S90C-M25R | L              | F186 |
|           |               |          |       | Inch           | GYDLUS24M90D-M25R | L              | F064 |
|           |               |          | 90°   | Metric         | GYDL32L90C-M25R   | L              | F054 |
|           |               |          |       | Metric         | GYDL32S90C-M25R   | L              | F196 |
|           |               |          |       | Metric         | GYDL40M90D-M25R   | L              | F078 |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| D         | GYM25LA-D12   | External | 00°   | Inch           | GYHLUS12C00-M25L  | L              | F040 |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS24E00-M25L  | L              | F186 |
|           |               |          |       |                | C4-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L  | L              |      |
|           |               | Metric   | 00°   |                | C6-GYHLF00-M25L   | L              | F064 |
|           |               |          |       |                | GYHL2020K00-M25L  | L              |      |
|           |               |          |       |                | GYHL2525M00-M25L  | L              |      |
|           |               |          |       |                | GYHL3225P00-M25L  | L              | F054 |
|           |               |          |       |                | GYHL3232P00-M25L  | L              |      |
|           |               |          |       |                | GYHRUS16D90-M25L  | R              |      |
|           | GYM25RA-D20   | Internal | 90°   | Inch           | C4-GYHRD90-M25L   | R              | F196 |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L   | R              |      |
|           |               | Metric   | 90°   |                | GYHR2525M90-M25L  | R              | F078 |
|           |               |          |       |                | GYDRUS24M90D-M25L | R              |      |
|           |               |          |       |                | GYDRUS24T90D-M25L | R              | F170 |
|           |               |          |       |                | GYDRUS32P90F-M25L | R              |      |
|           |               |          |       |                | GYDRUS32T90F-M25L | R              |      |
|           | GYM25RA-D20   | External | 00°   | Inch           | GYDR40M90D-M25L   | R              | F178 |
|           |               |          |       |                | GYDR40T90D-M25L   | R              |      |
|           |               |          |       |                | GYDR50P90F-M25L   | R              |      |
|           |               | Metric   | 00°   |                | GYDR50T90F-M25L   | R              | F040 |
|           |               |          |       |                | GYHRUS12C00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS16D00-M25R  | R              |      |
|           | GYM25LA-D20   | External | 00°   | Inch           | GYHRUS20D00-M25R  | R              | F040 |
|           |               |          |       |                | GYHRUS24E00-M25R  | R              |      |
|           |               |          |       |                | C4-GYHREX00-M25R  | R              | F186 |
|           |               | Metric   | 00°   |                | C5-GYHREX00-M25R  | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R   | R              |      |
|           |               | Metric   | 90°   |                | GYHR2020K00-M25R  | R              | F064 |
|           |               |          |       |                | GYHR2525M00-M25R  | R              |      |
|           |               |          |       |                | GYHR3225P00-M25R  | R              |      |
|           | GYM25LA-D20   | External | 90°   | Inch           | GYHR3232P00-M25R  | R              | F054 |
|           |               |          |       |                | GYHLUS16D90-M25R  | L              |      |
|           |               |          |       |                | C4-GYHLD90-M25R   | L              | F196 |
|           |               | Metric   | 90°   |                | C5-GYHLD90-M25R   | L              |      |
|           |               |          |       |                | C6-GYHLE90-M25R   | L              |      |
|           |               |          |       |                | GYHL2525M90-M25R  | L              | F078 |
|           | GYM25LA-D20   | External | 00°   | Inch           | GYHLUS12C00-M25L  | L              | F040 |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L  | L              |      |
|           |               | Metric   | 00°   |                | GYHLUS24E00-M25L  | L              | F186 |
|           |               |          |       |                | C4-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L  | L              |      |
|           | GYM25LA-D20   | External | 90°   | Inch           | C6-GYHLF00-M25L   | L              | F064 |
|           |               |          |       |                | GYHL2020K00-M25L  | L              |      |
|           |               |          |       |                | GYHL2525M00-M25L  | L              |      |
|           |               | Metric   | 90°   |                | GYHL3225P00-M25L  | L              | F054 |
|           |               |          |       |                | GYHL3232P00-M25L  | L              |      |
|           |               |          |       |                | GYHRUS16D90-M25L  | R              |      |
|           | GYM25LA-D20   | External | 00°   | Inch           | C4-GYHRD90-M25L   | R              | F196 |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L   | R              |      |
|           |               | Metric   | 00°   |                | GYHR2525M90-M25L  | R              | F078 |
|           |               |          |       |                | GYDRUS24M90D-M25L | R              |      |
|           |               |          |       |                | GYDRUS24T90D-M25L | R              |      |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| E         | GYM20RA-E06   | External | 00°   | Inch           | GYHRUS10B00-M20R  | R              | F042 |
|           |               |          |       |                | GYHRUS12C00-M20R  | R              |      |
|           |               |          |       |                | C3-GYHRDX00-M20R  | R              |      |
|           |               | Metric   | 90°   |                | GYHR1616J00-M20R  | R              | F066 |
|           |               |          |       |                | GYHR2020K00-M20R  | R              |      |
|           |               |          |       |                | GYHLUS12C90-M20R  | L              |      |
|           | GYM20LA-E06   | External | 00°   | Inch           | C3-GYHLCX90-M20R  | L              | F198 |
|           |               |          |       |                | GYHL2020K90-M20R  | L              |      |
|           |               |          |       |                | GYHLUS10B00-M20L  | L              | F042 |
|           |               | Metric   | 90°   |                | GYHLUS12C00-M20L  | L              |      |
|           |               |          |       |                | C3-GYHLDX00-M20L  | L              |      |
|           |               |          |       |                | GYHL1616J00-M20L  | L              | F066 |
|           | GYM20RA-E10   | External | 00°   | Inch           | GYHL2020K00-M20L  | L              |      |
|           |               |          |       |                | GYHRUS12C90-M20L  | R              | F054 |
|           |               |          |       |                | C3-GYHRCX90-M20L  | R              |      |
|           |               | Metric   | 90°   |                | GYHR2020K90-M20L  | R              | F078 |
|           |               |          |       |                | GYHRUS10B00-M20R  | R              |      |
|           |               |          |       |                | GYHRUS12C00-M20R  | R              |      |
|           | GYM20LA-E10   | Internal | 90°   | Inch           | C3-GYHRDX00-M20R  | R              | F188 |
|           |               |          |       |                | GYHR1616J00-M20R  | R              |      |
|           |               |          |       |                | GYHR2020K00-M20R  | R              |      |
|           |               | Metric   | 90°   |                | GYHLUS12C90-M20R  | L              | F054 |
|           |               |          |       |                | C3-GYHLCX90-M20R  | L              |      |
|           |               |          |       |                | GYHL2020K90-M20R  | L              |      |
|           | GYM20RA-E10   | External | 00°   | Inch           | GYDLUS20L90C-M20R | L              | F172 |
|           |               |          |       |                | GYDLUS20S90C-M20R | L              |      |
|           |               |          |       |                | GYDLUS24M90D-M20R | L              |      |
|           |               | Metric   | 90°   |                | GYDLUS24T90D-M20R | L              | F180 |
|           |               |          |       |                | GYDL32L90C-M20R   | L              |      |
|           |               |          |       |                | GYDL32S90C-M20R   | L              |      |
|           | GYM20LA-E10   | External | 00°   | Inch           | GYDL40M90D-M20R   | L              | F042 |
|           |               |          |       |                | GYDL40T90D-M20R   | L              |      |
|           |               |          |       |                | GYHLUS10B00-M20L  | L              |      |
|           |               | Metric   | 90°   |                | GYHLUS12C00-M20L  | L              | F188 |
|           |               |          |       |                | GYHL1616J00-M20L  | L              |      |
|           |               |          |       |                | GYHL2020K00-M20L  | L              |      |
|           | GYM20RB-E18   | External | 00°   | Inch           | GYHRUS12C90-M20L  | R              | F054 |
|           |               |          |       |                | C3-GYHRCX90-M20L  | R              |      |
|           |               |          |       |                | GYHR2020K90-M20L  | R              |      |
|           |               | Metric   | 90°   |                | GYHRUS10B00-M20R  | R              | F042 |
|           |               |          |       |                | GYHRUS12C00-M20R  | R              |      |
|           |               |          |       |                | C3-GYHRDX00-M20R  | R              |      |
|           | GYM20LB-E18   | External | 00°   | Inch           | GYHR1616J00-M20R  | R              | F066 |
|           |               |          |       |                | GYHR2020K00-M20R  | R              |      |
|           |               |          |       |                | GYHLUS12C90-M20R  | L              |      |
|           |               | Metric   | 90°   |                | C3-GYHLCX90-M20R  | L              | F198 |
|           |               |          |       |                | GYHL2020K90-M20R  | L              |      |
|           |               |          |       |                | GYHLUS10B00-M20L  | L              |      |
|           | GYM20LB-E18   | External | 00°   | Inch           | GYHLUS12C00-M20L  | L              | F042 |
|           |               |          |       |                | C3-GYHLDX00-M20L  | L              |      |
|           |               |          |       |                | GYHL1616J00-M20L  | L              |      |
|           |               | Metric   | 90°   |                | GYHL2020K00-M20L  | L              | F066 |
|           |               |          |       |                | GYHRUS12C90-M20L  | R              |      |
|           |               |          |       |                | C3-GYHRCX90-M20L  | R              |      |
|           | GYM20LB-E18   | External | 00°   | Inch           | GYHR2020K90-M20L  | R              | F078 |
|           |               |          |       |                | GYHRUS10B00-M20R  | R              |      |
|           |               |          |       |                | GYHRUS12C00-M20R  | R              |      |
|           |               | Metric   | 90°   |                | C3-GYHRDX00-M20R  | R              | F188 |
|           |               |          |       |                | GYHR1616J00-M20R  | R              |      |
|           |               |          |       |                | GYHR2020K00-M20R  | R              |      |

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## Modular Blades Selection Chart (For External and Internal Grooving)

| Seat Size        | Modular Blade     | Type             | Angle            | Inch<br>or<br>Metric | Holder           | Hand of Holder    | Page             |      |      |
|------------------|-------------------|------------------|------------------|----------------------|------------------|-------------------|------------------|------|------|
| E                | GYM25RA-E06       | External         | 00°              | Inch                 | GYHRUS12C00-M25R | R                 | F042             |      |      |
|                  |                   |                  |                  |                      | GYHRUS16D00-M25R | R                 |                  |      |      |
|                  |                   |                  |                  |                      | GYHRUS20D00-M25R | R                 |                  |      |      |
|                  |                   |                  |                  | GYHRUS24E00-M25R     | R                | F188              |                  |      |      |
|                  |                   |                  |                  | C4-GYHREX00-M25R     | R                |                   |                  |      |      |
|                  |                   |                  |                  | C5-GYHREX00-M25R     | R                |                   |                  |      |      |
|                  |                   |                  | 90°              | Metric               | C6-GYHRF00-M25R  | R                 | F066             |      |      |
|                  |                   |                  |                  |                      | GYHR2020K00-M25R | R                 |                  |      |      |
|                  |                   |                  |                  |                      | GYHR2525M00-M25R | R                 |                  |      |      |
|                  |                   |                  |                  | GYHR3225P00-M25R     | R                | F054              |                  |      |      |
|                  |                   |                  |                  | GYHR3232P00-M25R     | R                |                   |                  |      |      |
|                  |                   |                  |                  | GYHLUS16D90-M25R     | L                |                   | F198             |      |      |
|                  | Inch              | C4-GYHLD90-M25R  | L                |                      |                  |                   |                  |      |      |
|                  |                   | C5-GYHLD90-M25R  | L                |                      |                  |                   |                  |      |      |
|                  |                   | C6-GYHLE90-M25R  | L                |                      |                  |                   |                  |      |      |
|                  | 90°               | Metric           | GYHL2525M90-M25R | L                    | F078             |                   |                  |      |      |
|                  |                   |                  | GYM25LA-E06      | External             | 00°              | Inch              | GYHLUS12C00-M25L | L    | F042 |
|                  |                   |                  |                  |                      |                  |                   | GYHLUS16D00-M25L | L    |      |
|                  |                   | GYHLUS20D00-M25L |                  |                      |                  |                   | L                |      |      |
|                  |                   | GYHLUS24E00-M25L |                  |                      |                  | L                 | F188             |      |      |
|                  |                   | C4-GYHLEX00-M25L |                  |                      |                  | L                 |                  |      |      |
|                  | C5-GYHLEX00-M25L  | L                |                  |                      |                  |                   |                  |      |      |
|                  | 90°               | Metric           |                  |                      | C6-GYHLF00-M25L  | L                 | F066             |      |      |
|                  |                   |                  |                  |                      | GYHL2020K00-M25L | L                 |                  |      |      |
|                  |                   |                  |                  |                      | GYHL2525M00-M25L | L                 |                  |      |      |
|                  |                   | GYHL3225P00-M25L |                  |                      | L                | F054              |                  |      |      |
|                  |                   | GYHL3232P00-M25L |                  |                      | L                |                   |                  |      |      |
|                  |                   | GYHRUS16D90-M25L |                  |                      | R                |                   | F198             |      |      |
|                  | Inch              | C4-GYHRD90-M25L  | R                |                      |                  |                   |                  |      |      |
|                  |                   | C5-GYHRD90-M25L  | R                |                      |                  |                   |                  |      |      |
|                  |                   | C6-GYHRE90-M25L  | R                |                      |                  |                   |                  |      |      |
|                  | 90°               | Metric           | GYHR2525M90-M25L | R                    | F078             |                   |                  |      |      |
|                  |                   |                  | GYM25RA-E12      | External             | 00°              | Inch              | GYHRUS12C00-M25R | R    | F042 |
|                  |                   |                  |                  |                      |                  |                   | GYHRUS16D00-M25R | R    |      |
|                  |                   | GYHRUS20D00-M25R |                  |                      |                  |                   | R                |      |      |
|                  |                   | GYHRUS24E00-M25R |                  |                      |                  | R                 | F188             |      |      |
| C4-GYHREX00-M25R |                   | R                |                  |                      |                  |                   |                  |      |      |
| C5-GYHREX00-M25R | R                 |                  |                  |                      |                  |                   |                  |      |      |
| 90°              | Metric            | C6-GYHRF00-M25R  |                  |                      | R                | F066              |                  |      |      |
|                  |                   | GYHR2020K00-M25R |                  |                      | R                |                   |                  |      |      |
|                  |                   | GYHR2525M00-M25R |                  |                      | R                |                   |                  |      |      |
|                  | GYHR3225P00-M25R  | R                |                  |                      | F054             |                   |                  |      |      |
|                  | GYHR3232P00-M25R  | R                |                  |                      |                  |                   |                  |      |      |
|                  | GYHLUS16D90-M25R  | L                |                  |                      |                  | F198              |                  |      |      |
| Inch             | C4-GYHLD90-M25R   | L                |                  |                      |                  |                   |                  |      |      |
|                  | C5-GYHLD90-M25R   | L                |                  |                      |                  |                   |                  |      |      |
|                  | C6-GYHLE90-M25R   | L                |                  |                      |                  |                   |                  |      |      |
| 90°              | Metric            | GYHL2525M90-M25R | L                | F078                 |                  |                   |                  |      |      |
|                  |                   | GYM25RA-E12      | Internal         | 90°                  | Inch             | GYDLUS24M90D-M25R | L                | F172 |      |
|                  |                   |                  |                  |                      |                  | GYDLUS24T90D-M25R | L                |      |      |
|                  | GYDLUS32P90F-M25R |                  |                  |                      |                  | L                 |                  |      |      |
|                  | Metric            |                  |                  | GYDLUS32T90F-M25R    | L                | F180              |                  |      |      |
|                  |                   |                  |                  | GYDL40M90D-M25R      | L                |                   |                  |      |      |
| GYDL40T90D-M25R  |                   |                  |                  | L                    |                  |                   |                  |      |      |
| 90°              | Metric            | GYDL50P90F-M25R  | L                | F180                 |                  |                   |                  |      |      |
|                  |                   | GYDL50T90F-M25R  | L                |                      |                  |                   |                  |      |      |
|                  |                   |                  |                  |                      |                  |                   |                  |      |      |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| E         | GYM25LA-E12   | External | 00°   | Inch           | GYHLUS12C00-M25L  | L              | F042 |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L  | L              |      |
|           |               |          | 90°   | Metric         | GYHLUS24E00-M25L  | L              | F188 |
|           |               |          |       |                | C4-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L  | L              |      |
|           |               |          | 00°   | Inch           | C6-GYHLF00-M25L   | L              | F066 |
|           |               |          |       |                | GYHL2020K00-M25L  | L              |      |
|           |               |          |       |                | GYHL2525M00-M25L  | L              | F054 |
|           |               |          |       |                | GYHL3225P00-M25L  | L              |      |
|           |               |          |       |                | GYHL3232P00-M25L  | L              |      |
|           | GYM25RA-E20   | External | 00°   | Inch           | GYHRUS16D90-M25L  | R              | F054 |
|           |               |          |       |                | C4-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              | F198 |
|           |               |          | 90°   | Metric         | C6-GYHRE90-M25L   | R              |      |
|           |               |          |       |                | GYHR2525M90-M25L  | R              | F078 |
|           |               |          |       |                | GYDRUS24M90D-M25L | R              | F172 |
|           |               |          | 00°   | Inch           | GYDRUS24T90D-M25L | R              |      |
|           |               |          |       |                | GYDRUS32P90F-M25L | R              |      |
|           |               |          |       |                | GYDRUS32T90F-M25L | R              | F180 |
|           |               |          |       | Metric         | GYDR40M90D-M25L   | R              |      |
|           |               |          |       |                | GYDR40T90D-M25L   | R              | F198 |
|           |               |          |       |                | GYDR50P90F-M25L   | R              |      |
|           | GYM25LA-E20   | External | 00°   | Inch           | GYDR50T90F-M25L   | R              | F078 |
|           |               |          |       |                | GYHRUS12C00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS16D00-M25R  | R              | F042 |
|           |               |          | 90°   | Inch           | GYHRUS20D00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS24E00-M25R  | R              |      |
|           |               |          |       |                | C4-GYHREX00-M25R  | R              | F188 |
|           |               |          |       | Metric         | C5-GYHREX00-M25R  | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R   | R              |      |
|           | GYM25RA-E20   | External | 00°   | Inch           | GYHR2020K00-M25R  | R              | F054 |
|           |               |          |       |                | GYHR2525M00-M25R  | R              |      |
|           |               |          |       |                | GYHR3225P00-M25R  | R              | F066 |
|           |               |          | 90°   | Inch           | GYHR3232P00-M25R  | R              |      |
|           |               |          |       |                | GYHLUS16D90-M25R  | L              |      |
|           |               |          |       |                | C4-GYHLD90-M25R   | L              | F198 |
|           |               |          |       | Metric         | C5-GYHLD90-M25R   | L              |      |
|           |               |          |       |                | C6-GYHLE90-M25R   | L              |      |
|           | GYM25LA-E20   | External | 00°   | Inch           | GYHL2525M90-M25R  | L              | F078 |
|           |               |          |       |                | GYHLUS12C00-M25L  | L              | F042 |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          | 90°   | Inch           | GYHLUS20D00-M25L  | L              | F188 |
|           |               |          |       |                | GYHLUS24E00-M25L  | L              |      |
|           |               |          |       |                | C4-GYHLEX00-M25L  | L              | F066 |
|           |               |          |       | Metric         | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C6-GYHLF00-M25L   | L              |      |
|           | GYM25RA-E20   | External | 00°   | Inch           | GYHL3225P00-M25L  | L              | F054 |
|           |               |          |       |                | GYHL3232P00-M25L  | L              |      |
|           |               |          |       |                | GYHRUS16D90-M25L  | R              | F054 |
|           |               |          | 90°   | Inch           | C4-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              | F198 |
|           |               |          |       |                | C6-GYHRE90-M25L   | R              |      |
|           |               |          |       | Metric         | GYHR2525M90-M25L  | R              | F078 |
|           |               |          |       |                |                   |                |      |
|           |               |          |       |                |                   |                |      |

| Seat Size | Modular Blade | Type     | Angle  | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|--------|----------------|-------------------|----------------|------|
| F         | GYM20RA-F06   | External | 00°    | Inch           | GYHRUS10B00-M20R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS12C00-M20R  | R              | F044 |
|           |               |          | Metric | Inch           | C3-GYHRDX00-M20R  | R              | F190 |
|           |               |          |        | Inch           | GYHR1616J00-M20R  | R              | F068 |
|           |               |          | 90°    | Inch           | GYHR2020K00-M20R  | R              | F068 |
|           |               |          |        | Inch           | GYHLUS12C90-M20R  | L              | F056 |
|           |               |          | Metric | Inch           | C3-GYHLCX90-M20R  | L              | F200 |
|           |               |          |        | Inch           | GYHL2020K90-M20R  | L              | F080 |
|           | GYM20LA-F06   | External | 00°    | Inch           | GYHLUS10B00-M20L  | L              | F044 |
|           |               |          |        | Inch           | GYHLUS12C00-M20L  | L              | F044 |
|           |               |          | Metric | Inch           | C3-GYHLDX00-M20L  | L              | F190 |
|           |               |          |        | Inch           | GYHL1616J00-M20L  | L              | F068 |
|           |               |          | 90°    | Inch           | GYHL2020K00-M20L  | L              | F068 |
|           |               |          |        | Inch           | GYHRUS12C90-M20L  | R              | F056 |
|           |               |          | Metric | Inch           | C3-GYHRCX90-M20L  | R              | F200 |
|           |               |          |        | Inch           | GYHR2020K90-M20L  | R              | F080 |
|           | GYM20RA-F10   | External | 00°    | Inch           | GYHRUS10B00-M20R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS12C00-M20R  | R              | F044 |
|           |               |          | Metric | Inch           | C3-GYHRDX00-M20R  | R              | F190 |
|           |               |          |        | Inch           | GYHR1616J00-M20R  | R              | F068 |
|           |               |          | 90°    | Inch           | GYHR2020K00-M20R  | R              | F068 |
|           |               |          |        | Inch           | GYHLUS12C90-M20R  | L              | F056 |
|           |               |          | Metric | Inch           | C3-GYHLCX90-M20R  | L              | F200 |
|           |               |          |        | Inch           | GYHL2020K90-M20R  | L              | F080 |
|           | GYM20LA-F10   | Internal | 90°    | Inch           | GYDLUS20L90C-M20R | L              | F174 |
|           |               |          |        | Inch           | GYDLUS20S90C-M20R | L              | F174 |
|           |               |          | Metric | Inch           | GYDLUS24M90D-M20R | L              | F174 |
|           |               |          |        | Inch           | GYDLUS24T90D-M20R | L              | F174 |
|           |               | Internal | 90°    | Inch           | GYDL32L90C-M20R   | L              | F182 |
|           |               |          |        | Inch           | GYDL32S90C-M20R   | L              | F182 |
|           |               |          | Metric | Inch           | GYDL40M90D-M20R   | L              | F182 |
|           |               |          |        | Inch           | GYDL40T90D-M20R   | L              | F182 |
|           | GYM20LA-F10   | External | 00°    | Inch           | GYHLUS10B00-M20L  | L              | F044 |
|           |               |          |        | Inch           | GYHLUS12C00-M20L  | L              | F044 |
|           |               |          | Metric | Inch           | C3-GYHLDX00-M20L  | L              | F190 |
|           |               |          |        | Inch           | GYHL1616J00-M20L  | L              | F068 |
|           |               |          | 90°    | Inch           | GYHL2020K00-M20L  | L              | F068 |
|           |               |          |        | Inch           | GYHRUS12C90-M20L  | R              | F056 |
|           |               |          | Metric | Inch           | C3-GYHRCX90-M20L  | R              | F200 |
|           |               |          |        | Inch           | GYHR2020K90-M20L  | R              | F080 |
|           | GYM20LA-F10   | Internal | 90°    | Inch           | GYDRUS20L90C-M20L | R              | F174 |
|           |               |          |        | Inch           | GYDRUS20S90C-M20L | R              | F174 |
|           |               |          | Metric | Inch           | GYDRUS24M90D-M20L | R              | F174 |
|           |               |          |        | Inch           | GYDRUS24T90D-M20L | R              | F174 |
|           |               | Internal | 90°    | Inch           | GYDR32L90C-M20L   | R              | F182 |
|           |               |          |        | Inch           | GYDR32S90C-M20L   | R              | F182 |
|           |               |          | Metric | Inch           | GYDR40M90D-M20L   | R              | F182 |
|           |               |          |        | Inch           | GYDR40T90D-M20L   | R              | F182 |
|           | GYM20RB-F18   | External | 00°    | Inch           | GYHRUS10B00-M20R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS12C00-M20R  | R              | F044 |
|           |               |          | Metric | Inch           | C3-GYHRDX00-M20R  | R              | F190 |
|           |               |          |        | Inch           | GYHR1616J00-M20R  | R              | F068 |
|           |               |          | 90°    | Inch           | GYHR2020K00-M20R  | R              | F068 |
|           |               |          |        | Inch           | GYHLUS12C90-M20R  | L              | F056 |
|           |               |          | Metric | Inch           | C3-GYHLCX90-M20R  | L              | F200 |
|           |               |          |        | Inch           | GYHL2020K90-M20R  | L              | F080 |
|           | GYM20LB-F18   | External | 00°    | Inch           | GYHLUS10B00-M20L  | L              | F044 |
|           |               |          |        | Inch           | GYHLUS12C00-M20L  | L              | F044 |
|           |               |          | Metric | Inch           | C3-GYHLDX00-M20L  | L              | F190 |
|           |               |          |        | Inch           | GYHL1616J00-M20L  | L              | F068 |
|           |               |          | 90°    | Inch           | GYHL2020K00-M20L  | L              | F068 |
|           |               |          |        | Inch           | GYHRUS12C90-M20L  | R              | F056 |
|           |               |          | Metric | Inch           | C3-GYHRCX90-M20L  | R              | F200 |
|           |               |          |        | Inch           | GYHR2020K90-M20L  | R              | F080 |

| Seat Size | Modular Blade | Type     | Angle  | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|--------|----------------|-------------------|----------------|------|
| F         | GYM25RA-F06   | External | 00°    | Inch           | GYHRUS12C00-M25R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS16D00-M25R  | R              | F044 |
|           |               |          | Metric | Inch           | GYHRUS20D00-M25R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS24E00-M25R  | R              | F044 |
|           |               |          | 90°    | Inch           | C4-GYHREX00-M25R  | R              | F190 |
|           |               |          |        | Inch           | C5-GYHREX00-M25R  | R              | F190 |
|           |               |          | Metric | Inch           | C6-GYHREX00-M25R  | R              | F190 |
|           |               |          |        | Inch           | GYHR2020K00-M25R  | R              | F068 |
|           | GYM25LA-F06   | External | 00°    | Inch           | GYHRUS12C00-M25L  | L              | F044 |
|           |               |          |        | Inch           | GYHRUS16D00-M25L  | L              | F044 |
|           |               |          | Metric | Inch           | GYHRUS20D00-M25L  | L              | F044 |
|           |               |          |        | Inch           | GYHRUS24E00-M25L  | L              | F044 |
|           |               |          | 90°    | Inch           | C4-GYHLEX00-M25L  | L              | F190 |
|           |               |          |        | Inch           | C5-GYHLEX00-M25L  | L              | F190 |
|           |               |          | Metric | Inch           | C6-GYHLEX00-M25L  | L              | F190 |
|           |               |          |        | Inch           | GYHL2020K00-M25L  | L              | F068 |
|           | GYM25LA-F06   | External | 00°    | Inch           | GYHL2525M00-M25L  | L              | F068 |
|           |               |          |        | Inch           | GYHL3225P00-M25L  | L              | F068 |
|           |               |          | Metric | Inch           | GYHL3232P00-M25L  | L              | F068 |
|           |               |          |        | Inch           | GYHL3232P00-M25L  | L              | F068 |
|           |               |          | 90°    | Inch           | GYHRUS16D90-M25L  | R              | F056 |
|           |               |          |        | Inch           | C4-GYHRD90-M25L   | R              | F056 |
|           |               |          | Metric | Inch           | C5-GYHRD90-M25L   | R              | F200 |
|           |               |          |        | Inch           | C6-GYHRE90-M25L   | R              | F080 |
|           | GYM25RA-F12   | External | 00°    | Inch           | GYHRUS12C00-M25R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS16D00-M25R  | R              | F044 |
|           |               |          | Metric | Inch           | GYHRUS20D00-M25R  | R              | F044 |
|           |               |          |        | Inch           | GYHRUS24E00-M25R  | R              | F044 |
|           |               |          | 90°    | Inch           | C4-GYHREX00-M25R  | R              | F190 |
|           |               |          |        | Inch           | C5-GYHREX00-M25R  | R              | F190 |
|           |               |          | Metric | Inch           | C6-GYHREX00-M25R  | R              | F190 |
|           |               |          |        | Inch           | GYHR2020K00-M25R  | R              | F068 |
|           | GYM25RA-F12   | External | 00°    | Inch           | GYHR2525M00-M25R  | R              | F068 |
|           |               |          |        | Inch           | GYHR3225P00-M25R  | R              | F068 |
|           |               |          | Metric | Inch           | GYHR3232P00-M25R  | R              | F068 |
|           |               |          |        | Inch           | GYHR3232P00-M25R  | R              | F068 |
|           |               |          | 90°    | Inch           | GYHLUS16D90-M25R  | L              | F056 |
|           |               |          |        | Inch           | C4-GYHLD90-M25R   | L              | F056 |
|           |               |          | Metric | Inch           | C5-GYHLD90-M25R   | L              | F200 |
|           |               |          |        | Inch           | C6-GYHLE90-M25R   | L              | F080 |
|           | GYM25RA-F12   | Internal | 90°    | Inch           | GYDLUS24M90D-M25R | L              | F174 |
|           |               |          |        | Inch           | GYDLUS24T90D-M25R | L              | F174 |
|           |               |          | Metric | Inch           | GYDLUS32P90F-M25R | L              | F174 |
|           |               |          |        | Inch           | GYDLUS32T90F-M25R | L              | F174 |
|           |               |          | 90°    | Inch           | GYDL40M90D-M25R   | L              | F182 |
|           |               |          |        | Inch           | GYDL40T90D-M25R   | L              | F182 |
|           |               |          | Metric | Inch           | GYDL50P90F-M25R   | L              | F182 |
|           |               |          |        | Inch           | GYDL50T90F-M25R   | L              | F182 |

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## Modular Blades Selection Chart (For External and Internal Grooving)

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| F         | GYM25LA-F12   | External | 00°   | Inch           | GYHLUS12C00-M25L  | L              | F044 |
|           |               |          |       | Inch           | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       | Inch           | GYHLUS20D00-M25L  | L              |      |
|           |               |          |       | Inch           | GYHLUS24E00-M25L  | L              |      |
|           |               |          |       | Metric         | C4-GYHLEX00-M25L  | L              | F190 |
|           |               |          |       | Metric         | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |       | Metric         | C6-GYHLF00-M25L   | L              |      |
|           |               |          |       | Metric         | GYHL2020K00-M25L  | L              | F068 |
|           |               |          |       | Metric         | GYHL2525M00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHL3225P00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHL3232P00-M25L  | L              |      |
|           |               | Internal | 90°   | Inch           | GYHRUS16D90-M25L  | R              | F056 |
|           |               |          |       | Inch           | C4-GYHRD90-M25L   | R              | F200 |
|           |               |          |       | Inch           | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       | Inch           | C6-GYHRE90-M25L   | R              |      |
|           |               |          |       | Metric         | GYHR2525M90-M25L  | R              | F080 |
|           |               |          |       | Metric         | GYDRUS24M90D-M25L | R              | F174 |
|           |               |          |       | Metric         | GYDRUS24T90D-M25L | R              |      |
|           |               |          |       | Metric         | GYDRUS32P90F-M25L | R              |      |
|           |               |          |       | Metric         | GYDRUS32T90F-M25L | R              |      |
|           | GYM25RA-F20   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F044 |
|           |               |          |       | Inch           | GYHRUS16D00-M25R  | R              |      |
|           |               |          |       | Inch           | GYHRUS20D00-M25R  | R              |      |
|           |               |          |       | Inch           | GYHRUS24E00-M25R  | R              |      |
|           |               |          |       | Metric         | C4-GYHREX00-M25R  | R              | F190 |
|           |               |          |       | Metric         | C5-GYHREX00-M25R  | R              |      |
|           |               |          |       | Metric         | C6-GYHRF00-M25R   | R              |      |
|           |               |          |       | Metric         | GYHR2020K00-M25R  | R              | F068 |
|           |               |          |       | Metric         | GYHR2525M00-M25R  | R              |      |
|           |               |          |       | Metric         | GYHR3225P00-M25R  | R              |      |
|           |               |          |       | Metric         | GYHR3232P00-M25R  | R              |      |
|           |               | Internal | 90°   | Inch           | GYHLUS16D90-M25R  | L              | F056 |
|           |               |          |       | Inch           | C4-GYHLD90-M25R   | L              | F200 |
|           |               |          |       | Inch           | C5-GYHLD90-M25R   | L              |      |
|           |               |          |       | Inch           | C6-GYHLE90-M25R   | L              |      |
|           |               |          |       | Metric         | GYHL2525M90-M25R  | L              | F080 |
|           |               |          |       | Metric         | GYHLUS12C00-M25L  | L              | F044 |
|           |               |          |       | Metric         | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHLUS20D00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHLUS24E00-M25L  | L              |      |
|           | GYM25LA-F20   | External | 00°   | Inch           | C4-GYHLEX00-M25L  | L              | F190 |
|           |               |          |       | Inch           | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |       | Inch           | C6-GYHLF00-M25L   | L              |      |
|           |               |          |       | Metric         | GYHL2020K00-M25L  | L              | F068 |
|           |               |          |       | Metric         | GYHL2525M00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHL3225P00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHL3232P00-M25L  | L              |      |
|           |               | Internal | 90°   | Inch           | GYHRUS16D90-M25L  | R              | F056 |
|           |               |          |       | Inch           | C4-GYHRD90-M25L   | R              | F200 |
|           |               |          |       | Inch           | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       | Inch           | C6-GYHRE90-M25L   | R              |      |
|           |               |          |       | Metric         | GYHR2525M90-M25L  | R              | F080 |

| Seat Size | Modular Blade | Type     | Angle  | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|--------|----------------|-------------------|----------------|------|
| G         | GYM20RA-G12   | External | 00°    | Inch           | GYHRUS10B00-M20R  | R              | F046 |
|           |               |          |        | Inch           | GYHRUS12C00-M20R  | R              | F192 |
|           |               |          |        | Inch           | C3-GYHRDX00-M20R  | R              |      |
|           |               |          |        | Inch           | GYHR1616J00-M20R  | R              |      |
|           |               |          | Metric | Inch           | GYHR2020K00-M20R  | R              | F070 |
|           |               |          |        | Inch           | GYHLUS12C90-M20R  | L              |      |
|           |               | Internal | 90°    | Inch           | C3-GYHLCX90-M20R  | L              | F202 |
|           |               |          |        | Inch           | GYHL2020K90-M20R  | L              | F080 |
|           |               |          |        | Metric         | GYDLUS20L90C-M20R | L              |      |
|           |               |          |        | Metric         | GYDLUS20S90C-M20R | L              |      |
|           |               |          |        | Metric         | GYDLUS24M90D-M20R | L              | F174 |
|           |               |          |        | Metric         | GYDLUS24T90D-M20R | L              |      |
|           |               |          |        | Metric         | GYDL32L90C-M20R   | L              |      |
|           |               |          |        | Metric         | GYDL32S90C-M20R   | L              |      |
|           | GYM20LA-G12   | External | 00°    | Inch           | GYHL1616J00-M20L  | L              | F070 |
|           |               |          |        | Inch           | GYHL2020K00-M20L  | L              |      |
|           |               |          |        | Inch           | GYHRUS12C90-M20L  | R              |      |
|           |               |          |        | Inch           | C3-GYHRCX90-M20L  | R              |      |
|           |               | Internal | 90°    | Metric         | GYHR2020K90-M20L  | R              | F080 |
|           |               |          |        | Metric         | GYDRUS20L90C-M20L | R              |      |
|           |               |          |        | Metric         | GYDRUS20S90C-M20L | R              |      |
|           |               |          |        | Metric         | GYDRUS24M90D-M20L | R              |      |
|           |               |          | Metric | Metric         | GYDRUS24T90D-M20L | R              | F174 |
|           |               |          |        | Metric         | GYDR32L90C-M20L   | R              |      |
|           | GYM25RA-G08   | External | 00°    | Inch           | GYDR32S90C-M20L   | R              | F182 |
|           |               |          |        | Inch           | GYDR40M90D-M20L   | R              |      |
|           |               |          |        | Inch           | GYDR40T90D-M20L   | R              |      |
|           |               |          |        | Metric         | GYHRUS12C00-M25R  | R              | F046 |
|           |               |          |        | Metric         | GYHRUS16D00-M25R  | R              |      |
|           |               |          |        | Metric         | GYHRUS20D00-M25R  | R              |      |
|           |               | Internal | 90°    | Inch           | GYHRUS24E00-M25R  | R              | F070 |
|           |               |          |        | Inch           | C4-GYHREX00-M25R  | R              |      |
|           |               |          |        | Inch           | C5-GYHREX00-M25R  | R              |      |
|           |               |          |        | Inch           | C6-GYHRF00-M25R   | R              |      |
|           |               |          | Metric | Metric         | GYHR2020K00-M25R  | R              | F056 |
|           |               |          |        | Metric         | GYHR2525M00-M25R  | R              |      |
|           | GYM25LA-G08   | External | 00°    | Inch           | GYHR3225P00-M25R  | R              | F070 |
|           |               |          |        | Inch           | GYHR3232P00-M25R  | R              |      |
|           |               |          |        | Inch           | GYHLUS16D90-M25R  | L              |      |
|           |               |          |        | Inch           | C4-GYHLD90-M25R   | L              |      |
|           |               | Internal | 90°    | Inch           | C5-GYHLD90-M25R   | L              | F202 |
|           |               |          |        | Inch           | C6-GYHLE90-M25R   | L              |      |
|           |               |          |        | Metric         | GYHL2525M90-M25R  | L              |      |
|           |               |          |        | Metric         | GYHLUS12C00-M25L  | L              | F046 |
|           |               |          |        | Metric         | GYHLUS16D00-M25L  | L              |      |
|           |               |          |        | Metric         | GYHLUS20D00-M25L  | L              |      |
|           |               |          |        | Metric         | GYHLUS24E00-M25L  | L              |      |
|           | GYM25LA-G08   | External | 00°    | Inch           | C4-GYHLEX00-M25L  | L              | F192 |
|           |               |          |        | Inch           | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |        | Inch           | C6-GYHLF00-M25L   | L              |      |
|           |               |          |        | Metric         | GYHL2020K00-M25L  | L              | F070 |
|           |               |          |        | Metric         | GYHL2525M00-M25L  | L              |      |
|           |               |          |        | Metric         | GYHL3225P00-M25L  | L              |      |
|           |               | Internal | 90°    | Inch           | GYHL3232P00-M25L  | L              | F056 |
|           |               |          |        | Inch           | GYHRUS16D90-M25L  | R              |      |
|           |               |          |        | Inch           | C4-GYHRD90-M25L   | R              |      |
|           |               |          |        | Inch           | C5-GYHRD90-M25L   | R              |      |
|           |               |          |        | Metric         | C6-GYHRE90-M25L   | R              | F202 |
|           |               |          |        | Metric         | GYHR2525M90-M25L  | R              |      |

| Seat Size | Modular Blade | Type     | Angle  | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|--------|----------------|-------------------|----------------|------|
| G         | GYM25RA-G14   | External | 00°    | Inch           | GYHRUS12C00-M25R  | R              | F046 |
|           |               |          |        |                | GYHRUS16D00-M25R  | R              |      |
|           |               |          |        |                | GYHRUS20D00-M25R  | R              |      |
|           |               |          |        |                | GYHRUS24E00-M25R  | R              |      |
|           |               |          |        | Metric         | C4-GYHREX00-M25R  | R              | F192 |
|           |               |          |        |                | C5-GYHREX00-M25R  | R              |      |
|           |               | Metric   | 00°    | Inch           | C6-GYHRF00-M25R   | R              | F070 |
|           |               |          |        |                | GYHR2020K00-M25R  | R              |      |
|           |               |          |        | Metric         | GYHR2525M00-M25R  | R              | F070 |
|           |               |          |        |                | GYHR3225P00-M25R  | R              |      |
|           |               |          |        |                | GYHR3232P00-M25R  | R              |      |
|           |               |          |        |                | GYHLUS16D90-M25R  | L              | F056 |
|           | Internal      | 90°      | Inch   | Inch           | C4-GYHLD90-M25R   | L              | F202 |
|           |               |          |        |                | C5-GYHLD90-M25R   | L              |      |
|           |               |          |        | Metric         | C6-GYHLE90-M25R   | L              | F080 |
|           |               |          |        |                | GYHL2525M90-M25R  | L              |      |
|           |               | Metric   | 90°    | Inch           | GYDLUS24M90D-M25R | L              | F174 |
|           |               |          |        |                | GYDLUS24T90D-M25R | L              |      |
|           |               |          |        | Metric         | GYDLUS32P90F-M25R | L              | F182 |
|           |               |          |        |                | GYDLUS32T90F-M25R | L              |      |
|           |               |          |        |                | GYDL40M90D-M25R   | L              |      |
|           |               |          |        |                | GYDL40T90D-M25R   | L              |      |
|           | GYM25LA-G14   | External | 00°    | Inch           | GYDL50P90F-M25R   | L              | F046 |
|           |               |          |        |                | GYDL50T90F-M25R   | L              |      |
|           |               |          |        | Metric         | GYHLUS12C00-M25L  | L              | F192 |
|           |               |          |        |                | GYHLUS16D00-M25L  | L              |      |
|           |               | Metric   | 00°    | Inch           | GYHLUS20D00-M25L  | L              | F070 |
|           |               |          |        |                | GYHLUS24E00-M25L  | L              |      |
|           |               |          |        | Metric         | C4-GYHLEX00-M25L  | L              | F056 |
|           |               |          |        |                | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |        |                | C6-GYHLF00-M25L   | L              |      |
|           |               |          |        |                | GYHL2020K00-M25L  | L              |      |
|           |               | Internal | 90°    | Inch           | GYHL2525M00-M25L  | L              | F070 |
|           |               |          |        |                | GYHL3225P00-M25L  | L              |      |
|           |               |          |        | Metric         | GYHL3232P00-M25L  | L              | F056 |
|           |               |          |        |                | GYHRUS16D90-M25L  | R              |      |
|           |               |          |        |                | C4-GYHRD90-M25L   | R              |      |
|           |               |          |        |                | C5-GYHRD90-M25L   | R              |      |
|           | Internal      | 90°      | Inch   | Inch           | C6-GYHRE90-M25L   | R              | F202 |
|           |               |          |        |                | GYHR2525M90-M25L  | R              |      |
|           |               |          | Metric | Metric         | GYDRUS24M90D-M25L | R              | F080 |
|           |               |          |        |                | GYDRUS24T90D-M25L | R              |      |
|           |               | Metric   | 90°    | Inch           | GYDRUS32P90F-M25L | R              | F174 |
|           |               |          |        |                | GYDRUS32T90F-M25L | R              |      |
|           |               |          |        | Metric         | GYDR40M90D-M25L   | R              | F182 |
|           |               |          |        |                | GYDR40T90D-M25L   | R              |      |
|           |               |          |        | Metric         | GYDR50P90F-M25L   | R              | F182 |
|           |               |          |        |                | GYDR50T90F-M25L   | R              |      |

| Seat Size   | Modular Blade | Type     | Angle            | Inch<br>or<br>Metric | Holder           | Hand of Holder | Page |
|-------------|---------------|----------|------------------|----------------------|------------------|----------------|------|
| G           | GYM25RA-G25   | External | 00°              | Inch                 | GYHRUS12C00-M25R | R              | F046 |
|             |               |          |                  |                      | GYHRUS16D00-M25R | R              |      |
|             |               |          |                  |                      | GYHRUS20D00-M25R | R              |      |
|             |               |          |                  |                      | GYHRUS24E00-M25R | R              |      |
|             |               |          |                  | Metric               | C4-GYHREX00-M25R | R              | F192 |
|             |               |          |                  |                      | C5-GYHREX00-M25R | R              |      |
|             |               |          | 90°              | Inch                 | C6-GYHRF00-M25R  | R              | F070 |
|             |               |          |                  |                      | GYHR2020K00-M25R | R              |      |
|             |               |          |                  |                      | GYHR2525M00-M25R | R              |      |
|             |               |          |                  |                      | GYHR3225P00-M25R | R              |      |
|             |               |          |                  | Metric               | GYHR3232P00-M25R | R              | F056 |
|             |               |          |                  |                      | GYHLUS16D90-M25R | L              |      |
|             | GYM25LA-G25   | External | 00°              | Inch                 | C4-GYHLD90-M25R  | L              | F202 |
|             |               |          |                  |                      | C5-GYHLD90-M25R  | L              |      |
|             |               |          |                  |                      | C6-GYHLE90-M25R  | L              |      |
|             |               |          |                  |                      | GYHL2525M90-M25R | L              |      |
|             |               |          |                  | Metric               | GYHLUS12C00-M25L | L              | F046 |
|             |               |          |                  |                      | GYHLUS16D00-M25L | L              |      |
|             |               |          | GYHLUS20D00-M25L |                      | L                |                |      |
|             |               |          | GYHLUS24E00-M25L |                      | L                |                |      |
|             |               |          | Metric           |                      | C4-GYHLEX00-M25L | L              | F192 |
|             |               |          |                  |                      | C5-GYHLEX00-M25L | L              |      |
|             |               |          | 90°              | Inch                 | C6-GYHLF00-M25L  | L              | F070 |
|             |               |          |                  |                      | GYHL2020K00-M25L | L              |      |
|             |               |          |                  |                      | GYHL2525M00-M25L | L              |      |
|             |               |          |                  |                      | GYHL3225P00-M25L | L              |      |
|             |               |          |                  | Metric               | GYHL3232P00-M25L | L              | F056 |
|             |               |          |                  |                      | GYHRUS16D90-M25L | R              |      |
| GYM25LA-G25 | External      | 90°      | Inch             | C4-GYHRD90-M25L      | R                | F202           |      |
|             |               |          |                  | C5-GYHRD90-M25L      | R                |                |      |
|             |               |          |                  | C6-GYHRE90-M25L      | R                |                |      |
|             |               |          |                  | GYHR2525M90-M25L     | R                |                |      |
|             |               |          | Metric           | GYHR2525M90-M25L     | R                | F080           |      |
|             |               |          |                  | GYHR2525M90-M25L     | R                |                |      |

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Modular Blades Selection Chart  
(For External and Internal Grooving)

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| H         | GYM20RA-H12   | External | 00°   | Inch           | GYHRUS10B00-M20R  | R              | F048 |
|           |               |          |       | Inch           | GYHRUS12C00-M20R  | R              | F048 |
|           |               |          |       | Inch           | C3-GYHRDX00-M20R  | R              | F194 |
|           |               |          | 90°   | Metric         | GYHR1616J00-M20R  | R              | F072 |
|           |               |          |       | Metric         | GYHR2020K00-M20R  | R              | F072 |
|           |               |          |       | Metric         | GYHLUS12C90-M20R  | L              | F058 |
|           |               | Internal | 90°   | Inch           | C3-GYHLCX90-M20R  | L              | F204 |
|           |               |          |       | Inch           | GYHL2020K90-M20R  | L              | F082 |
|           |               |          |       | Inch           | GYDLUS20L90C-M20R | L              | F176 |
|           |               |          | 90°   | Metric         | GYDLUS20S90C-M20R | L              | F176 |
|           |               |          |       | Metric         | GYDLUS24M90D-M20R | L              | F176 |
|           |               |          |       | Metric         | GYDLUS24T90D-M20R | L              | F176 |
|           | GYM20LA-H12   | External | 00°   | Inch           | GYHLUS10B00-M20L  | L              | F048 |
|           |               |          |       | Inch           | GYHLUS12C00-M20L  | L              | F194 |
|           |               |          |       | Inch           | C3-GYHLDX00-M20L  | L              | F194 |
|           |               |          | 90°   | Metric         | GYHL1616J00-M20L  | L              | F072 |
|           |               |          |       | Metric         | GYHL2020K00-M20L  | L              | F072 |
|           |               |          |       | Metric         | GYHRUS12C90-M20L  | R              | F058 |
|           |               | Internal | 90°   | Inch           | C3-GYHRCX90-M20L  | R              | F204 |
|           |               |          |       | Inch           | GYHR2020K90-M20L  | R              | F082 |
|           |               |          |       | Inch           | GYDRUS20L90C-M20L | R              | F176 |
|           |               |          | 90°   | Metric         | GYDRUS20S90C-M20L | R              | F176 |
|           |               |          |       | Metric         | GYDRUS24M90D-M20L | R              | F176 |
|           |               |          |       | Metric         | GYDRUS24T90D-M20L | R              | F176 |
|           | GYM25RA-H08   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F048 |
|           |               |          |       | Inch           | GYHRUS16D00-M25R  | R              | F048 |
|           |               |          |       | Inch           | GYHRUS20D00-M25R  | R              | F048 |
|           |               |          | 90°   | Metric         | GYHRUS24E00-M25R  | R              | F048 |
|           |               |          |       | Metric         | C4-GYHREX00-M25R  | R              | F194 |
|           |               |          |       | Metric         | C5-GYHREX00-M25R  | R              | F194 |
|           |               | Internal | 90°   | Metric         | C6-GYHREX00-M25R  | R              | F194 |
|           |               |          |       | Metric         | GYHR2020K00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHR2525M00-M25R  | R              | F072 |
|           |               |          | 90°   | Metric         | GYHR3225P00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHR3232P00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHLUS16D90-M25R  | L              | F058 |
|           | GYM25LA-H08   | External | 00°   | Inch           | C4-GYHLD90-M25R   | L              | F204 |
|           |               |          |       | Inch           | C5-GYHLD90-M25R   | L              | F204 |
|           |               |          |       | Inch           | C6-GYHLE90-M25R   | L              | F082 |
|           |               | Internal | 90°   | Metric         | GYHL2525M90-M25R  | L              | F082 |
|           |               |          |       | Metric         | GYHLUS12C00-M25L  | L              | F048 |
|           |               |          |       | Metric         | GYHLUS16D00-M25L  | L              | F048 |
|           |               | Internal | 90°   | Metric         | GYHLUS20D00-M25L  | L              | F048 |
|           |               |          |       | Metric         | GYHLUS24E00-M25L  | L              | F048 |
|           |               |          |       | Metric         | C4-GYHLEX00-M25L  | L              | F194 |
|           |               |          | 90°   | Metric         | C5-GYHLEX00-M25L  | L              | F194 |
|           |               |          |       | Metric         | C6-GYHLF00-M25L   | L              | F194 |
|           |               |          |       | Metric         | GYHL2020K00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL2525M00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL3225P00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL3232P00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHRUS16D90-M25L  | R              | F058 |
|           |               |          |       | Metric         | C4-GYHRD90-M25L   | R              | F204 |
|           |               |          |       | Metric         | C5-GYHRD90-M25L   | R              | F204 |
|           |               |          |       | Metric         | C6-GYHRE90-M25L   | R              | F082 |
|           |               |          |       | Metric         | GYHR2525M90-M25L  | R              | F082 |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| H         | GYM25RA-H14   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F048 |
|           |               |          |       | Inch           | GYHRUS16D00-M25R  | R              | F048 |
|           |               |          |       | Inch           | GYHRUS20D00-M25R  | R              | F048 |
|           |               |          | 90°   | Metric         | GYHRUS24E00-M25R  | R              | F048 |
|           |               |          |       | Metric         | C4-GYHREX00-M25R  | R              | F194 |
|           |               |          |       | Metric         | C5-GYHREX00-M25R  | R              | F194 |
|           |               | Internal | 90°   | Metric         | C6-GYHREX00-M25R  | R              | F194 |
|           |               |          |       | Metric         | GYHR2020K00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHR2525M00-M25R  | R              | F072 |
|           |               |          | 90°   | Metric         | GYHR3225P00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHR3232P00-M25R  | R              | F072 |
|           |               |          |       | Metric         | GYHLUS16D90-M25R  | L              | F058 |
|           | GYM25LA-H14   | External | 00°   | Inch           | C4-GYHLD90-M25R   | L              | F204 |
|           |               |          |       | Inch           | C5-GYHLD90-M25R   | L              | F204 |
|           |               |          |       | Inch           | C6-GYHLE90-M25R   | L              | F082 |
|           |               | Internal | 90°   | Metric         | GYHL2525M90-M25R  | L              | F082 |
|           |               |          |       | Metric         | GYDLUS24M90D-M25R | L              | F176 |
|           |               |          |       | Metric         | GYDLUS24T90D-M25R | L              | F176 |
|           |               | Internal | 90°   | Metric         | GYDLUS32P90F-M25R | L              | F184 |
|           |               |          |       | Metric         | GYDLUS32T90F-M25R | L              | F184 |
|           |               |          |       | Metric         | GYDL50P90F-M25R   | L              | F184 |
|           |               |          |       | Metric         | GYDL50T90F-M25R   | L              | F184 |
|           |               | Internal | 90°   | Metric         | GYHLUS12C00-M25L  | L              | F048 |
|           |               |          |       | Metric         | GYHLUS16D00-M25L  | L              | F048 |
|           |               |          |       | Metric         | GYHLUS20D00-M25L  | L              | F048 |
|           |               |          | 90°   | Metric         | GYHLUS24E00-M25L  | L              | F048 |
|           |               |          |       | Metric         | C4-GYHLEX00-M25L  | L              | F194 |
|           |               |          |       | Metric         | C5-GYHLEX00-M25L  | L              | F194 |
|           |               |          |       | Metric         | C6-GYHLF00-M25L   | L              | F194 |
|           |               |          |       | Metric         | GYHL2020K00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL2525M00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL3225P00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHL3232P00-M25L  | L              | F072 |
|           |               |          |       | Metric         | GYHRUS16D90-M25L  | R              | F058 |
|           |               |          |       | Metric         | C4-GYHRD90-M25L   | R              | F204 |
|           |               |          |       | Metric         | C5-GYHRD90-M25L   | R              | F204 |
|           |               |          |       | Metric         | C6-GYHRE90-M25L   | R              | F082 |
|           |               |          |       | Metric         | GYHR2525M90-M25L  | R              | F082 |
|           |               |          |       | Metric         | GYDRUS24M90D-M25L | R              | F176 |
|           |               |          |       | Metric         | GYDRUS24T90D-M25L | R              | F176 |
|           |               |          |       | Metric         | GYDRUS32P90F-M25L | R              | F184 |
|           |               |          |       | Metric         | GYDRUS32T90F-M25L | R              | F184 |
|           |               |          |       | Metric         | GYDR40M90D-M25L   | R              | F184 |
|           |               |          |       | Metric         | GYDR50P90F-M25L   | R              | F184 |
|           |               |          |       | Metric         | GYDR50T90F-M25L   | R              | F184 |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder           | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|------------------|----------------|------|
| H         | GYM25RA-H25   | External | 00°   | Inch           | GYHRUS12C00-M25R | R              | F048 |
|           |               |          |       |                | GYHRUS16D00-M25R | R              |      |
|           |               |          |       |                | GYHRUS20D00-M25R | R              |      |
|           |               |          |       |                | GYHRUS24E00-M25R | R              |      |
|           |               |          | 90°   | Inch           | C4-GYHREX00-M25R | R              | F194 |
|           |               |          |       |                | C5-GYHREX00-M25R | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R  | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R  | R              |      |
|           | GYM25LA-H25   | External | 00°   | Metric         | GYHR2020K00-M25R | R              | F072 |
|           |               |          |       |                | GYHR2525M00-M25R | R              |      |
|           |               |          |       |                | GYHR3225P00-M25R | R              |      |
|           |               |          |       |                | GYHR3232P00-M25R | R              |      |
|           |               |          | 90°   | Inch           | GYHLUS16D90-M25R | L              | F058 |
|           |               |          |       |                | C4-GYHLD90-M25R  | L              |      |
|           |               |          |       |                | C5-GYHLD90-M25R  | L              |      |
|           |               |          |       |                | C6-GYHLE90-M25R  | L              |      |
|           |               |          | 90°   | Metric         | GYHL2525M90-M25R | L              | F082 |
|           |               |          |       |                | GYHLUS12C00-M25L | L              | F048 |
|           |               |          |       |                | GYHLUS16D00-M25L | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L | L              |      |
|           |               |          | 00°   | Inch           | GYHLUS24E00-M25L | L              | F194 |
|           |               |          |       |                | C4-GYHLEX00-M25L | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L | L              |      |
|           |               |          |       |                | C6-GYHLF00-M25L  | L              |      |
|           |               |          | 90°   | Metric         | GYHL2020K00-M25L | L              | F072 |
|           |               |          |       |                | GYHL2525M00-M25L | L              |      |
|           |               |          |       |                | GYHL3225P00-M25L | L              |      |
|           |               |          |       |                | GYHL3232P00-M25L | L              |      |
|           |               |          | 90°   | Inch           | GYHRUS16D90-M25L | R              | F058 |
|           |               |          |       |                | C4-GYHRD90-M25L  | R              |      |
|           |               |          |       |                | C5-GYHRD90-M25L  | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L  | R              |      |
|           |               |          | 90°   | Metric         | GYHR2525M90-M25L | R              | F082 |
|           |               |          |       |                | GYHR2525M90-M25L | R              |      |
|           |               |          |       |                | GYHR2525M90-M25L | R              |      |
|           |               |          |       |                | GYHR2525M90-M25L | R              |      |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| J         | GYM25RA-J08   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F050 |
|           |               |          |       |                | GYHRUS16D00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS20D00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS24E00-M25R  | R              |      |
|           |               |          | 90°   | Inch           | C4-GYHREX00-M25R  | R              | F194 |
|           |               |          |       |                | C5-GYHREX00-M25R  | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R   | R              |      |
|           |               |          |       |                | C6-GYHRF00-M25R   | R              |      |
|           | GYM25LA-J08   | External | 00°   | Metric         | GYHR2020K00-M25R  | R              | F074 |
|           |               |          |       |                | GYHR2525M00-M25R  | R              |      |
|           |               |          |       |                | GYHR3225P00-M25R  | R              |      |
|           |               |          |       |                | GYHR3232P00-M25R  | R              |      |
|           |               |          | 90°   | Inch           | GYHLUS16D90-M25R  | L              | F058 |
|           |               |          |       |                | C4-GYHLD90-M25R   | L              |      |
|           |               |          |       |                | C5-GYHLD90-M25R   | L              |      |
|           |               |          |       |                | C6-GYHLE90-M25R   | L              |      |
|           | GYM25RA-J14   | External | 00°   | Metric         | GYHL2525M90-M25R  | L              | F082 |
|           |               |          |       |                | GYHLUS12C00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L  | L              |      |
|           |               |          | 90°   | Inch           | GYHLUS24E00-M25L  | L              | F194 |
|           |               |          |       |                | C4-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L  | L              |      |
|           |               |          |       |                | C6-GYHLF00-M25L   | L              |      |
|           |               | Internal | 90°   | Inch           | GYHL2020K00-M25L  | L              | F074 |
|           |               |          |       |                | GYHL2525M00-M25L  | L              |      |
|           |               |          |       |                | GYHL3225P00-M25L  | L              |      |
|           |               |          |       |                | GYHL3232P00-M25L  | L              |      |
|           |               |          | 90°   | Metric         | GYHRUS16D90-M25L  | R              | F058 |
|           |               |          |       |                | C4-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L   | R              |      |
|           |               |          | 90°   | Inch           | GYDLUS24M90D-M25R | L              | F176 |
|           |               |          |       |                | GYDLUS24T90D-M25R | L              |      |
|           |               |          |       |                | GYDLUS32P90F-M25R | L              |      |
|           |               |          |       |                | GYDLUS32T90F-M25R | L              |      |
|           |               |          | 90°   | Metric         | GYDL40M90D-M25R   | L              | F184 |
|           |               |          |       |                | GYDL40T90D-M25R   | L              |      |
|           |               |          |       |                | GYDL50P90F-M25R   | L              |      |
|           |               |          |       |                | GYDL50T90F-M25R   | L              |      |

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## Modular Blades Selection Chart (For External and Internal Grooving)

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder            | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|-------------------|----------------|------|
| J         | GYM25LA-J14   | External | 00°   | Inch           | GYHLUS12C00-M25L  | L              | F050 |
|           |               |          |       |                | GYHLUS16D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L  | L              |      |
|           |               |          |       |                | GYHLUS24E00-M25L  | L              |      |
|           |               |          |       | Metric         | C4-GYHLEX00-M25L  | L              | F194 |
|           |               |          |       |                | C5-GYHLEX00-M25L  | L              |      |
|           |               | Internal | 90°   | Inch           | C6-GYHLEF00-M25L  | L              | F074 |
|           |               |          |       |                | GYHL2020K00-M25L  | L              |      |
|           |               |          |       |                | GYHL2525M00-M25L  | L              |      |
|           |               |          |       |                | GYHL3225P00-M25L  | L              |      |
|           |               |          |       | Metric         | GYHL3232P00-M25L  | L              | F058 |
|           |               |          |       |                | GYHRUS16D90-M25L  | R              |      |
|           | GYM25RA-J25   | External | 00°   | Inch           | C4-GYHRD90-M25L   | R              | F204 |
|           |               |          |       |                | C5-GYHRD90-M25L   | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L   | R              |      |
|           |               |          |       |                | GYHR2525M90-M25L  | R              |      |
|           |               | Internal | 90°   | Inch           | GYDRUS24M90D-M25L | R              | F082 |
|           |               |          |       |                | GYDRUS24T90D-M25L | R              |      |
|           |               |          |       |                | GYDRUS32P90F-M25L | R              |      |
|           |               |          |       |                | GYDRUS32T90F-M25L | R              |      |
|           |               | External | 90°   | Inch           | GYDR40M90D-M25L   | R              | F176 |
|           |               |          |       |                | GYDR40T90D-M25L   | R              |      |
|           |               |          |       |                | GYDR50P90F-M25L   | R              |      |
|           |               |          |       |                | GYDR50T90F-M25L   | R              |      |
|           | GYM25RA-J25   | External | 00°   | Inch           | GYHRUS12C00-M25R  | R              | F184 |
|           |               |          |       |                | GYHRUS16D00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS20D00-M25R  | R              |      |
|           |               |          |       |                | GYHRUS24E00-M25R  | R              |      |
|           |               | Internal | 90°   | Inch           | C4-GYHREX00-M25R  | R              | F050 |
|           |               |          |       |                | C5-GYHREX00-M25R  | R              |      |
|           |               |          |       |                | C6-GYHREX00-M25R  | R              |      |
|           |               |          |       |                | GYHR2020K00-M25R  | R              |      |
|           | GYM25RA-J25   | External | 00°   | Inch           | GYHR2525M00-M25R  | R              | F194 |
|           |               |          |       |                | GYHR3225P00-M25R  | R              |      |
|           |               |          |       |                | GYHR3232P00-M25R  | R              |      |
|           |               |          |       |                | GYHLUS16D90-M25R  | L              |      |
|           |               | Internal | 90°   | Inch           | C4-GYHLD90-M25R   | L              | F074 |
|           |               |          |       |                | C5-GYHLD90-M25R   | L              |      |
|           |               |          |       |                | C6-GYHLE90-M25R   | L              |      |
|           |               |          |       |                | GYHL2525M90-M25R  | L              |      |

| Seat Size | Modular Blade | Type     | Angle | Inch or Metric | Holder           | Hand of Holder | Page |
|-----------|---------------|----------|-------|----------------|------------------|----------------|------|
| J         | GYM25LA-J25   | External | 00°   | Inch           | GYHLUS12C00-M25L | L              | F050 |
|           |               |          |       |                | GYHLUS16D00-M25L | L              |      |
|           |               |          |       |                | GYHLUS20D00-M25L | L              |      |
|           |               |          |       |                | GYHLUS24E00-M25L | L              |      |
|           |               |          |       |                | C4-GYHLEX00-M25L | L              |      |
|           |               |          |       |                | C5-GYHLEX00-M25L | L              |      |
|           |               |          |       | Metric         | C6-GYHLEF00-M25L | L              | F194 |
|           |               |          |       |                | GYHL2020K00-M25L | L              |      |
|           |               |          |       |                | GYHL2525M00-M25L | L              |      |
|           |               |          |       |                | GYHL3225P00-M25L | L              |      |
|           |               |          |       |                | GYHL3232P00-M25L | L              |      |
|           |               |          |       |                | GYHRUS16D90-M25L | R              |      |
|           |               |          |       |                | C4-GYHRD90-M25L  | R              |      |
|           |               |          |       |                | C5-GYHRD90-M25L  | R              |      |
|           |               |          |       |                | C6-GYHRE90-M25L  | R              |      |
|           |               |          |       |                | GYHR2525M90-M25L | R              |      |

## Modular Blades Selection Chart (For External and Face Grooving)

| Holder                                                                       | Angle of holder | Seat Size       | Modular Blade   | Type | Page         |
|------------------------------------------------------------------------------|-----------------|-----------------|-----------------|------|--------------|
| (Inch holder)<br>GYHRUS12C00-M25R<br><br>(Metric holder)<br>GYHR2020K00-M25R | 00°             | D               | GYM25RD-D12-040 | Face | F086<br>F128 |
|                                                                              |                 |                 | GYM25RD-D12-050 |      |              |
|                                                                              |                 |                 | GYM25RD-D12-060 |      |              |
|                                                                              |                 |                 | GYM25RD-D12-075 |      |              |
|                                                                              |                 |                 | GYM25RD-D12-100 |      |              |
|                                                                              |                 |                 | GYM25RD-D12-135 |      |              |
|                                                                              |                 | GYM25RD-D12-180 | F088<br>F130    |      |              |
|                                                                              |                 | E               | GYM25RD-E12-040 | Face | F090<br>F132 |
|                                                                              |                 |                 | GYM25RD-E12-050 |      |              |
|                                                                              |                 |                 | GYM25RD-E12-060 |      |              |
|                                                                              |                 |                 | GYM25RD-E12-075 |      |              |
|                                                                              |                 |                 | GYM25RD-E12-100 |      |              |
|                                                                              |                 |                 | GYM25RD-E12-135 |      |              |
|                                                                              |                 | GYM25RD-E12-180 | F092<br>F134    |      |              |
|                                                                              |                 | F               | GYM25RD-F12-035 | Face | F094<br>F136 |
|                                                                              |                 |                 | GYM25RD-F12-040 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-050 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-060 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-075 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-100 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-135 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-180 |      |              |
|                                                                              |                 |                 | GYM25RD-F12-225 |      |              |
|                                                                              |                 |                 | GYM25RD-F20-060 |      |              |
|                                                                              |                 |                 | GYM25RD-F20-075 |      |              |
|                                                                              |                 |                 | GYM25RD-F20-100 |      |              |
|                                                                              |                 |                 | GYM25RD-F20-135 |      |              |
|                                                                              |                 |                 | GYM25RD-F20-180 |      |              |
|                                                                              |                 | GYM25RD-F20-225 |                 |      |              |
|                                                                              |                 | G               | GYM25RD-G14-040 | Face | F102<br>F144 |
|                                                                              |                 |                 | GYM25RD-G14-050 |      |              |
|                                                                              |                 |                 | GYM25RD-G14-060 |      |              |
|                                                                              |                 |                 | GYM25RD-G14-085 |      |              |
|                                                                              |                 |                 | GYM25RD-G14-125 |      |              |
|                                                                              |                 |                 | GYM25RD-G14-180 |      |              |
|                                                                              |                 |                 | GYM25RD-G14-250 |      |              |
|                                                                              |                 |                 | GYM25RD-G25-060 |      |              |
|                                                                              |                 |                 | GYM25RD-G25-085 |      |              |
|                                                                              |                 |                 | GYM25RD-G25-125 |      |              |
|                                                                              |                 | H               | GYM25RD-G25-180 | Face | F106<br>F148 |
|                                                                              |                 |                 | GYM25RD-G25-250 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-050 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-060 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-085 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-125 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-180 |      |              |
|                                                                              |                 |                 | GYM25RD-H14-250 |      |              |
|                                                                              |                 | J               | GYM25RD-H25-060 | Face | F108<br>F150 |
|                                                                              |                 |                 | GYM25RD-H25-085 |      |              |
|                                                                              |                 |                 | GYM25RD-H25-125 |      |              |
|                                                                              |                 |                 | GYM25RD-H25-180 |      |              |
|                                                                              |                 |                 | GYM25RD-H25-250 |      |              |
|                                                                              |                 |                 | GYM25RD-J14-050 |      |              |
|                                                                              |                 |                 | GYM25RD-J14-070 |      |              |
|                                                                              |                 |                 | GYM25RD-J14-110 |      |              |
|                                                                              |                 | J               | GYM25RD-J14-170 | Face | F110<br>F152 |
|                                                                              |                 |                 | GYM25RD-J14-250 |      |              |
|                                                                              |                 |                 | GYM25RD-J25-070 |      |              |
|                                                                              |                 |                 | GYM25RD-J25-110 |      |              |
|                                                                              |                 |                 | GYM25RD-J25-170 |      |              |
| GYM25RD-J25-250                                                              |                 |                 |                 |      |              |

## GROOVING / CUTTING OFF

# QUICK INDEX

## Modular Blades Selection Chart (For External and Face Grooving)

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHLUS12C00-M25L<br><br>(Metric holder)<br>GYHL2020K00-M25L | 00°             | D         | GYM25LA-D06     | External | F040<br>F064 |
|                                                                              |                 |           | GYM25LA-D12     |          |              |
|                                                                              |                 |           | GYM25LA-D20     |          |              |
|                                                                              |                 | E         | GYM25LA-E06     |          | F042<br>F066 |
|                                                                              |                 |           | GYM25LA-E12     |          |              |
|                                                                              |                 |           | GYM25LA-E20     |          |              |
|                                                                              |                 | F         | GYM25LA-F06     |          | F044<br>F068 |
|                                                                              |                 |           | GYM25LA-F12     |          |              |
|                                                                              |                 |           | GYM25LA-F20     |          |              |
|                                                                              |                 | G         | GYM25LA-G08     |          | F046<br>F070 |
|                                                                              |                 |           | GYM25LA-G14     |          |              |
|                                                                              |                 |           | GYM25LA-G25     |          |              |
|                                                                              |                 | H         | GYM25LA-H08     |          | F048<br>F072 |
|                                                                              |                 |           | GYM25LA-H14     |          |              |
|                                                                              |                 |           | GYM25LA-H25     |          |              |
|                                                                              |                 | J         | GYM25LA-J08     |          | F050<br>F074 |
|                                                                              |                 |           | GYM25LA-J14     |          |              |
|                                                                              |                 |           | GYM25LA-J25     |          |              |
|                                                                              | 00°             | D         | GYM25LD-D12-040 | Face     | F086<br>F128 |
|                                                                              |                 |           | GYM25LD-D12-050 |          |              |
|                                                                              |                 |           | GYM25LD-D12-060 |          |              |
|                                                                              |                 |           | GYM25LD-D12-075 |          |              |
|                                                                              |                 |           | GYM25LD-D12-100 |          |              |
|                                                                              |                 |           | GYM25LD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25LD-E12-040 | Face     | F090<br>F132 |
|                                                                              |                 |           | GYM25LD-E12-050 |          |              |
|                                                                              |                 |           | GYM25LD-E12-060 |          |              |
|                                                                              |                 |           | GYM25LD-E12-075 |          |              |
|                                                                              |                 |           | GYM25LD-E12-100 |          |              |
|                                                                              |                 |           | GYM25LD-E12-135 |          |              |
|                                                                              |                 | F         | GYM25LD-F12-035 | Face     | F094<br>F136 |
|                                                                              |                 |           | GYM25LD-F12-040 |          |              |
|                                                                              |                 |           | GYM25LD-F12-050 |          |              |
|                                                                              |                 |           | GYM25LD-F12-060 |          |              |
|                                                                              |                 |           | GYM25LD-F12-075 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F12-100 |          |              |
|                                                                              |                 |           | GYM25LD-F12-135 |          |              |
|                                                                              |                 |           | GYM25LD-F12-180 |          |              |
|                                                                              |                 |           | GYM25LD-F12-225 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25LD-F20-060 |          |              |
|                                                                              |                 |           | GYM25LD-F20-075 |          |              |
|                                                                              |                 |           | GYM25LD-F20-100 |          |              |
|                                                                              |                 | G         | GYM25LD-G14-040 | Face     | F102<br>F144 |
|                                                                              |                 |           | GYM25LD-G14-050 |          |              |
|                                                                              |                 |           | GYM25LD-G14-060 |          |              |
|                                                                              |                 |           | GYM25LD-G14-085 |          |              |
|                                                                              |                 |           | GYM25LD-G14-125 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25LD-G14-180 |          |              |
|                                                                              |                 |           | GYM25LD-G14-250 |          |              |
|                                                                              |                 |           | GYM25LD-G25-060 |          |              |
|                                                                              |                 |           | GYM25LD-G25-085 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25LD-G25-125 |          |              |
|                                                                              |                 |           | GYM25LD-G25-180 |          |              |
|                                                                              |                 |           | GYM25LD-G25-250 |          |              |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type      | Page                       |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|-----------|----------------------------|
| (Inch holder)<br>GYHLUS12C00-M25L<br><br>(Metric holder)<br>GYHL2020K00-M25L | 00°             | H         | GYM25LD-H14-050 | Face      | F108<br>F150               |
|                                                                              |                 |           | GYM25LD-H14-060 |           |                            |
|                                                                              |                 |           | GYM25LD-H14-085 |           |                            |
|                                                                              |                 |           | GYM25LD-H14-125 |           | F110<br>F152               |
|                                                                              |                 |           | GYM25LD-H14-180 |           |                            |
|                                                                              |                 |           | GYM25LD-H14-250 |           |                            |
|                                                                              |                 |           | GYM25LD-H25-060 |           | F108, F150<br>F110<br>F152 |
|                                                                              |                 |           | GYM25LD-H25-085 |           |                            |
|                                                                              |                 |           | GYM25LD-H25-125 |           |                            |
|                                                                              |                 |           | GYM25LD-H25-180 |           | F112<br>F154               |
|                                                                              |                 |           | GYM25LD-H25-250 |           |                            |
|                                                                              |                 |           | GYM25LD-H25-250 |           |                            |
|                                                                              |                 | J         | GYM25LD-J14-050 | Face      | F114<br>F156               |
|                                                                              |                 |           | GYM25LD-J14-070 |           |                            |
|                                                                              |                 |           | GYM25LD-J14-110 |           |                            |
|                                                                              |                 |           | GYM25LD-J14-170 |           | F116<br>F158               |
|                                                                              |                 |           | GYM25LD-J14-250 |           |                            |
|                                                                              |                 |           | GYM25LD-J25-070 |           |                            |
| (Inch holder)<br>GYHRUS12C50-M20L<br>(Metric holder)<br>GYHR2020K50-M20L     | 50°             | D         | GYM20LC-D005    | Recessing | F060, F084                 |
|                                                                              |                 | E         | GYM20LC-E005    |           | F060, F084                 |
|                                                                              |                 | F         | GYM20LC-F005    |           | F060, F084                 |
|                                                                              |                 | G         | GYM20LC-G005    |           | F060, F084                 |
|                                                                              |                 | H         | GYM20LC-H005    | Recessing | F060, F084                 |
|                                                                              |                 | D         | GYM20RC-D005    |           | F060, F084                 |
|                                                                              |                 | E         | GYM20RC-E005    |           | F060, F084                 |
|                                                                              |                 | F         | GYM20RC-F005    |           | F060, F084                 |
|                                                                              |                 | G         | GYM20RC-G005    |           | F060, F084                 |
|                                                                              |                 | H         | GYM20RC-H005    |           | F060, F084                 |
| (Inch holder)<br>GYHRUS12C90-M20L<br>(Metric holder)<br>GYHR2020K90-M20L     | 90°             | D         | GYM20LA-D06     | External  | F054<br>F078               |
|                                                                              |                 |           | GYM20LA-D10     |           |                            |
|                                                                              |                 |           | GYM20LB-D18     |           |                            |
|                                                                              |                 | E         | GYM20LA-E06     |           | F054<br>F078               |
|                                                                              |                 |           | GYM20LA-E10     |           |                            |
|                                                                              |                 |           | GYM20LB-E18     |           |                            |
|                                                                              |                 | F         | GYM20LA-F06     |           | F056<br>F080               |
|                                                                              |                 |           | GYM20LA-F10     |           |                            |
|                                                                              |                 |           | GYM20LB-F18     |           |                            |
|                                                                              |                 | G         | GYM20LA-G12     |           | F056, F080<br>F058, F082   |
|                                                                              |                 | H         | GYM20LA-H12     |           |                            |
|                                                                              |                 |           |                 |           |                            |
| (Inch holder)<br>GYHLUS12C90-M20R<br>(Metric holder)<br>GYHL2020K90-M20R     | 90°             | D         | GYM20RA-D06     | External  | F054<br>F078               |
|                                                                              |                 |           | GYM20RA-D10     |           |                            |
|                                                                              |                 |           | GYM20RB-D18     |           |                            |
|                                                                              |                 | E         | GYM20RA-E06     |           | F054<br>F078               |
|                                                                              |                 |           | GYM20RA-E10     |           |                            |
|                                                                              |                 |           | GYM20RB-E18     |           |                            |
|                                                                              |                 | F         | GYM20RA-F06     |           | F056<br>F080               |
|                                                                              |                 |           | GYM20RA-F10     |           |                            |
|                                                                              |                 |           | GYM20RB-F18     |           |                            |
|                                                                              |                 | G         | GYM20RA-G12     |           | F056, F080<br>F058, F082   |
|                                                                              |                 | H         | GYM20RA-H12     |           |                            |
|                                                                              |                 |           |                 |           |                            |
| (Inch holder)<br>GYHRUS16D00-M25R<br>(Metric holder)<br>GYHR2525M00-M25R     | 00°             | D         | GYM25RA-D06     | External  | F040<br>F064               |
|                                                                              |                 |           | GYM25RA-D12     |           |                            |
|                                                                              |                 |           | GYM25RA-D20     |           |                            |
|                                                                              |                 | E         | GYM25RA-E06     |           | F042<br>F066               |
|                                                                              |                 |           | GYM25RA-E12     |           |                            |
|                                                                              |                 |           | GYM25RA-E20     |           |                            |
|                                                                              |                 | F         | GYM25RA-F06     |           | F044<br>F068               |
|                                                                              |                 |           | GYM25RA-F12     |           |                            |
|                                                                              |                 |           | GYM25RA-F20     |           |                            |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHRUS16D00-M25R<br><br>(Metric holder)<br>GYHR2525M00-M25R | 00°             | G         | GYM25RA-G08     | External | F046<br>F070 |
|                                                                              |                 |           | GYM25RA-G14     |          |              |
|                                                                              |                 |           | GYM25RA-G25     |          |              |
|                                                                              |                 | H         | GYM25RA-H08     | External | F048<br>F072 |
|                                                                              |                 |           | GYM25RA-H14     |          |              |
|                                                                              |                 |           | GYM25RA-H25     |          |              |
|                                                                              |                 | J         | GYM25RA-J08     | External | F050<br>F074 |
|                                                                              |                 |           | GYM25RA-J14     |          |              |
|                                                                              |                 |           | GYM25RA-J25     |          |              |
|                                                                              | 00°             | D         | GYM25RD-D12-040 | Face     | F086<br>F128 |
|                                                                              |                 |           | GYM25RD-D12-050 |          |              |
|                                                                              |                 |           | GYM25RD-D12-060 |          |              |
|                                                                              |                 |           | GYM25RD-D12-075 |          | F088<br>F130 |
|                                                                              |                 |           | GYM25RD-D12-100 |          |              |
|                                                                              |                 |           | GYM25RD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25RD-D12-180 | Face     | F090<br>F132 |
|                                                                              |                 |           | GYM25RD-E12-040 |          |              |
|                                                                              |                 |           | GYM25RD-E12-050 |          |              |
|                                                                              |                 |           | GYM25RD-E12-060 |          | F092<br>F134 |
|                                                                              |                 |           | GYM25RD-E12-075 |          |              |
|                                                                              |                 |           | GYM25RD-E12-100 |          |              |
|                                                                              |                 | F         | GYM25RD-E12-135 | Face     | F094<br>F136 |
|                                                                              |                 |           | GYM25RD-E12-180 |          |              |
|                                                                              |                 |           | GYM25RD-F12-035 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25RD-F12-040 |          |              |
|                                                                              |                 |           | GYM25RD-F12-050 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25RD-F12-060 |          |              |
|                                                                              |                 |           | GYM25RD-F12-075 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25RD-F12-100 |          |              |
|                                                                              |                 |           | GYM25RD-F12-135 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25RD-F12-180 |          |              |
|                                                                              |                 |           | GYM25RD-F20-060 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25RD-F20-075 |          |              |
|                                                                              |                 | G         | GYM25RD-F20-100 | Face     | F100<br>F142 |
|                                                                              |                 |           | GYM25RD-F20-135 |          |              |
|                                                                              |                 |           | GYM25RD-F20-180 |          | F102<br>F144 |
|                                                                              |                 |           | GYM25RD-F20-225 |          |              |
|                                                                              |                 |           | GYM25RD-G14-040 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25RD-G14-050 |          |              |
|                                                                              |                 |           | GYM25RD-G14-060 |          | F106<br>F148 |
|                                                                              |                 |           | GYM25RD-G14-085 |          |              |
|                                                                              |                 |           | GYM25RD-G14-125 |          | F102, F144   |
|                                                                              |                 |           | GYM25RD-G14-180 |          |              |
|                                                                              |                 |           | GYM25RD-G14-250 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25RD-G25-060 |          |              |
|                                                                              |                 | H         | GYM25RD-G25-085 | Face     | F106<br>F148 |
|                                                                              |                 |           | GYM25RD-G25-125 |          |              |
|                                                                              |                 |           | GYM25RD-G25-180 |          | F108<br>F150 |
|                                                                              |                 |           | GYM25RD-G25-250 |          |              |
|                                                                              |                 |           | GYM25RD-H14-050 |          | F110<br>F152 |
|                                                                              |                 |           | GYM25RD-H14-060 |          |              |
|                                                                              |                 |           | GYM25RD-H14-085 |          | F112<br>F154 |
|                                                                              |                 |           | GYM25RD-H14-125 |          |              |
|                                                                              |                 |           | GYM25RD-H14-180 |          | F108, F150   |
|                                                                              |                 |           | GYM25RD-H14-250 |          |              |
|                                                                              |                 |           | GYM25RD-H25-060 |          | F110<br>F152 |
|                                                                              |                 |           | GYM25RD-H25-085 |          |              |
|                                                                              |                 |           | GYM25RD-H25-125 |          | F112<br>F154 |
|                                                                              |                 |           | GYM25RD-H25-180 |          |              |
|                                                                              |                 |           | GYM25RD-H25-250 |          |              |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHRUS16D00-M25R<br><br>(Metric holder)<br>GYHR2525M00-M25R | 00°             | J         | GYM25RD-J14-050 | Face     | F114<br>F156 |
|                                                                              |                 |           | GYM25RD-J14-070 |          |              |
|                                                                              |                 |           | GYM25RD-J14-110 |          | F116<br>F158 |
|                                                                              |                 |           | GYM25RD-J14-170 |          |              |
|                                                                              |                 |           | GYM25RD-J14-250 |          | F114<br>F156 |
|                                                                              |                 |           | GYM25RD-J25-070 |          |              |
|                                                                              |                 |           | GYM25RD-J25-110 |          | F116<br>F158 |
|                                                                              |                 |           | GYM25RD-J25-170 |          |              |
|                                                                              |                 |           | GYM25RD-J25-250 |          |              |
|                                                                              |                 |           | GYM25RD-J25-250 |          |              |
| (Inch holder)<br>GYHLUS16D00-M25L<br><br>(Metric holder)<br>GYHL2525M00-M25L | 00°             | D         | GYM25LA-D06     | External | F040<br>F064 |
|                                                                              |                 |           | GYM25LA-D12     |          |              |
|                                                                              |                 |           | GYM25LA-D20     |          |              |
|                                                                              |                 | E         | GYM25LA-E06     | External | F042<br>F066 |
|                                                                              |                 |           | GYM25LA-E12     |          |              |
|                                                                              |                 |           | GYM25LA-E20     |          |              |
|                                                                              |                 | F         | GYM25LA-F06     | External | F044<br>F068 |
|                                                                              |                 |           | GYM25LA-F12     |          |              |
|                                                                              |                 |           | GYM25LA-F20     |          |              |
|                                                                              |                 | G         | GYM25LA-G08     | External | F046<br>F070 |
|                                                                              |                 |           | GYM25LA-G14     |          |              |
|                                                                              |                 |           | GYM25LA-G25     |          |              |
|                                                                              |                 | H         | GYM25LA-H08     | External | F048<br>F072 |
|                                                                              |                 |           | GYM25LA-H14     |          |              |
|                                                                              |                 |           | GYM25LA-H25     |          |              |
|                                                                              |                 | J         | GYM25LA-J08     | External | F050<br>F074 |
|                                                                              |                 |           | GYM25LA-J14     |          |              |
|                                                                              |                 |           | GYM25LA-J25     |          |              |
|                                                                              |                 | D         | GYM25LD-D12-040 | Face     | F086<br>F128 |
|                                                                              |                 |           | GYM25LD-D12-050 |          |              |
|                                                                              |                 |           | GYM25LD-D12-060 |          |              |
|                                                                              |                 |           | GYM25LD-D12-075 |          | F088<br>F130 |
|                                                                              |                 |           | GYM25LD-D12-100 |          |              |
|                                                                              |                 |           | GYM25LD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25LD-D12-180 | Face     | F090<br>F132 |
|                                                                              |                 |           | GYM25LD-E12-040 |          |              |
|                                                                              |                 |           | GYM25LD-E12-050 |          |              |
|                                                                              |                 |           | GYM25LD-E12-060 |          | F092<br>F134 |
|                                                                              |                 |           | GYM25LD-E12-075 |          |              |
|                                                                              |                 |           | GYM25LD-E12-100 |          |              |
|                                                                              |                 | F         | GYM25LD-E12-135 | Face     | F094<br>F136 |
|                                                                              |                 |           | GYM25LD-E12-180 |          |              |
|                                                                              |                 |           | GYM25LD-F12-035 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F12-040 |          |              |
|                                                                              |                 |           | GYM25LD-F12-050 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25LD-F12-060 |          |              |
|                                                                              |                 |           | GYM25LD-F12-075 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25LD-F12-100 |          |              |
|                                                                              |                 |           | GYM25LD-F12-135 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F12-180 |          |              |
|                                                                              |                 |           | GYM25LD-F12-225 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25LD-F20-060 |          |              |
|                                                                              |                 |           | GYM25LD-F20-075 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25LD-F20-100 |          |              |
|                                                                              |                 |           | GYM25LD-F20-135 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F20-180 |          |              |
|                                                                              |                 |           | GYM25LD-F20-225 |          |              |

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## Modular Blades Selection Chart (For External and Face Grooving)

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type      | Page       |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|-----------|------------|
| (Inch holder)<br>GYHLUS16D00-M25L<br><br>(Metric holder)<br>GYHL2525M00-M25L | 00°             | G         | GYM25LD-G14-040 | Face      | F102       |
|                                                                              |                 |           | GYM25LD-G14-050 |           | F144       |
|                                                                              |                 |           | GYM25LD-G14-060 |           |            |
|                                                                              |                 |           | GYM25LD-G14-085 |           | F104       |
|                                                                              |                 |           | GYM25LD-G14-125 |           | F146       |
|                                                                              |                 |           | GYM25LD-G14-180 |           | F106       |
|                                                                              |                 |           | GYM25LD-G14-250 |           | F148       |
|                                                                              |                 |           | GYM25LD-G25-060 |           | F102, F144 |
|                                                                              |                 |           | GYM25LD-G25-085 |           | F104       |
|                                                                              |                 |           | GYM25LD-G25-125 |           | F146       |
|                                                                              |                 |           | GYM25LD-G25-180 |           | F106       |
|                                                                              |                 |           | GYM25LD-G25-250 |           | F148       |
|                                                                              |                 | H         | GYM25LD-H14-050 | Face      | F108       |
|                                                                              |                 |           | GYM25LD-H14-060 |           | F150       |
|                                                                              |                 |           | GYM25LD-H14-085 |           | F110       |
|                                                                              |                 |           | GYM25LD-H14-125 |           | F152       |
|                                                                              |                 |           | GYM25LD-H14-180 |           | F112       |
|                                                                              |                 |           | GYM25LD-H14-250 |           | F154       |
|                                                                              |                 |           | GYM25LD-H25-060 |           | F108, F150 |
|                                                                              |                 |           | GYM25LD-H25-085 |           | F110       |
|                                                                              |                 |           | GYM25LD-H25-125 |           | F152       |
|                                                                              |                 |           | GYM25LD-H25-180 |           | F112       |
|                                                                              |                 |           | GYM25LD-H25-250 |           | F154       |
|                                                                              |                 | J         | GYM25LD-J14-050 | Face      | F114       |
|                                                                              |                 |           | GYM25LD-J14-070 |           | F156       |
|                                                                              |                 |           | GYM25LD-J14-110 |           |            |
|                                                                              |                 |           | GYM25LD-J14-170 |           | F116       |
|                                                                              |                 |           | GYM25LD-J14-250 |           | F158       |
|                                                                              |                 |           | GYM25LD-J25-070 |           | F114       |
|                                                                              |                 |           | GYM25LD-J25-110 |           | F156       |
|                                                                              |                 |           | GYM25LD-J25-170 |           | F116       |
|                                                                              |                 |           | GYM25LD-J25-250 |           | F158       |
| (Inch holder)<br>GYHRUS16D50-M25L<br>(Metric holder)<br>GYHR2525M50-M25L     | 50°             | D         | GYM25LC-D005    | Recessing | F060, F084 |
|                                                                              |                 | E         | GYM25LC-E005    |           | F060, F084 |
|                                                                              |                 | F         | GYM25LC-F005    |           | F060, F084 |
|                                                                              |                 | G         | GYM25LC-G005    |           | F060, F084 |
|                                                                              |                 | H         | GYM25LC-H005    |           | F060, F084 |
|                                                                              |                 | J         | GYM25LC-J005    |           | F060, F084 |
| (Inch holder)<br>GYHLUS16D50-M25R<br>(Metric holder)<br>GYHL2525M50-M25R     | 50°             | D         | GYM25RC-D005    | Recessing | F060, F084 |
|                                                                              |                 | E         | GYM25RC-E005    |           | F060, F084 |
|                                                                              |                 | F         | GYM25RC-F005    |           | F060, F084 |
|                                                                              |                 | G         | GYM25RC-G005    |           | F060, F084 |
|                                                                              |                 | H         | GYM25RC-H005    |           | F060, F084 |
|                                                                              |                 | J         | GYM25RC-J005    |           | F060, F084 |
| (Inch holder)<br>GYHRUS16D90-M25L<br><br>(Metric holder)<br>GYHR2525M90-M25L | 90°             | D         | GYM25LA-D06     | External  | F054       |
|                                                                              |                 |           | GYM25LA-D12     |           | F078       |
|                                                                              |                 |           | GYM25LA-D20     |           |            |
|                                                                              |                 |           | GYM25LA-E06     |           | F054       |
|                                                                              |                 |           | GYM25LA-E12     |           | F078       |
|                                                                              |                 |           | GYM25LA-E20     |           |            |
|                                                                              |                 | E         | GYM25LA-F06     | External  | F056       |
|                                                                              |                 |           | GYM25LA-F12     |           | F080       |
|                                                                              |                 |           | GYM25LA-F20     |           |            |
|                                                                              |                 | F         | GYM25LA-G08     | External  | F056       |
|                                                                              |                 |           | GYM25LA-G14     |           | F080       |
|                                                                              |                 |           | GYM25LA-G25     |           |            |
|                                                                              |                 | G         | GYM25LA-H08     | External  | F058       |
|                                                                              |                 |           | GYM25LA-H14     |           | F082       |
|                                                                              |                 |           | GYM25LA-H25     |           |            |
|                                                                              |                 | H         | GYM25LA-J08     | External  | F058       |
|                                                                              |                 |           | GYM25LA-J14     |           | F082       |
|                                                                              |                 |           | GYM25LA-J25     |           |            |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type | Page |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|------|------|
| (Inch holder)<br>GYHRUS16D90-M25L<br><br>(Metric holder)<br>GYHR2525M90-M25L | 90°             | D         | GYM25LD-D12-040 | Face | F118 |
|                                                                              |                 |           | GYM25LD-D12-050 |      | F160 |
|                                                                              |                 |           | GYM25LD-D12-060 |      |      |
|                                                                              |                 |           | GYM25LD-D12-075 |      |      |
|                                                                              |                 |           | GYM25LD-D12-100 |      |      |
|                                                                              |                 |           | GYM25LD-D12-135 |      |      |
|                                                                              |                 |           | GYM25LD-D12-180 |      |      |
|                                                                              |                 | E         | GYM25LD-E12-040 | Face | F118 |
|                                                                              |                 |           | GYM25LD-E12-050 |      | F160 |
|                                                                              |                 |           | GYM25LD-E12-060 |      |      |
|                                                                              |                 |           | GYM25LD-E12-075 |      |      |
|                                                                              |                 |           | GYM25LD-E12-100 |      |      |
|                                                                              |                 |           | GYM25LD-E12-135 |      |      |
|                                                                              |                 |           | GYM25LD-E12-180 |      |      |
|                                                                              |                 | F         | GYM25LD-F12-035 | Face | F120 |
|                                                                              |                 |           | GYM25LD-F12-040 |      | F162 |
|                                                                              |                 |           | GYM25LD-F12-050 |      |      |
|                                                                              |                 |           | GYM25LD-F12-060 |      |      |
|                                                                              |                 |           | GYM25LD-F12-075 |      |      |
|                                                                              |                 |           | GYM25LD-F12-100 |      |      |
|                                                                              |                 |           | GYM25LD-F12-135 |      |      |
|                                                                              |                 |           | GYM25LD-F12-180 |      |      |
|                                                                              |                 |           | GYM25LD-F12-225 |      |      |
|                                                                              |                 |           | GYM25LD-F20-060 |      |      |
|                                                                              |                 |           | GYM25LD-F20-075 |      |      |
|                                                                              |                 |           | GYM25LD-F20-100 |      |      |
|                                                                              |                 |           | GYM25LD-F20-135 |      |      |
|                                                                              |                 |           | GYM25LD-F20-180 |      |      |
|                                                                              |                 |           | GYM25LD-F20-225 |      |      |
|                                                                              |                 | G         | GYM25LD-G14-040 | Face | F122 |
|                                                                              |                 |           | GYM25LD-G14-050 |      | F164 |
|                                                                              |                 |           | GYM25LD-G14-060 |      |      |
|                                                                              |                 |           | GYM25LD-G14-085 |      |      |
|                                                                              |                 |           | GYM25LD-G14-125 |      |      |
|                                                                              |                 |           | GYM25LD-G14-180 |      |      |
|                                                                              |                 |           | GYM25LD-G14-250 |      |      |
|                                                                              |                 |           | GYM25LD-G25-060 |      |      |
|                                                                              |                 |           | GYM25LD-G25-085 |      |      |
|                                                                              |                 |           | GYM25LD-G25-125 |      |      |
|                                                                              |                 |           | GYM25LD-G25-180 |      |      |
|                                                                              |                 |           | GYM25LD-G25-250 |      |      |
|                                                                              |                 | H         | GYM25LD-H14-050 | Face | F124 |
|                                                                              |                 |           | GYM25LD-H14-060 |      | F166 |
|                                                                              |                 |           | GYM25LD-H14-085 |      |      |
|                                                                              |                 |           | GYM25LD-H14-125 |      |      |
|                                                                              |                 |           | GYM25LD-H14-180 |      |      |
|                                                                              |                 |           | GYM25LD-H14-250 |      |      |
|                                                                              |                 |           | GYM25LD-H25-060 |      |      |
|                                                                              |                 |           | GYM25LD-H25-085 |      |      |
|                                                                              |                 |           | GYM25LD-H25-125 |      |      |
|                                                                              |                 |           | GYM25LD-H25-180 |      |      |
|                                                                              |                 |           | GYM25LD-H25-250 |      |      |
|                                                                              |                 | J         | GYM25LD-J14-050 | Face | F126 |
|                                                                              |                 |           | GYM25LD-J14-070 |      | F168 |
|                                                                              |                 |           | GYM25LD-J14-110 |      |      |
|                                                                              |                 |           | GYM25LD-J14-170 |      |      |
|                                                                              |                 |           | GYM25LD-J14-250 |      |      |
|                                                                              |                 |           | GYM25LD-J25-070 |      |      |
|                                                                              |                 |           | GYM25LD-J25-110 |      |      |
|                                                                              |                 |           | GYM25LD-J25-170 |      |      |
|                                                                              |                 |           | GYM25LD-J25-250 |      |      |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHLUS16D90-M25R<br><br>(Metric holder)<br>GYHL2525M90-M25R | 90°             | D         | GYM25RA-D06     | External | F054<br>F078 |
|                                                                              |                 |           | GYM25RA-D12     |          |              |
|                                                                              |                 |           | GYM25RA-D20     |          |              |
|                                                                              |                 | E         | GYM25RA-E06     | External | F054<br>F078 |
|                                                                              |                 |           | GYM25RA-E12     |          |              |
|                                                                              |                 |           | GYM25RA-E20     |          |              |
|                                                                              |                 | F         | GYM25RA-F06     | External | F056<br>F080 |
|                                                                              |                 |           | GYM25RA-F12     |          |              |
|                                                                              |                 |           | GYM25RA-F20     |          |              |
|                                                                              |                 | G         | GYM25RA-G08     | External | F056<br>F080 |
|                                                                              |                 |           | GYM25RA-G14     |          |              |
|                                                                              |                 |           | GYM25RA-G25     |          |              |
|                                                                              |                 | H         | GYM25RA-H08     | External | F058<br>F082 |
|                                                                              |                 |           | GYM25RA-H14     |          |              |
|                                                                              |                 |           | GYM25RA-H25     |          |              |
|                                                                              |                 | J         | GYM25RA-J08     | External | F058<br>F082 |
|                                                                              |                 |           | GYM25RA-J14     |          |              |
|                                                                              |                 |           | GYM25RA-J25     |          |              |
|                                                                              | 90°             | D         | GYM25RD-D12-040 | Face     | F118<br>F160 |
|                                                                              |                 |           | GYM25RD-D12-050 |          |              |
|                                                                              |                 |           | GYM25RD-D12-060 |          |              |
|                                                                              |                 |           | GYM25RD-D12-075 |          |              |
|                                                                              |                 |           | GYM25RD-D12-100 |          |              |
|                                                                              |                 |           | GYM25RD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25RD-E12-040 | Face     | F118<br>F160 |
|                                                                              |                 |           | GYM25RD-E12-050 |          |              |
|                                                                              |                 |           | GYM25RD-E12-060 |          |              |
|                                                                              |                 |           | GYM25RD-E12-075 |          |              |
|                                                                              |                 |           | GYM25RD-E12-100 |          |              |
|                                                                              |                 |           | GYM25RD-E12-135 |          |              |
|                                                                              |                 | F         | GYM25RD-F12-035 | Face     | F120<br>F162 |
|                                                                              |                 |           | GYM25RD-F12-040 |          |              |
|                                                                              |                 |           | GYM25RD-F12-050 |          |              |
|                                                                              |                 |           | GYM25RD-F12-060 |          |              |
|                                                                              |                 |           | GYM25RD-F12-075 |          |              |
|                                                                              |                 |           | GYM25RD-F12-100 |          |              |
|                                                                              |                 |           | GYM25RD-F12-135 |          |              |
|                                                                              |                 |           | GYM25RD-F12-180 |          |              |
|                                                                              |                 |           | GYM25RD-F12-225 |          |              |
|                                                                              |                 |           | GYM25RD-F20-060 |          |              |
|                                                                              |                 |           | GYM25RD-F20-075 |          |              |
|                                                                              |                 |           | GYM25RD-F20-100 |          |              |
|                                                                              |                 | G         | GYM25RD-G14-040 | Face     | F122<br>F164 |
|                                                                              |                 |           | GYM25RD-G14-050 |          |              |
|                                                                              |                 |           | GYM25RD-G14-060 |          |              |
|                                                                              |                 |           | GYM25RD-G14-085 |          |              |
|                                                                              |                 |           | GYM25RD-G14-125 |          |              |
|                                                                              |                 |           | GYM25RD-G14-180 |          |              |
|                                                                              |                 | G         | GYM25RD-G14-250 | Face     | F122<br>F164 |
|                                                                              |                 |           | GYM25RD-G25-060 |          |              |
|                                                                              |                 |           | GYM25RD-G25-085 |          |              |
|                                                                              |                 |           | GYM25RD-G25-125 |          |              |
|                                                                              |                 |           | GYM25RD-G25-180 |          |              |
|                                                                              |                 |           | GYM25RD-G25-250 |          |              |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHLUS16D90-M25R<br><br>(Metric holder)<br>GYHL2525M90-M25R | 90°             | H         | GYM25RD-H14-050 | Face     | F124<br>F166 |
|                                                                              |                 |           | GYM25RD-H14-060 |          |              |
|                                                                              |                 |           | GYM25RD-H14-085 |          |              |
|                                                                              |                 |           | GYM25RD-H14-125 |          |              |
|                                                                              |                 |           | GYM25RD-H14-180 |          |              |
|                                                                              |                 |           | GYM25RD-H14-250 |          |              |
|                                                                              |                 | J         | GYM25RD-H25-060 | Face     | F126<br>F168 |
|                                                                              |                 |           | GYM25RD-H25-085 |          |              |
|                                                                              |                 |           | GYM25RD-H25-125 |          |              |
|                                                                              |                 |           | GYM25RD-H25-180 |          |              |
|                                                                              |                 |           | GYM25RD-H25-250 |          |              |
|                                                                              |                 |           | GYM25RD-J14-050 | Face     | F126<br>F168 |
|                                                                              |                 |           | GYM25RD-J14-070 |          |              |
|                                                                              |                 |           | GYM25RD-J14-110 |          |              |
|                                                                              |                 |           | GYM25RD-J14-170 |          |              |
|                                                                              |                 |           | GYM25RD-J14-250 |          |              |
|                                                                              |                 |           | GYM25RD-J25-070 |          |              |
| (Inch holder)<br>GYHRUS20D00-M25R<br><br>(Metric holder)<br>GYHR3225P00-M25R | 00°             | D         | GYM25RA-D06     | External | F040<br>F064 |
|                                                                              |                 |           | GYM25RA-D12     |          |              |
|                                                                              |                 |           | GYM25RA-D20     |          |              |
|                                                                              |                 | E         | GYM25RA-E06     | External | F042<br>F066 |
|                                                                              |                 |           | GYM25RA-E12     |          |              |
|                                                                              |                 |           | GYM25RA-E20     |          |              |
|                                                                              |                 | F         | GYM25RA-F06     | External | F044<br>F068 |
|                                                                              |                 |           | GYM25RA-F12     |          |              |
|                                                                              |                 |           | GYM25RA-F20     |          |              |
|                                                                              |                 | G         | GYM25RA-G08     | External | F046<br>F070 |
|                                                                              |                 |           | GYM25RA-G14     |          |              |
|                                                                              |                 |           | GYM25RA-G25     |          |              |
|                                                                              |                 | H         | GYM25RA-H08     | External | F048<br>F072 |
|                                                                              |                 |           | GYM25RA-H14     |          |              |
|                                                                              |                 |           | GYM25RA-H25     |          |              |
|                                                                              |                 | J         | GYM25RA-J08     | External | F050<br>F074 |
|                                                                              |                 |           | GYM25RA-J14     |          |              |
|                                                                              |                 |           | GYM25RA-J25     |          |              |
|                                                                              | 00°             | D         | GYM25RD-D12-040 | Face     | F086<br>F128 |
|                                                                              |                 |           | GYM25RD-D12-050 |          |              |
|                                                                              |                 |           | GYM25RD-D12-060 |          |              |
|                                                                              |                 |           | GYM25RD-D12-075 |          |              |
|                                                                              |                 |           | GYM25RD-D12-100 |          |              |
|                                                                              |                 |           | GYM25RD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25RD-E12-040 | Face     | F090<br>F132 |
|                                                                              |                 |           | GYM25RD-E12-050 |          |              |
|                                                                              |                 |           | GYM25RD-E12-060 |          |              |
|                                                                              |                 |           | GYM25RD-E12-075 |          |              |
|                                                                              |                 |           | GYM25RD-E12-100 |          |              |
|                                                                              |                 |           | GYM25RD-E12-135 |          |              |
|                                                                              |                 | E         | GYM25RD-E12-180 | Face     | F092<br>F134 |
|                                                                              |                 |           | GYM25RD-E12-040 |          |              |
|                                                                              |                 |           | GYM25RD-E12-050 |          |              |
|                                                                              |                 |           | GYM25RD-E12-060 |          |              |
|                                                                              |                 |           | GYM25RD-E12-075 |          |              |
|                                                                              |                 |           | GYM25RD-E12-100 |          |              |

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Modular Blades Selection Chart  
(For External and Face Grooving)

| Holder                                                                       | Angle of holder | Seat Size                                                                    | Modular Blade   | Type         | Page            |
|------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------|-----------------|--------------|-----------------|
| (Inch holder)<br>GYHRUS20D00-M25R<br><br>(Metric holder)<br>GYHR3225P00-M25R | 00°             | F                                                                            | GYM25RD-F12-035 | Face         | F094<br>F136    |
|                                                                              |                 |                                                                              | GYM25RD-F12-040 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F12-050 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F12-060 |              | F096<br>F138    |
|                                                                              |                 |                                                                              | GYM25RD-F12-075 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F12-100 |              | F098<br>F140    |
|                                                                              |                 |                                                                              | GYM25RD-F12-135 |              | F100<br>F142    |
|                                                                              |                 |                                                                              | GYM25RD-F12-180 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F12-225 |              | F096<br>F138    |
|                                                                              |                 |                                                                              | GYM25RD-F20-060 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F20-075 |              | F098<br>F140    |
|                                                                              |                 |                                                                              | GYM25RD-F20-100 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F20-135 |              | F100<br>F142    |
|                                                                              |                 |                                                                              | GYM25RD-F20-180 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-F20-225 |              |                 |
|                                                                              |                 | G                                                                            | GYM25RD-G14-040 | Face         | F102<br>F144    |
|                                                                              |                 |                                                                              | GYM25RD-G14-050 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G14-060 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G14-085 |              | F104<br>F146    |
|                                                                              |                 |                                                                              | GYM25RD-G14-125 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G14-180 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G14-250 |              | F106<br>F148    |
|                                                                              |                 |                                                                              | GYM25RD-G25-060 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G25-085 |              | F102, F144      |
|                                                                              |                 |                                                                              | GYM25RD-G25-125 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-G25-180 |              | F104<br>F146    |
|                                                                              |                 |                                                                              | GYM25RD-G25-250 |              | F106<br>F148    |
|                                                                              |                 | H                                                                            | GYM25RD-H14-050 | Face         | F108<br>F150    |
|                                                                              |                 |                                                                              | GYM25RD-H14-060 |              | F110<br>F152    |
|                                                                              |                 |                                                                              | GYM25RD-H14-085 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-H14-125 |              | F112<br>F154    |
|                                                                              |                 |                                                                              | GYM25RD-H14-180 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-H14-250 |              | F108, F150      |
|                                                                              |                 |                                                                              | GYM25RD-H25-060 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-H25-085 |              | F110<br>F152    |
|                                                                              |                 |                                                                              | GYM25RD-H25-125 |              |                 |
|                                                                              |                 |                                                                              | GYM25RD-H25-180 |              | F112<br>F154    |
|                                                                              |                 |                                                                              | GYM25RD-H25-250 |              |                 |
|                                                                              |                 |                                                                              | J               |              | GYM25RD-J14-050 |
|                                                                              |                 | GYM25RD-J14-070                                                              |                 |              |                 |
|                                                                              |                 | GYM25RD-J14-110                                                              |                 | F116<br>F158 |                 |
|                                                                              |                 | GYM25RD-J14-170                                                              |                 |              |                 |
|                                                                              |                 | GYM25RD-J14-250                                                              |                 | F114<br>F156 |                 |
|                                                                              |                 | GYM25RD-J25-070                                                              |                 |              |                 |
|                                                                              |                 | GYM25RD-J25-110                                                              |                 | F116<br>F158 |                 |
|                                                                              |                 | GYM25RD-J25-170                                                              |                 |              |                 |
|                                                                              |                 | GYM25RD-J25-250                                                              |                 |              |                 |
|                                                                              |                 | (Inch holder)<br>GYHLUS20D00-M25L<br><br>(Metric holder)<br>GYHL3225P00-M25L | 00°             | D            | GYM25LA-D06     |
| GYM25LA-D12                                                                  |                 |                                                                              |                 |              |                 |
| GYM25LA-D20                                                                  |                 |                                                                              |                 |              |                 |
| E                                                                            | GYM25LA-E06     |                                                                              |                 | External     | F042<br>F066    |
|                                                                              | GYM25LA-E12     |                                                                              |                 |              |                 |
|                                                                              | GYM25LA-E20     |                                                                              |                 |              |                 |
| F                                                                            | GYM25LA-F06     |                                                                              |                 | External     | F044<br>F068    |
|                                                                              | GYM25LA-F12     |                                                                              |                 |              |                 |
|                                                                              | GYM25LA-F20     |                                                                              |                 |              |                 |
| G                                                                            | GYM25LA-G08     |                                                                              |                 | External     | F046<br>F070    |
|                                                                              | GYM25LA-G14     |                                                                              |                 |              |                 |
|                                                                              | GYM25LA-G25     |                                                                              |                 |              |                 |
| H                                                                            | GYM25LA-H08     |                                                                              |                 | External     | F048<br>F072    |
|                                                                              | GYM25LA-H14     |                                                                              |                 |              |                 |
|                                                                              | GYM25LA-H25     |                                                                              |                 |              |                 |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|--------------|
| (Inch holder)<br>GYHLUS20D00-M25L<br><br>(Metric holder)<br>GYHL3225P00-M25L | 00°             | J         | GYM25LA-J08     | External | F050<br>F074 |
|                                                                              |                 |           | GYM25LA-J14     |          |              |
|                                                                              |                 |           | GYM25LA-J25     |          |              |
|                                                                              |                 | D         | GYM25LD-D12-040 | Face     | F086<br>F128 |
|                                                                              |                 |           | GYM25LD-D12-050 |          |              |
|                                                                              |                 |           | GYM25LD-D12-060 |          |              |
|                                                                              |                 |           | GYM25LD-D12-075 |          | F088<br>F130 |
|                                                                              |                 |           | GYM25LD-D12-100 |          |              |
|                                                                              |                 |           | GYM25LD-D12-135 |          |              |
|                                                                              |                 | E         | GYM25LD-E12-040 | Face     | F090<br>F132 |
|                                                                              |                 |           | GYM25LD-E12-050 |          |              |
|                                                                              |                 |           | GYM25LD-E12-060 |          |              |
|                                                                              |                 |           | GYM25LD-E12-075 |          | F092<br>F134 |
|                                                                              |                 |           | GYM25LD-E12-100 |          |              |
|                                                                              |                 |           | GYM25LD-E12-135 |          |              |
|                                                                              |                 | F         | GYM25LD-F12-035 | Face     | F094<br>F136 |
|                                                                              |                 |           | GYM25LD-F12-040 |          |              |
|                                                                              |                 |           | GYM25LD-F12-050 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F12-060 |          |              |
|                                                                              |                 |           | GYM25LD-F12-075 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25LD-F12-100 |          |              |
|                                                                              |                 |           | GYM25LD-F12-135 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25LD-F12-180 |          |              |
|                                                                              |                 |           | GYM25LD-F12-225 |          | F096<br>F138 |
|                                                                              |                 |           | GYM25LD-F20-060 |          |              |
|                                                                              |                 |           | GYM25LD-F20-075 |          | F098<br>F140 |
|                                                                              |                 |           | GYM25LD-F20-100 |          |              |
|                                                                              |                 |           | GYM25LD-F20-135 |          | F100<br>F142 |
|                                                                              |                 |           | GYM25LD-F20-180 |          |              |
|                                                                              |                 |           | GYM25LD-F20-225 |          |              |
|                                                                              |                 | G         | GYM25LD-G14-040 | Face     | F102<br>F144 |
|                                                                              |                 |           | GYM25LD-G14-050 |          |              |
|                                                                              |                 |           | GYM25LD-G14-060 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25LD-G14-085 |          |              |
|                                                                              |                 |           | GYM25LD-G14-125 |          | F106<br>F148 |
|                                                                              |                 |           | GYM25LD-G14-180 |          |              |
|                                                                              |                 |           | GYM25LD-G14-250 |          | F102, F144   |
|                                                                              |                 |           | GYM25LD-G25-060 |          |              |
|                                                                              |                 |           | GYM25LD-G25-085 |          | F104<br>F146 |
|                                                                              |                 |           | GYM25LD-G25-125 |          |              |
|                                                                              |                 | H         | GYM25LD-H14-050 | Face     | F108<br>F150 |
|                                                                              |                 |           | GYM25LD-H14-060 |          |              |
|                                                                              |                 |           | GYM25LD-H14-085 |          | F110<br>F152 |
|                                                                              |                 |           | GYM25LD-H14-125 |          |              |
|                                                                              |                 |           | GYM25LD-H14-180 |          | F112<br>F154 |
|                                                                              |                 |           | GYM25LD-H14-250 |          |              |
|                                                                              |                 |           | GYM25LD-H25-060 |          | F110<br>F152 |
|                                                                              |                 |           | GYM25LD-H25-085 |          |              |
|                                                                              |                 |           | GYM25LD-H25-125 |          | F112<br>F154 |
|                                                                              |                 |           | GYM25LD-H25-180 |          |              |
|                                                                              |                 |           | GYM25LD-H25-250 |          |              |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|------|
| (Inch holder)<br>GYHLUS20D00-M25L<br><br>(Metric holder)<br>GYHL3225P00-M25L | 00°             | J         | GYM25LD-J14-050 | Face     | F114 |
|                                                                              |                 |           | GYM25LD-J14-070 |          | F156 |
|                                                                              |                 |           | GYM25LD-J14-110 |          |      |
|                                                                              |                 |           | GYM25LD-J14-170 |          | F116 |
|                                                                              |                 |           | GYM25LD-J14-250 |          | F158 |
|                                                                              |                 |           | GYM25LD-J25-070 |          | F114 |
|                                                                              |                 |           | GYM25LD-J25-110 |          | F156 |
|                                                                              |                 |           | GYM25LD-J25-170 |          | F116 |
| (Inch holder)<br>GYHRUS24E00-M25R<br><br>(Metric holder)<br>GYHR3232P00-M25R | 00°             | D         | GYM25RA-D06     | External | F040 |
|                                                                              |                 |           | GYM25RA-D12     |          | F064 |
|                                                                              |                 |           | GYM25RA-D20     |          |      |
|                                                                              |                 | E         | GYM25RA-E06     | External | F042 |
|                                                                              |                 |           | GYM25RA-E12     |          | F066 |
|                                                                              |                 |           | GYM25RA-E20     |          |      |
|                                                                              |                 | F         | GYM25RA-F06     | External | F044 |
|                                                                              |                 |           | GYM25RA-F12     |          | F068 |
|                                                                              |                 |           | GYM25RA-F20     |          |      |
|                                                                              |                 | G         | GYM25RA-G08     | External | F046 |
|                                                                              |                 |           | GYM25RA-G14     |          | F070 |
|                                                                              |                 |           | GYM25RA-G25     |          |      |
|                                                                              |                 | H         | GYM25RA-H08     | External | F048 |
|                                                                              |                 |           | GYM25RA-H14     |          | F072 |
|                                                                              |                 |           | GYM25RA-H25     |          |      |
|                                                                              |                 | J         | GYM25RA-J08     | External | F050 |
|                                                                              |                 |           | GYM25RA-J14     |          | F074 |
|                                                                              |                 |           | GYM25RA-J25     |          |      |
|                                                                              | 00°             | D         | GYM25RD-D12-040 | Face     | F086 |
|                                                                              |                 |           | GYM25RD-D12-050 |          | F128 |
|                                                                              |                 |           | GYM25RD-D12-060 |          |      |
|                                                                              |                 |           | GYM25RD-D12-075 |          |      |
|                                                                              |                 |           | GYM25RD-D12-100 |          | F088 |
|                                                                              |                 |           | GYM25RD-D12-135 |          | F130 |
|                                                                              |                 |           | GYM25RD-D12-180 |          |      |
|                                                                              |                 | E         | GYM25RD-E12-040 | Face     |      |
|                                                                              |                 |           | GYM25RD-E12-050 |          | F090 |
|                                                                              |                 |           | GYM25RD-E12-060 |          | F132 |
|                                                                              |                 |           | GYM25RD-E12-075 |          |      |
|                                                                              |                 |           | GYM25RD-E12-100 |          | F092 |
|                                                                              |                 |           | GYM25RD-E12-135 |          | F134 |
|                                                                              |                 |           | GYM25RD-E12-180 |          |      |
|                                                                              |                 | F         | GYM25RD-F12-035 | Face     | F094 |
|                                                                              |                 |           | GYM25RD-F12-040 |          | F136 |
|                                                                              |                 |           | GYM25RD-F12-050 |          |      |
|                                                                              |                 |           | GYM25RD-F12-060 |          | F096 |
|                                                                              |                 |           | GYM25RD-F12-075 |          | F138 |
|                                                                              |                 |           | GYM25RD-F12-100 |          | F098 |
|                                                                              |                 |           | GYM25RD-F12-135 |          | F140 |
|                                                                              |                 |           | GYM25RD-F12-180 |          | F100 |
|                                                                              |                 |           | GYM25RD-F12-225 |          | F142 |
|                                                                              |                 |           | GYM25RD-F20-060 |          | F096 |
|                                                                              |                 |           | GYM25RD-F20-075 |          | F138 |
|                                                                              |                 |           | GYM25RD-F20-100 |          | F098 |
|                                                                              |                 |           | GYM25RD-F20-135 |          | F140 |
|                                                                              |                 |           | GYM25RD-F20-180 |          | F100 |
|                                                                              |                 |           | GYM25RD-F20-225 |          | F142 |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type     | Page       |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|----------|------------|
| (Inch holder)<br>GYHRUS24E00-M25R<br><br>(Metric holder)<br>GYHR3232P00-M25R | 00°             | G         | GYM25RD-G14-040 | Face     | F102       |
|                                                                              |                 |           | GYM25RD-G14-050 |          | F144       |
|                                                                              |                 |           | GYM25RD-G14-060 |          |            |
|                                                                              |                 |           | GYM25RD-G14-085 |          | F104       |
|                                                                              |                 |           | GYM25RD-G14-125 |          | F146       |
|                                                                              |                 |           | GYM25RD-G14-180 |          | F106       |
|                                                                              |                 |           | GYM25RD-G14-250 |          | F148       |
|                                                                              |                 |           | GYM25RD-G25-060 |          | F102, F144 |
|                                                                              |                 | H         | GYM25RD-G25-085 | Face     | F104       |
|                                                                              |                 |           | GYM25RD-G25-125 |          | F146       |
|                                                                              |                 |           | GYM25RD-G25-180 |          | F106       |
|                                                                              |                 |           | GYM25RD-G25-250 |          | F148       |
|                                                                              |                 |           | GYM25RD-H14-050 |          | F108       |
|                                                                              |                 |           | GYM25RD-H14-060 |          | F150       |
|                                                                              |                 |           | GYM25RD-H14-085 |          | F110       |
|                                                                              |                 |           | GYM25RD-H14-125 |          | F152       |
|                                                                              |                 | J         | GYM25RD-H14-180 | Face     | F112       |
|                                                                              |                 |           | GYM25RD-H14-250 |          | F154       |
|                                                                              |                 |           | GYM25RD-H25-060 |          | F108, F150 |
|                                                                              |                 |           | GYM25RD-H25-085 |          | F110       |
|                                                                              |                 |           | GYM25RD-H25-125 |          | F152       |
|                                                                              |                 |           | GYM25RD-H25-180 |          | F112       |
|                                                                              |                 |           | GYM25RD-H25-250 |          | F154       |
|                                                                              | 00°             | D         | GYM25LA-D06     | External | F040       |
|                                                                              |                 |           | GYM25LA-D12     |          | F064       |
|                                                                              |                 |           | GYM25LA-D20     |          |            |
|                                                                              |                 | E         | GYM25LA-E06     | External | F042       |
|                                                                              |                 |           | GYM25LA-E12     |          | F066       |
|                                                                              |                 |           | GYM25LA-E20     |          |            |
|                                                                              |                 | F         | GYM25LA-F06     | External | F044       |
|                                                                              |                 |           | GYM25LA-F12     |          | F068       |
|                                                                              |                 |           | GYM25LA-F20     |          |            |
|                                                                              |                 | G         | GYM25LA-G08     | External | F046       |
|                                                                              |                 |           | GYM25LA-G14     |          | F070       |
|                                                                              |                 |           | GYM25LA-G25     |          |            |
|                                                                              |                 | H         | GYM25LA-H08     | External | F048       |
|                                                                              |                 |           | GYM25LA-H14     |          | F072       |
|                                                                              |                 |           | GYM25LA-H25     |          |            |
|                                                                              |                 | J         | GYM25LA-J08     | External | F050       |
|                                                                              |                 |           | GYM25LA-J14     |          | F074       |
|                                                                              |                 |           | GYM25LA-J25     |          |            |
| (Inch holder)<br>GYHLUS24E00-M25L<br><br>(Metric holder)<br>GYHL3232P00-M25L | 00°             | D         | GYM25LD-D12-040 | Face     | F086       |
|                                                                              |                 |           | GYM25LD-D12-050 |          | F128       |
|                                                                              |                 |           | GYM25LD-D12-060 |          |            |
|                                                                              |                 |           | GYM25LD-D12-075 |          |            |
|                                                                              |                 |           | GYM25LD-D12-100 |          | F088       |
|                                                                              |                 |           | GYM25LD-D12-135 |          | F130       |
|                                                                              |                 |           | GYM25LD-D12-180 |          |            |
|                                                                              |                 |           | GYM25LD-D12-225 |          |            |

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## Modular Blades Selection Chart (For External and Face Grooving)

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|------|--------------|
| (Inch holder)<br>GYHLUS24E00-M25L<br><br>(Metric holder)<br>GYHL3232P00-M25L | 00°             | E         | GYM25LD-E12-040 | Face | F090<br>F132 |
|                                                                              |                 |           | GYM25LD-E12-050 |      |              |
|                                                                              |                 |           | GYM25LD-E12-060 |      |              |
|                                                                              |                 |           | GYM25LD-E12-075 |      | F092<br>F134 |
|                                                                              |                 |           | GYM25LD-E12-100 |      |              |
|                                                                              |                 |           | GYM25LD-E12-135 |      |              |
|                                                                              |                 |           | GYM25LD-E12-180 |      |              |
|                                                                              |                 | F         | GYM25LD-F12-035 | Face | F094<br>F136 |
|                                                                              |                 |           | GYM25LD-F12-040 |      |              |
|                                                                              |                 |           | GYM25LD-F12-050 |      |              |
|                                                                              |                 |           | GYM25LD-F12-060 |      | F096         |
|                                                                              |                 |           | GYM25LD-F12-075 |      | F138         |
|                                                                              |                 |           | GYM25LD-F12-100 |      | F098         |
|                                                                              |                 |           | GYM25LD-F12-135 |      | F140         |
|                                                                              |                 |           | GYM25LD-F12-180 |      | F100         |
|                                                                              |                 |           | GYM25LD-F12-225 |      | F142         |
|                                                                              |                 |           | GYM25LD-F20-060 |      | F096         |
|                                                                              |                 |           | GYM25LD-F20-075 |      | F138         |
|                                                                              |                 |           | GYM25LD-F20-100 |      | F098         |
|                                                                              |                 |           | GYM25LD-F20-135 |      | F140         |
|                                                                              |                 |           | GYM25LD-F20-180 |      | F100         |
|                                                                              |                 |           | GYM25LD-F20-225 |      | F142         |

| Holder                                                                       | Angle of holder | Seat Size | Modular Blade   | Type | Page         |
|------------------------------------------------------------------------------|-----------------|-----------|-----------------|------|--------------|
| (Inch holder)<br>GYHLUS24E00-M25L<br><br>(Metric holder)<br>GYHL3232P00-M25L | 00°             | G         | GYM25LD-G14-040 | Face | F102<br>F144 |
|                                                                              |                 |           | GYM25LD-G14-050 |      |              |
|                                                                              |                 |           | GYM25LD-G14-060 |      | F104<br>F146 |
|                                                                              |                 |           | GYM25LD-G14-085 |      |              |
|                                                                              |                 |           | GYM25LD-G14-125 |      | F106         |
|                                                                              |                 |           | GYM25LD-G14-180 |      | F148         |
|                                                                              |                 |           | GYM25LD-G14-250 |      | F102, F144   |
|                                                                              |                 |           | GYM25LD-G25-060 |      |              |
|                                                                              |                 |           | GYM25LD-G25-085 |      | F104         |
|                                                                              |                 |           | GYM25LD-G25-125 |      | F146         |
|                                                                              |                 |           | GYM25LD-G25-180 |      | F106         |
|                                                                              |                 |           | GYM25LD-G25-250 |      | F148         |
|                                                                              |                 | H         | GYM25LD-H14-050 | Face | F108         |
|                                                                              |                 |           | GYM25LD-H14-060 |      | F150         |
|                                                                              |                 |           | GYM25LD-H14-085 |      | F110         |
|                                                                              |                 |           | GYM25LD-H14-125 |      | F152         |
|                                                                              |                 |           | GYM25LD-H14-180 |      | F112         |
|                                                                              |                 |           | GYM25LD-H14-250 |      | F154         |
|                                                                              |                 |           | GYM25LD-H25-060 |      | F108, F150   |
|                                                                              |                 |           | GYM25LD-H25-085 |      |              |
|                                                                              |                 |           | GYM25LD-H25-125 |      | F110         |
|                                                                              |                 |           | GYM25LD-H25-180 |      | F152         |
|                                                                              |                 |           | GYM25LD-H25-250 |      | F112         |
|                                                                              |                 | J         | GYM25LD-J14-050 | Face | F114         |
|                                                                              |                 |           | GYM25LD-J14-070 |      | F156         |
|                                                                              |                 |           | GYM25LD-J14-110 |      | F116<br>F158 |
|                                                                              |                 |           | GYM25LD-J14-170 |      |              |
|                                                                              |                 |           | GYM25LD-J14-250 |      | F114<br>F156 |
|                                                                              |                 |           | GYM25LD-J25-070 |      |              |
|                                                                              |                 |           | GYM25LD-J25-110 |      | F116         |
|                                                                              |                 |           | GYM25LD-J25-170 |      | F158         |
|                                                                              |                 |           | GYM25LD-J25-250 |      |              |

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## Modular Blades Selection Chart (For External Grooving GY-PSC Type )

| GY-PSC Holder<br>External | Angle | Seat Size | Modular Blade                             | Hand of<br>Modular Blade | Page |
|---------------------------|-------|-----------|-------------------------------------------|--------------------------|------|
| C3-GYHRDX00-M20R          | 00°   | D         | GYM20RA-D06<br>GYM20RA-D10<br>GYM20RB-D18 | R                        | F186 |
|                           |       |           | GYM20RA-E06<br>GYM20RA-E10<br>GYM20RB-E18 |                          | F188 |
|                           |       |           | GYM20RA-F06<br>GYM20RA-F10<br>GYM20RB-F18 |                          | F190 |
|                           |       | G         | GYM20RA-G12                               |                          | F192 |
|                           |       |           | GYM20RA-H12                               |                          | F194 |
|                           |       |           |                                           |                          |      |
| C3-GYHLDX00-M20L          | 00°   | D         | GYM20LA-D06<br>GYM20LA-D10<br>GYM20LB-D18 | L                        | F186 |
|                           |       |           | GYM20LA-E06<br>GYM20LA-E10<br>GYM20LB-E18 |                          | F188 |
|                           |       |           | GYM20LA-F06<br>GYM20LA-F10<br>GYM20LB-F18 |                          | F190 |
|                           |       | G         | GYM20LA-G12                               |                          | F192 |
|                           |       |           | GYM20LA-H12                               |                          | F194 |
|                           |       |           |                                           |                          |      |
| C3-GYHRCX90-M20L          | 90°   | D         | GYM20LA-D06<br>GYM20LA-D10<br>GYM20LB-D18 | L                        | F196 |
|                           |       |           | GYM20LA-E06<br>GYM20LA-E10<br>GYM20LB-E18 |                          | F198 |
|                           |       |           | GYM20LA-F06<br>GYM20LA-F10<br>GYM20LB-F18 |                          | F200 |
|                           |       | G         | GYM20LA-G12                               |                          | F202 |
|                           |       |           | GYM20LA-H12                               |                          | F204 |
|                           |       |           |                                           |                          |      |
| C3-GYHLCX90-M20R          | 90°   | D         | GYM20RA-D06<br>GYM20RA-D10<br>GYM20RB-D18 | R                        | F196 |
|                           |       |           | GYM20RA-E06<br>GYM20RA-E10<br>GYM20RB-E18 |                          | F198 |
|                           |       |           | GYM20RA-F06<br>GYM20RA-F10<br>GYM20RB-F18 |                          | F200 |
|                           |       | G         | GYM20RA-G12                               |                          | F202 |
|                           |       |           | GYM20RA-H12                               |                          | F204 |
|                           |       |           |                                           |                          |      |
| C4-GYHREX00-M25R          | 00°   | D         | GYM25RA-D06<br>GYM25RA-D12<br>GYM25RA-D20 | R                        | F186 |
|                           |       |           | GYM25RA-E06<br>GYM25RA-E12<br>GYM25RA-E20 |                          | F188 |
|                           |       |           | GYM25RA-F06<br>GYM25RA-F12<br>GYM25RA-F20 |                          | F190 |
|                           |       | G         | GYM25RA-G08<br>GYM25RA-G14<br>GYM25RA-G25 |                          | F192 |
|                           |       |           | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       | H         |                                           |                          |      |
|                           |       |           |                                           |                          |      |
|                           |       |           |                                           |                          |      |
|                           |       |           |                                           |                          |      |

| GY-PSC Holder<br>External | Angle | Seat Size | Modular Blade                             | Hand of<br>Modular Blade | Page |
|---------------------------|-------|-----------|-------------------------------------------|--------------------------|------|
| C4-GYHLEX00-M25L          | 00°   | D         | GYM25LA-D06<br>GYM25LA-D12<br>GYM25LA-D20 | L                        | F186 |
|                           |       |           | GYM25LA-E06<br>GYM25LA-E12<br>GYM25LA-E20 |                          | F188 |
|                           |       |           | GYM25LA-F06<br>GYM25LA-F12<br>GYM25LA-F20 |                          | F190 |
|                           |       | G         | GYM25LA-G08<br>GYM25LA-G14<br>GYM25LA-G25 |                          | F192 |
|                           |       |           | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
| C4-GYHRD90-M25L           | 90°   | D         | GYM25LA-D06<br>GYM25LA-D12<br>GYM25LA-D20 | L                        | F196 |
|                           |       |           | GYM25LA-E06<br>GYM25LA-E12<br>GYM25LA-E20 |                          | F198 |
|                           |       |           | GYM25LA-F06<br>GYM25LA-F12<br>GYM25LA-F20 |                          | F200 |
|                           |       | G         | GYM25LA-G08<br>GYM25LA-G14<br>GYM25LA-G25 |                          | F202 |
|                           |       |           | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
| C4-GYHLD90-M25R           | 90°   | D         | GYM25RA-D06<br>GYM25RA-D12<br>GYM25RA-D20 | R                        | F196 |
|                           |       |           | GYM25RA-E06<br>GYM25RA-E12<br>GYM25RA-E20 |                          | F198 |
|                           |       |           | GYM25RA-F06<br>GYM25RA-F12<br>GYM25RA-F20 |                          | F200 |
|                           |       | G         | GYM25RA-G08<br>GYM25RA-G14<br>GYM25RA-G25 |                          | F202 |
|                           |       |           | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |

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## Modular Blades Selection Chart (For External Grooving GY-PSC Type )

| GY-PSC Holder<br>External | Angle | Seat Size | Modular Blade                             | Hand of<br>Modular Blade | Page |
|---------------------------|-------|-----------|-------------------------------------------|--------------------------|------|
| C5-GYHREX00-M25R          | 00°   | D         | GYM25RA-D06<br>GYM25RA-D12<br>GYM25RA-D20 | R                        | F186 |
|                           |       |           | GYM25RA-E06<br>GYM25RA-E12<br>GYM25RA-E20 |                          | F188 |
|                           |       |           | GYM25RA-F06<br>GYM25RA-F12<br>GYM25RA-F20 |                          | F190 |
|                           |       | G         | GYM25RA-G08<br>GYM25RA-G14<br>GYM25RA-G25 |                          | F192 |
|                           |       |           | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       | H         | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       | J         | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
| C5-GYHLEX00-M25L          | 00°   | D         | GYM25LA-D06<br>GYM25LA-D12<br>GYM25LA-D20 | L                        | F186 |
|                           |       |           | GYM25LA-E06<br>GYM25LA-E12<br>GYM25LA-E20 |                          | F188 |
|                           |       |           | GYM25LA-F06<br>GYM25LA-F12<br>GYM25LA-F20 |                          | F190 |
|                           |       | G         | GYM25LA-G08<br>GYM25LA-G14<br>GYM25LA-G25 |                          | F192 |
|                           |       |           | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       | H         | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       | J         | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
| C5-GYHRD90-M25L           | 90°   | D         | GYM25LA-D06<br>GYM25LA-D12<br>GYM25LA-D20 | L                        | F196 |
|                           |       |           | GYM25LA-E06<br>GYM25LA-E12<br>GYM25LA-E20 |                          | F198 |
|                           |       |           | GYM25LA-F06<br>GYM25LA-F12<br>GYM25LA-F20 |                          | F200 |
|                           |       | G         | GYM25LA-G08<br>GYM25LA-G14<br>GYM25LA-G25 |                          | F202 |
|                           |       |           | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
|                           |       | H         | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
|                           |       | J         | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F204 |

| GY-PSC Holder<br>External | Angle | Seat Size | Modular Blade                             | Hand of<br>Modular Blade | Page |
|---------------------------|-------|-----------|-------------------------------------------|--------------------------|------|
| C5-GYHLD90-M25R           | 90°   | D         | GYM25RA-D06<br>GYM25RA-D12<br>GYM25RA-D20 | R                        | F196 |
|                           |       |           | GYM25RA-E06<br>GYM25RA-E12<br>GYM25RA-E20 |                          | F198 |
|                           |       |           | GYM25RA-F06<br>GYM25RA-F12<br>GYM25RA-F20 |                          | F200 |
|                           |       | G         | GYM25RA-G08<br>GYM25RA-G14<br>GYM25RA-G25 |                          | F202 |
|                           |       |           | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
|                           |       | H         | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
|                           |       | J         | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F204 |
| C6-GYHRF00-M25R           | 00°   | D         | GYM25RA-D06<br>GYM25RA-D12<br>GYM25RA-D20 | R                        | F186 |
|                           |       |           | GYM25RA-E06<br>GYM25RA-E12<br>GYM25RA-E20 |                          | F188 |
|                           |       |           | GYM25RA-F06<br>GYM25RA-F12<br>GYM25RA-F20 |                          | F190 |
|                           |       | G         | GYM25RA-G08<br>GYM25RA-G14<br>GYM25RA-G25 |                          | F192 |
|                           |       |           | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       | H         | GYM25RA-H08<br>GYM25RA-H14<br>GYM25RA-H25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       | J         | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
|                           |       |           | GYM25RA-J08<br>GYM25RA-J14<br>GYM25RA-J25 |                          | F194 |
| C6-GYHLF00-M25L           | 00°   | D         | GYM25LA-D06<br>GYM25LA-D12<br>GYM25LA-D20 | L                        | F186 |
|                           |       |           | GYM25LA-E06<br>GYM25LA-E12<br>GYM25LA-E20 |                          | F188 |
|                           |       |           | GYM25LA-F06<br>GYM25LA-F12<br>GYM25LA-F20 |                          | F190 |
|                           |       | G         | GYM25LA-G08<br>GYM25LA-G14<br>GYM25LA-G25 |                          | F192 |
|                           |       |           | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       | H         | GYM25LA-H08<br>GYM25LA-H14<br>GYM25LA-H25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       | J         | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |
|                           |       |           | GYM25LA-J08<br>GYM25LA-J14<br>GYM25LA-J25 |                          | F194 |

| GY-PSC Holder<br>External | Angle | Seat Size | Modular Blade | Hand of<br>Modular Blade | Page |
|---------------------------|-------|-----------|---------------|--------------------------|------|
| C6-GYHRE90-M25L           | 90°   | D         | GYM25LA-D06   | L                        | F196 |
|                           |       |           | GYM25LA-D12   |                          |      |
|                           |       |           | GYM25LA-D20   |                          |      |
|                           |       | E         | GYM25LA-E06   |                          | F198 |
|                           |       |           | GYM25LA-E12   |                          |      |
|                           |       |           | GYM25LA-E20   |                          |      |
|                           |       | F         | GYM25LA-F06   |                          | F200 |
|                           |       |           | GYM25LA-F12   |                          |      |
|                           |       |           | GYM25LA-F20   |                          |      |
|                           |       | G         | GYM25LA-G08   |                          | F202 |
|                           |       |           | GYM25LA-G14   |                          |      |
|                           |       |           | GYM25LA-G25   |                          |      |
|                           |       | H         | GYM25LA-H08   |                          | F204 |
|                           |       |           | GYM25LA-H14   |                          |      |
|                           |       |           | GYM25LA-H25   |                          |      |
| C6-GYHLE90-M25R           | 90°   | D         | GYM25RA-D06   | R                        | F196 |
|                           |       |           | GYM25RA-D12   |                          |      |
|                           |       |           | GYM25RA-D20   |                          |      |
|                           |       | E         | GYM25RA-E06   |                          | F198 |
|                           |       |           | GYM25RA-E12   |                          |      |
|                           |       |           | GYM25RA-E20   |                          |      |
|                           |       | F         | GYM25RA-F06   |                          | F200 |
|                           |       |           | GYM25RA-F12   |                          |      |
|                           |       |           | GYM25RA-F20   |                          |      |
|                           |       | G         | GYM25RA-G08   |                          | F202 |
|                           |       |           | GYM25RA-G14   |                          |      |
|                           |       |           | GYM25RA-G25   |                          |      |
|                           |       | H         | GYM25RA-H08   |                          | F204 |
|                           |       |           | GYM25RA-H14   |                          |      |
|                           |       |           | GYM25RA-H25   |                          |      |
|                           |       | J         | GYM25RA-J08   |                          | F204 |
|                           |       |           | GYM25RA-J14   |                          |      |
|                           |       |           | GYM25RA-J25   |                          |      |

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## Modular Blades Selection Chart (For Internal Grooving)

| Internal Holder   | Inch or Metric | Angle | Seat Size | Modular Blade | Hand of Modular Blade | Page |
|-------------------|----------------|-------|-----------|---------------|-----------------------|------|
| GYDRUS20L90C-M20L | Inch           | 90°   | D         | GYM20LA-D10   | L                     | F170 |
|                   |                |       | E         | GYM20LA-E10   |                       | F172 |
|                   |                |       | F         | GYM20LA-F10   |                       | F174 |
|                   |                |       | G         | GYM20LA-G12   |                       | F174 |
|                   |                |       | H         | GYM20LA-H12   |                       | F176 |
| GYDLUS20L90C-M20R | Inch           | 90°   | D         | GYM20RA-D10   | R                     | F170 |
|                   |                |       | E         | GYM20RA-E10   |                       | F172 |
|                   |                |       | F         | GYM20RA-F10   |                       | F174 |
|                   |                |       | G         | GYM20RA-G12   |                       | F174 |
|                   |                |       | H         | GYM20RA-H12   |                       | F176 |
| GYDRUS20S90C-M20L | Inch           | 90°   | D         | GYM20LA-D10   | L                     | F170 |
|                   |                |       | E         | GYM20LA-E10   |                       | F172 |
|                   |                |       | F         | GYM20LA-F10   |                       | F174 |
|                   |                |       | G         | GYM20LA-G12   |                       | F174 |
|                   |                |       | H         | GYM20LA-H12   |                       | F176 |
| GYDLUS20S90C-M20R | Inch           | 90°   | D         | GYM20RA-D10   | R                     | F170 |
|                   |                |       | E         | GYM20RA-E10   |                       | F172 |
|                   |                |       | F         | GYM20RA-F10   |                       | F174 |
|                   |                |       | G         | GYM20RA-G12   |                       | F174 |
|                   |                |       | H         | GYM20RA-H12   |                       | F176 |
| GYDRUS24M90D-M20L | Inch           | 90°   | D         | GYM20LA-D10   | L                     | F170 |
|                   |                |       | E         | GYM20LA-E10   |                       | F172 |
|                   |                |       | F         | GYM20LA-F10   |                       | F174 |
|                   |                |       | G         | GYM20LA-G12   |                       | F174 |
|                   |                |       | H         | GYM20LA-H12   |                       | F176 |
| GYDLUS24M90D-M20R | Inch           | 90°   | D         | GYM20RA-D10   | R                     | F170 |
|                   |                |       | E         | GYM20RA-E10   |                       | F172 |
|                   |                |       | F         | GYM20RA-F10   |                       | F174 |
|                   |                |       | G         | GYM20RA-G12   |                       | F174 |
|                   |                |       | H         | GYM20RA-H12   |                       | F176 |
| GYDRUS24M90D-M25L | Inch           | 90°   | D         | GYM25LA-D12   | L                     | F170 |
|                   |                |       | E         | GYM25LA-E12   |                       | F172 |
|                   |                |       | F         | GYM25LA-F12   |                       | F174 |
|                   |                |       | G         | GYM25LA-G14   |                       | F174 |
|                   |                |       | H         | GYM25LA-H14   |                       | F176 |
| GYDLUS24M90D-M25R | Inch           | 90°   | D         | GYM25RA-D12   | R                     | F170 |
|                   |                |       | E         | GYM25RA-E12   |                       | F172 |
|                   |                |       | F         | GYM25RA-F12   |                       | F174 |
|                   |                |       | G         | GYM25RA-G14   |                       | F174 |
|                   |                |       | H         | GYM25RA-H14   |                       | F176 |
| GYDRUS24T90D-M20L | Inch           | 90°   | D         | GYM20LA-D10   | L                     | F170 |
|                   |                |       | E         | GYM20LA-E10   |                       | F172 |
|                   |                |       | F         | GYM20LA-F10   |                       | F174 |
|                   |                |       | G         | GYM20LA-G12   |                       | F174 |
|                   |                |       | H         | GYM20LA-H12   |                       | F176 |
| GYDLUS24T90D-M20R | Inch           | 90°   | D         | GYM20RA-D10   | R                     | F170 |
|                   |                |       | E         | GYM20RA-E10   |                       | F172 |
|                   |                |       | F         | GYM20RA-F10   |                       | F174 |
|                   |                |       | G         | GYM20RA-G12   |                       | F174 |
|                   |                |       | H         | GYM20RA-H12   |                       | F176 |
| GYDRUS24T90D-M25L | Inch           | 90°   | D         | GYM25LA-D12   | L                     | F170 |
|                   |                |       | E         | GYM25LA-E12   |                       | F172 |
|                   |                |       | F         | GYM25LA-F12   |                       | F174 |
|                   |                |       | G         | GYM25LA-G14   |                       | F174 |
|                   |                |       | H         | GYM25LA-H14   |                       | F176 |

| Internal Holder   | Inch or Metric | Angle | Seat Size | Modular Blade | Hand of Modular Blade | Page |
|-------------------|----------------|-------|-----------|---------------|-----------------------|------|
| GYDLUS24T90D-M25R | Inch           | 90°   | D         | GYM25RA-D12   | R                     | F170 |
|                   |                |       | E         | GYM25RA-E12   |                       | F172 |
|                   |                |       | F         | GYM25RA-F12   |                       | F174 |
|                   |                |       | G         | GYM25RA-G14   |                       | F174 |
|                   |                |       | H         | GYM25RA-H14   |                       | F176 |
| GYDRUS32P90F-M25L | Inch           | 90°   | D         | GYM25LA-D12   | L                     | F170 |
|                   |                |       | E         | GYM25LA-E12   |                       | F172 |
|                   |                |       | F         | GYM25LA-F12   |                       | F174 |
|                   |                |       | G         | GYM25LA-G14   |                       | F174 |
|                   |                |       | H         | GYM25LA-H14   |                       | F176 |
| GYDLUS32P90F-M25R | Inch           | 90°   | D         | GYM25RA-D12   | R                     | F170 |
|                   |                |       | E         | GYM25RA-E12   |                       | F172 |
|                   |                |       | F         | GYM25RA-F12   |                       | F174 |
|                   |                |       | G         | GYM25RA-G14   |                       | F174 |
|                   |                |       | H         | GYM25RA-H14   |                       | F176 |
| GYDRUS32T90F-M25L | Inch           | 90°   | D         | GYM25LA-D12   | L                     | F170 |
|                   |                |       | E         | GYM25LA-E12   |                       | F172 |
|                   |                |       | F         | GYM25LA-F12   |                       | F174 |
|                   |                |       | G         | GYM25LA-G14   |                       | F174 |
|                   |                |       | H         | GYM25LA-H14   |                       | F176 |
| GYDLUS32T90F-M25R | Inch           | 90°   | D         | GYM25RA-D12   | R                     | F170 |
|                   |                |       | E         | GYM25RA-E12   |                       | F172 |
|                   |                |       | F         | GYM25RA-F12   |                       | F174 |
|                   |                |       | G         | GYM25RA-G14   |                       | F174 |
|                   |                |       | H         | GYM25RA-H14   |                       | F176 |

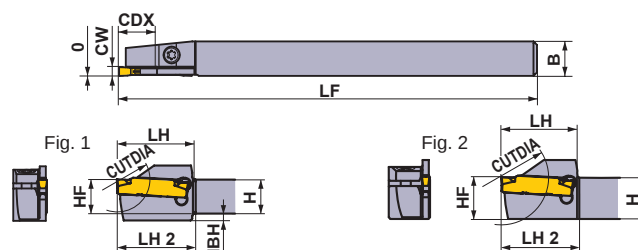
| Internal Holder | Inch or Metric | Angle | Seat Size | Modular Blade | Hand of Modular Blade | Page |
|-----------------|----------------|-------|-----------|---------------|-----------------------|------|
| GYDR32L90C-M20L | Metric         | 90°   | D         | GYM20LA-D10   | L                     | F178 |
|                 |                |       | E         | GYM20LA-E10   |                       | F180 |
|                 |                |       | F         | GYM20LA-F10   |                       | F182 |
|                 |                |       | G         | GYM20LA-G12   |                       | F182 |
|                 |                |       | H         | GYM20LA-H12   |                       | F184 |
| GYDL32L90C-M20R | Metric         | 90°   | D         | GYM20RA-D10   | R                     | F178 |
|                 |                |       | E         | GYM20RA-E10   |                       | F180 |
|                 |                |       | F         | GYM20RA-F10   |                       | F182 |
|                 |                |       | G         | GYM20RA-G12   |                       | F182 |
|                 |                |       | H         | GYM20RA-H12   |                       | F184 |
| GYDR32S90C-M20L | Metric         | 90°   | D         | GYM20LA-D10   | L                     | F178 |
|                 |                |       | E         | GYM20LA-E10   |                       | F180 |
|                 |                |       | F         | GYM20LA-F10   |                       | F182 |
|                 |                |       | G         | GYM20LA-G12   |                       | F182 |
|                 |                |       | H         | GYM20LA-H12   |                       | F184 |
| GYDL32S90C-M20R | Metric         | 90°   | D         | GYM20RA-D10   | R                     | F178 |
|                 |                |       | E         | GYM20RA-E10   |                       | F180 |
|                 |                |       | F         | GYM20RA-F10   |                       | F182 |
|                 |                |       | G         | GYM20RA-G12   |                       | F182 |
|                 |                |       | H         | GYM20RA-H12   |                       | F184 |
| GYDR40M90D-M20L | Metric         | 90°   | D         | GYM20LA-D10   | L                     | F178 |
|                 |                |       | E         | GYM20LA-E10   |                       | F180 |
|                 |                |       | F         | GYM20LA-F10   |                       | F182 |
|                 |                |       | G         | GYM20LA-G12   |                       | F182 |
|                 |                |       | H         | GYM20LA-H12   |                       | F184 |
| GYDL40M90D-M20R | Metric         | 90°   | D         | GYM20RA-D10   | R                     | F178 |
|                 |                |       | E         | GYM20RA-E10   |                       | F180 |
|                 |                |       | F         | GYM20RA-F10   |                       | F182 |
|                 |                |       | G         | GYM20RA-G12   |                       | F182 |
|                 |                |       | H         | GYM20RA-H12   |                       | F184 |
| GYDR40M90D-M25L | Metric         | 90°   | D         | GYM25LA-D12   | L                     | F178 |
|                 |                |       | E         | GYM25LA-E12   |                       | F180 |
|                 |                |       | F         | GYM25LA-F12   |                       | F182 |
|                 |                |       | G         | GYM25LA-G14   |                       | F182 |
|                 |                |       | H         | GYM25LA-H14   |                       | F184 |
| GYDL40M90D-M25R | Metric         | 90°   | D         | GYM25RA-D12   | R                     | F178 |
|                 |                |       | E         | GYM25RA-E12   |                       | F180 |
|                 |                |       | F         | GYM25RA-F12   |                       | F182 |
|                 |                |       | G         | GYM25RA-G14   |                       | F182 |
|                 |                |       | H         | GYM25RA-H14   |                       | F184 |
| GYDR40T90D-M20L | Metric         | 90°   | D         | GYM20LA-D10   | L                     | F178 |
|                 |                |       | E         | GYM20LA-E10   |                       | F180 |
|                 |                |       | F         | GYM20LA-F10   |                       | F182 |
|                 |                |       | G         | GYM20LA-G12   |                       | F182 |
|                 |                |       | H         | GYM20LA-H12   |                       | F184 |
| GYDL40T90D-M20R | Metric         | 90°   | D         | GYM20RA-D10   | R                     | F178 |
|                 |                |       | E         | GYM20RA-E10   |                       | F180 |
|                 |                |       | F         | GYM20RA-F10   |                       | F182 |
|                 |                |       | G         | GYM20RA-G12   |                       | F182 |
|                 |                |       | H         | GYM20RA-H12   |                       | F184 |
| GYDR40T90D-M25L | Metric         | 90°   | D         | GYM25LA-D12   | L                     | F178 |
|                 |                |       | E         | GYM25LA-E12   |                       | F180 |
|                 |                |       | F         | GYM25LA-F12   |                       | F182 |
|                 |                |       | G         | GYM25LA-G14   |                       | F182 |
|                 |                |       | H         | GYM25LA-H14   |                       | F184 |

| Internal Holder | Inch or Metric | Angle | Seat Size | Modular Blade | Hand of Modular Blade | Page |
|-----------------|----------------|-------|-----------|---------------|-----------------------|------|
| GYDL40T90D-M25R | Metric         | 90°   | D         | GYM25RA-D12   | R                     | F178 |
|                 |                |       | E         | GYM25RA-E12   |                       | F180 |
|                 |                |       | F         | GYM25RA-F12   |                       | F182 |
|                 |                |       | G         | GYM25RA-G14   |                       | F182 |
|                 |                |       | H         | GYM25RA-H14   |                       | F184 |
| GYDR50P90F-M25L | Metric         | 90°   | D         | GYM25LA-D12   | L                     | F178 |
|                 |                |       | E         | GYM25LA-E12   |                       | F180 |
|                 |                |       | F         | GYM25LA-F12   |                       | F182 |
|                 |                |       | G         | GYM25LA-G14   |                       | F182 |
|                 |                |       | H         | GYM25LA-H14   |                       | F184 |
| GYDL50P90F-M25R | Metric         | 90°   | D         | GYM25RA-D12   | R                     | F178 |
|                 |                |       | E         | GYM25RA-E12   |                       | F180 |
|                 |                |       | F         | GYM25RA-F12   |                       | F182 |
|                 |                |       | G         | GYM25RA-G14   |                       | F182 |
|                 |                |       | H         | GYM25RA-H14   |                       | F184 |
| GYDR50T90F-M25L | Metric         | 90°   | D         | GYM25LA-D12   | L                     | F178 |
|                 |                |       | E         | GYM25LA-E12   |                       | F180 |
|                 |                |       | F         | GYM25LA-F12   |                       | F182 |
|                 |                |       | G         | GYM25LA-G14   |                       | F182 |
|                 |                |       | H         | GYM25LA-H14   |                       | F184 |
| GYDL50T90F-M25R | Metric         | 90°   | D         | GYM25RA-D12   | R                     | F178 |
|                 |                |       | E         | GYM25RA-E12   |                       | F180 |
|                 |                |       | F         | GYM25RA-F12   |                       | F182 |
|                 |                |       | G         | GYM25RA-G14   |                       | F182 |
|                 |                |       | H         | GYM25RA-H14   |                       | F184 |

F

GROOVING / CUTTING OFF

## 1-1 00° type holder (Inch)



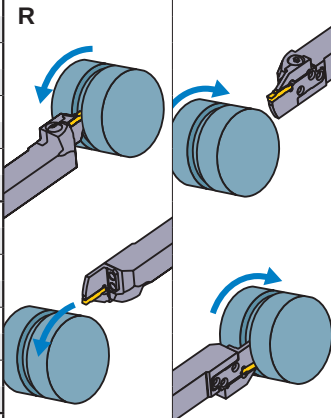
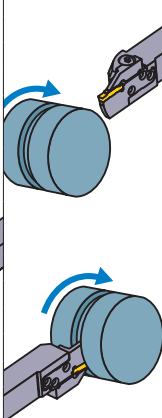
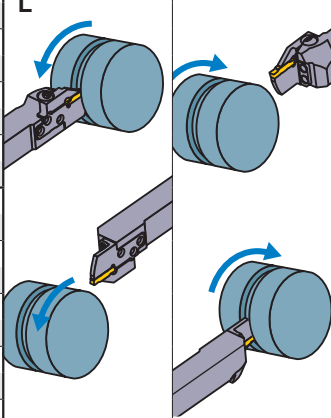
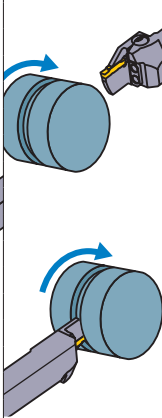
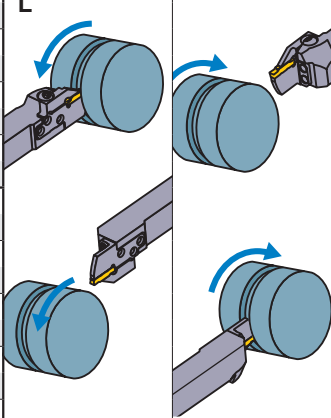
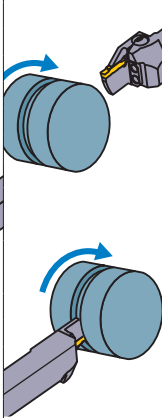
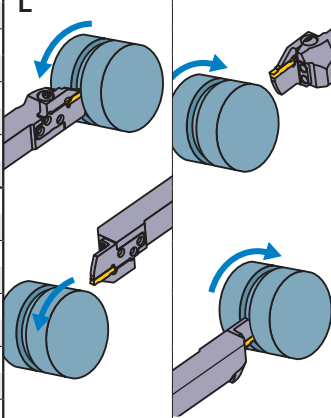
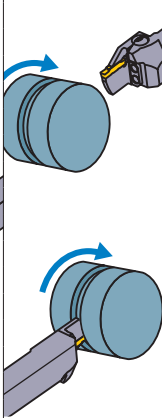
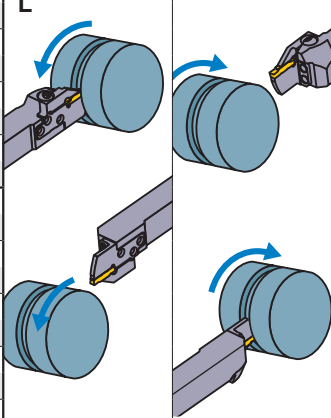
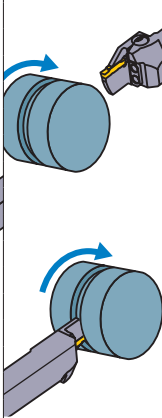
| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type            | Hand (R/L) | Order Number    |       | Fig. |  |
|-----------|----------------------|------------|---------------|-----------------|------------|-----------------|-------|------|--|
|           |                      |            |               |                 |            | Holder          | Stock |      |  |
| C         | .059                 | .433       | .866          | Mono Block      | R          | GYSRUS06B00-C11 | ●     | 1    |  |
|           |                      |            |               |                 | L          | GYSLUS06B00-C11 | ●     | 1    |  |
|           |                      | .512       | 1.024         | Mono Block      | R          | GYSRUS08B00-C13 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS08B00-C13 | ●     | 2    |  |
|           |                      | .669 ★1    | 1.338 ★2      | Mono Block      | R          | GYSRUS10B00-C17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS10B00-C17 | ●     | 2    |  |
|           |                      | Mono Block | R             | GYSRUS12B00-C17 | ●          | 2               |       |      |  |
|           |                      |            | L             | GYSLUS12B00-C17 | ●          | 2               |       |      |  |
| D         | .079<br>.088         | .433       | .866          | Mono Block      | R          | GYSRUS06B00-D11 | ●     | 1    |  |
|           |                      |            |               |                 | L          | GYSLUS06B00-D11 | ●     | 1    |  |
|           |                      | .512       | 1.024         | Mono Block      | R          | GYSRUS08B00-D13 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS08B00-D13 | ●     | 2    |  |
|           |                      | .669 ★1    | 1.338 ★2      | Mono Block      | R          | GYSRUS10B00-D17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS10B00-D17 | ●     | 2    |  |
|           |                      | Mono Block | R             | GYSRUS12B00-D17 | ●          | 2               |       |      |  |
|           |                      |            | L             | GYSLUS12B00-D17 | ●          | 2               |       |      |  |
| E         | .094<br>.098<br>.108 | .433       | .866          | Mono Block      | R          | GYSRUS06B00-E11 | ●     | 1    |  |
|           |                      |            |               |                 | L          | GYSLUS06B00-E11 | ●     | 1    |  |
|           |                      | .512       | 1.024         | Mono Block      | R          | GYSRUS08B00-E13 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS08B00-E13 | ●     | 2    |  |
|           |                      | .669 ★1    | 1.338 ★2      | Mono Block      | R          | GYSRUS10B00-E17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS10B00-E17 | ●     | 2    |  |
|           |                      |            |               | Mono Block      | R          | GYSRUS12B00-E17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS12B00-E17 | ●     | 2    |  |
| .787 ★1   | 1.574 ★2             | Mono Block | R             | GYSRUS10B00-E20 | ●          | 2               |       |      |  |
|           |                      |            | L             | GYSLUS10B00-E20 | ●          | 2               |       |      |  |
|           |                      |            |               | Mono Block      | R          | GYSRUS12B00-E20 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS12B00-E20 | ●     | 2    |  |
| F         | .118<br>.125<br>.128 | .512       | 1.024         | Mono Block      | R          | GYSRUS08B00-F13 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS08B00-F13 | ●     | 2    |  |
|           |                      | .669 ★1    | 1.338 ★2      | Mono Block      | R          | GYSRUS10B00-F17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS10B00-F17 | ●     | 2    |  |
|           |                      |            |               | Mono Block      | R          | GYSRUS12B00-F17 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS12B00-F17 | ●     | 2    |  |
|           |                      | .787 ★1    | 1.574 ★2      | Mono Block      | R          | GYSRUS10B00-F20 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS10B00-F20 | ●     | 2    |  |
|           |                      |            |               | Mono Block      | R          | GYSRUS12B00-F20 | ●     | 2    |  |
|           |                      |            |               |                 | L          | GYSLUS12B00-F20 | ●     | 2    |  |

★1 The maximum groove depth (**CDX**) varies according to the insert used. Please refer to the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
★2 The maximum cut off diameter (**CUTDIA**) varies according to the insert used. The cut off diameter is double the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then **LF**, **LH** and **LH 2** values may vary.  
★4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

**F038**

## SPARE PARTS

| Holder Number                                                                                                |  |  |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| GYSR/LUS06B00-  <b>11</b> | CS350990T<br>(Clamp Torque : 22 lbf-in)                                             | TKY10R                                                                              |
| GYSR/LUS08B00-  <b>13</b> |                                                                                     |                                                                                     |
| GYSR/LUS10B00-  <b>18</b> | TS4SBL<br>(Clamp Torque : 31 lbf-in)                                                | TKY15R                                                                              |
| GYSR/LUS12B00-  <b>17</b> |                                                                                     |                                                                                     |

| Dimensions (inch) ★3 |      |       |       |      |      |      |                                                                                     | Cutting Mode                                                                        |                  |
|----------------------|------|-------|-------|------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------|
| H                    | B    | LF    | LH    | LH 2 | HF   | HBH  |                                                                                     | Clockwise                                                                           | Counterclockwise |
| .375                 | .375 | 4.500 | .866  | .620 | .375 | .125 |   |   |                  |
| .375                 | .375 | 4.500 | .866  | .620 | .375 | .125 |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .620 | .500 | —    |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .620 | .500 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .638 | .625 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .638 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .638 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .638 | .750 | —    |                                                                                     |                                                                                     |                  |
| .375                 | .375 | 4.500 | .866  | .899 | .375 | .125 |                                                                                     |                                                                                     |                  |
| .375                 | .375 | 4.500 | .866  | .899 | .375 | .125 |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .899 | .500 | —    |  |  |                  |
| .500                 | .500 | 4.500 | .866  | .899 | .500 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .918 | .625 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .918 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .878 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .878 | .750 | —    |                                                                                     |                                                                                     |                  |
| .375                 | .375 | 4.500 | .866  | .901 | .375 | .125 |                                                                                     |                                                                                     |                  |
| .375                 | .375 | 4.500 | .866  | .901 | .375 | .125 |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .901 | .500 | —    |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .901 | .500 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .920 | .625 | —    |  |  |                  |
| .625                 | .625 | 4.500 | 1.063 | .920 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .880 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .880 | .750 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .920 | .625 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .920 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .880 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .880 | .750 | —    |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .903 | .500 | —    |                                                                                     |                                                                                     |                  |
| .500                 | .500 | 4.500 | .866  | .903 | .500 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.063 | .925 | .625 | —    |  |  |                  |
| .625                 | .625 | 4.500 | 1.063 | .925 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.102 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .925 | .625 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .925 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .925 | .625 | —    |                                                                                     |                                                                                     |                  |
| .625                 | .625 | 4.500 | 1.220 | .925 | .625 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |  |  |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |
| .750                 | .750 | 4.500 | 1.220 | .885 | .750 | —    |                                                                                     |                                                                                     |                  |

### Select an Insert

| Seat Size | Insert Number                                                                                                                                                                                                |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C         | GY  <b>0150C</b>  -Breaker             |
| D         | GY  <b>0200/0224D</b>  -Breaker        |
| E         | GY  <b>0239/0250/0274E</b>  -Breaker   |
| F         | GY  <b>0300/0318/0324F</b>  -Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                                       | CW             | Neutral             |             |                | Hand Neutral           |                        |                          |
| C                                     | .059", 1.50 mm |                     | ●           | ●              |                        |                        |                          |
| D                                     | .079", 2.00 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |
| E                                     | .094", 2.39 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |
|                                       | .098", 2.50 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |
| F                                     | .118", 3.00 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |
|                                       | .125", 3.18 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |

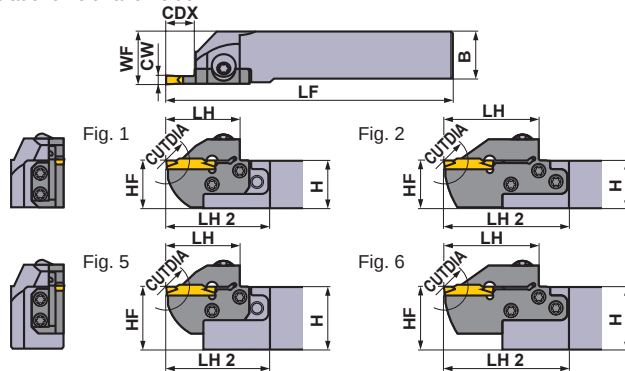
| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                                           | CW             | Ball nose      |             |                |                            |
| D                                         | .079", 2.00 mm | ●              | ●           | ●              | ●                          |
|                                           | .088", 2.24 mm | ●              |             |                |                            |
|                                           | .094", 2.39 mm | ●              |             |                |                            |
| E                                         | .098", 2.50 mm | ●              | ●           | ●              | ●                          |
|                                           | .108", 2.74 mm | ●              |             |                |                            |
|                                           | .118", 3.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              | ●           | ●              |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       |                |             | ●              |                            |
| F                                         | .125", 3.18 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

GROOVING / CUTTING OFF

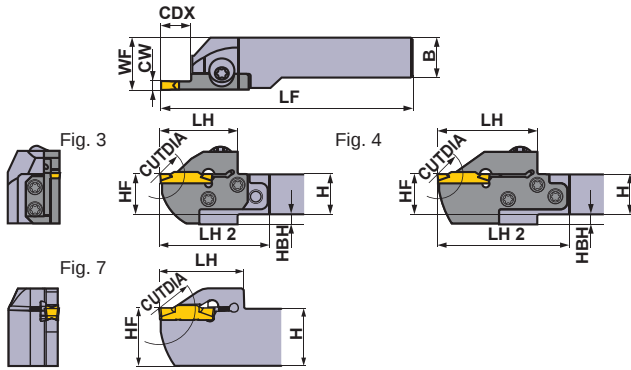
Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



| Seat Size  | CW<br>(inch) | CDX<br>(inch) | CUTDIA<br>(inch) | Type             | Hand<br>(R/L) | Order Number     |       |               |       | Fig. |  |
|------------|--------------|---------------|------------------|------------------|---------------|------------------|-------|---------------|-------|------|--|
|            |              |               |                  |                  |               | Holder           | Stock | Modular Blade | Stock |      |  |
| D          | .079<br>.088 | .236          | .472             | Modular          | R             | GYHRUS10B00-M20R | ●     | GYM20RA-D06   | ●     | 3    |  |
|            |              |               |                  |                  | L             | GYHLUS10B00-M20L | ●     | GYM20LA-D06   | ●     | 3    |  |
|            |              |               |                  | Modular          | R             | GYHRUS12C00-M20R | ●     | GYM20RA-D06   | ●     | 1    |  |
|            |              |               |                  |                  | L             | GYHLUS12C00-M20L | ●     | GYM20LA-D06   | ●     | 1    |  |
|            |              |               |                  | Modular          | R             | GYHRUS12C00-M25R | ●     | GYM25RA-D06   | ●     | 3    |  |
|            |              |               |                  |                  | L             | GYHLUS12C00-M25L | ●     | GYM25LA-D06   | ●     | 3    |  |
|            |              |               |                  | Modular          | R             | GYHRUS16D00-M25R | ●     | GYM25RA-D06   | ●     | 1    |  |
|            |              |               |                  |                  | L             | GYHLUS16D00-M25L | ●     | GYM25LA-D06   | ●     | 1    |  |
|            |              |               |                  | Mono Block       | R             | GYQRUS16D00-D06  | ●     | —             | —     | 7    |  |
|            |              |               |                  |                  | L             | GYQLUS16D00-D06  | ●     | —             | —     | 7    |  |
|            |              |               |                  | Modular          | R             | GYHRUS20D00-M25R | ●     | GYM25RA-D06   | ●     | 5    |  |
|            |              |               |                  |                  | L             | GYHLUS20D00-M25L | ●     | GYM25LA-D06   | ●     | 5    |  |
|            |              |               |                  | Modular          | R             | GYHRUS24E00-M25R | ●     | GYM25RA-D06   | ●     | 5    |  |
|            |              |               |                  |                  | L             | GYHLUS24E00-M25L | ●     | GYM25LA-D06   | ●     | 5    |  |
|            |              | .394          | .787             | Modular          | R             | GYHRUS10B00-M20R | ●     | GYM20RA-D10   | ●     | 3    |  |
|            |              |               |                  |                  | L             | GYHLUS10B00-M20L | ●     | GYM20LA-D10   | ●     | 3    |  |
|            |              |               |                  | Modular          | R             | GYHRUS12C00-M20R | ●     | GYM20RA-D10   | ●     | 1    |  |
|            |              |               |                  |                  | L             | GYHLUS12C00-M20L | ●     | GYM20LA-D10   | ●     | 1    |  |
|            |              | .472          | .945             | Modular          | R             | GYHRUS12C00-M25R | ●     | GYM25RA-D12   | ●     | 3    |  |
|            |              |               |                  |                  | L             | GYHLUS12C00-M25L | ●     | GYM25LA-D12   | ●     | 3    |  |
|            |              |               |                  | Modular          | R             | GYHRUS16D00-M25R | ●     | GYM25RA-D12   | ●     | 1    |  |
|            |              |               |                  |                  | L             | GYHLUS16D00-M25L | ●     | GYM25LA-D12   | ●     | 1    |  |
|            |              |               |                  | Modular          | R             | GYHRUS20D00-M25R | ●     | GYM25RA-D12   | ●     | 5    |  |
|            |              |               |                  |                  | L             | GYHLUS20D00-M25L | ●     | GYM25LA-D12   | ●     | 5    |  |
|            |              |               |                  | Modular          | R             | GYHRUS24E00-M25R | ●     | GYM25RA-D12   | ●     | 5    |  |
|            |              |               |                  |                  | L             | GYHLUS24E00-M25L | ●     | GYM25LA-D12   | ●     | 5    |  |
|            |              | *4<br>.709    | 1.417            | Modular          | R             | GYHRUS10B00-M20R | ●     | GYM20RB-D18   | ●     | 4    |  |
|            |              |               |                  |                  | L             | GYHLUS10B00-M20L | ●     | GYM20LB-D18   | ●     | 4    |  |
| Modular    | R            |               |                  | GYHRUS12C00-M20R | ●             | GYM20RB-D18      | ●     | 2             |       |      |  |
|            | L            |               |                  | GYHLUS12C00-M20L | ●             | GYM20LB-D18      | ●     | 2             |       |      |  |
| *1<br>.787 | *2<br>1.575  | Modular       | R                | GYHRUS12C00-M25R | ●             | GYM25RA-D20      | ●     | 4             |       |      |  |
|            |              |               | L                | GYHLUS12C00-M25L | ●             | GYM25LA-D20      | ●     | 4             |       |      |  |
|            |              | Mono Block    | R                | GYQRUS16D00-D20  | ●             | —                | —     | 7             |       |      |  |
|            |              |               | L                | GYQLUS16D00-D20  | ●             | —                | —     | 7             |       |      |  |
|            |              | Modular       | R                | GYHRUS16D00-M25R | ●             | GYM25RA-D20      | ●     | 2             |       |      |  |
|            |              |               | L                | GYHLUS16D00-M25L | ●             | GYM25LA-D20      | ●     | 2             |       |      |  |
|            |              | Modular       | R                | GYHRUS20D00-M25R | ●             | GYM25RA-D20      | ●     | 6             |       |      |  |
|            |              |               | L                | GYHLUS20D00-M25L | ●             | GYM25LA-D20      | ●     | 6             |       |      |  |
|            |              | Modular       | R                | GYHRUS24E00-M25R | ●             | GYM25RA-D20      | ●     | 6             |       |      |  |
|            |              |               | L                | GYHLUS24E00-M25L | ●             | GYM25LA-D20      | ●     | 6             |       |      |  |

\*4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number           | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.          | ①<br>Wrench ★      |
|-------------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/LUS○○○○○○○○-M20R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/LUS○○○○○○○○-M25R/L | —                                       | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      | Cutting Mode |               |
|----------------------|-------|-------|-------|-------|-------|-------|------|--------------|---------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  | Clockwise    | Anticlockwise |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.006 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.006 | —    |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.004 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.004 | —    |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |              |               |

## Select an Insert

| Seat Size | Insert Number              |
|-----------|----------------------------|
| D         | GY○○0200/0224D○○○○-Breaker |

| For Grooving/Cutting off |                   |                     |             |                | > F011, F012           |                        |                          |
|--------------------------|-------------------|---------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size                | Breaker<br><br>CW | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          |                   | Neutral             |             |                |                        | Hand                   | Neutral                  |
| D                        | .079", 2.00 mm    | ●                   | ●           | ●              | ●                      | ●                      | ●                        |

| For Multifunctional Grooving |                |                |             |                | > F013, F014               |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              | CW             |                |             |                | Ball nose                  |
| D                            | .079", 2.00 mm | ●              | ●           | ●              | ●                          |
|                              | .088", 2.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F041

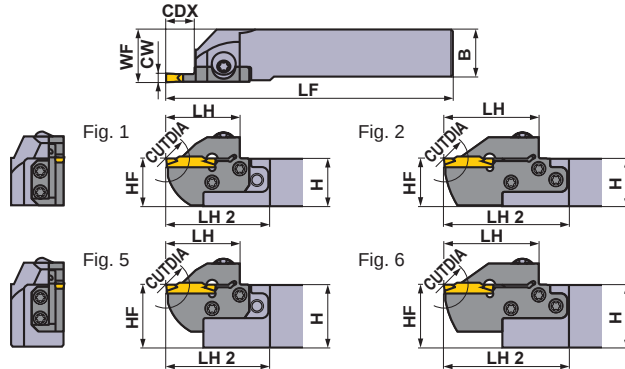
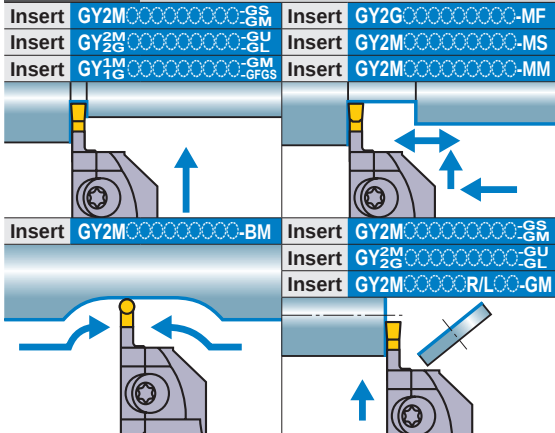
# GY SERIES (EXTERNAL)

1-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|--------------------|---------------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |                    |                     |            |            | Holder           | Stock | Modular Blade | Stock |      |
| E         | .094<br>.098<br>.108 | .236               | .472                | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-E06   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-E06   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-E06   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-E06   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-E06   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-E06   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-E06   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-E06   | ●     | 1    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-E06  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-E06  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-E06   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-E06   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-E06   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-E06   | ●     | 5    |
|           |                      | .394               | .787                | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-E10   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-E10   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-E10   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-E10   | ●     | 1    |
|           |                      | .472               | .945                | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-E12   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-E12   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-E12   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-E12   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-E12   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-E12   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-E12   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-E12   | ●     | 5    |
|           |                      | .709 <sup>*4</sup> | 1.417               | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RB-E18   | ●     | 4    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LB-E18   | ●     | 4    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RB-E18   | ●     | 2    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LB-E18   | ●     | 2    |
|           |                      | .787 <sup>*1</sup> | 1.575 <sup>*2</sup> | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-E20   | ●     | 4    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-E20   | ●     | 4    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-E20  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-E20  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-E20   | ●     | 2    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-E20   | ●     | 2    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-E20   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-E20   | ●     | 6    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-E20   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-E20   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

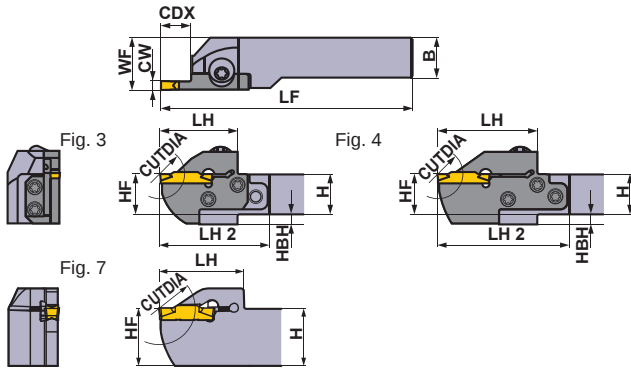
\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number         | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.          | ①<br>Wrench ★      |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/LUS○○○○○○-M20R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/LUS○○○○○○-M25R/L | —                                       | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      |  | Cutting Mode |               |
|----------------------|-------|-------|-------|-------|-------|-------|------|--|--------------|---------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |  | Clockwise    | Anticlockwise |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |  |              |               |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |  |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.008 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.008 | —    |  |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |  |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |  |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |  |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |  |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |  |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |  |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |  |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.004 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.004 | —    |  |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |  |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |              |               |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| E         | GY○○0239/0250/0274E○○○○-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                |                        | Hand                   | Neutral                  |
| E         | .094", 2.39 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .098", 2.50 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| E         | .094", 2.39 mm | ●                                         | ●           | ●              | ●                          |
|           | .098", 2.50 mm | ●                                         | ●           | ●              | ●                          |
|           | .108", 2.74 mm | ●                                         | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

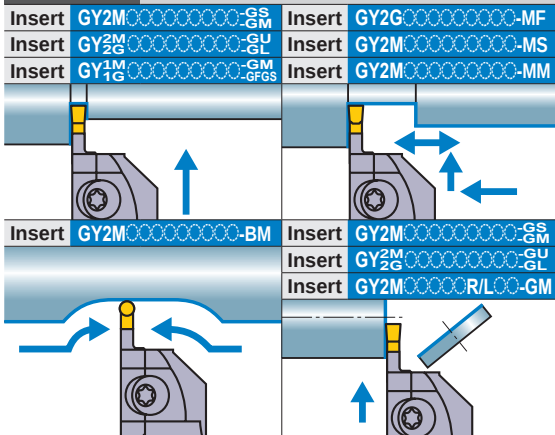
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F043

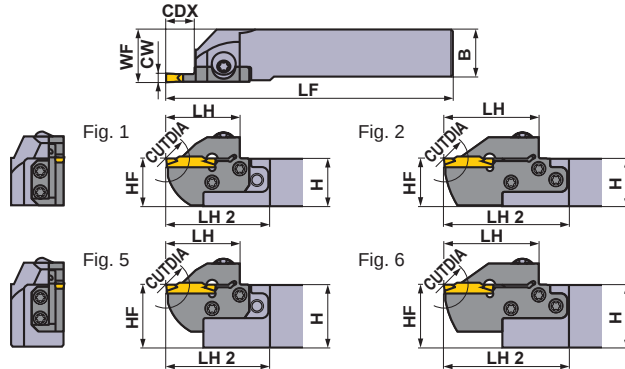
# GY SERIES (EXTERNAL)

## 1-1 00° type holder (Inch)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|--------------------|---------------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |                    |                     |            |            | Holder           | Stock | Modular Blade | Stock |      |
| F         | .118<br>.125<br>.128 | .236               | .472                | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-F06   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-F06   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-F06   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-F06   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-F06   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-F06   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-F06   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-F06   | ●     | 1    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-F06  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-F06  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-F06   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-F06   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-F06   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-F06   | ●     | 5    |
|           |                      | .394               | .787                | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-F10   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-F10   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-F10   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-F10   | ●     | 1    |
|           |                      | .472               | .945                | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-F12   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-F12   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-F12   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-F12   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-F12   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-F12   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-F12   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-F12   | ●     | 5    |
|           |                      | .709 <sup>*4</sup> | 1.417               | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RB-F18   | ●     | 4    |
|           |                      |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LB-F18   | ●     | 4    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RB-F18   | ●     | 2    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LB-F18   | ●     | 2    |
|           |                      | .787 <sup>*1</sup> | 1.575 <sup>*2</sup> | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-F20   | ●     | 4    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-F20   | ●     | 4    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-F20  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-F20  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-F20   | ●     | 2    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-F20   | ●     | 2    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-F20   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-F20   | ●     | 6    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-F20   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-F20   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

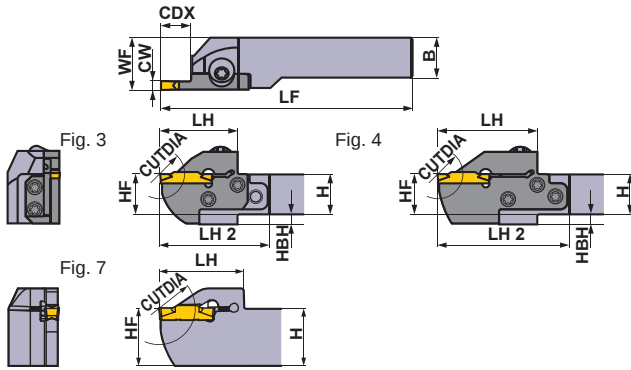
\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number         | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.          | ①<br>Wrench ★      |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/LUS○○○○○○-M20R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/LUS○○○○○○-M25R/L | —                                       | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      | Cutting Mode |               |
|----------------------|-------|-------|-------|-------|-------|-------|------|--------------|---------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  | Clockwise    | Anticlockwise |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.264 | 1.102 | 1.761 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |              |               |
| .750                 | .750  | 4.764 | 1.102 | 1.698 | .750  | .875  | —    |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 4.685 | 1.220 | 2.060 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 5.685 | 1.220 | 1.934 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.012 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.417 | —     | 1.000 | 1.012 | —    |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 5.685 | 1.220 | 1.942 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 6.685 | 1.220 | 1.926 | 1.500 | 1.625 | —    |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.736 | 1.575 | 2.233 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.236 | 1.575 | 2.170 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.236 | 1.772 | 2.611 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.010 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.010 | —    |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.236 | 1.772 | 2.485 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.236 | 1.772 | 2.493 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |              |               |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY○○0300/0318/0324F○○○○-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                |                        | Hand                   | Neutral                  |
| F         | .118", 3.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .125", 3.18 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| F         | .118", 3.00 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
|           | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | .125", 3.18 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
| F         | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | .128", 3.24 mm | ●                                         | ●           | ●              | ●                          |

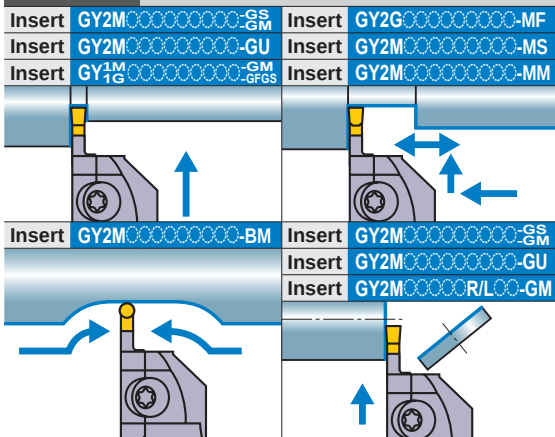
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

GROOVING / CUTTING OFF

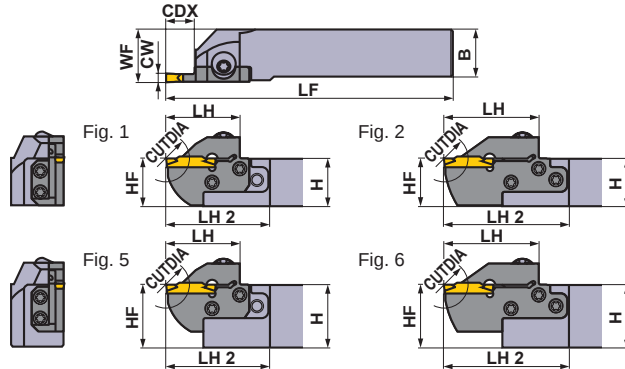
# GY SERIES (EXTERNAL)

## 1-1 00° type holder (Inch)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch)         | CUTDIA (inch)       | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|--------------|--------------------|---------------------|------------|------------|------------------|-------|---------------|-------|------|
|           |              |                    |                     |            |            | Holder           | Stock | Modular Blade | Stock |      |
| G         | .157<br>.167 | .315               | .630                | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-G08   | ●     | 3    |
|           |              |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-G08   | ●     | 3    |
|           |              |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-G08   | ●     | 1    |
|           |              |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-G08   | ●     | 1    |
|           |              |                    |                     | Mono Block | R          | GYQRUS16D00-G08  | ●     | —             | —     | 7    |
|           |              |                    |                     | Mono Block | L          | GYQLUS16D00-G08  | ●     | —             | —     | 7    |
|           |              |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-G08   | ●     | 5    |
|           |              |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-G08   | ●     | 5    |
|           |              | .472               | .945                | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-G08   | ●     | 5    |
|           |              |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-G08   | ●     | 5    |
|           |              |                    |                     | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |              |                    |                     | Modular    | L          | GYHLUS10B00-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |              |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-G12   | ●     | 1    |
|           |              |                    |                     | Modular    | L          | GYHLUS12C00-M20L | ●     | GYM20LA-G12   | ●     | 1    |
|           |              | .551               | 1.102               | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-G14   | ●     | 3    |
|           |              |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |              |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-G14   | ●     | 1    |
|           |              |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-G14   | ●     | 1    |
|           |              |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-G14   | ●     | 5    |
|           |              |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-G14   | ●     | 5    |
|           |              |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-G14   | ●     | 5    |
|           |              |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-G14   | ●     | 5    |
|           |              | .984 <sup>*1</sup> | 1.969 <sup>*2</sup> | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-G25   | ●     | 4    |
|           |              |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-G25   | ●     | 4    |
|           |              |                    |                     | Mono Block | R          | GYQRUS16D00-G25  | ●     | —             | —     | 7    |
|           |              |                    |                     | Mono Block | L          | GYQLUS16D00-G25  | ●     | —             | —     | 7    |
|           |              |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-G25   | ●     | 2    |
|           |              |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-G25   | ●     | 2    |
|           |              |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-G25   | ●     | 6    |
|           |              |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-G25   | ●     | 6    |
|           |              |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-G25   | ●     | 6    |
|           |              |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-G25   | ●     | 6    |

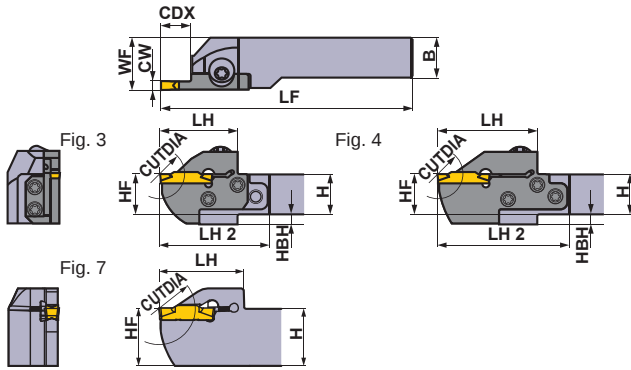
CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number           | ①<br>Clamp Screw                        | ②<br>Blade Screw                    | ①<br>Wrench ★      |
|-------------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/LUS○○○○○○○○-M20R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/LUS○○○○○○○○-M25R/L | —                                       | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      | Cutting Mode |               |
|----------------------|-------|-------|-------|-------|-------|-------|------|--------------|---------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  | Clockwise    | Anticlockwise |
| .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |              |               |
| 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |               |
| .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |              |               |
| .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |              |               |
| 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |              |               |
| 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |              |               |
| 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |              |               |
| 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |              |               |
| 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |              |               |
| 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |              |               |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |              |               |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |              |               |

## Select an Insert

| Seat Size | Insert Number              |
|-----------|----------------------------|
| G         | GY○○0400/0424G○○○○-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
| CW        |                | Neutral                               |             |                | Hand                   | Neutral                  |
| G         | .157", 4.00 mm | ●                                     | ●           | ●              | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| CW        |                |                                           |             |                | Ball nose                  |
| G         | .157", 4.00 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              |                            |
|           | RE .016"       | ●                                         | ●           | ●              |                            |
|           | RE .031"       | ●                                         |             | ●              |                            |
|           | .167", 4.24 mm | ●                                         |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F047

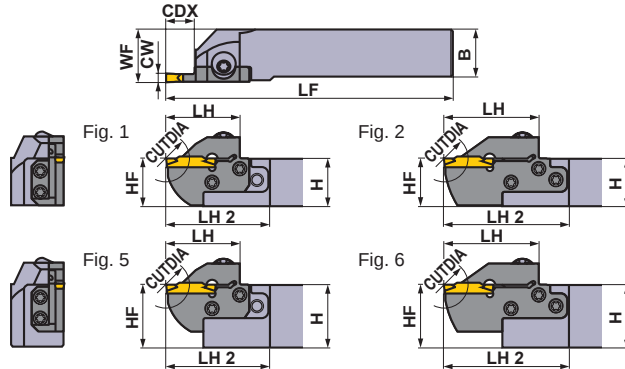
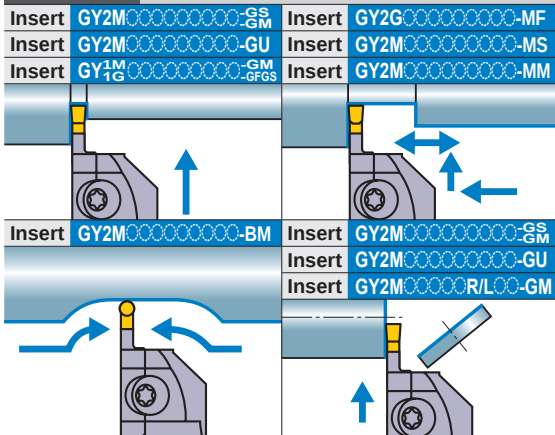
# GY SERIES (EXTERNAL)

## 1-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|--------------------|---------------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |                    |                     |            |            | Holder           | Stock | Modular Blade | Stock |      |
| H         | .187<br>.197<br>.206 | .315               | .630                | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-H08   | ●     | 3    |
|           |                      |                    |                     |            | L          | GYHLUS12C00-M25L | ●     | GYM25LA-H08   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-H08   | ●     | 1    |
|           |                      |                    |                     |            | L          | GYHLUS16D00-M25L | ●     | GYM25LA-H08   | ●     | 1    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-H08  | ●     | —             | —     | 7    |
|           |                      |                    |                     |            | L          | GYQLUS16D00-H08  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-H08   | ●     | 5    |
|           |                      |                    |                     |            | L          | GYHLUS20D00-M25L | ●     | GYM25LA-H08   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-H08   | ●     | 5    |
|           |                      |                    |                     |            | L          | GYHLUS24E00-M25L | ●     | GYM25LA-H08   | ●     | 5    |
|           |                      | .472               | .945                | Modular    | R          | GYHRUS10B00-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      |                    |                     |            | L          | GYHLUS10B00-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M20R | ●     | GYM20RA-H12   | ●     | 1    |
|           |                      |                    |                     |            | L          | GYHLUS12C00-M20L | ●     | GYM20LA-H12   | ●     | 1    |
|           |                      | .551               | 1.102               | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-H14   | ●     | 3    |
|           |                      |                    |                     |            | L          | GYHLUS12C00-M25L | ●     | GYM25LA-H14   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-H14   | ●     | 1    |
|           |                      |                    |                     |            | L          | GYHLUS16D00-M25L | ●     | GYM25LA-H14   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-H14   | ●     | 5    |
|           |                      |                    |                     |            | L          | GYHLUS20D00-M25L | ●     | GYM25LA-H14   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-H14   | ●     | 5    |
|           |                      |                    |                     |            | L          | GYHLUS24E00-M25L | ●     | GYM25LA-H14   | ●     | 5    |
|           |                      | .984 <sup>*1</sup> | 1.969 <sup>*2</sup> | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-H25   | ●     | 4    |
|           |                      |                    |                     |            | L          | GYHLUS12C00-M25L | ●     | GYM25LA-H25   | ●     | 4    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-H25  | ●     | —             | —     | 7    |
|           |                      |                    |                     |            | L          | GYQLUS16D00-H25  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-H25   | ●     | 2    |
|           |                      |                    |                     |            | L          | GYHLUS16D00-M25L | ●     | GYM25LA-H25   | ●     | 2    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-H25   | ●     | 6    |
|           |                      |                    |                     |            | L          | GYHLUS20D00-M25L | ●     | GYM25LA-H25   | ●     | 6    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-H25   | ●     | 6    |
|           |                      |                    |                     |            | L          | GYHLUS24E00-M25L | ●     | GYM25LA-H25   | ●     | 6    |

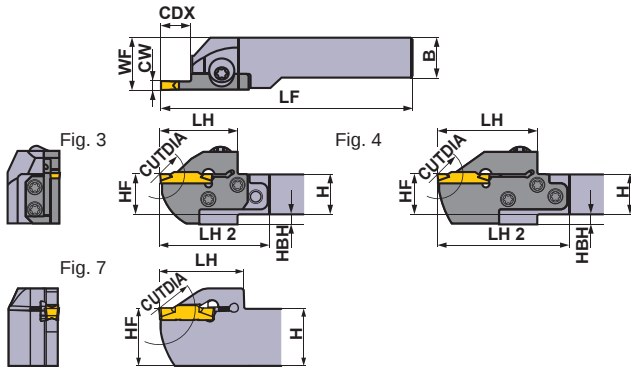
CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

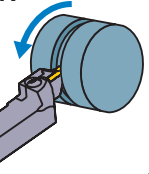
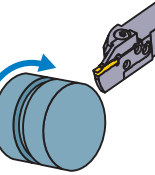
★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number           | ①<br>Clamp Screw                        | ②<br>Blade Screw                    | ①<br>Wrench ★      |
|-------------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/LUS○○○○○○○○-M20R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/LUS○○○○○○○○-M25R/L | —                                       | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|  | Dimensions (inch) ★3 |       |       |       |       |       |       |      | Cutting Mode                                                                                    |                                                                                     |
|--|----------------------|-------|-------|-------|-------|-------|-------|------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  | Clockwise                                                                                       | Anticlockwise                                                                       |
|  | .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 | <b>R</b><br>  |   |
|  | .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |              |  |
|  | 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |                                                                                                 |                                                                                     |
|  | 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |                                                                                                 |                                                                                     |
|  | 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |                                                                                                 |                                                                                     |
|  | 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |              |  |
|  | 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |                                                                                                 |                                                                                     |
|  | .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |                                                                                                 |                                                                                     |
|  | .625                 | .625  | 4.500 | 1.339 | 1.997 | .625  | .812  | .125 |                                                                                                 |                                                                                     |
|  | .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |              |  |
|  | .750                 | .750  | 5.000 | 1.339 | 1.934 | .750  | .875  | —    |                                                                                                 |                                                                                     |
|  | .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |                                                                                                 |                                                                                     |
|  | .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    | <b>L</b><br> |  |
|  | 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |                                                                                                 |                                                                                     |
|  | 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |                                                                                                 |                                                                                     |
|  | 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |                                                                                                 |                                                                                     |
|  | 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |              |  |
|  | 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |                                                                                                 |                                                                                     |
|  | .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |                                                                                                 |                                                                                     |
|  | .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |              |  |
|  | 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |                                                                                                 |                                                                                     |
|  | 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |                                                                                                 |                                                                                     |
|  | 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |              |  |
|  | 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |                                                                                                 |                                                                                     |
|  | 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |                                                                                                 |                                                                                     |
|  | 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |                                                                                                 |                                                                                     |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY○○0475/0500/0524H○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                                       | CW             | Neutral             | Neutral     | Hand           | Neutral                | Neutral                  |
| H                                     | .187", 4.75 mm | ●                   | ●           | ●              | ●                      | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                                           | CW             |                |             |                | Ball nose                  |
| H                                         | .187", 4.75 mm | ●              | ●           | ●              | ●                          |
|                                           | RE .008"       | ●              | ●           | ●              | ●                          |
|                                           | RE .016"       | ●              | ●           | ●              | ●                          |
|                                           | RE .031"       | ●              | ●           | ●              | ●                          |
|                                           | .197", 5.00 mm | ●              | ●           | ●              | ●                          |
|                                           | RE .008"       | ●              | ●           | ●              | ●                          |
|                                           | RE .016"       | ●              | ●           | ●              | ●                          |
|                                           | RE .031"       | ●              | ●           | ●              | ●                          |
|                                           | .206", 5.24 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

GROOVING / CUTTING OFF

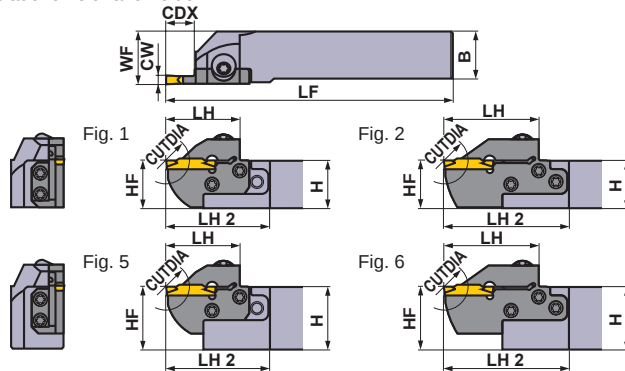
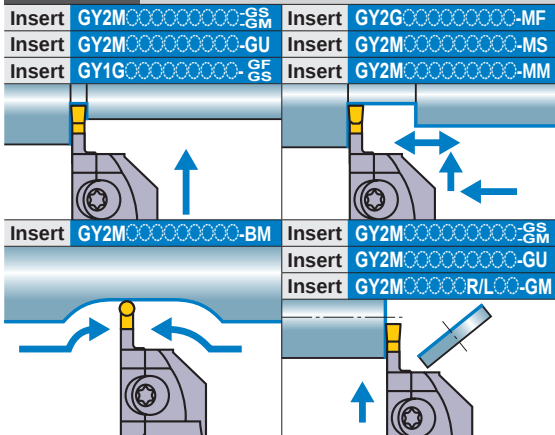
# GY SERIES (EXTERNAL)

1-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|--------------------|---------------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |                    |                     |            |            | Holder           | Stock | Modular Blade | Stock |      |
| J         | .236<br>.248<br>.250 | .315               | .630                | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-J08   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-J08   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-J08   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-J08   | ●     | 1    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-J08  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-J08  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-J08   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-J08   | ●     | 5    |
|           |                      | .551               | 1.102               | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-J08   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-J08   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-J14   | ●     | 3    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-J14   | ●     | 3    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-J14   | ●     | 1    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-J14   | ●     | 1    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-J14   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-J14   | ●     | 5    |
|           |                      | .984 <sup>*1</sup> | 1.969 <sup>*2</sup> | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-J14   | ●     | 5    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-J14   | ●     | 5    |
|           |                      |                    |                     | Modular    | R          | GYHRUS12C00-M25R | ●     | GYM25RA-J25   | ●     | 4    |
|           |                      |                    |                     | Modular    | L          | GYHLUS12C00-M25L | ●     | GYM25LA-J25   | ●     | 4    |
|           |                      |                    |                     | Mono Block | R          | GYQRUS16D00-J25  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Mono Block | L          | GYQLUS16D00-J25  | ●     | —             | —     | 7    |
|           |                      |                    |                     | Modular    | R          | GYHRUS16D00-M25R | ●     | GYM25RA-J25   | ●     | 2    |
|           |                      |                    |                     | Modular    | L          | GYHLUS16D00-M25L | ●     | GYM25LA-J25   | ●     | 2    |
|           |                      |                    |                     | Modular    | R          | GYHRUS20D00-M25R | ●     | GYM25RA-J25   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS20D00-M25L | ●     | GYM25LA-J25   | ●     | 6    |
|           |                      |                    |                     | Modular    | R          | GYHRUS24E00-M25R | ●     | GYM25RA-J25   | ●     | 6    |
|           |                      |                    |                     | Modular    | L          | GYHLUS24E00-M25L | ●     | GYM25LA-J25   | ●     | 6    |

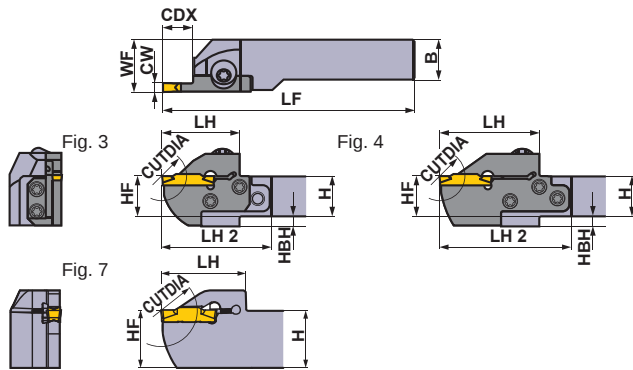
CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

● : USA Stock



Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.         | ①<br>Wrench ★      |
|-------------------------|-----------------------------------------|------------------------------------|--------------------|
| GYQR/LUS○○○○○○○○○○      | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                  | HKY40R             |
| GYHR/LUS○○○○○○○○-M25R/L | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      |  | Cutting Mode |               |
|----------------------|-------|-------|-------|-------|-------|-------|------|--|--------------|---------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |  | Clockwise    | Anticlockwise |
| .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 4.764 | 1.299 | 2.139 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 5.764 | 1.299 | 2.013 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.614 | —     | 1.000 | 1.014 | —    |  |              |               |
| 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 5.764 | 1.299 | 2.021 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 6.764 | 1.299 | 2.005 | 1.500 | 1.625 | —    |  |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 5.000 | 1.535 | 2.375 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.535 | 2.249 | 1.000 | 1.125 | —    |  |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 6.000 | 1.535 | 2.257 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |              |               |
| .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |  |              |               |
| .750                 | .750  | 5.433 | 1.969 | 2.808 | .750  | 1.000 | .250 |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |  |              |               |
| 1.000                | 1.000 | 6.000 | 1.811 | —     | 1.000 | 1.014 | —    |  |              |               |
| 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |  |              |               |
| 1.000                | 1.000 | 6.433 | 1.969 | 2.682 | 1.000 | 1.125 | —    |  |              |               |
| 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |  |              |               |
| 1.250                | 1.250 | 6.433 | 1.969 | 2.690 | 1.250 | 1.375 | —    |  |              |               |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |  |              |               |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |  |              |               |
|                      |       |       |       |       |       |       |      |  |              |               |
|                      |       |       |       |       |       |       |      |  |              |               |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| J         | GY○○0600/0631/0635J○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                                  |                     |             |                |                        |                          |
|---------------------------------------|----------------------------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker                          | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                                       | CW                               | Neutral             | Neutral     | Hand           | Neutral                |                          |
| J                                     | .236", 6.00 mm<br>.250", 6.35 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving > F013, F014 |                                                                                                                            |                |             |                |                            |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker                                                                                                                    | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                                           | CW                                                                                                                         |                |             |                | Ball nose                  |
| J                                         | .236", 6.00 mm<br>RE .008"<br>RE .016"<br>RE .031"<br>.248", 6.31 mm<br>.250", 6.35 mm<br>RE .008"<br>RE .016"<br>RE .031" | ●              | ●           | ●              | ●                          |

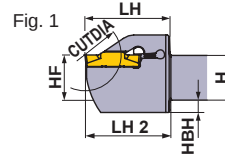
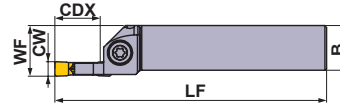
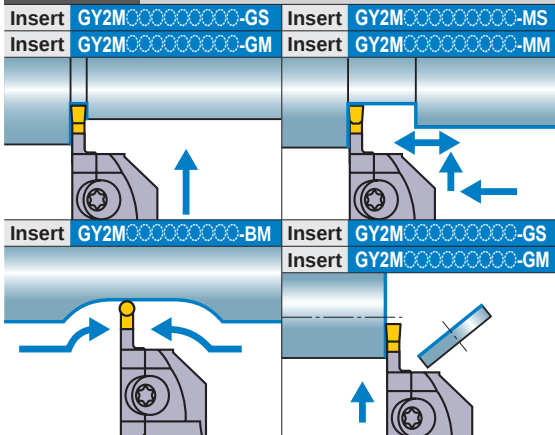
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

# GY SERIES (EXTERNAL)

## 1-1

00° type holder (Inch)



Right hand tool holder shown.

| Seat Size | CW (inch) | CDX (inch) | CUTDIA (inch) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |  |
|-----------|-----------|------------|---------------|------------|------------|-----------------|-------|---------------|-------|------|--|
|           |           |            |               |            |            | Holder          | Stock | Modular Blade | Stock |      |  |
| K         | .315      | *1<br>.984 | *2<br>1.968   | Mono Block | R          | GYPRUS16D00-K25 | ●     | —             | —     | 1    |  |
|           |           |            |               | Mono Block | L          | GYPLUS16D00-K25 | ●     | —             | —     | 1    |  |
|           |           |            |               | Mono Block | R          | GYPRUS20D00-K25 | ●     | —             | —     | 2    |  |
|           |           |            |               | Mono Block | L          | GYPLUS20D00-K25 | ●     | —             | —     | 2    |  |

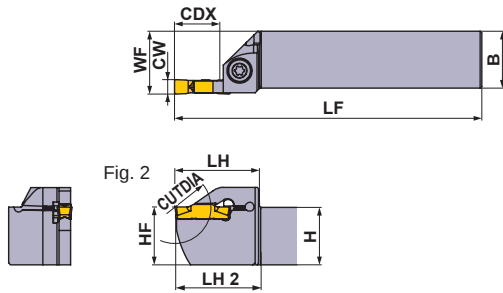
**CW** = Cutting Width    **CDX** = Max. Groove Depth    **CUTDIA** = Max. Cut Off Diameter

\*1 The maximum groove depth (**CDX**) varies according to the insert used. Please refer to the maximum groove depth (**CDX**) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (**CUTDIA**) varies according to the insert used. The cut off diameter is double the maximum groove depth (**CDX**) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then **LF**, **LH**, **LH 2** and **WF** values may vary.

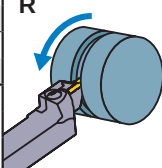
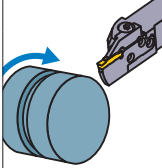
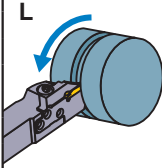
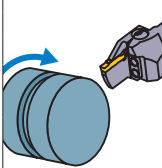
● : USA Stock



Right hand tool holder shown.

## SPARE PARTS

| Holder Number      | <br>Clamp Screw | <br>Wrench |
|--------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| GYPR/LUS○○○○00-K25 | GY06013M<br>(Clamp Torque : 53 lbf-in)                                                             | TKY30R                                                                                        |

| Dimensions (inch) ★3 |       |       |       |       |       |       |      |   | Cutting Mode                                                                        |                                                                                     |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   | Clockwise                                                                           | Anticlockwise                                                                       |
| 1.000                | 1.000 | 6.000 | 1.850 | 1.875 | 1.000 | 1.161 | .260 | R |   |   |
| 1.000                | 1.000 | 6.000 | 1.850 | 1.875 | 1.000 | 1.161 | .260 |   |                                                                                     |                                                                                     |
| 1.250                | 1.250 | 7.000 | 1.850 | 2.875 | 1.250 | 1.377 | —    |   |                                                                                     |                                                                                     |
| 1.250                | 1.250 | 7.000 | 1.850 | 2.875 | 1.250 | 1.377 | —    | L |  |  |
|                      |       |       |       |       |       |       |      |   |                                                                                     |                                                                                     |
|                      |       |       |       |       |       |       |      |   |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number         |
|-----------|-----------------------|
| K         | GY○○0800K○○○○-Breaker |

| For Grooving/Cutting off |                |                     |             |                |                        | > F011                   |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          | CW             | Neutral             |             |                | Hand                   | Neutral                  |
| K                        | .315", 8.00 mm |                     | ●           | ●              |                        |                          |

| For Multifunctional Grooving |                |             |          |             | F013, F014              |
|------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
|                              | CW             |             |          |             | Ball nose               |
| K                            | .315", 8.00 mm |             | ●        | ●           | ●                       |
|                              | RE .031"       |             |          |             |                         |
|                              | RE .047"       |             |          | ●           |                         |

● : Gauge insert shown dimensions

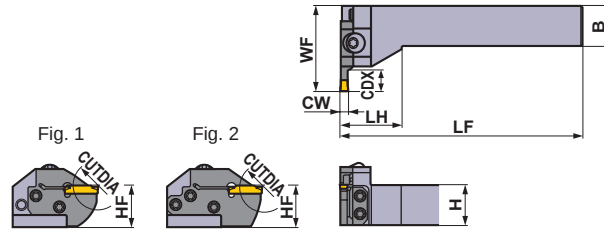
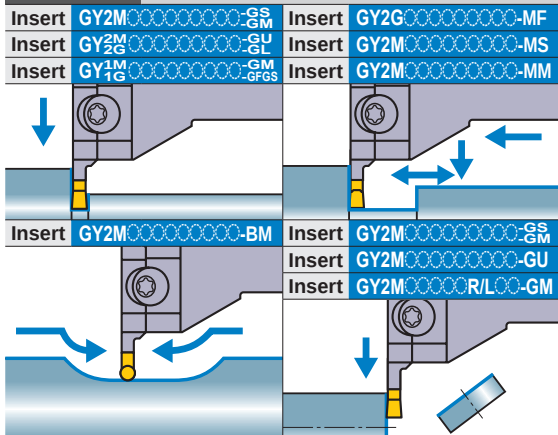
# GY SERIES (EXTERNAL)

2-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |  |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|--|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |  |
| D         | .079<br>.088         | .236       | .472          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-D06   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RA-D06   | ●     | 1    |  |
|           |                      |            |               | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-D06   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-D06   | ●     | 1    |  |
|           |                      | .394       | .787          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-D10   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RA-D10   | ●     | 1    |  |
|           |                      | .472       | .945          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-D12   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-D12   | ●     | 1    |  |
|           |                      | .709 ★4    | 1.417         | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LB-D18   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RB-D18   | ●     | 2    |  |
|           |                      | .787 ★1    | 1.575 ★2      | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-D20   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-D20   | ●     | 2    |  |
| E         | .094<br>.098<br>.108 | .236       | .472          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-E06   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RA-E06   | ●     | 1    |  |
|           |                      |            |               | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-E06   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-E06   | ●     | 1    |  |
|           |                      | .394       | .787          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-E10   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RA-E10   | ●     | 1    |  |
|           |                      | .472       | .945          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-E12   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-E12   | ●     | 1    |  |
|           |                      | .709 ★4    | 1.417         | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LB-E18   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RB-E18   | ●     | 2    |  |
|           |                      | .787 ★1    | 1.575 ★2      | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-E20   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-E20   | ●     | 2    |  |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

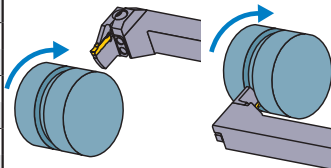
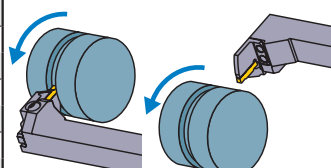
★4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS12C90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHLUS12C90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHRUS16D90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |       |       | Cutting Mode                                                                                    |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 | <b>R</b><br>  |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 | <b>L</b><br> |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                      |
|-----------|------------------------------------|
| <b>D</b>  | GY0000200/0224D000000-Breaker      |
| <b>E</b>  | GY0000239/0250/0274E000000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |       |          |                  |               |                  |              |
|-----------|----------------|---------------------------------------|-------|----------|------------------|---------------|------------------|--------------|
| Seat Size | Breaker        | GU                                    | GS    | GM       | GL               | 05-GM         | GFGS             |              |
|           |                | (Gummy Steel)                         | (Low) | (Medium) | (Aluminum Alloy) | (Cutting off) | (Hardened steel) |              |
|           | <b>CW</b>      | Neutral                               |       |          |                  |               |                  | Hand Neutral |
| <b>D</b>  | .079", 2.00 mm | ●                                     | ●     | ●        | ●                | ●             | ●                | ●            |
| <b>E</b>  | .094", 2.39 mm | ●                                     | ●     | ●        | ●                | ●             | ●                | ●            |
|           | .098", 2.50 mm | ●                                     | ●     | ●        | ●                | ●             | ●                | ●            |

|           |                | For Multifunctional Grooving > F013, F014 |       |          |                      |
|-----------|----------------|-------------------------------------------|-------|----------|----------------------|
| Seat Size | Breaker        | MF                                        | MS    | MM       | BM                   |
|           |                | (Finish)                                  | (Low) | (Medium) | (Copying, Recessing) |
|           | <b>CW</b>      | Ball nose                                 |       |          |                      |
| <b>D</b>  | .079", 2.00 mm | ●                                         | ●     | ●        | ●                    |
|           | .088", 2.24 mm | ●                                         | ●     | ●        | ●                    |
|           | .094", 2.39 mm | ●                                         | ●     | ●        | ●                    |
| <b>E</b>  | .098", 2.50 mm | ●                                         | ●     | ●        | ●                    |
|           | .108", 2.74 mm | ●                                         | ●     | ●        | ●                    |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F055

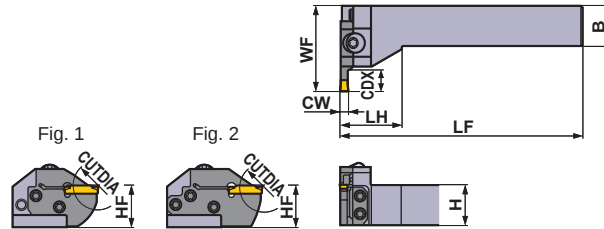
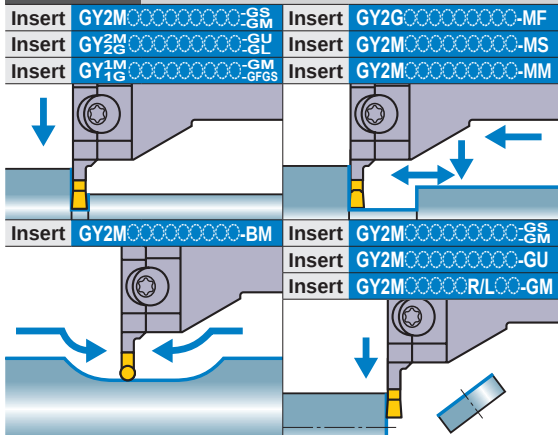
# GY SERIES (EXTERNAL)

2-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |
| F         | .118<br>.125<br>.128 | .236       | .472          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-F06   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS12C90-M20R | ●     | GYM20RA-F06   | ●     | 1    |
|           |                      |            |               | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-F06   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS16D90-M25R | ●     | GYM25RA-F06   | ●     | 1    |
|           |                      | .394       | .787          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-F10   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS12C90-M20R | ●     | GYM20RA-F10   | ●     | 1    |
|           |                      | .472       | .945          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-F12   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS16D90-M25R | ●     | GYM25RA-F12   | ●     | 1    |
|           |                      | .709 ★1    | 1.417         | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LB-F18   | ●     | 2    |
|           |                      |            |               | Modular | L          | GYHLUS12C90-M20R | ●     | GYM20RB-F18   | ●     | 2    |
| G         | .157<br>.167         | .315       | .630          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-G08   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS16D90-M25R | ●     | GYM25RA-G08   | ●     | 1    |
|           |                      | .472       | .945          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-G12   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS12C90-M20R | ●     | GYM20RA-G12   | ●     | 1    |
|           |                      | .551       | 1.102         | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-G14   | ●     | 1    |
|           |                      |            |               | Modular | L          | GYHLUS16D90-M25R | ●     | GYM25RA-G14   | ●     | 1    |
|           |                      | .984 ★1    | 1.969 ★2      | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-G25   | ●     | 2    |
|           |                      |            |               | Modular | L          | GYHLUS16D90-M25R | ●     | GYM25RA-G25   | ●     | 2    |
|           |                      |            |               |         |            |                  |       |               |       |      |
|           |                      |            |               |         |            |                  |       |               |       |      |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

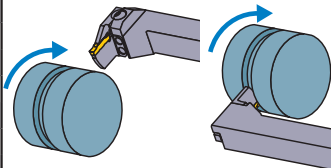
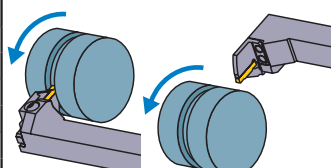
★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

★4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS12C90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHLUS12C90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHRUS16D90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |       |       | Cutting Mode                                                                                    |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 | <b>R</b><br>  |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.545 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.779 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 2.017 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 | <b>L</b><br> |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| <b>F</b>  | GY○○0300/0318/0324F○○○○○-Breaker |
| <b>G</b>  | GY○○0400/0424G○○○○○-Breaker      |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                |                        |                        |                          |
| <b>F</b>  | .118", 3.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .125", 3.18 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
| <b>G</b>  | .157", 4.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| <b>F</b>  | .118", 3.00 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
|           | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | .125", 3.18 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
| <b>G</b>  | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | .167", 4.24 mm | ●                                         | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

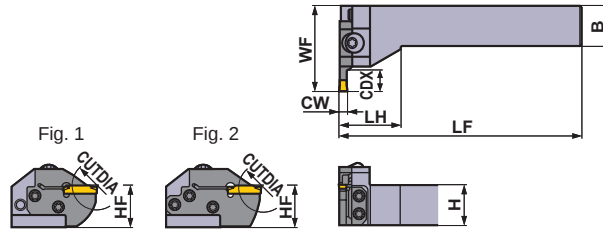
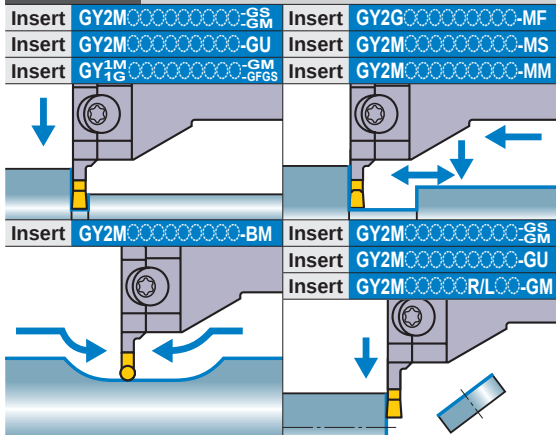
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

# GY SERIES (EXTERNAL)

## 2-1 90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |  |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|--|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |  |
| H         | .187<br>.197<br>.206 | .315       | .630          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-H08   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-H08   | ●     | 1    |  |
|           |                      | .472       | .945          | Modular | R          | GYHRUS12C90-M20L | ●     | GYM20LA-H12   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS12C90-M20R | ●     | GYM20RA-H12   | ●     | 1    |  |
|           |                      | .551       | 1.102         | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-H14   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-H14   | ●     | 1    |  |
|           |                      | .984 ★1    | 1.969 ★2      | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-H25   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-H25   | ●     | 2    |  |
|           |                      |            |               |         |            |                  |       |               |       |      |  |
|           |                      |            |               |         |            |                  |       |               |       |      |  |
| J         | .236<br>.248<br>.250 | .315       | .630          | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-J08   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-J08   | ●     | 1    |  |
|           |                      | .551       | 1.102         | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-J14   | ●     | 1    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-J14   | ●     | 1    |  |
|           |                      | .984 ★1    | 1.969 ★2      | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LA-J25   | ●     | 2    |  |
|           |                      |            |               |         | L          | GYHLUS16D90-M25R | ●     | GYM25RA-J25   | ●     | 2    |  |
|           |                      |            |               |         |            |                  |       |               |       |      |  |
|           |                      |            |               |         |            |                  |       |               |       |      |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

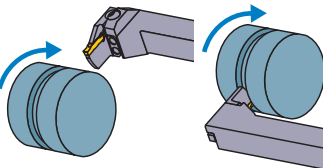
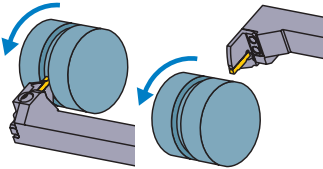
★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS12C90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHLUS12C90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHRUS16D90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |       |       | Cutting Mode                                                                                    |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 | <b>R</b><br>  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | .750                 | .750  | 5.000 | 1.375 | .750  | 1.781 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 | <b>L</b><br> |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                                 |
|  |                      |       |       |       |       |       |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 1.857 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                                 |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| <b>H</b>  | GY000475/0500/0524H0000-Breaker |
| <b>J</b>  | GY000600/0631/0635J0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                                       |                | Neutral             |             |                | Hand                   | Neutral                  |
| <b>H</b>                              | .187", 4.75 mm | ●                   | ●           | ●              |                        | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                      | ●                        |
| <b>J</b>                              | .236", 6.00 mm | ●                   | ●           | ●              |                        | ●                        |
|                                       | .250", 6.35 mm | ●                   | ●           | ●              |                        |                          |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                                           |                |                |             |                | Ball nose                  |
| <b>H</b>                                  | .187", 4.75 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
| <b>J</b>                                  | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .206", 5.24 mm | ●              |             |                |                            |
|                                           | .236", 6.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .248", 6.31 mm | ●              |             |                |                            |
|                                           | .250", 6.35 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |

● : Gauge insert shown dimensions

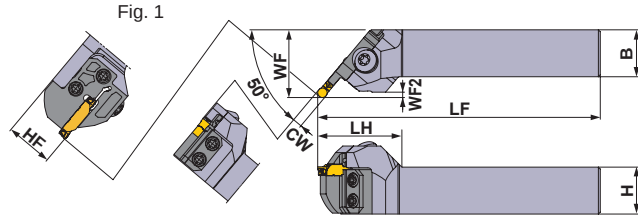
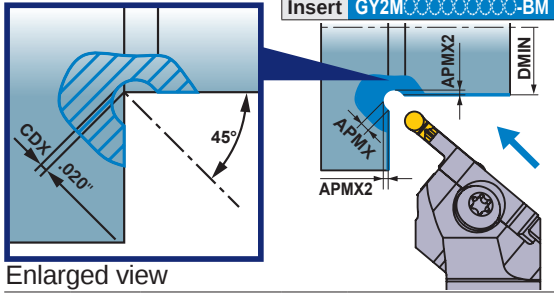
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

# GY SERIES (EXTERNAL RECESSING)

## 3-1 50° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | DMIN (inch) | APMX (inch)      | APMX2 (inch)     | Type             | Hand (R/L)       | Order Number     |              |               |       | Fig. |  |
|-----------|----------------------|------------|-------------|------------------|------------------|------------------|------------------|------------------|--------------|---------------|-------|------|--|
|           |                      |            |             |                  |                  |                  |                  | Holder           | Stock        | Modular Blade | Stock |      |  |
| D         | .079<br>.088         | .020       | 1.181       | .059             | .025             | Modular          | R                | GYHRUS12C50-M20L | ●            | GYM20LC-D005  | ●     | 1    |  |
|           |                      |            |             |                  |                  |                  | L                | GYHLUS12C50-M20R | ●            | GYM20RC-D005  | ●     | 1    |  |
|           |                      |            |             | Modular          | R                | GYHRUS16D50-M25L | ●                | GYM25LC-D005     | ●            | 1             |       |      |  |
|           |                      |            |             |                  | L                | GYHLUS16D50-M25R | ●                | GYM25RC-D005     | ●            | 1             |       |      |  |
| E         | .094<br>.098<br>.108 |            | .069        | .028             | Modular          | R                | GYHRUS12C50-M20L | ●                | GYM20LC-E005 | ●             | 1     |      |  |
|           |                      |            |             |                  |                  | L                | GYHLUS12C50-M20R | ●                | GYM20RC-E005 | ●             | 1     |      |  |
|           |                      |            | Modular     | R                | GYHRUS16D50-M25L | ●                | GYM25LC-E005     | ●                | 1            |               |       |      |  |
|           |                      |            |             | L                | GYHLUS16D50-M25R | ●                | GYM25RC-E005     | ●                | 1            |               |       |      |  |
| F         | .118<br>.125<br>.128 |            | .082        | .032             | Modular          | R                | GYHRUS12C50-M20L | ●                | GYM20LC-F005 | ●             | 1     |      |  |
|           |                      |            |             |                  |                  | L                | GYHLUS12C50-M20R | ●                | GYM20RC-F005 | ●             | 1     |      |  |
|           |                      |            | Modular     | R                | GYHRUS16D50-M25L | ●                | GYM25LC-F005     | ●                | 1            |               |       |      |  |
|           |                      |            |             | L                | GYHLUS16D50-M25R | ●                | GYM25RC-F005     | ●                | 1            |               |       |      |  |
| G         | .157<br>.167         | .787       | .098        | .037             | Modular          | R                | GYHRUS12C50-M20L | ●                | GYM20LC-G005 | ●             | 1     |      |  |
|           |                      |            |             |                  |                  | L                | GYHLUS12C50-M20R | ●                | GYM20RC-G005 | ●             | 1     |      |  |
|           |                      |            | Modular     | R                | GYHRUS16D50-M25L | ●                | GYM25LC-G005     | ●                | 1            |               |       |      |  |
|           |                      |            |             | L                | GYHLUS16D50-M25R | ●                | GYM25RC-G005     | ●                | 1            |               |       |      |  |
| H         | .187<br>.197<br>.206 | .113       | .041        | Modular          | R                | GYHRUS12C50-M20L | ●                | GYM20LC-H005     | ●            | 1             |       |      |  |
|           |                      |            |             |                  | L                | GYHLUS12C50-M20R | ●                | GYM20RC-H005     | ●            | 1             |       |      |  |
|           |                      | Modular    | R           | GYHRUS16D50-M25L | ●                | GYM25LC-H005     | ●                | 1                |              |               |       |      |  |
|           |                      |            | L           | GYHLUS16D50-M25R | ●                | GYM25RC-H005     | ●                | 1                |              |               |       |      |  |
| J         | .236<br>.248<br>.250 | .144       | .051        | Modular          | R                | GYHRUS16D50-M25L | ●                | GYM25LC-J005     | ●            | 1             |       |      |  |
|           |                      |            |             |                  | L                | GYHLUS16D50-M25R | ●                | GYM25RC-J005     | ●            | 1             |       |      |  |
|           |                      |            |             |                  |                  |                  |                  |                  |              |               |       |      |  |
|           |                      |            |             |                  |                  |                  |                  |                  |              |               |       |      |  |

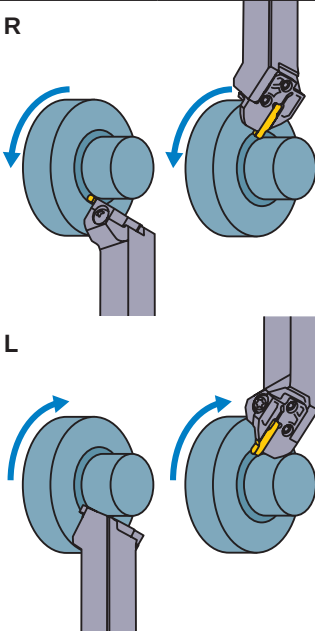
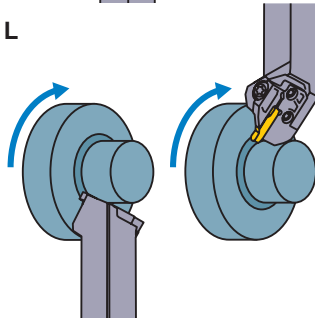
★1 Blades for external and face grooving cannot be used since it interferes with work materials.

★2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, WF and WF2 values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR/LUS12C50-M20R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHR/LUS16D50-M25R/L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |

|   | Dimensions (inch) ★2 |       |       |       |       |       |      | Cutting Mode                                                                        |
|---|----------------------|-------|-------|-------|-------|-------|------|-------------------------------------------------------------------------------------|
|   | H                    | B     | LF    | LH    | HF    | WF    | WF2  |                                                                                     |
| R | .750                 | .750  | 5.007 | 1.632 | .750  | 1.232 | .076 |   |
|   | .750                 | .750  | 5.007 | 1.632 | .750  | 1.232 | .076 |                                                                                     |
|   | 1.000                | 1.000 | 6.007 | 1.819 | 1.000 | 1.357 | .076 |                                                                                     |
|   | 1.000                | 1.000 | 6.007 | 1.819 | 1.000 | 1.357 | .076 |                                                                                     |
|   | .750                 | .750  | 5.003 | 1.628 | .750  | 1.241 | .084 |                                                                                     |
|   | .750                 | .750  | 5.003 | 1.628 | .750  | 1.241 | .084 |                                                                                     |
|   | 1.000                | 1.000 | 6.003 | 1.815 | 1.000 | 1.366 | .084 |                                                                                     |
|   | 1.000                | 1.000 | 6.003 | 1.815 | 1.000 | 1.366 | .084 |                                                                                     |
|   | .750                 | .750  | 5.000 | 1.625 | .750  | 1.250 | .094 |                                                                                     |
|   | .750                 | .750  | 5.000 | 1.625 | .750  | 1.250 | .094 |                                                                                     |
|   | 1.000                | 1.000 | 6.000 | 1.813 | 1.000 | 1.375 | .094 |                                                                                     |
|   | 1.000                | 1.000 | 6.000 | 1.813 | 1.000 | 1.375 | .094 |                                                                                     |
| L | .750                 | .750  | 4.989 | 1.614 | .750  | 1.265 | .109 |  |
|   | .750                 | .750  | 4.989 | 1.614 | .750  | 1.265 | .109 |                                                                                     |
|   | 1.000                | 1.000 | 5.989 | 1.802 | 1.000 | 1.390 | .109 |                                                                                     |
|   | 1.000                | 1.000 | 5.989 | 1.802 | 1.000 | 1.390 | .109 |                                                                                     |
|   | .750                 | .750  | 4.980 | 1.605 | .750  | 1.281 | .125 |                                                                                     |
|   | .750                 | .750  | 4.980 | 1.605 | .750  | 1.281 | .125 |                                                                                     |
|   | 1.000                | 1.000 | 5.980 | 1.792 | 1.000 | 1.406 | .125 |                                                                                     |
|   | 1.000                | 1.000 | 5.980 | 1.792 | 1.000 | 1.406 | .125 |                                                                                     |
|   | 1.000                | 1.000 | 5.978 | 1.791 | 1.000 | 1.429 | .148 |                                                                                     |
|   | 1.000                | 1.000 | 5.978 | 1.791 | 1.000 | 1.429 | .148 |                                                                                     |
|   |                      |       |       |       |       |       |      |                                                                                     |
|   |                      |       |       |       |       |       |      |                                                                                     |

### Select an Insert

| Insert Number                       |                |                            |
|-------------------------------------|----------------|----------------------------|
| GY2M○○○○○○○○○N-BM                   |                |                            |
| For Multifunctional Grooving > F014 |                |                            |
| Seat Size                           | Breaker        | BM<br>(Copying, Recessing) |
|                                     | CW             | Ball nose                  |
| D                                   | .079", 2.00 mm | ●                          |
| E                                   | .098", 2.50 mm | ●                          |
| F                                   | .118", 3.00 mm | ●                          |
|                                     | .125", 3.18 mm | ●                          |
| G                                   | .157", 4.00 mm | ●                          |
| H                                   | .187", 4.75 mm | ●                          |
|                                     | .197", 5.00 mm | ●                          |
| J                                   | .236", 6.00 mm | ●                          |
|                                     | .250", 6.35 mm | ●                          |

● : Gauge insert shown dimensions

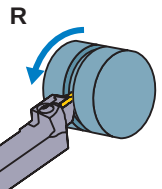
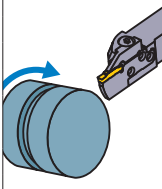
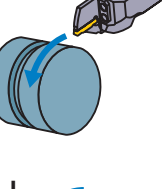
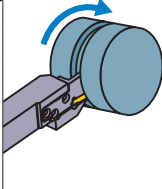
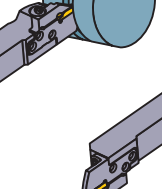
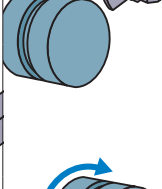
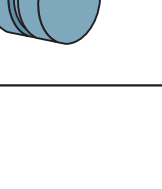
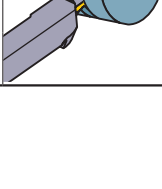
GROOVING / CUTTING OFF

## GROOVING / CUTTING OFF

\*1 The maximum groove depth (**CDX**) varies according to the insert used. Please refer to the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
 \*2 The maximum cut off diameter (**CUTDIA**) varies according to the insert used. The cut off diameter is double the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then **LF**, **LH** and **LH 2** values may vary.  
 \*4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

## SPARE PARTS

| Holder Number            |  |  |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                          | Clamp Screw                                                                         | Wrench                                                                              |
| <b>GYSR/L1010JX00-11</b> | CS350990T<br>(Clamp Torque : 22 lbf-in)                                             | TKY10R                                                                              |
| <b>GYSR/L1212JX00-13</b> |                                                                                     |                                                                                     |
| <b>GYSR/L2012JX00-18</b> |                                                                                     |                                                                                     |
| <b>GYSR/L1616JX00-17</b> | TS4SBL<br>(Clamp Torque : 31 lbf-in)                                                | TKY15R                                                                              |

|  | Dimensions (mm) ★3 |    |     |    |      |    |     | Cutting Mode                                                                        |                                                                                     |
|--|--------------------|----|-----|----|------|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | HBH | Clockwise                                                                           | Counterclockwise                                                                    |
|  | 10                 | 10 | 120 | 22 | 16   | 10 | 2   |   |   |
|  | 10                 | 10 | 120 | 22 | 16   | 10 | 2   |                                                                                     |                                                                                     |
|  | 12                 | 12 | 120 | 22 | 16   | 12 | —   |                                                                                     |                                                                                     |
|  | 12                 | 12 | 120 | 22 | 16   | 12 | —   |                                                                                     |                                                                                     |
|  | 16                 | 16 | 120 | 27 | 17   | 16 | —   |                                                                                     |                                                                                     |
|  | 16                 | 16 | 120 | 27 | 17   | 16 | —   |                                                                                     |                                                                                     |
|  | 20                 | 12 | 120 | 28 | 16   | 20 | —   |  |  |
|  | 20                 | 12 | 120 | 28 | 16   | 20 | —   |                                                                                     |                                                                                     |
|  | 10                 | 10 | 120 | 22 | 23   | 10 | 2   |                                                                                     |                                                                                     |
|  | 10                 | 10 | 120 | 22 | 23   | 10 | 2   |                                                                                     |                                                                                     |
|  | 12                 | 12 | 120 | 22 | 23   | 12 | —   |                                                                                     |                                                                                     |
|  | 12                 | 12 | 120 | 22 | 23   | 12 | —   |                                                                                     |                                                                                     |
|  | 16                 | 16 | 120 | 27 | 24   | 16 | —   |  |  |
|  | 16                 | 16 | 120 | 27 | 24   | 16 | —   |                                                                                     |                                                                                     |
|  | 20                 | 12 | 120 | 28 | 23   | 20 | —   |                                                                                     |                                                                                     |
|  | 20                 | 12 | 120 | 28 | 23   | 20 | —   |                                                                                     |                                                                                     |
|  | 10                 | 10 | 120 | 22 | 23   | 10 | 2   |                                                                                     |                                                                                     |
|  | 10                 | 10 | 120 | 22 | 23   | 10 | 2   |                                                                                     |                                                                                     |
|  | 12                 | 12 | 120 | 22 | 23   | 12 | —   |  |  |
|  | 12                 | 12 | 120 | 22 | 23   | 12 | —   |                                                                                     |                                                                                     |
|  | 16                 | 16 | 120 | 27 | 24   | 16 | —   |                                                                                     |                                                                                     |
|  | 16                 | 16 | 120 | 27 | 24   | 16 | —   |                                                                                     |                                                                                     |
|  | 20                 | 12 | 120 | 28 | 23   | 20 | —   |                                                                                     |                                                                                     |
|  | 20                 | 12 | 120 | 28 | 23   | 20 | —   |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                          |
|-----------|----------------------------------------|
| <b>C</b>  | <b>GY000150C0000-Breaker</b>           |
| <b>D</b>  | <b>GY000200/0224D0000-Breaker</b>      |
| <b>E</b>  | <b>GY000239/0250/0274E0000-Breaker</b> |
| <b>F</b>  | <b>GY000300/0318/0324F0000-Breaker</b> |

| For Grooving/Cutting off > F011, F012 |                |               |       |          |                  |                                |
|---------------------------------------|----------------|---------------|-------|----------|------------------|--------------------------------|
| Seat Size                             | Breaker        | GU            | GS    | GM       | GL               | 05-GM GFGS                     |
|                                       |                | (Gummy Steel) | (Low) | (Medium) | (Aluminum Alloy) | (Cutting off) (Hardened steel) |
|                                       | <b>CW</b>      | Neutral       |       |          | Hand             | Neutral                        |
| <b>C</b>                              | .059", 1.50 mm | ●             | ●     | ●        | ●                | ●                              |
| <b>D</b>                              | .079", 2.00 mm | ●             | ●     | ●        | ●                | ●                              |
| <b>E</b>                              | .094", 2.39 mm | ●             | ●     | ●        | ●                | ●                              |
| <b>E</b>                              | .098", 2.50 mm | ●             | ●     | ●        | ●                | ●                              |
| <b>F</b>                              | .118", 3.00 mm | ●             | ●     | ●        | ●                | ●                              |
| <b>F</b>                              | .125", 3.18 mm | ●             | ●     | ●        | ●                | ●                              |

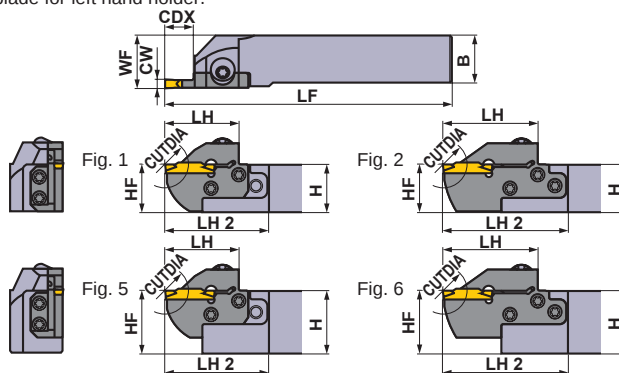
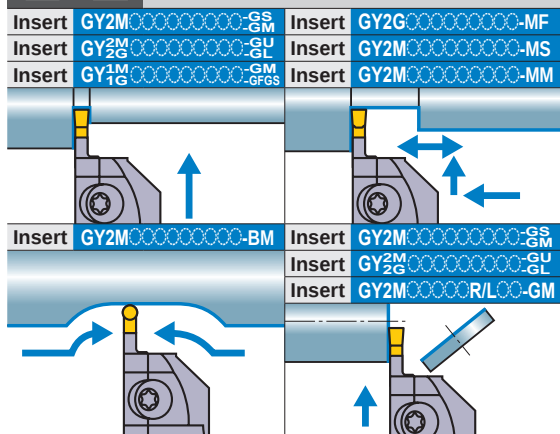
| For Multifunctional Grooving > F013, F014 |                |           |       |          |                      |
|-------------------------------------------|----------------|-----------|-------|----------|----------------------|
| Seat Size                                 | Breaker        | MF        | MS    | MM       | BM                   |
|                                           |                | (Finish)  | (Low) | (Medium) | (Copying, Recessing) |
|                                           | <b>CW</b>      | Ball nose |       |          |                      |
| <b>D</b>                                  | .079", 2.00 mm | ●         | ●     | ●        | ●                    |
|                                           | .088", 2.24 mm | ●         | ●     | ●        | ●                    |
| <b>E</b>                                  | .094", 2.39 mm | ●         | ●     | ●        | ●                    |
|                                           | .098", 2.50 mm | ●         | ●     | ●        | ●                    |
|                                           | .108", 2.74 mm | ●         | ●     | ●        | ●                    |
| <b>F</b>                                  | .118", 3.00 mm | ●         | ●     | ●        | ●                    |
|                                           | RE 0.2 mm      | ●         | ●     | ●        | ●                    |
|                                           | RE 0.4 mm      | ●         | ●     | ●        | ●                    |
|                                           | RE 0.8 mm      | ●         | ●     | ●        | ●                    |
|                                           | .125", 3.18 mm | ●         | ●     | ●        | ●                    |
|                                           | RE 0.2 mm      | ●         | ●     | ●        | ●                    |
|                                           | RE 0.4 mm      | ●         | ●     | ●        | ●                    |
|                                           | .128", 3.24mm  | ●         | ●     | ●        | ●                    |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

## 1-2 00° type holder (Metric)

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

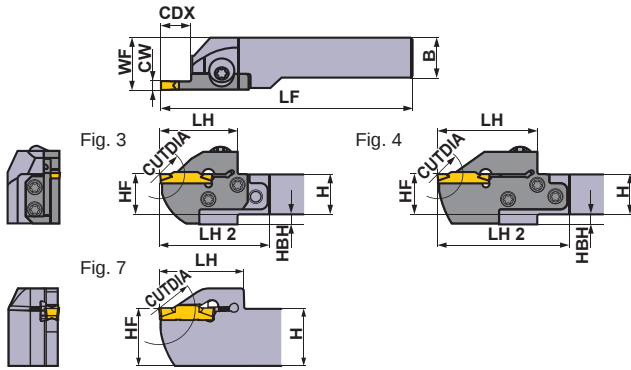


Right hand tool holder shown.

| Seat Size  | CW (mm)      | CDX (mm) | CUTDIA (mm) | Type             | Hand (R/L) | Order Number     |       |               |       | Fig. |  |
|------------|--------------|----------|-------------|------------------|------------|------------------|-------|---------------|-------|------|--|
|            |              |          |             |                  |            | Holder           | Stock | Modular Blade | Stock |      |  |
| D          | 2.00<br>2.24 | 6        | 12          | Modular          | R          | GYHR1616J00-M20R | ●     | GYM20RA-D06   | ●     | 3    |  |
|            |              |          |             |                  | L          | GYHL1616J00-M20L | ●     | GYM20LA-D06   | ●     | 3    |  |
|            |              |          |             | Mono Block       | R          | GYQR2020K00-D06  | ★     | —             | —     | 7    |  |
|            |              |          |             |                  | L          | GYQL2020K00-D06  | ★     | —             | —     | 7    |  |
|            |              |          |             | Modular          | R          | GYHR2020K00-M20R | ●     | GYM20RA-D06   | ●     | 1    |  |
|            |              |          |             |                  | L          | GYHL2020K00-M20L | ●     | GYM20LA-D06   | ●     | 1    |  |
|            |              |          |             | Modular          | R          | GYHR2020K00-M25R | ●     | GYM25RA-D06   | ●     | 3    |  |
|            |              |          |             |                  | L          | GYHL2020K00-M25L | ●     | GYM25LA-D06   | ●     | 3    |  |
|            |              |          |             | Mono Block       | R          | GYQR2525M00-D06  | ★     | —             | —     | 7    |  |
|            |              |          |             |                  | L          | GYQL2525M00-D06  | ★     | —             | —     | 7    |  |
|            |              |          |             | Modular          | R          | GYHR2525M00-M25R | ●     | GYM25RA-D06   | ●     | 1    |  |
|            |              |          |             |                  | L          | GYHL2525M00-M25L | ●     | GYM25LA-D06   | ●     | 1    |  |
|            |              | Modular  | R           | GYHR3225P00-M25R | ★          | GYM25RA-D06      | ●     | 5             |       |      |  |
|            |              |          | L           | GYHL3225P00-M25L | ★          | GYM25LA-D06      | ●     | 5             |       |      |  |
|            |              | Modular  | R           | GYHR3232P00-M25R | ★          | GYM25RA-D06      | ●     | 5             |       |      |  |
|            |              |          | L           | GYHL3232P00-M25L | ★          | GYM25LA-D06      | ●     | 5             |       |      |  |
|            |              | 10       | 20          | Modular          | R          | GYHR1616J00-M20R | ●     | GYM20RA-D10   | ●     | 3    |  |
|            |              |          |             |                  | L          | GYHL1616J00-M20L | ●     | GYM20LA-D10   | ●     | 3    |  |
|            |              |          |             | Modular          | R          | GYHR2020K00-M20R | ●     | GYM20RA-D10   | ●     | 1    |  |
|            |              |          |             |                  | L          | GYHL2020K00-M20L | ●     | GYM20LA-D10   | ●     | 1    |  |
|            |              | 12       | 24          | Modular          | R          | GYHR2020K00-M25R | ●     | GYM25RA-D12   | ●     | 3    |  |
|            |              |          |             |                  | L          | GYHL2020K00-M25L | ●     | GYM25LA-D12   | ●     | 3    |  |
|            |              |          |             | Modular          | R          | GYHR2525M00-M25R | ●     | GYM25RA-D12   | ●     | 1    |  |
|            |              |          |             |                  | L          | GYHL2525M00-M25L | ●     | GYM25LA-D12   | ●     | 1    |  |
|            |              |          |             | Modular          | R          | GYHR3225P00-M25R | ★     | GYM25RA-D12   | ●     | 5    |  |
|            |              |          |             |                  | L          | GYHL3225P00-M25L | ★     | GYM25LA-D12   | ●     | 5    |  |
|            |              | Modular  | R           | GYHR3232P00-M25R | ★          | GYM25RA-D12      | ●     | 5             |       |      |  |
|            |              |          | L           | GYHL3232P00-M25L | ★          | GYM25LA-D12      | ●     | 5             |       |      |  |
|            |              | 18 ★4    | 36          | Modular          | R          | GYHR1616J00-M20R | ●     | GYM20RB-D18   | ●     | 4    |  |
|            |              |          |             |                  | L          | GYHL1616J00-M20L | ●     | GYM20LB-D18   | ●     | 4    |  |
|            |              |          |             | Mono Block       | R          | GYQR2020K00-D18  | ★     | —             | —     | 7    |  |
|            |              |          |             |                  | L          | GYQL2020K00-D18  | ★     | —             | —     | 7    |  |
|            |              | Modular  | R           | GYHR2020K00-M20R | ●          | GYM20RB-D18      | ●     | 2             |       |      |  |
|            |              |          | L           | GYHL2020K00-M20L | ●          | GYM20LB-D18      | ●     | 2             |       |      |  |
|            |              | 20 ★1    | 40 ★2       | Modular          | R          | GYHR2020K00-M25R | ●     | GYM25RA-D20   | ●     | 4    |  |
|            |              |          |             |                  | L          | GYHL2020K00-M25L | ●     | GYM25LA-D20   | ●     | 4    |  |
| Mono Block | R            |          |             | GYQR2525M00-D20  | ★          | —                | —     | 7             |       |      |  |
|            | L            |          |             | GYQL2525M00-D20  | ★          | —                | —     | 7             |       |      |  |
| Modular    | R            |          |             | GYHR2525M00-M25R | ●          | GYM25RA-D20      | ●     | 2             |       |      |  |
|            | L            |          |             | GYHL2525M00-M25L | ●          | GYM25LA-D20      | ●     | 2             |       |      |  |
| Modular    | R            |          |             | GYHR3225P00-M25R | ★          | GYM25RA-D20      | ●     | 6             |       |      |  |
|            | L            |          |             | GYHL3225P00-M25L | ★          | GYM25LA-D20      | ●     | 6             |       |      |  |
| Modular    | R            |          |             | GYHR3232P00-M25R | ★          | GYM25RA-D20      | ●     | 6             |       |      |  |
|            | L            |          |             | GYHL3232P00-M25L | ★          | GYM25LA-D20      | ●     | 6             |       |      |  |

\*4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw                    | ①<br>Wrench ★      |
|---------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |       |     | Cutting Mode |               |
|--------------------|----|-----|----|------|----|-------|-----|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF    | HBH | Clockwise    | Anticlockwise |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20    | 4   | R            |               |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 36 | —    | 20 | 20.15 | —   |              |               |
| 20                 | 20 | 125 | 36 | —    | 20 | 20.15 | —   |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23    | —   |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23    | —   |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 36 | —    | 25 | 25.15 | —   |              |               |
| 25                 | 25 | 150 | 36 | —    | 25 | 25.15 | —   |              |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28    | —   | L            |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28    | —   |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28    | —   |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28    | —   |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35    | —   |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35    | —   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   | L            |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 39 | —    | 20 | 20.10 | —   | L            |               |
| 20                 | 20 | 125 | 39 | —    | 20 | 20.10 | —   |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23    | —   |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23    | —   |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.10 | —   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.10 | —   |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28    | —   |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28    | —   |              |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28    | —   | L            |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28    | —   |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35    | —   |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35    | —   |              |               |

## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| D         | GY000200/0224D000000-Breaker |

| For Grooving/Cutting off |                | F011, F012          |             |                |                        |                        |                          |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
| CW                       |                |                     |             |                |                        |                        |                          |
| D                        | .079", 2.00 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |

| For Multifunctional Grooving |                | F013, F014     |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| CW                           |                |                |             |                |                            |
| D                            | .079", 2.00 mm | ●              | ●           | ●              | ●                          |
|                              | .088", 2.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

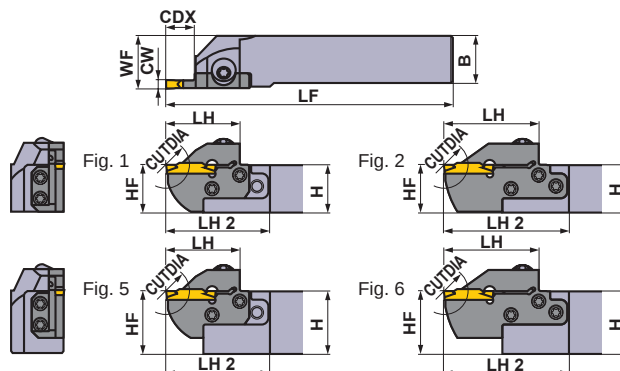
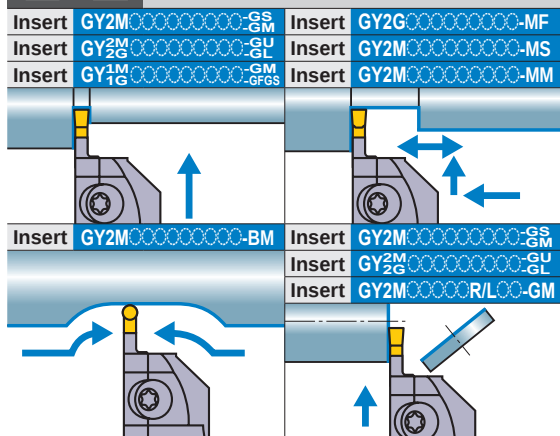
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F065

## 1-2 00° type holder (Metric)

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

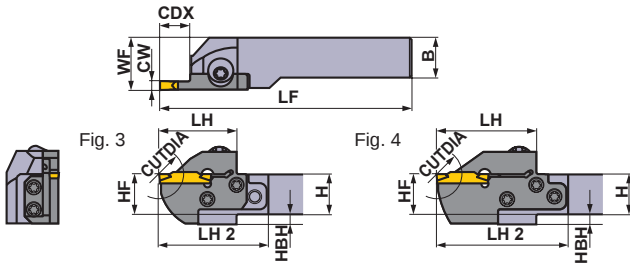


Right hand tool holder shown.

| Seat<br>Size | CW<br>(mm)           | CDX<br>(mm) | CUTDIA<br>(mm) | Type             | Hand<br>(R/L) | Order Number     |       |               |       | Fig. |  |
|--------------|----------------------|-------------|----------------|------------------|---------------|------------------|-------|---------------|-------|------|--|
|              |                      |             |                |                  |               | Holder           | Stock | Modular Blade | Stock |      |  |
| E            | 2.39<br>2.50<br>2.74 | 6           | 12             | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RA-E06   | ●     | 3    |  |
|              |                      |             |                |                  | L             | GYHL1616J00-M20L | ●     | GYM20LA-E06   | ●     | 3    |  |
|              |                      |             |                | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RA-E06   | ●     | 1    |  |
|              |                      |             |                |                  | L             | GYHL2020K00-M20L | ●     | GYM20LA-E06   | ●     | 1    |  |
|              |                      |             |                | Modular          | R             | GYHR2020K00-M25R | ●     | GYM25RA-E06   | ●     | 3    |  |
|              |                      |             |                |                  | L             | GYHL2020K00-M25L | ●     | GYM25LA-E06   | ●     | 3    |  |
|              |                      |             |                | Modular          | R             | GYHR2525M00-M25R | ●     | GYM25RA-E06   | ●     | 1    |  |
|              |                      |             |                |                  | L             | GYHL2525M00-M25L | ●     | GYM25LA-E06   | ●     | 1    |  |
|              |                      |             |                | Modular          | R             | GYHR3225P00-M25R | ★     | GYM25RA-E06   | ●     | 5    |  |
|              |                      |             |                |                  | L             | GYHL3225P00-M25L | ★     | GYM25LA-E06   | ●     | 5    |  |
|              |                      |             |                | Modular          | R             | GYHR3232P00-M25R | ★     | GYM25RA-E06   | ●     | 5    |  |
|              |                      |             |                |                  | L             | GYHL3232P00-M25L | ★     | GYM25LA-E06   | ●     | 5    |  |
|              |                      | 10          | 20             | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RA-E10   | ●     | 3    |  |
|              |                      |             |                |                  | L             | GYHL1616J00-M20L | ●     | GYM20LA-E10   | ●     | 3    |  |
|              |                      |             |                | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RA-E10   | ●     | 1    |  |
|              |                      |             |                |                  | L             | GYHL2020K00-M20L | ●     | GYM20LA-E10   | ●     | 1    |  |
|              |                      | 12          | 24             | Modular          | R             | GYHR2020K00-M25R | ●     | GYM25RA-E12   | ●     | 3    |  |
|              |                      |             |                |                  | L             | GYHL2020K00-M25L | ●     | GYM25LA-E12   | ●     | 3    |  |
|              |                      |             |                | Modular          | R             | GYHR2525M00-M25R | ●     | GYM25RA-E12   | ●     | 1    |  |
|              |                      |             |                |                  | L             | GYHL2525M00-M25L | ●     | GYM25LA-E12   | ●     | 1    |  |
|              |                      |             |                | Modular          | R             | GYHR3225P00-M25R | ★     | GYM25RA-E12   | ●     | 5    |  |
|              |                      |             |                |                  | L             | GYHL3225P00-M25L | ★     | GYM25LA-E12   | ●     | 5    |  |
|              |                      |             |                | Modular          | R             | GYHR3232P00-M25R | ★     | GYM25RA-E12   | ●     | 5    |  |
|              |                      |             |                |                  | L             | GYHL3232P00-M25L | ★     | GYM25LA-E12   | ●     | 5    |  |
|              |                      | 18 ★4       | 36             | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RB-E18   | ●     | 4    |  |
|              |                      |             |                |                  | L             | GYHL1616J00-M20L | ●     | GYM20LB-E18   | ●     | 4    |  |
|              |                      |             |                | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RB-E18   | ●     | 2    |  |
|              |                      |             |                |                  | L             | GYHL2020K00-M20L | ●     | GYM20LB-E18   | ●     | 2    |  |
| 20 ★1        | 40 ★2                | Modular     | R              | GYHR2020K00-M25R | ●             | GYM25RA-E20      | ●     | 4             |       |      |  |
|              |                      |             | L              | GYHL2020K00-M25L | ●             | GYM25LA-E20      | ●     | 4             |       |      |  |
|              |                      | Modular     | R              | GYHR2525M00-M25R | ●             | GYM25RA-E20      | ●     | 2             |       |      |  |
|              |                      |             | L              | GYHL2525M00-M25L | ●             | GYM25LA-E20      | ●     | 2             |       |      |  |
|              |                      | Modular     | R              | GYHR3225P00-M25R | ★             | GYM25RA-E20      | ●     | 6             |       |      |  |
|              |                      |             | L              | GYHL3225P00-M25L | ★             | GYM25LA-E20      | ●     | 6             |       |      |  |
|              |                      | Modular     | R              | GYHR3232P00-M25R | ★             | GYM25RA-E20      | ●     | 6             |       |      |  |
|              |                      |             | L              | GYHL3232P00-M25L | ★             | GYM25LA-E20      | ●     | 6             |       |      |  |

★1 The maximum groove depth (**CDX**) varies according to the insert used. Please refer to the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
★2 The maximum cut off diameter (**CUTDIA**) varies according to the insert used. The cut off diameter is double the maximum groove depth (**CDX**) of inserts on pages F011 to F015.  
★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then **LF**, **LH** and **LH 2** values may vary.  
★4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.          | ①<br>Wrench ★      |
|---------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |    |     |  | Cutting Mode |               |
|--------------------|----|-----|----|------|----|----|-----|--|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |  | Clockwise    | Anticlockwise |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20 | 4   |  |              |               |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20 | 4   |  |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26 | 5   |  |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26 | 5   |  |              |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28 | —   |  |              |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28 | —   |  |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28 | —   |  |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28 | —   |  |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35 | —   |  |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35 | —   |  |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20 | 4   |  |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20 | 4   |  |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |  |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |  |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |  |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |  |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20 | 4   |  |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20 | 4   |  |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23 | —   |  |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |  |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |  |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |  |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |  |              |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |  |              |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |  |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |  |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |  |              |               |

## Select an Insert

| Seat Size | Insert Number               |
|-----------|-----------------------------|
| E         | GY 0239/0250/0274E —Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |                     |             |                |                        |                          |
|-----------|----------------|---------------------------------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size | CW             | Breaker                               | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off)   |
|           |                |                                       |                     |             |                |                        | GFGS<br>(Hardened steel) |
| E         | .094", 2.39 mm | ●                                     | ●                   | ●           | ●              | ●                      | ●                        |
|           | .098", 2.50 mm | ●                                     | ●                   | ●           | ●              | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |                |             |                            |
|-----------|----------------|-------------------------------------------|----------------|-------------|----------------------------|
| Seat Size | CW             | Breaker                                   | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium)             |
|           |                |                                           |                |             | BM<br>(Copying, Recessing) |
| E         | .094", 2.39 mm | ●                                         | ●              | ●           | ●                          |
|           | .098", 2.50 mm | ●                                         | ●              | ●           | ●                          |
|           | .108", 2.74 mm | ●                                         | ●              | ●           | ●                          |

● : Gauge insert shown dimensions

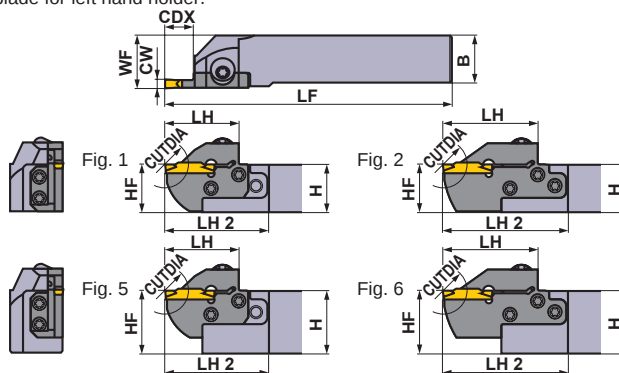
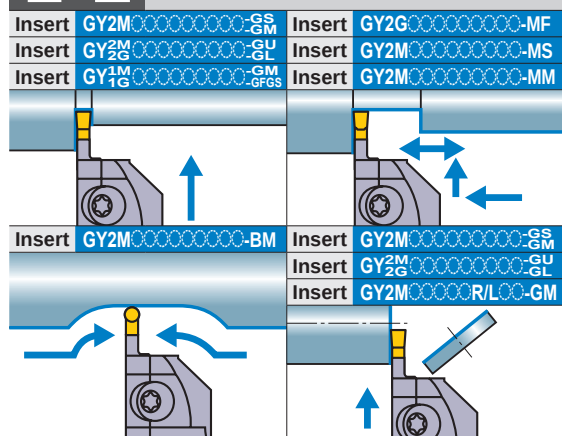
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F067

## 1-2 00° type holder (Metric)

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

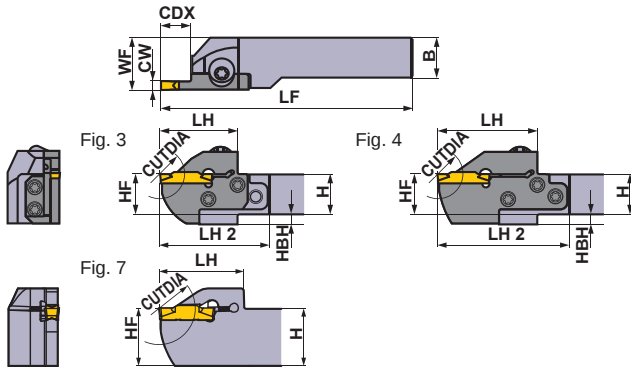


Right hand tool holder shown.

| Seat<br>Size | CW<br>(mm)           | CDX<br>(mm)      | CUTDIA<br>(mm)  | Type             | Hand<br>(R/L) | Order Number     |       |               |       | Fig. |  |
|--------------|----------------------|------------------|-----------------|------------------|---------------|------------------|-------|---------------|-------|------|--|
|              |                      |                  |                 |                  |               | Holder           | Stock | Modular Blade | Stock |      |  |
| F            | 3.00<br>3.18<br>3.24 | 6                | 12              | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RA-F06   | ●     | 3    |  |
|              |                      |                  |                 |                  | L             | GYHL1616J00-M20L | ●     | GYM20LA-F06   | ●     | 3    |  |
|              |                      |                  |                 | Mono Block       | R             | GYQR2020K00-F06  | ★     | —             | —     | 7    |  |
|              |                      |                  |                 |                  | L             | GYQL2020K00-F06  | ★     | —             | —     | 7    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RA-F06   | ●     | 1    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M20L | ●     | GYM20LA-F06   | ●     | 1    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2020K00-M25R | ●     | GYM25RA-F06   | ●     | 3    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M25L | ●     | GYM25LA-F06   | ●     | 3    |  |
|              |                      |                  |                 | Mono Block       | R             | GYQR2525M00-F06  | ★     | —             | —     | 7    |  |
|              |                      |                  |                 |                  | L             | GYQL2525M00-F06  | ★     | —             | —     | 7    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2525M00-M25R | ●     | GYM25RA-F06   | ●     | 1    |  |
|              |                      |                  |                 |                  | L             | GYHL2525M00-M25L | ●     | GYM25LA-F06   | ●     | 1    |  |
|              |                      | Modular          | R               | GYHR3225P00-M25R | ★             | GYM25RA-F06      | ●     | 5             |       |      |  |
|              |                      |                  | L               | GYHL3225P00-M25L | ★             | GYM25LA-F06      | ●     | 5             |       |      |  |
|              |                      | Modular          | R               | GYHR3232P00-M25R | ★             | GYM25RA-F06      | ●     | 5             |       |      |  |
|              |                      |                  | L               | GYHL3232P00-M25L | ★             | GYM25LA-F06      | ●     | 5             |       |      |  |
|              |                      | 10               | 20              | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RA-F10   | ●     | 3    |  |
|              |                      |                  |                 |                  | L             | GYHL1616J00-M20L | ●     | GYM20LA-F10   | ●     | 3    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RA-F10   | ●     | 1    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M20L | ●     | GYM20LA-F10   | ●     | 1    |  |
|              |                      | 12               | 24              | Modular          | R             | GYHR2020K00-M25R | ●     | GYM25RA-F12   | ●     | 3    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M25L | ●     | GYM25LA-F12   | ●     | 3    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2525M00-M25R | ●     | GYM25RA-F12   | ●     | 1    |  |
|              |                      |                  |                 |                  | L             | GYHL2525M00-M25L | ●     | GYM25LA-F12   | ●     | 1    |  |
|              |                      |                  |                 | Modular          | R             | GYHR3225P00-M25R | ★     | GYM25RA-F12   | ●     | 5    |  |
|              |                      |                  |                 |                  | L             | GYHL3225P00-M25L | ★     | GYM25LA-F12   | ●     | 5    |  |
|              |                      | Modular          | R               | GYHR3232P00-M25R | ★             | GYM25RA-F12      | ●     | 5             |       |      |  |
|              |                      |                  | L               | GYHL3232P00-M25L | ★             | GYM25LA-F12      | ●     | 5             |       |      |  |
|              |                      | 18 ★4            | 36              | Modular          | R             | GYHR1616J00-M20R | ●     | GYM20RB-F18   | ●     | 4    |  |
|              |                      |                  |                 |                  | L             | GYHL1616J00-M20L | ●     | GYM20LB-F18   | ●     | 4    |  |
|              |                      |                  |                 | Mono Block       | R             | GYQR2020K00-F18  | ★     | —             | —     | 7    |  |
|              |                      | L                | GYQL2020K00-F18 |                  | ★             | —                | —     | 7             |       |      |  |
|              |                      | 20 ★1            | 40 ★2           | Modular          | R             | GYHR2020K00-M20R | ●     | GYM20RB-F18   | ●     | 2    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M20L | ●     | GYM20LB-F18   | ●     | 2    |  |
|              |                      |                  |                 | Modular          | R             | GYHR2020K00-M25R | ●     | GYM25RA-F20   | ●     | 4    |  |
|              |                      |                  |                 |                  | L             | GYHL2020K00-M25L | ●     | GYM25LA-F20   | ●     | 4    |  |
| Mono Block   | R                    |                  |                 | GYQR2525M00-F20  | ★             | —                | —     | 7             |       |      |  |
|              | L                    |                  |                 | GYQL2525M00-F20  | ★             | —                | —     | 7             |       |      |  |
| Modular      | R                    |                  |                 | GYHR2525M00-M25R | ●             | GYM25RA-F20      | ●     | 2             |       |      |  |
|              | L                    |                  |                 | GYHL2525M00-M25L | ●             | GYM25LA-F20      | ●     | 2             |       |      |  |
| Modular      | R                    |                  |                 | GYHR3225P00-M25R | ★             | GYM25RA-F20      | ●     | 6             |       |      |  |
|              | L                    |                  |                 | GYHL3225P00-M25L | ★             | GYM25LA-F20      | ●     | 6             |       |      |  |
| Modular      | R                    | GYHR3232P00-M25R | ★               | GYM25RA-F20      | ●             | 6                |       |               |       |      |  |
|              | L                    | GYHL3232P00-M25L | ★               | GYM25LA-F20      | ●             | 6                |       |               |       |      |  |

\*4 The maximum groove depth (**CDX**) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.          | ①<br>Wrench ★      |
|---------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |       |     | Cutting Mode |               |
|--------------------|----|-----|----|------|----|-------|-----|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF    | HBH | Clockwise    | Anticlockwise |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 104 | 28 | 44   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 36 | —    | 20 | 20.30 | —   |              |               |
| 20                 | 20 | 125 | 36 | —    | 20 | 20.30 | —   |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23    | —   |              |               |
| 20                 | 20 | 119 | 28 | 43   | 20 | 23    | —   |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 117 | 31 | 52   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 36 | —    | 25 | 25.30 | —   |              |               |
| 25                 | 25 | 150 | 36 | —    | 25 | 25.30 | —   |              |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28    | —   |              |               |
| 25                 | 25 | 142 | 31 | 49   | 25 | 28    | —   |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28    | —   |              |               |
| 32                 | 25 | 162 | 31 | 49   | 32 | 28    | —   |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35    | —   |              |               |
| 32                 | 32 | 162 | 31 | 49   | 32 | 35    | —   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 116 | 40 | 56   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 39 | —    | 20 | 20.25 | —   |              |               |
| 20                 | 20 | 125 | 39 | —    | 20 | 20.25 | —   |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23    | —   |              |               |
| 20                 | 20 | 131 | 40 | 55   | 20 | 23    | —   |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 131 | 45 | 66   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.25 | —   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.25 | —   |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28    | —   |              |               |
| 25                 | 25 | 156 | 45 | 63   | 25 | 28    | —   |              |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28    | —   |              |               |
| 32                 | 25 | 176 | 45 | 63   | 32 | 28    | —   |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35    | —   |              |               |
| 32                 | 32 | 176 | 45 | 63   | 32 | 35    | —   |              |               |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | F011, F012          |             |                |                        |                        |                          |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          |                | Neutral             |             |                |                        | Hand                   | Neutral                  |
| F                        | .118", 3.00 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |
|                          | .125", 3.18 mm | ●                   | ●           | ●              | ●                      | ●                      | ●                        |

| For Multifunctional Grooving |                | F013, F014     |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              |                | Ball nose      |             |                |                            |
| F                            | .118", 3.00 mm | ●              | ●           | ●              | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              | ●                          |
|                              | RE 0.4 mm      | ●              | ●           | ●              | ●                          |
|                              | RE 0.8 mm      | ●              | ●           | ●              | ●                          |
|                              | .125", 3.18 mm | ●              | ●           | ●              | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              | ●                          |
|                              | RE 0.4 mm      | ●              | ●           | ●              | ●                          |
|                              | .128", 3.24 mm | ●              | ●           | ●              | ●                          |

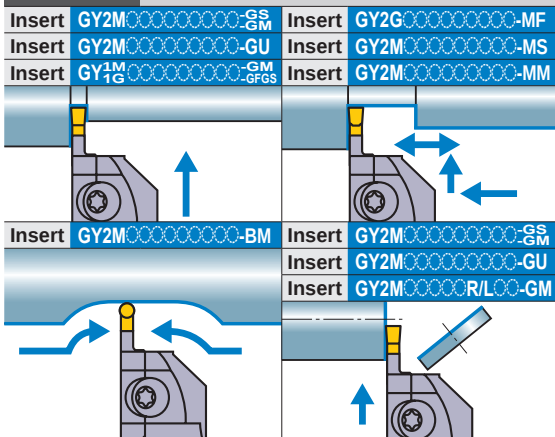
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

GROOVING / CUTTING OFF

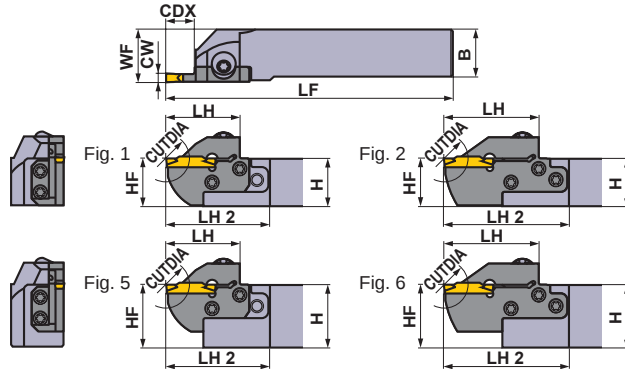
# GY SERIES (EXTERNAL)

## 1-2 00° type holder (Metric)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)      | CDX (mm) | CUTDIA (mm) | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|--------------|----------|-------------|------------|------------|------------------|-------|---------------|-------|------|
|           |              |          |             |            |            | Holder           | Stock | Modular Blade | Stock |      |
| G         | 4.00<br>4.24 | 8        | 16          | Mono Block | R          | GYQR2020K00-G08  | ★     | —             | —     | 7    |
|           |              |          |             | Mono Block | L          | GYQL2020K00-G08  | ★     | —             | —     | 7    |
|           |              |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-G08   | ●     | 3    |
|           |              |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-G08   | ●     | 3    |
|           |              |          |             | Mono Block | R          | GYQR2525M00-G08  | ★     | —             | —     | 7    |
|           |              |          |             | Mono Block | L          | GYQL2525M00-G08  | ★     | —             | —     | 7    |
|           |              |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-G08   | ●     | 1    |
|           |              |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-G08   | ●     | 1    |
|           |              |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-G08   | ●     | 5    |
|           |              |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-G08   | ●     | 5    |
|           |              |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-G08   | ●     | 5    |
|           |              |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-G08   | ●     | 5    |
|           |              | 12       | 24          | Modular    | R          | GYHR1616J00-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |              |          |             | Modular    | L          | GYHL1616J00-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |              |          | 24          | Modular    | R          | GYHR2020K00-M20R | ●     | GYM20RA-G12   | ●     | 1    |
|           |              |          |             | Modular    | L          | GYHL2020K00-M20L | ●     | GYM20LA-G12   | ●     | 1    |
|           |              | 14       | 28          | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-G14   | ●     | 3    |
|           |              |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |              |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-G14   | ●     | 1    |
|           |              |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-G14   | ●     | 1    |
|           |              |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-G14   | ●     | 5    |
|           |              |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-G14   | ●     | 5    |
|           |              |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-G14   | ●     | 5    |
|           |              |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-G14   | ●     | 5    |
|           |              | 25 ★1    | 50 ★2       | Mono Block | R          | GYQR2020K00-G25  | ★     | —             | —     | 8    |
|           |              |          |             | Mono Block | L          | GYQL2020K00-G25  | ★     | —             | —     | 8    |
|           |              |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-G25   | ●     | 4    |
|           |              |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-G25   | ●     | 4    |
|           |              |          |             | Mono Block | R          | GYQR2525M00-G25  | ★     | —             | —     | 7    |
|           |              |          |             | Mono Block | L          | GYQL2525M00-G25  | ★     | —             | —     | 7    |
|           |              |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-G25   | ●     | 2    |
|           |              |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-G25   | ●     | 2    |
|           |              |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-G25   | ●     | 6    |
|           |              |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-G25   | ●     | 6    |
|           |              |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-G25   | ●     | 6    |
|           |              |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-G25   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

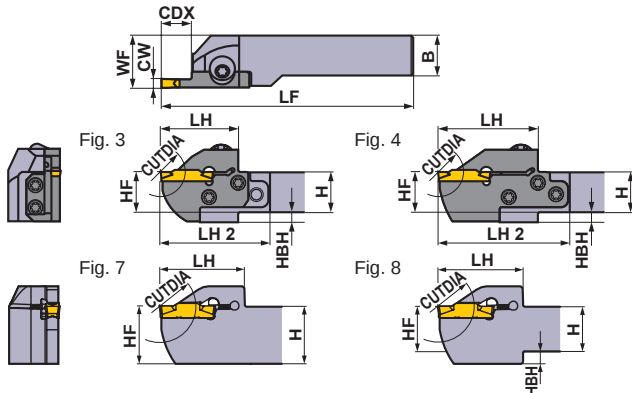
★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

● : USA Stock ★ : Stocked in Japan

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw                    | ①<br>Wrench ★      |
|---------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |       |     | Cutting Mode |               |
|--------------------|----|-----|----|------|----|-------|-----|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF    | HBH | Clockwise    | Anticlockwise |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   |              |               |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   |              |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   |              |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   |              |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   |              |               |

## Select an Insert

| Seat Size | Insert Number        |
|-----------|----------------------|
| G         | GY0400/0424G—Breaker |

| For Grooving/Cutting off |                   |                     |             |                | > F011, F012           |                          |
|--------------------------|-------------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker<br><br>CW | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          |                   | Neutral             |             |                | Hand                   | Neutral                  |
| G                        | .157", 4.00 mm    | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving |                |                |             |                | > F013, F014               |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              | CW             |                |             |                | Ball nose                  |
| G                            | .157", 4.00 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      | ●              |             | ●              |                            |
|                              | .167", 4.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

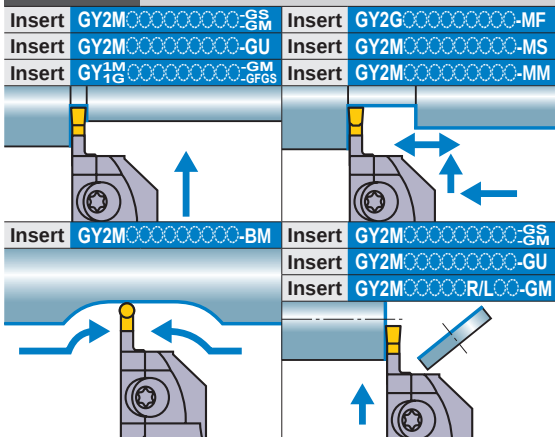
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F071

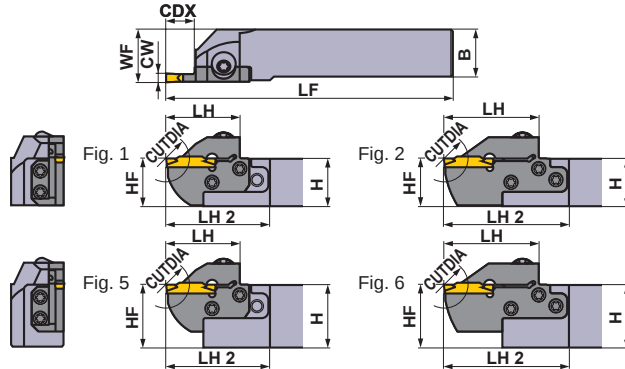
# GY SERIES (EXTERNAL)

## 1-2 00° type holder (Metric)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm) | CUTDIA (mm) | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|----------|-------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |          |             |            |            | Holder           | Stock | Modular Blade | Stock |      |
| H         | 4.75<br>5.00<br>5.24 | 8        | 16          | Mono Block | R          | GYQR2020K00-H08  | ★     | —             | —     | 7    |
|           |                      |          |             | Mono Block | L          | GYQL2020K00-H08  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-H08   | ●     | 3    |
|           |                      |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-H08   | ●     | 3    |
|           |                      |          |             | Mono Block | R          | GYQR2525M00-H08  | ★     | —             | —     | 7    |
|           |                      |          |             | Mono Block | L          | GYQL2525M00-H08  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-H08   | ●     | 1    |
|           |                      |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-H08   | ●     | 1    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-H08   | ●     | 5    |
|           |                      |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-H08   | ●     | 5    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-H08   | ●     | 5    |
|           |                      |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-H08   | ●     | 5    |
|           |                      | 12       | 24          | Modular    | R          | GYHR1616J00-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      |          |             | Modular    | L          | GYHL1616J00-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |          | 24          | Modular    | R          | GYHR2020K00-M20R | ●     | GYM20RA-H12   | ●     | 1    |
|           |                      |          |             | Modular    | L          | GYHL2020K00-M20L | ●     | GYM20LA-H12   | ●     | 1    |
|           |                      | 14       | 28          | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-H14   | ●     | 3    |
|           |                      |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-H14   | ●     | 3    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-H14   | ●     | 1    |
|           |                      |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-H14   | ●     | 1    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-H14   | ●     | 5    |
|           |                      |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-H14   | ●     | 5    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-H14   | ●     | 5    |
|           |                      |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-H14   | ●     | 5    |
|           |                      | 25 ★1    | 50 ★2       | Mono Block | R          | GYQR2020K00-H25  | ★     | —             | —     | 8    |
|           |                      |          |             | Mono Block | L          | GYQL2020K00-H25  | ★     | —             | —     | 8    |
|           |                      |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-H25   | ●     | 4    |
|           |                      |          |             | Modular    | L          | GYHL2020K00-M25L | ●     | GYM25LA-H25   | ●     | 4    |
|           |                      |          |             | Mono Block | R          | GYQR2525M00-H25  | ★     | —             | —     | 7    |
|           |                      |          |             | Mono Block | L          | GYQL2525M00-H25  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-H25   | ●     | 2    |
|           |                      |          |             | Modular    | L          | GYHL2525M00-M25L | ●     | GYM25LA-H25   | ●     | 2    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-H25   | ●     | 6    |
|           |                      |          |             | Modular    | L          | GYHL3225P00-M25L | ★     | GYM25LA-H25   | ●     | 6    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-H25   | ●     | 6    |
|           |                      |          |             | Modular    | L          | GYHL3232P00-M25L | ★     | GYM25LA-H25   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

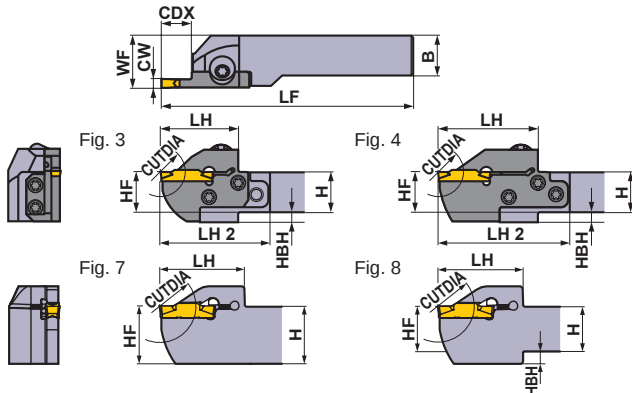
★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

● : USA Stock ★ : Stocked in Japan

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw                    | ①<br>Wrench ★      |
|---------------|-----------------------------------------|-------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                   | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |       |     | Cutting Mode |               |
|--------------------|----|-----|----|------|----|-------|-----|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF    | HBH | Clockwise    | Anticlockwise |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   |              |               |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   |              |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 16                 | 16 | 110 | 34 | 50   | 16 | 20    | 4   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 34 | 49   | 20 | 23    | —   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   |              |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   |              |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   |              |               |

## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| H         | GY 0475/0500/0524H — Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(hardened steel) |
| H         | CW             | Neutral                               | Neutral     | Hand           | Neutral                | Neutral                  |
|           | .187", 4.75 mm | ●                                     | ●           | ●              | ●                      | ●                        |
|           | .197", 5.00 mm | ●                                     | ●           | ●              | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H         | CW             |                                           |             |                | Ball nose                  |
|           | .187", 4.75 mm |                                           |             |                | ●                          |
|           | RE 0.2 mm      | ●                                         |             |                |                            |
|           | RE 0.4 mm      | ●                                         |             |                |                            |
|           | RE 0.8 mm      | ●                                         |             |                |                            |
|           | .197", 5.00 mm |                                           |             |                | ●                          |
|           | RE 0.2 mm      | ●                                         |             |                |                            |
|           | RE 0.4 mm      | ●                                         | ●           | ●              |                            |
|           | RE 0.8 mm      | ●                                         | ●           | ●              |                            |
|           | .206", 5.24 mm | ●                                         |             |                |                            |

● : Gauge insert shown dimensions

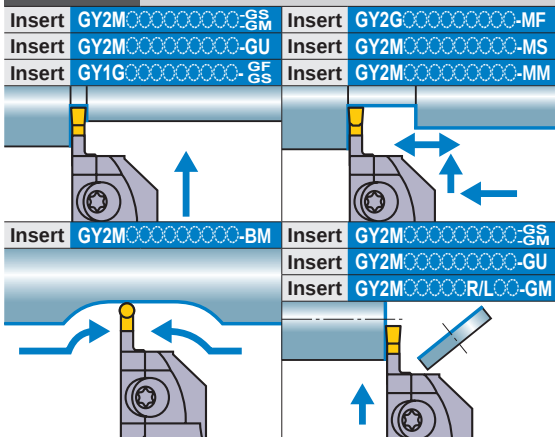
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F073

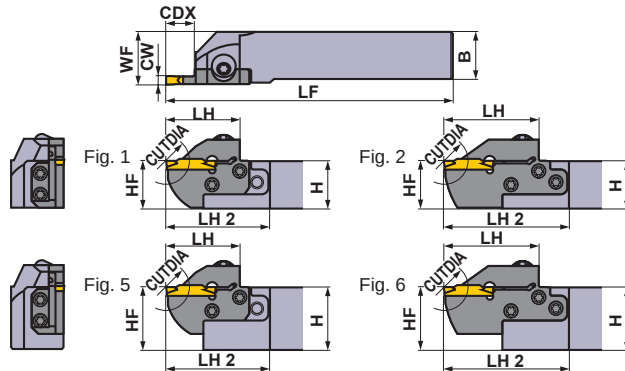
# GY SERIES (EXTERNAL)

## 1-2 00° type holder (Metric)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

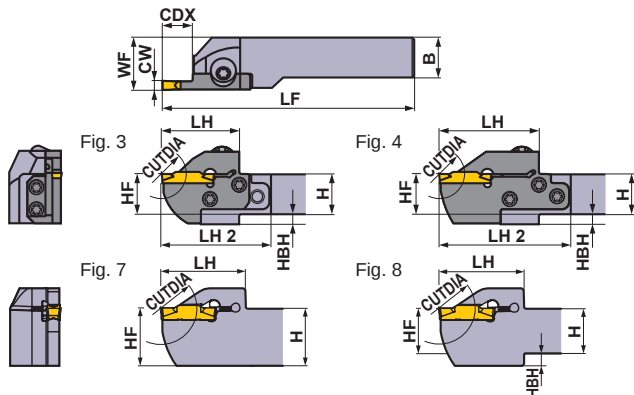
| Seat Size | CW (mm)              | CDX (mm) | CUTDIA (mm) | Type       | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|----------|-------------|------------|------------|------------------|-------|---------------|-------|------|
|           |                      |          |             |            |            | Holder           | Stock | Modular Blade | Stock |      |
| J         | 6.00<br>6.31<br>6.35 | 8        | 16          | Mono Block | R          | GYQR2020K00-J08  | ★     | —             | —     | 7    |
|           |                      |          |             |            | L          | GYQL2020K00-J08  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-J08   | ●     | 3    |
|           |                      |          |             |            | L          | GYHL2020K00-M25L | ●     | GYM25LA-J08   | ●     | 3    |
|           |                      |          |             | Mono Block | R          | GYQR2525M00-J08  | ★     | —             | —     | 7    |
|           |                      |          |             |            | L          | GYQL2525M00-J08  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-J08   | ●     | 1    |
|           |                      |          |             |            | L          | GYHL2525M00-M25L | ●     | GYM25LA-J08   | ●     | 1    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-J08   | ●     | 5    |
|           |                      |          |             |            | L          | GYHL3225P00-M25L | ★     | GYM25LA-J08   | ●     | 5    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-J08   | ●     | 5    |
|           |                      |          |             |            | L          | GYHL3232P00-M25L | ★     | GYM25LA-J08   | ●     | 5    |
|           |                      | 14       | 28          | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-J14   | ●     | 3    |
|           |                      |          |             |            | L          | GYHL2020K00-M25L | ●     | GYM25LA-J14   | ●     | 3    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-J14   | ●     | 1    |
|           |                      |          |             |            | L          | GYHL2525M00-M25L | ●     | GYM25LA-J14   | ●     | 1    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-J14   | ●     | 5    |
|           |                      |          |             |            | L          | GYHL3225P00-M25L | ★     | GYM25LA-J14   | ●     | 5    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-J14   | ●     | 5    |
|           |                      |          |             |            | L          | GYHL3232P00-M25L | ★     | GYM25LA-J14   | ●     | 5    |
|           |                      | 25 ★1    | 50 ★2       | Mono Block | R          | GYQR2020K00-J25  | ★     | —             | —     | 8    |
|           |                      |          |             |            | L          | GYQL2020K00-J25  | ★     | —             | —     | 8    |
|           |                      |          |             | Modular    | R          | GYHR2020K00-M25R | ●     | GYM25RA-J25   | ●     | 4    |
|           |                      |          |             |            | L          | GYHL2020K00-M25L | ●     | GYM25LA-J25   | ●     | 4    |
|           |                      |          |             | Mono Block | R          | GYQR2525M00-J25  | ★     | —             | —     | 7    |
|           |                      |          |             |            | L          | GYQL2525M00-J25  | ★     | —             | —     | 7    |
|           |                      |          |             | Modular    | R          | GYHR2525M00-M25R | ●     | GYM25RA-J25   | ●     | 2    |
|           |                      |          |             |            | L          | GYHL2525M00-M25L | ●     | GYM25LA-J25   | ●     | 2    |
|           |                      |          |             | Modular    | R          | GYHR3225P00-M25R | ★     | GYM25RA-J25   | ●     | 6    |
|           |                      |          |             |            | L          | GYHL3225P00-M25L | ★     | GYM25LA-J25   | ●     | 6    |
|           |                      |          |             | Modular    | R          | GYHR3232P00-M25R | ★     | GYM25RA-J25   | ●     | 6    |
|           |                      |          |             |            | L          | GYHL3232P00-M25L | ★     | GYM25LA-J25   | ●     | 6    |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.



Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>5 pcs.         | ①<br>Wrench *      |
|---------------|-----------------------------------------|------------------------------------|--------------------|
| GYQR/L        | ①HSC05030<br>(Clamp Torque : 62 lbf-in) | —                                  | HKY40R             |
| GYHR/L        | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★3 |    |     |    |      |    |       |     | Cutting Mode |               |
|--------------------|----|-----|----|------|----|-------|-----|--------------|---------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF    | HBH | Clockwise    | Anticlockwise |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   | R            |               |
| 20                 | 20 | 125 | 41 | —    | 20 | 20.35 | —   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 119 | 33 | 54   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 41 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 25                 | 25 | 144 | 33 | 51   | 25 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 25 | 164 | 33 | 51   | 32 | 28    | —   |              |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   | L            |               |
| 32                 | 32 | 164 | 33 | 51   | 32 | 35    | —   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35    | —   |              |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   | R            |               |
| 20                 | 20 | 125 | 46 | —    | 20 | 20.35 | 4   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 20                 | 20 | 136 | 50 | 71   | 20 | 26    | 5   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 150 | 46 | —    | 25 | 25.35 | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 25                 | 25 | 161 | 50 | 68   | 25 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 25 | 181 | 50 | 68   | 32 | 28    | —   |              |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   | L            |               |
| 32                 | 32 | 181 | 50 | 68   | 32 | 35    | —   |              |               |

## Select an Insert

| Seat Size | Insert Number               |
|-----------|-----------------------------|
| J         | GY000600/0631/0635J-Breaker |

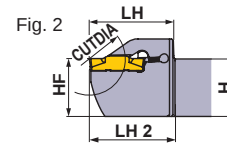
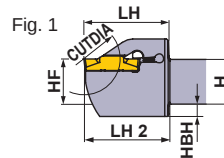
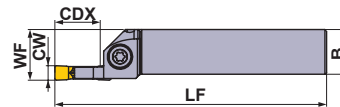
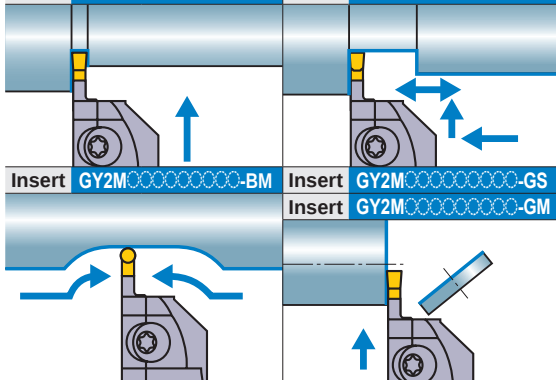
| For Grooving/Cutting off > F011, F012 |                                  |                     |             |                |                                            |
|---------------------------------------|----------------------------------|---------------------|-------------|----------------|--------------------------------------------|
| Seat Size                             | Breaker                          | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off)<br>(Hardened steel) |
| J                                     | CW                               | Neutral             | Neutral     | Hand           | Neutral                                    |
|                                       | .236", 6.00 mm<br>.250", 6.35 mm | ●                   | ●           | ●              | ●                                          |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |
|-------------------------------------------|----------------|----------------|-------------|----------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) |
| J                                         | CW             | Ball nose      |             |                |
|                                           | .236", 6.00 mm | ●              | ●           | ●              |
|                                           | RE 0.2 mm      | ●              | ●           | ●              |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |
|                                           | .248", 6.31 mm | ●              | ●           | ●              |
|                                           | .250", 6.35 mm | ●              | ●           | ●              |
|                                           | RE 0.2 mm      | ●              | ●           | ●              |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL)

**1-2** 00° type holder (Metric)

 Insert GY2M0000000000-GS    Insert GY2M0000000000-MS  
 Insert GY2M0000000000-GM    Insert GY2M0000000000-MM


Right hand tool holder shown.

| Seat Size | CW (mm) | CDX (mm) | CUTDIA (mm) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |  |
|-----------|---------|----------|-------------|------------|------------|-----------------|-------|---------------|-------|------|--|
|           |         |          |             |            |            | Holder          | Stock | Modular Blade | Stock |      |  |
| K         | 8.00    | 25 ★1    | 50 ★2       | Mono Block | R          | GYPR2525M00-K25 | ●     | —             | —     | 1    |  |
|           |         |          |             | Mono Block | L          | GYPL2525M00-K25 | ●     | —             | —     | 1    |  |
|           |         |          |             | Mono Block | R          | GYPR3225P00-K25 | ●     | —             | —     | 2    |  |
|           |         |          |             | Mono Block | L          | GYPL3225P00-K25 | ●     | —             | —     | 2    |  |
|           |         |          |             | Mono Block | R          | GYPR3232P00-K25 | ●     | —             | —     | 3    |  |
|           |         |          |             | Mono Block | L          | GYPL3232P00-K25 | ●     | —             | —     | 3    |  |
|           |         |          |             |            |            |                 |       |               |       |      |  |
|           |         |          |             |            |            |                 |       |               |       |      |  |

**CW** = Cutting Width    **CDX** = Max. Groove Depth    **CUTDIA** = Max. Cut Off Diameter

 ★1 The maximum groove depth (**CDX**) varies according to the insert used. Please refer to the maximum groove depth (**CDX**) of inserts on pages F011 to F015.

 ★2 The maximum cut off diameter (**CUTDIA**) varies according to the insert used. The cut off diameter is double the maximum groove depth (**CDX**) of inserts on pages F011 to F015.

 ★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then **LF**, **LH**, **LH 2** and **WF** values may vary.

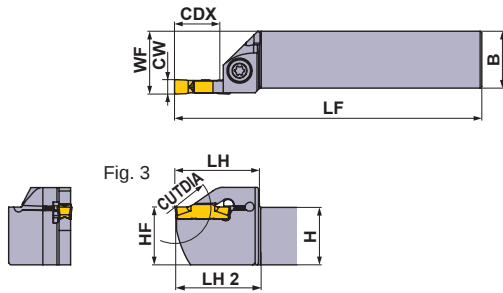
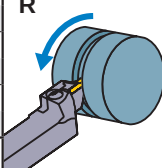
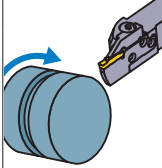
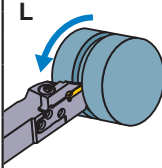
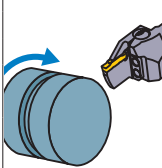


Fig. 3

Right hand tool holder shown.

## SPARE PARTS

| Holder Number      |  |  |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                    | Clamp Screw                                                                         | Wrench                                                                              |
| GYPR/L00000000-K25 | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TKY30R                                                                              |

|  | Dimensions (mm) ★3 |    |     |    |      |    |    |     | Cutting Mode                                                                        |                                                                                     |
|--|--------------------|----|-----|----|------|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 25                 | 25 | 150 | 47 | 48   | 25 | 28 | 7   |   |   |
|  | 25                 | 25 | 150 | 47 | 48   | 25 | 28 | 7   |                                                                                     |                                                                                     |
|  | 32                 | 25 | 170 | 47 | 48   | 32 | 28 | —   |                                                                                     |                                                                                     |
|  | 32                 | 25 | 170 | 47 | 48   | 32 | 28 | —   |                                                                                     |                                                                                     |
|  | 32                 | 32 | 170 | 47 | 48   | 32 | 35 | —   |                                                                                     |                                                                                     |
|  | 32                 | 32 | 170 | 47 | 48   | 32 | 35 | —   |  |  |
|  |                    |    |     |    |      |    |    |     |                                                                                     |                                                                                     |
|  |                    |    |     |    |      |    |    |     |                                                                                     |                                                                                     |
|  |                    |    |     |    |      |    |    |     |                                                                                     |                                                                                     |
|  |                    |    |     |    |      |    |    |     |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number         |
|-----------|-----------------------|
| K         | GY000800K0000-Breaker |

| For Grooving/Cutting off |                |                     |             |                |                        | > F011                   |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          | CW             | Neutral             |             |                | Hand                   | Neutral                  |
| K                        | .315", 8.00 mm |                     | ●           | ●              |                        |                          |

| For Multifunctional Grooving |                |                |             |                | ➤ F013, F014               |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              | CW             |                |             |                | Ball nose                  |
| K                            | .315", 8.00 mm |                |             |                | ●                          |
|                              | RE 0.8 mm      |                | ●           | ●              |                            |
|                              | RE 1.2 mm      |                |             | ●              |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

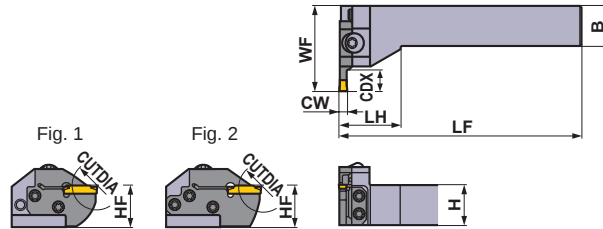
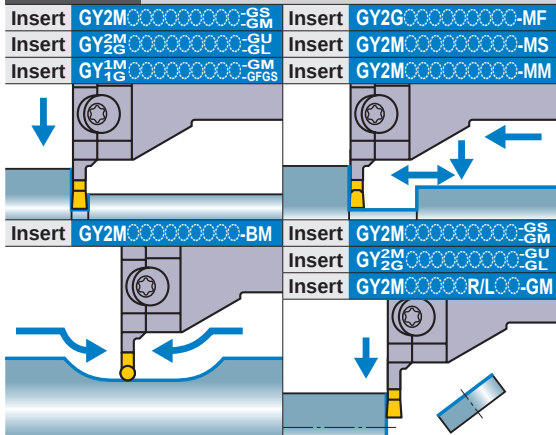
|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F206       |
| INSTRUCTION MANUAL | > F211       |

# GY SERIES (EXTERNAL)

## 2-2 90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm) | CUTDIA (mm) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|----------|-------------|---------|------------|------------------|-------|---------------|-------|------|
|           |                      |          |             |         |            | Holder           | Stock | Modular Blade | Stock |      |
| D         | 2.00<br>2.24         | 6        | 12          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-D06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-D06   | ●     | 1    |
|           |                      | 10       | 20          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-D06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-D06   | ●     | 1    |
|           |                      | 12       | 24          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-D10   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-D10   | ●     | 1    |
|           |                      | 18 *4    | 36          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-D12   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-D12   | ●     | 1    |
|           |                      | 20 *1    | 40 *2       | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LB-D18   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RB-D18   | ●     | 2    |
| E         | 2.39<br>2.50<br>2.74 | 6        | 12          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-D20   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-D20   | ●     | 2    |
|           |                      | 10       | 20          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-E06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-E06   | ●     | 1    |
|           |                      | 12       | 24          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-E06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-E06   | ●     | 1    |
|           |                      | 18 *4    | 36          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-E10   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-E10   | ●     | 1    |
|           |                      | 20 *1    | 40 *2       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-E12   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-E12   | ●     | 1    |
|           |                      | 18 *4    | 36          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LB-E18   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RB-E18   | ●     | 2    |
|           |                      | 20 *1    | 40 *2       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-E20   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-E20   | ●     | 2    |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

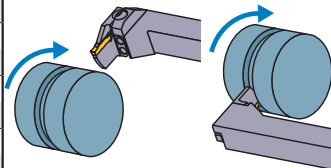
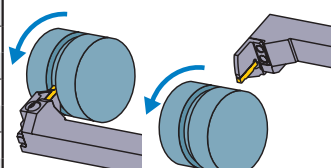
\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2020K90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHL2020K90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHR2525M90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★3 |    |     |    |    |    | Cutting Mode                                                                                    |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 39 | <b>R</b><br>  |
|  | 20                 | 20 | 125 | 35 | 20 | 39 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 | <b>L</b><br> |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 39 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 39 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| <b>D</b>  | GY0000200/0224D00000-Breaker      |
| <b>E</b>  | GY0000239/0250/0274E00000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |         |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|---------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |         |
|           |                | Neutral                               |             |                |                        |                        | Hand                     | Neutral |
| <b>D</b>  | .079", 2.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        | ●       |
| <b>E</b>  | .094", 2.39 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        | ●       |
|           | .098", 2.50 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        | ●       |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| <b>D</b>  | .079", 2.00 mm | ●                                         | ●           | ●              | ●                          |
|           | .088", 2.24 mm | ●                                         | ●           | ●              | ●                          |
| <b>E</b>  | .094", 2.39 mm | ●                                         | ●           | ●              | ●                          |
|           | .098", 2.50 mm | ●                                         | ●           | ●              | ●                          |
|           | .108", 2.74 mm | ●                                         | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

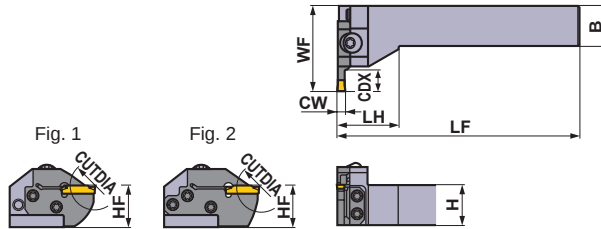
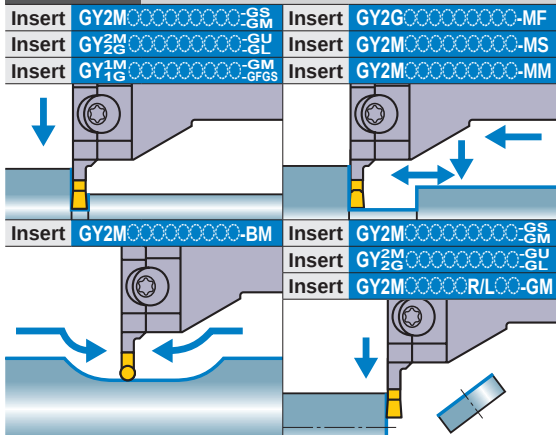
F079

# GY SERIES (EXTERNAL)

## 2-2 90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm) | CUTDIA (mm) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |
|-----------|----------------------|----------|-------------|---------|------------|------------------|-------|---------------|-------|------|
|           |                      |          |             |         |            | Holder           | Stock | Modular Blade | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 6        | 12          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-F06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-F06   | ●     | 1    |
|           |                      | 10       | 20          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-F06   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-F06   | ●     | 1    |
|           |                      | 12       | 24          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-F10   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-F10   | ●     | 1    |
|           |                      | 18★4     | 36          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-F12   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-F12   | ●     | 1    |
|           |                      | 20★1     | 40★2        | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LB-F18   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RB-F18   | ●     | 2    |
| G         | 4.00<br>4.24         | 8        | 16          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-G08   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-G08   | ●     | 1    |
|           |                      | 12       | 24          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-G12   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2020K90-M20R | ●     | GYM20RA-G12   | ●     | 1    |
|           |                      | 14       | 28          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-G14   | ●     | 1    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-G14   | ●     | 1    |
|           |                      | 25★1     | 50★2        | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-G25   | ●     | 2    |
|           |                      |          |             | Modular | L          | GYHL2525M90-M25R | ●     | GYM25RA-G25   | ●     | 2    |
|           |                      |          |             |         |            |                  |       |               |       |      |
|           |                      |          |             |         |            |                  |       |               |       |      |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

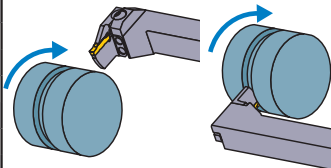
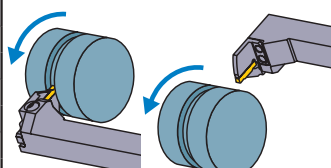
★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

★4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2020K90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHL2020K90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHR2525M90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★3 |    |     |    |    |    | Cutting Mode                                                                                    |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 39 | <b>R</b><br>  |
|  | 20                 | 20 | 125 | 35 | 20 | 39 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 51 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 | <b>L</b><br> |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 47 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 47 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| <b>F</b>  | GY000300/0318/0324F00000-Breaker |
| <b>G</b>  | GY000400/0424G00000-Breaker      |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                | Hand Neutral           |                        |                          |
| <b>F</b>  | .118", 3.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .125", 3.18 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
| <b>G</b>  | .157", 4.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| <b>F</b>  | .118", 3.00 mm | ●                                         | ●           | ●              | ●                          |
|           | RE 0.2 mm      | ●                                         | ●           | ●              | ●                          |
|           | RE 0.4 mm      | ●                                         | ●           | ●              | ●                          |
|           | RE 0.8 mm      | ●                                         | ●           | ●              | ●                          |
|           | .125", 3.18 mm | ●                                         | ●           | ●              | ●                          |
|           | RE 0.2 mm      | ●                                         | ●           | ●              | ●                          |
| <b>G</b>  | RE 0.4 mm      | ●                                         | ●           | ●              | ●                          |
|           | RE 0.8 mm      | ●                                         | ●           | ●              | ●                          |
|           | .128", 3.24 mm | ●                                         | ●           | ●              | ●                          |
|           | RE 0.2 mm      | ●                                         | ●           | ●              | ●                          |
|           | RE 0.4 mm      | ●                                         | ●           | ●              | ●                          |
|           | RE 0.8 mm      | ●                                         | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

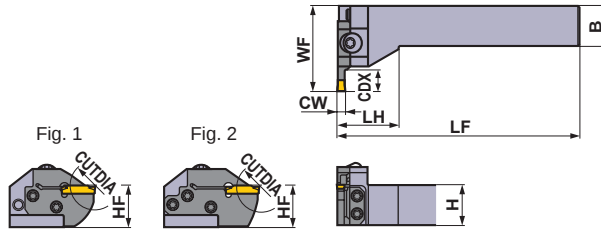
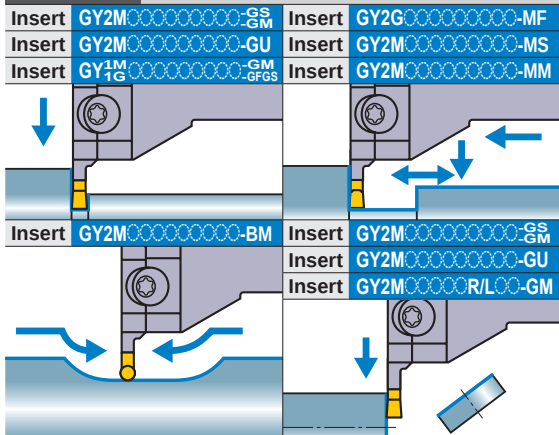
GROOVING / CUTTING OFF

# GY SERIES (EXTERNAL)

## 2-2 90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm) | CUTDIA (mm) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. |  |
|-----------|----------------------|----------|-------------|---------|------------|------------------|-------|---------------|-------|------|--|
|           |                      |          |             |         |            | Holder           | Stock | Modular Blade | Stock |      |  |
| H         | 4.75<br>5.00<br>5.24 | 8        | 16          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-H08   | ●     | 1    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-H08   | ●     | 1    |  |
|           |                      | 12       | 24          | Modular | R          | GYHR2020K90-M20L | ●     | GYM20LA-H12   | ●     | 1    |  |
|           |                      |          |             |         | L          | GYHL2020K90-M20R | ●     | GYM20RA-H12   | ●     | 1    |  |
|           |                      | 14       | 28          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-H14   | ●     | 1    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-H14   | ●     | 1    |  |
| J         | 6.00<br>6.31<br>6.35 | 25 *1    | 50 *2       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-H25   | ●     | 2    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-H25   | ●     | 2    |  |
|           |                      |          |             |         |            |                  |       |               |       |      |  |
|           |                      | 8        | 16          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-J08   | ●     | 1    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-J08   | ●     | 1    |  |
|           |                      | 14       | 28          | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-J14   | ●     | 1    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-J14   | ●     | 1    |  |
|           |                      | 25 *1    | 50 *2       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LA-J25   | ●     | 2    |  |
|           |                      |          |             |         | L          | GYHL2525M90-M25R | ●     | GYM25RA-J25   | ●     | 2    |  |
|           |                      |          |             |         |            |                  |       |               |       |      |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

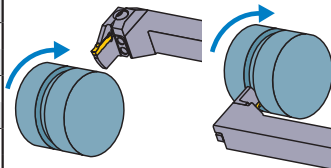
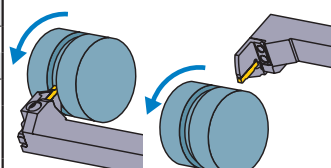
\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2020K90-M20L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>GYHL2020K90-M20R</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>GYHR2525M90-M25L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★3 |    |     |    |    |    | Cutting Mode                                                                                    |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 47 | <b>R</b><br>  |
|  | 25                 | 25 | 150 | 38 | 25 | 47 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 20                 | 20 | 125 | 35 | 20 | 45 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 47 | <b>L</b><br> |
|  | 25                 | 25 | 150 | 38 | 25 | 47 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                                 |

### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| <b>H</b>  | GY000475/0500/0524H0000-Breaker |
| <b>J</b>  | GY000600/0631/0635J0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                                       |                | Neutral             |             |                | Hand                   | Neutral                  |
| <b>H</b>                              | .187", 4.75 mm | ●                   | ●           | ●              |                        | ●                        |
|                                       | .197", 5.00mm  | ●                   | ●           | ●              | ●                      | ●                        |
|                                       | .236", 6.00 mm | ●                   | ●           | ●              |                        | ●                        |
| <b>J</b>                              | .250", 6.35 mm | ●                   | ●           | ●              |                        |                          |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                                           |                |                |             |                | Ball nose                  |
| <b>H</b>                                  | .187", 4.75 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | RE 0.8 mm      | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |                            |
| <b>J</b>                                  | .206", 5.24 mm | ●              |             |                |                            |
|                                           | .236", 6.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                                           | .248", 6.31 mm | ●              |             |                |                            |
|                                           | .250", 6.35 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | RE 0.8 mm      | ●              |             |                |                            |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

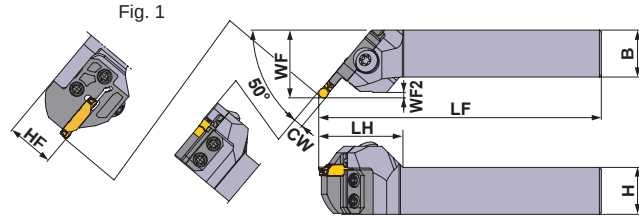
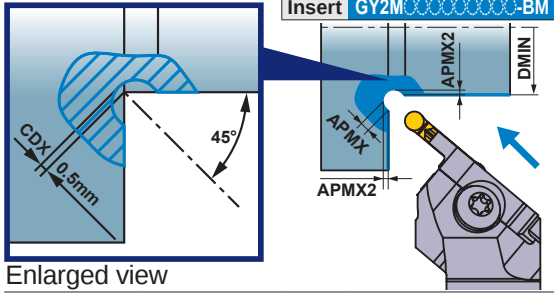
GROOVING / CUTTING OFF

# GY SERIES (EXTERNAL RECESSING)

## 3-2 50° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)      | CDX (mm) | DMIN (mm) | APMX (mm) | APMX2 (mm) | Type             | Hand (R/L) | Order Number     |   |              |               | Fig. |  |       |  |
|-----------|--------------|----------|-----------|-----------|------------|------------------|------------|------------------|---|--------------|---------------|------|--|-------|--|
|           |              |          |           |           |            |                  |            | Holder           |   | Stock        | Modular Blade |      |  | Stock |  |
| D         | 2.00         | 0.5      | 30        | 1.5       | 0.646      | Modular          | R          | GYHR2020K50-M20L | ● | GYM20LC-D005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2020K50-M20R | ● | GYM20RC-D005 | ●             | 1    |  |       |  |
|           |              |          |           | Modular   | R          | GYHR2525M50-M25L | ●          | GYM25LC-D005     | ● | 1            |               |      |  |       |  |
|           |              |          |           |           | L          | GYHL2525M50-M25R | ●          | GYM25RC-D005     | ● | 1            |               |      |  |       |  |
| E         | 2.50         |          |           | 1.75      | 0.72       | Modular          | R          | GYHR2020K50-M20L | ● | GYM20LC-E005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2020K50-M20R | ● | GYM20RC-E005 | ●             | 1    |  |       |  |
|           |              |          |           | Modular   | R          | GYHR2525M50-M25L | ●          | GYM25LC-E005     | ● | 1            |               |      |  |       |  |
|           |              |          |           |           | L          | GYHL2525M50-M25R | ●          | GYM25RC-E005     | ● | 1            |               |      |  |       |  |
| F         | 3.00<br>3.18 |          |           | 2         | 0.793      | Modular          | R          | GYHR2020K50-M20L | ● | GYM20LC-F005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2020K50-M20R | ● | GYM20RC-F005 | ●             | 1    |  |       |  |
|           |              |          |           | Modular   | R          | GYHR2525M50-M25L | ●          | GYM25LC-F005     | ● | 1            |               |      |  |       |  |
|           |              |          |           |           | L          | GYHL2525M50-M25R | ●          | GYM25RC-F005     | ● | 1            |               |      |  |       |  |
| G         | 4.00         |          | 20        | 2.5       | 0.939      | Modular          | R          | GYHR2020K50-M20L | ● | GYM20LC-G005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2020K50-M20R | ● | GYM20RC-G005 | ●             | 1    |  |       |  |
|           |              |          |           | Modular   | R          | GYHR2525M50-M25L | ●          | GYM25LC-G005     | ● | 1            |               |      |  |       |  |
|           |              |          |           |           | L          | GYHL2525M50-M25R | ●          | GYM25RC-G005     | ● | 1            |               |      |  |       |  |
| H         | 4.75<br>5.00 |          |           | 2.88      | 1.049      | Modular          | R          | GYHR2020K50-M20L | ● | GYM20LC-H005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2020K50-M20R | ● | GYM20RC-H005 | ●             | 1    |  |       |  |
|           |              |          |           | Modular   | R          | GYHR2525M50-M25L | ●          | GYM25LC-H005     | ● | 1            |               |      |  |       |  |
|           |              |          |           |           | L          | GYHL2525M50-M25R | ●          | GYM25RC-H005     | ● | 1            |               |      |  |       |  |
| J         | 6.00<br>6.35 |          |           | 3.5       | 1.232      | Modular          | R          | GYHR2525M50-M25L | ● | GYM25LC-J005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  | L          | GYHL2525M50-M25R | ● | GYM25RC-J005 | ●             | 1    |  |       |  |
|           |              |          |           |           |            |                  |            |                  |   |              |               |      |  |       |  |

★1 Blades for external and face grooving cannot be used since it interferes with work materials.

★2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, WF and WF2 values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR/L2020K50-M20R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHR/L2525M50-M25R/L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |

|  | Dimensions (mm) ★2 |    |     |    |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | HF | WF | WF2 |              |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 1.6 | R            |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 1.6 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 1.6 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 1.6 |              |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 1.8 | R            |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 1.8 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 1.8 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 1.8 |              |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 2.0 | R            |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 2.0 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 2.0 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 2.0 |              |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 2.4 | L            |
|  | 20                 | 20 | 125 | 40 | 20 | 32 | 2.4 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 2.4 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 35 | 2.4 |              |
|  | 20                 | 20 | 125 | 40 | 20 | 33 | 2.8 | L            |
|  | 20                 | 20 | 125 | 40 | 20 | 33 | 2.8 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 36 | 2.8 |              |
|  | 25                 | 25 | 150 | 45 | 25 | 36 | 2.8 |              |
|  | 25                 | 25 | 150 | 44 | 25 | 36 | 3.4 | L            |
|  | 25                 | 25 | 150 | 44 | 25 | 36 | 3.4 |              |

### Select an Insert

| Insert Number                       |                |                            |
|-------------------------------------|----------------|----------------------------|
| GY2M○○○○○○○○○N-BM                   |                |                            |
| For Multifunctional Grooving > F014 |                |                            |
| Seat Size                           | Breaker        | BM<br>(Copying, Recessing) |
|                                     | CW             | Ball nose                  |
| D                                   | .079", 2.00 mm | ●                          |
| E                                   | .098", 2.50 mm | ●                          |
| F                                   | .118", 3.00 mm | ●                          |
|                                     | .125", 3.18 mm | ●                          |
| G                                   | .157", 4.00 mm | ●                          |
| H                                   | .187", 4.75 mm | ●                          |
|                                     | .197", 5.00 mm | ●                          |
| J                                   | .236", 6.00 mm | ●                          |
|                                     | .250", 6.35 mm | ●                          |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

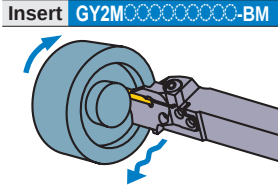
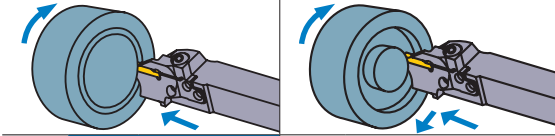
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F210  
INSTRUCTION MANUAL > F210

# GY SERIES (FACE GROOVING)

4-1

00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

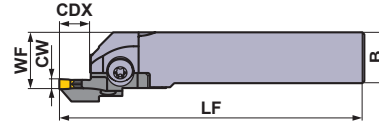


Fig. 1

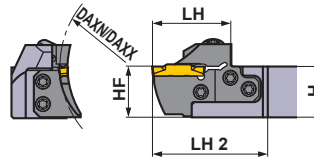
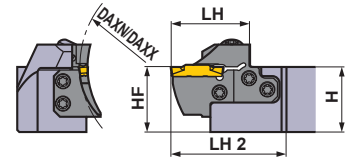


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| D         | .079<br>.088 | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-040 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-040 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-040 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-040 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-040 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-040 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-040 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-040 | ●     | 2    |
|           |              | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-050 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-050 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-050 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-050 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-050 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-050 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-050 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-050 | ●     | 2    |
|           |              | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-060 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-060 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-060 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-060 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-060 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-060 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-060 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-060 | ●     | 2    |
|           |              | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-075 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-075 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-075 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-075 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-075 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-075 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-075 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-075 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

● : USA Stock

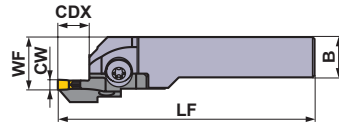
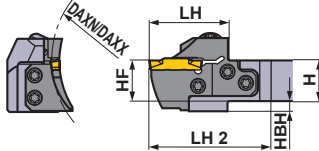


Fig. 3



Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

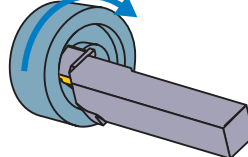
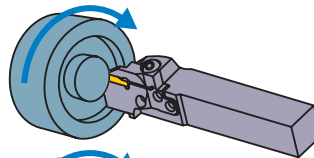
## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/LUS16D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS20D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS24E00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

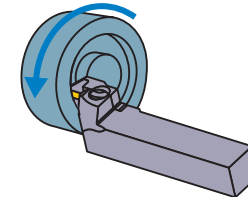
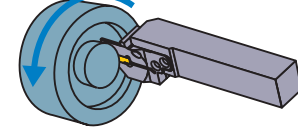
| Dimensions (inch) ★1 |       |       |       |       |       |       |      |          |
|----------------------|-------|-------|-------|-------|-------|-------|------|----------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>R</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |

Cutting Mode

R



L



### Select an Insert

| Seat Size | Insert Number                 |
|-----------|-------------------------------|
| D         | GY0000200/0224D000000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| D                        | .079", 2.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| D                            | .079", 2.00 mm | ●            | ●        | ●           | ●                       |
|                              | .088", 2.24 mm | ●            | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

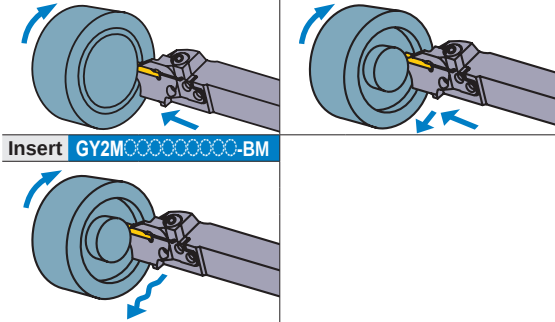
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

F087

# GY SERIES (FACE GROOVING)

## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

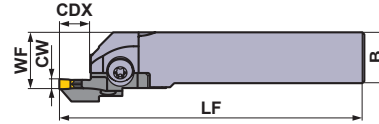


Fig. 1

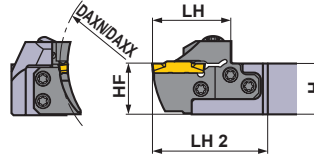
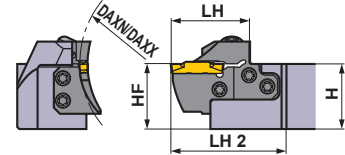


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| D         | .079<br>.088 | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-100 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-100 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-100 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-100 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-100 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-100 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-100 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-100 | ●     | 2    |
|           |              | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-135 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-135 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-135 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-135 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-135 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-135 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-135 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-135 | ●     | 2    |
|           |              | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-D12-180 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-D12-180 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-D12-180 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-D12-180 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-D12-180 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-D12-180 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-D12-180 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-D12-180 | ●     | 2    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

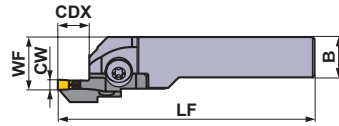
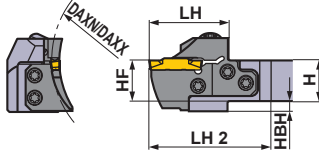


Fig. 3



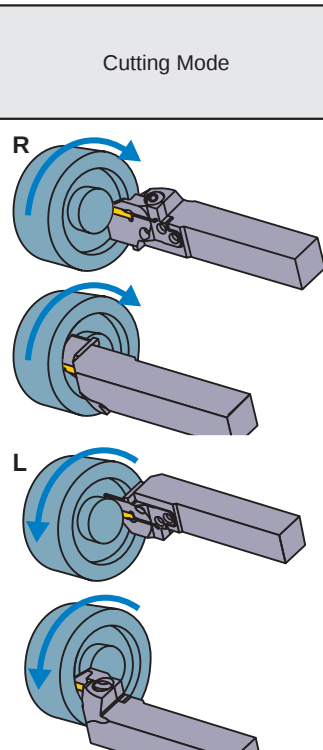
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/LUS16D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS20D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS24E00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                 |
|-----------|-------------------------------|
| D         | GY0000200/0224D000000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                  |          |             |                       |
|---------------------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                             | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| D                                     | .079", 2.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving > F013, F014 |                |             |          |             |                         |
|-------------------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                                 | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| D                                         | .079", 2.00 mm | ●           | ●        | ●           | ●                       |
|                                           | .088", 2.24 mm | ●           | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

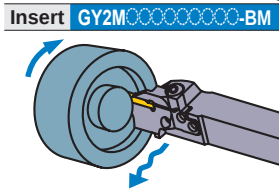
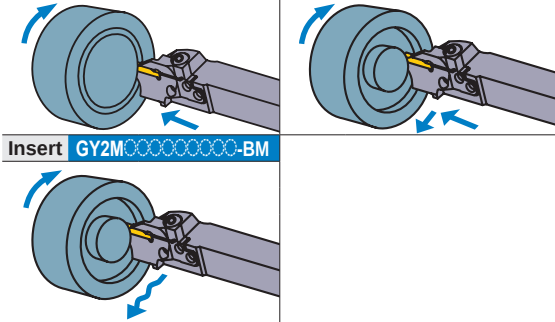
GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

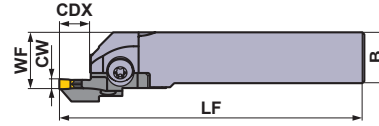


Fig. 1

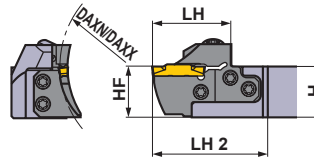
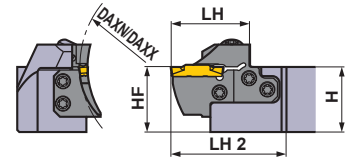


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| E         | .094<br>.098<br>.108 | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-040 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-040 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-040 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-040 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-040 | ●     | 2    |
|           |                      | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-050 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-050 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-050 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-050 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-050 | ●     | 2    |
|           |                      | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-060 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-060 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-060 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-060 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-060 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-060 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-060 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-060 | ●     | 2    |
|           |                      | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-075 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-075 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-075 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-075 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-075 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-075 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-075 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-075 | ●     | 2    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

● : USA Stock

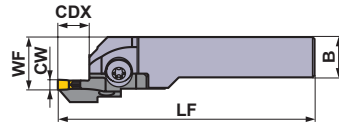
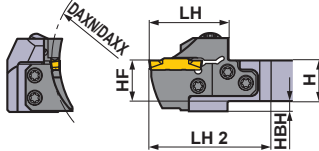


Fig. 3



Right hand tool holder shown.

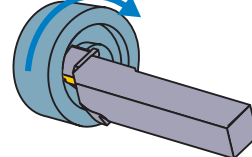
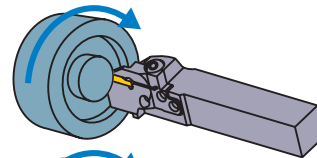
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

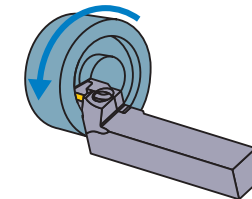
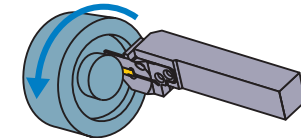
| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/LUS16D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS20D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS24E00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |          |
|----------------------|-------|-------|-------|-------|-------|-------|------|----------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>R</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |

R



L



## Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| E         | GY00239/0250/0274E0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| E                        | CW             |                  |          |             |                       |
|                          |                |                  |          |             |                       |
|                          | .094", 2.39 mm | ●                | ●        | ●           | ●                     |
|                          | .098", 2.50 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| E                            | CW             |              |          |             |                         |
|                              |                |              |          |             |                         |
|                              | .094", 2.39 mm | ●            |          |             | ●                       |
|                              | .098", 2.50 mm | ●            | ●        | ●           | ●                       |
|                              | .108", 2.74 mm | ●            |          |             |                         |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

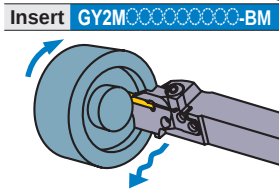
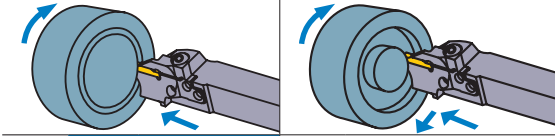
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

F091

# GY SERIES (FACE GROOVING)

## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

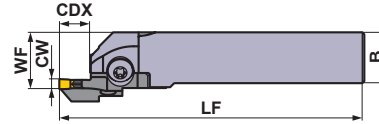


Fig. 1

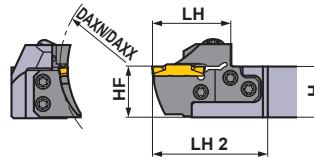
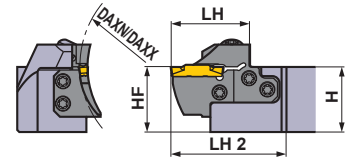


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| E         | .094<br>.098<br>.108 | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-100 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-100 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-100 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-100 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-100 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-100 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-100 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-100 | ●     | 2    |
|           |                      | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-135 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-135 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-135 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-135 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-135 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-135 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-135 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-135 | ●     | 2    |
|           |                      | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-E12-180 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-E12-180 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-E12-180 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-E12-180 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-E12-180 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-E12-180 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-E12-180 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-E12-180 | ●     | 2    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

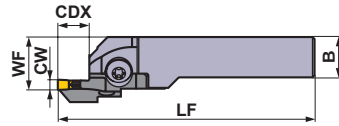
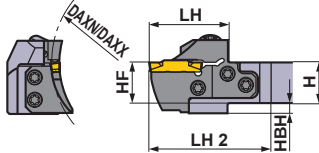


Fig. 3



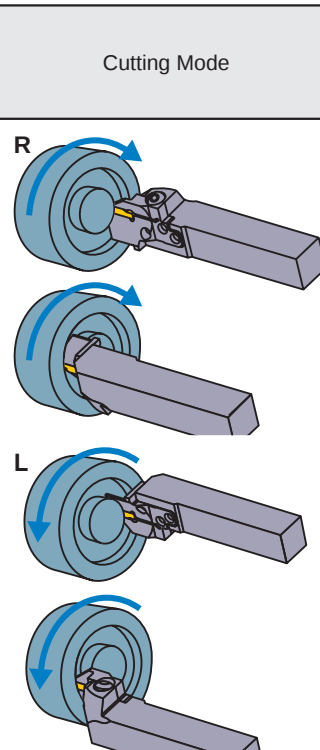
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/LUS16D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS20D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS24E00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| E         | GY00239/0250/0274E0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                  |          |             |                       |
|---------------------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                             | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| E                                     | CW             |                  |          |             |                       |
|                                       |                |                  |          |             |                       |
|                                       | .094", 2.39 mm | ●                | ●        | ●           | ●                     |
|                                       | .098", 2.50 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving > F013, F014 |                |             |          |             |                         |
|-------------------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                                 | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| E                                         | CW             |             |          |             |                         |
|                                           |                |             |          |             |                         |
|                                           | .094", 2.39 mm | ●           |          |             | ●                       |
|                                           | .098", 2.50 mm | ●           | ●        | ●           | ●                       |
|                                           | .108", 2.74 mm | ●           |          |             |                         |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

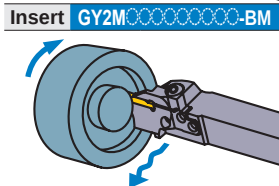
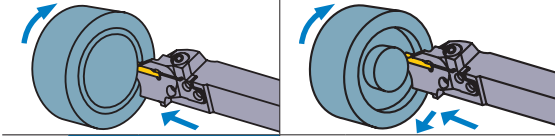
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

F093

# GY SERIES (FACE GROOVING)

## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

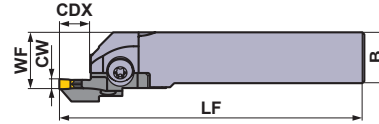


Fig. 1

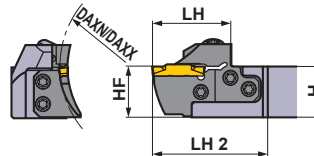
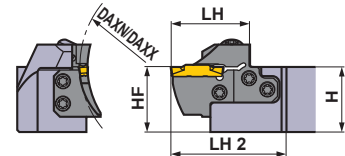


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | .118<br>.125<br>.128 | 1.378       | 1.575       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-035 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-035 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-035 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-035 | ●     | 1    |
|           |                      | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-035 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-035 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-035 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-035 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-040 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-040 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-040 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-040 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-040 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-040 | ●     | 2    |
|           |                      | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-050 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-050 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-050 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-050 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-050 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-050 | ●     | 2    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

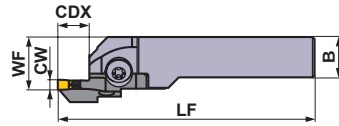
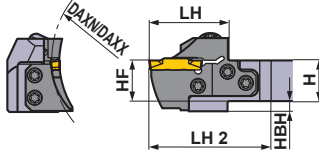


Fig. 3



Right hand tool holder shown.

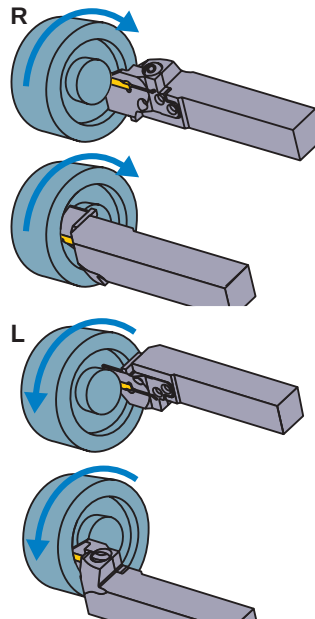
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/LUS16D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS20D00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/LUS24E00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |
|----------------------|-------|-------|-------|-------|-------|-------|------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |

Cutting Mode



## Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| F         | GY0000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| F                        | CW             |                  |          |             |                       |
|                          |                |                  |          |             |                       |
|                          | .118", 3.00 mm | ●                | ●        | ●           | ●                     |
|                          | .125", 3.18 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| F                            | CW             |              |          |             | Ball nose               |
|                              |                |              |          |             |                         |
|                              | .118", 3.00 mm | ●            | ●        | ●           | ●                       |
|                              | RE .008"       | ●            | ●        | ●           | ●                       |
|                              | RE .016"       | ●            | ●        | ●           | ●                       |
|                              | RE .031"       | ●            | ●        | ●           | ●                       |
|                              | .125", 3.18 mm | ●            | ●        | ●           | ●                       |
|                              | RE .008"       | ●            | ●        | ●           | ●                       |
|                              | RE .016"       | ●            | ●        | ●           | ●                       |
|                              | .128", 3.24 mm | ●            | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

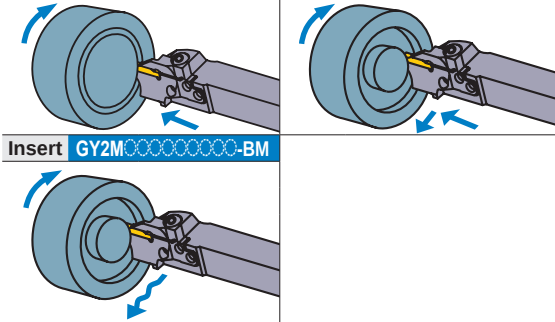
GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

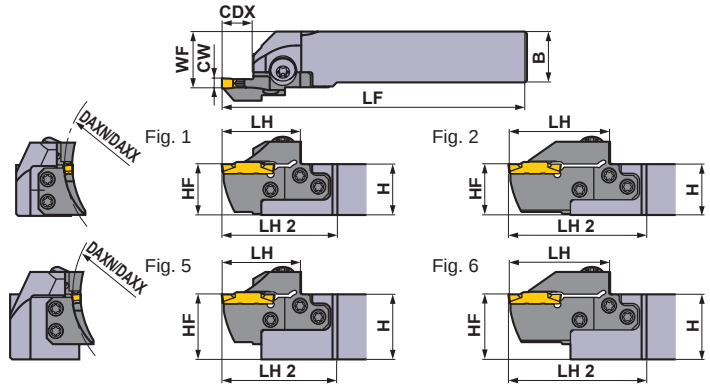
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

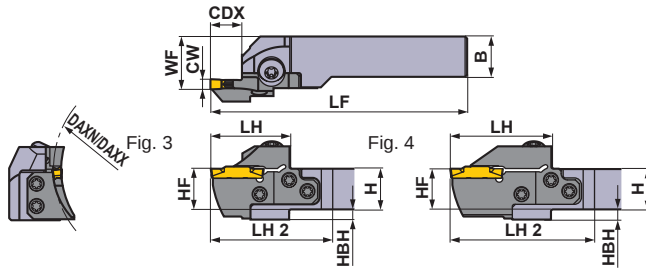
| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | .118<br>.125<br>.128 | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-060 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-060 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-060 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-060 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-060 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-060 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-060 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-060 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-060 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-060 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F20-060 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F20-060 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-060 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-060 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-060 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-060 | ●     | 6    |
|           |                      | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-075 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-075 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-075 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-075 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-075 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-075 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-075 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-075 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-075 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-075 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F20-075 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F20-075 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-075 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-075 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-075 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-075 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock



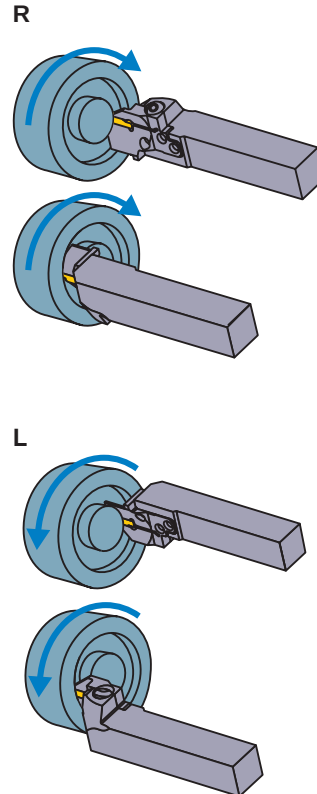
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | Clamp Screw                            | Blade Screw<br>5 pcs.              | Wrench ★           |
|----------------------|----------------------------------------|------------------------------------|--------------------|
| GYHR/LUS12C00-M25R/L |                                        |                                    |                    |
| GYHR/LUS16D00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |   |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |   |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |   |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |   |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                        | .118", 3.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .125", 3.18 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                            | .118", 3.00 mm |                |             |                | Ball nose                  |
|                              | RE .008"       | ●              | ●           | ●              |                            |
|                              | RE .016"       | ●              | ●           | ●              |                            |
|                              | RE .031"       |                |             | ●              |                            |
|                              | .125", 3.18 mm |                |             |                | ●                          |
|                              | RE .008"       | ●              |             |                |                            |
|                              | RE .016"       | ●              |             |                |                            |
|                              | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

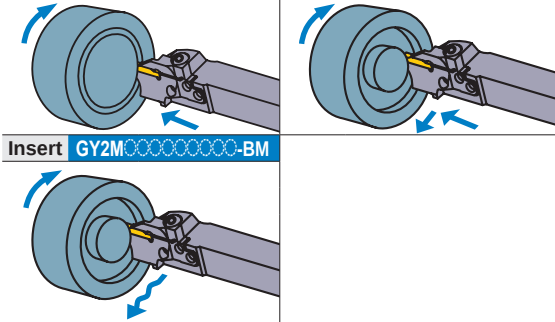
GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

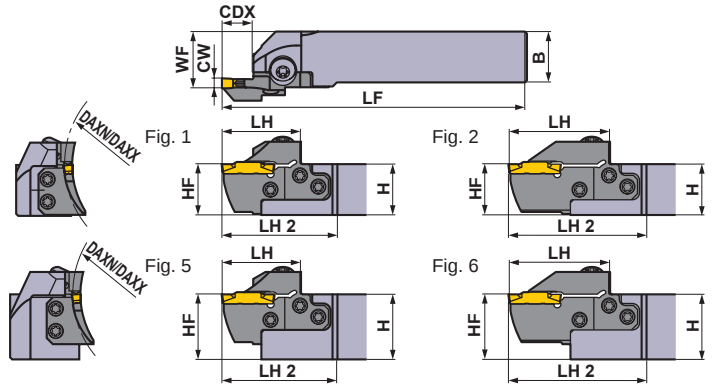
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



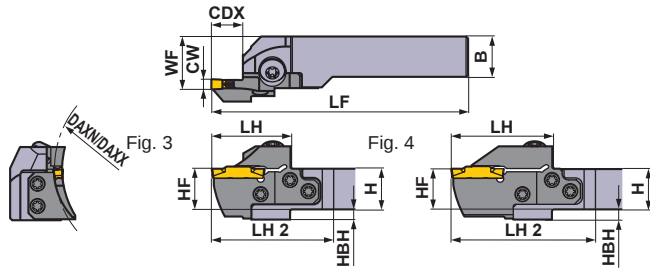
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | .118<br>.125<br>.128 | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-100 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-100 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-100 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-100 | ●     | 1    |
|           |                      |             |             | .787★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-100 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-100 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-100 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-100 | ●     | 5    |
|           |                      |             |             | .787★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-100 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-100 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F20-100 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F20-100 | ●     | 2    |
|           |                      |             |             | .472       | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-100 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-100 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-100 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-100 | ●     | 6    |
|           |                      | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-135 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-135 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-135 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-135 | ●     | 1    |
|           |                      |             |             | .787★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-135 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-135 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-135 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-135 | ●     | 6    |
|           |                      |             |             | .787★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-135 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-135 | ●     | 4    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |  |
|----------------------|-------|-------|-------|-------|-------|-------|------|--|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |  |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |  |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |  |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |  |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |  |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |  |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |  |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |  |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |  |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |  |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |  |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |  |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |  |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |  |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |  |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |  |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |  |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |  |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |  |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |  |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |  |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |  |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |  |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |  |

Cutting Mode

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |         | > F011, F012        |             |                |                          |
|--------------------------|---------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                        | CW      |                     |             |                |                          |
|                          |         |                     |             |                |                          |

| For Multifunctional Grooving |         | > F013, F014   |             |                |                            |
|------------------------------|---------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                            | CW      |                |             |                | Ball nose                  |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

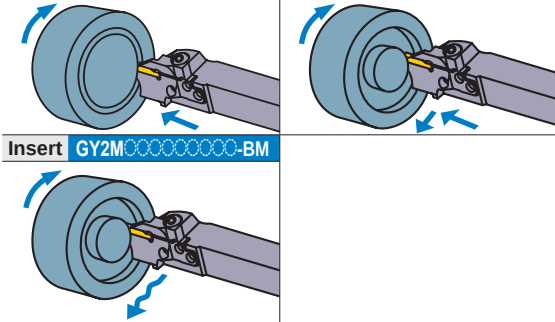
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

F099

# GY SERIES (FACE GROOVING)

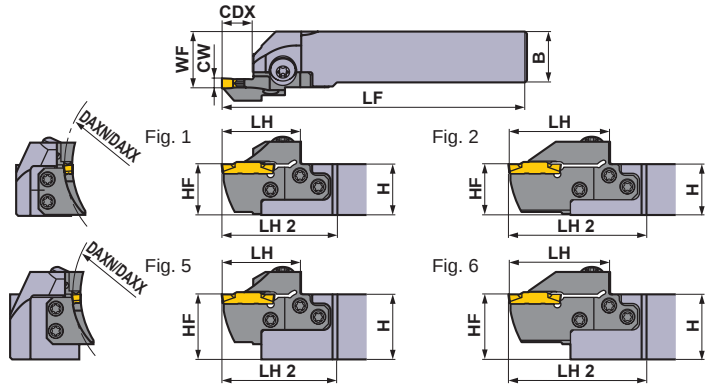
## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



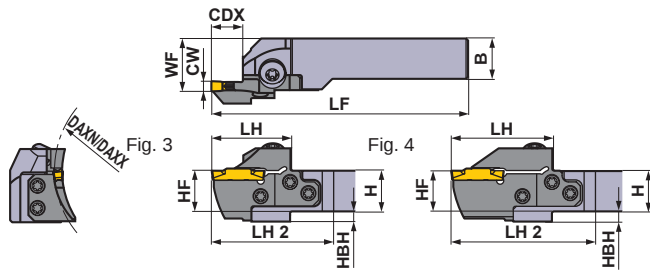
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | .118<br>.125<br>.128 | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-180 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-180 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-180 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-180 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-180 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-180 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-180 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-180 | ●     | 5    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-180 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-180 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F20-180 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F20-180 | ●     | 2    |
|           |                      |             |             | .472       | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-180 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-180 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-180 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-180 | ●     | 6    |
|           |                      | 8.858       | 39.331      | .472       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F12-225 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F12-225 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F12-225 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F12-225 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F12-225 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F12-225 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F12-225 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F12-225 | ●     | 5    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-F20-225 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-F20-225 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-F20-225 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-F20-225 | ●     | 2    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-F20-225 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-F20-225 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-F20-225 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-F20-225 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



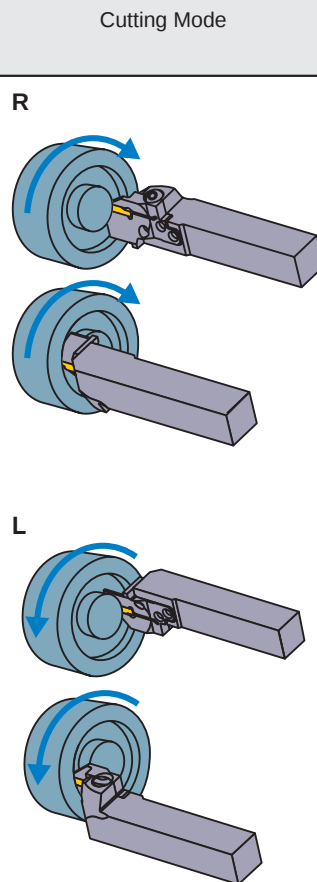
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |          |
|----------------------|-------|-------|-------|-------|-------|-------|------|----------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>R</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>R</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.236 | 1.772 | .477  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.236 | 1.772 | 1.477 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.236 | 1.772 | 1.477 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.236 | 1.772 | 2.477 | 1.500 | 1.625 | —    |          |



## Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| F         | GY0000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| F                        | CW             |                  |          |             |                       |
|                          | RE             |                  |          |             |                       |
| F                        | .118", 3.00 mm | ●                | ●        | ●           | ●                     |
|                          | .125", 3.18 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| F                            | CW             |              |          |             |                         |
|                              | RE             |              |          |             |                         |
| F                            | .118", 3.00 mm | ●            | ●        | ●           | ●                       |
|                              | RE .008"       | ●            | ●        | ●           | ●                       |
| F                            | .125", 3.18 mm | ●            | ●        | ●           | ●                       |
|                              | RE .016"       | ●            | ●        | ●           | ●                       |
| F                            | .128", 3.24 mm | ●            | ●        | ●           | ●                       |
|                              | RE .016"       | ●            | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

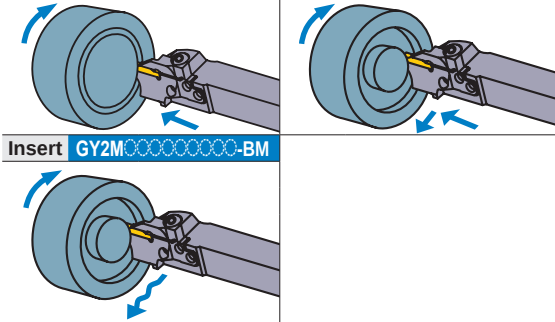
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

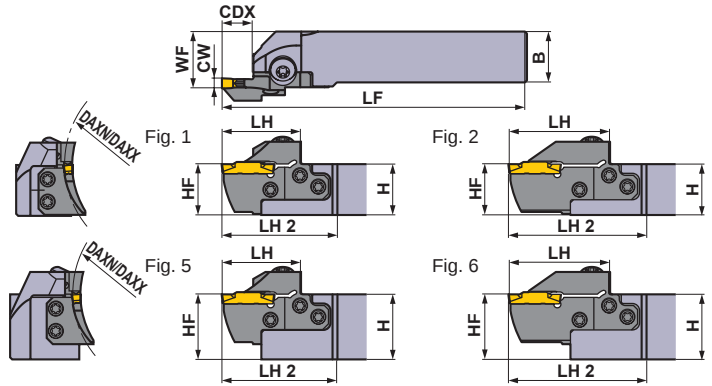
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



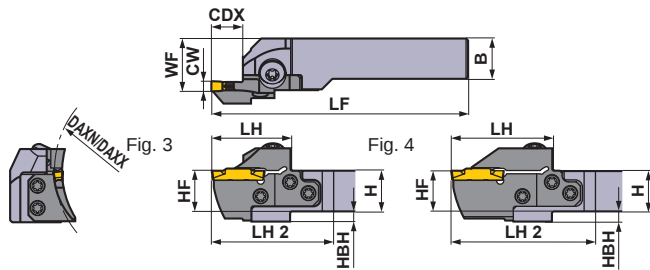
Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | .157<br>.167 | 1.575       | 1.969       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-040 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-040 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-040 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-040 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-040 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-040 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-040 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-040 | ●     | 5    |
|           |              | 1.969       | 2.362       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-050 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-050 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-050 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-050 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-050 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-050 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-050 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-050 | ●     | 5    |
|           |              | 2.362       | 3.346       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-060 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-060 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-060 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-060 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-060 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-060 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-060 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-060 | ●     | 5    |
|           |              | 2.362       | 3.346       | .984★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G25-060 | ●     | 4    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G25-060 | ●     | 4    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G25-060 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G25-060 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G25-060 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G25-060 | ●     | 6    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G25-060 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G25-060 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



★ Wrench : ① : Clamp Screw, ② : Blade Screw

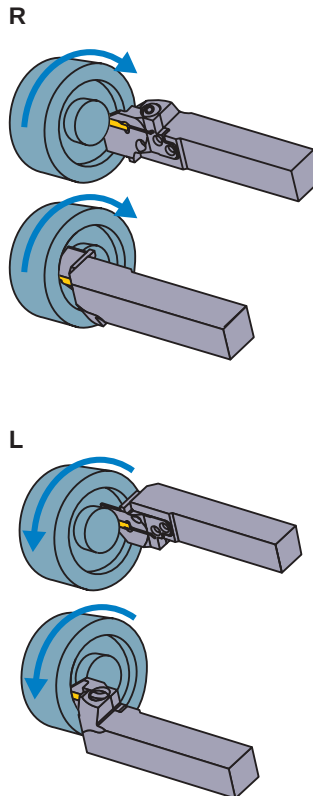
## SPARE PARTS

| Holder Number        | 5 pcs.                                    | 5 pcs.                                | ① ②                |
|----------------------|-------------------------------------------|---------------------------------------|--------------------|
|                      | Clamp Screw                               | Blade Screw                           | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque<br>: 53 lbf-in) | TS55<br>(Clamp Torque<br>: 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS20D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS24E00-M25R/L |                                           |                                       |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |
|----------------------|-------|-------|-------|-------|-------|-------|------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |

Cutting Mode



## Select an Insert

| Seat Size | Insert Number        |
|-----------|----------------------|
| G         | GY0400/0424G—Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                        | .157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                            | .157", 4.00 mm | ●              | ●           | ●              | ●                          |
|                              | RE .008"       | ●              | ●           | ●              | ●                          |
|                              | RE .016"       | ●              | ●           | ●              | ●                          |
|                              | RE .031"       | ●              | ●           | ●              | ●                          |
|                              | .167", 4.24 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

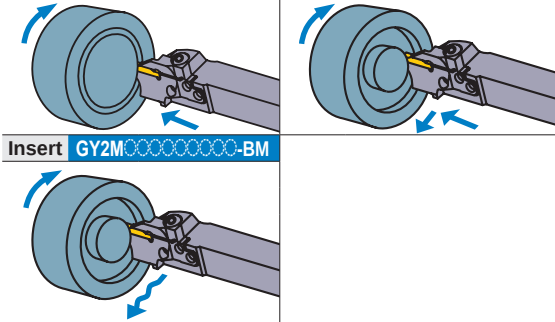
GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

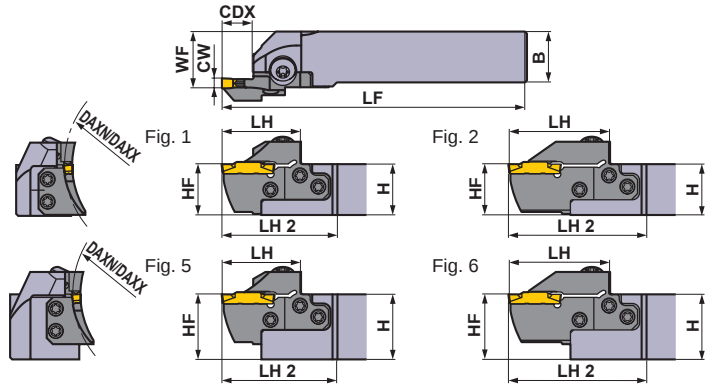
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



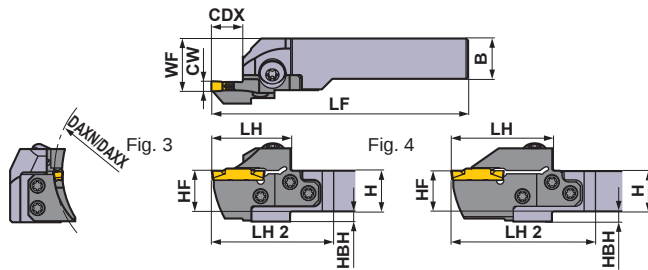
Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | .157<br>.167 | 3.346       | 4.921       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-085 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-085 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-085 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-085 | ●     | 1    |
|           |              |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-085 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-085 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-085 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-085 | ●     | 5    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G25-085 | ●     | 4    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G25-085 | ●     | 4    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G25-085 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G25-085 | ●     | 2    |
|           |              |             |             | .551       | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G25-085 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G25-085 | ●     | 6    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G25-085 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G25-085 | ●     | 6    |
|           |              |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-125 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-125 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-125 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-125 | ●     | 1    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G25-125 | ●     | 4    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G25-125 | ●     | 4    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G25-125 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G25-125 | ●     | 2    |
|           |              |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-125 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-125 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-125 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-125 | ●     | 5    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |          |
|----------------------|-------|-------|-------|-------|-------|-------|------|----------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>R</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |

Cutting Mode

### Select an Insert

| Seat Size | Insert Number            |
|-----------|--------------------------|
| G         | GY0400/0424G0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                  |          |             |                       |
|---------------------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                             | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| G                                     | .157", 4.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving > F013, F014 |                |             |          |             |                         |
|-------------------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                                 | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| G                                         | .157", 4.00 mm | ●           | ●        | ●           | ●                       |
|                                           | RE .008"       | ●           | ●        | ●           | ●                       |
|                                           | RE .016"       | ●           | ●        | ●           | ●                       |
|                                           | RE .031"       | ●           | ●        | ●           | ●                       |
|                                           | .167", 4.24 mm | ●           | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

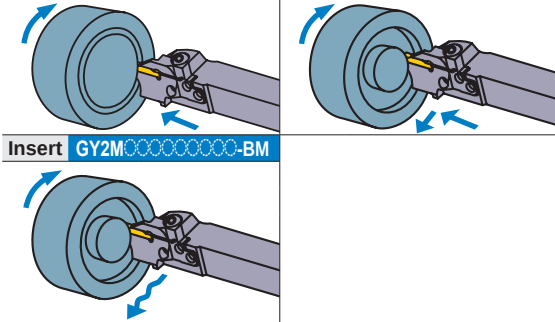
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

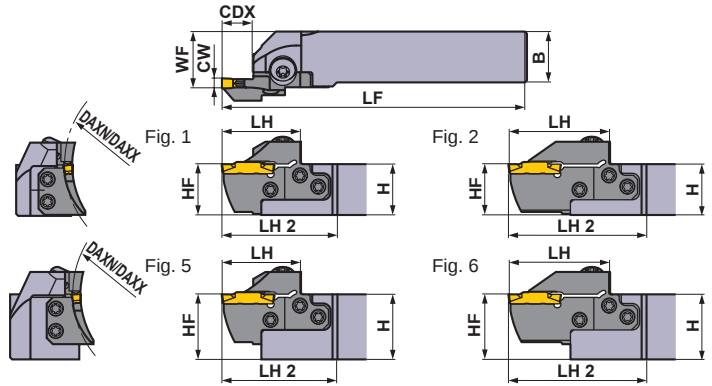
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



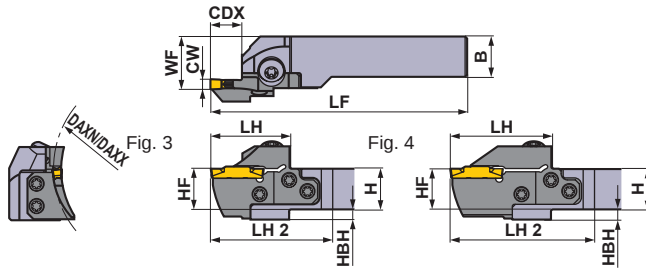
Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | .157<br>.167 | 7.087       | 11.024      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-180 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-180 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-180 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-180 | ●     | 1    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-180 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-180 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-180 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-180 | ●     | 5    |
|           |              | 9.843       | 39.331      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G25-180 | ●     | 4    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G25-180 | ●     | 4    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G25-180 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G25-180 | ●     | 2    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G25-180 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G25-180 | ●     | 6    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G25-180 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G25-180 | ●     | 6    |
|           |              |             |             | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G14-250 | ●     | 3    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G14-250 | ●     | 3    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G14-250 | ●     | 1    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G14-250 | ●     | 1    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G14-250 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G14-250 | ●     | 5    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G14-250 | ●     | 5    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G14-250 | ●     | 5    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-G25-250 | ●     | 4    |
|           |              |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-G25-250 | ●     | 4    |
|           |              |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-G25-250 | ●     | 2    |
|           |              |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-G25-250 | ●     | 2    |
|           |              |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-G25-250 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-G25-250 | ●     | 6    |
|           |              |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-G25-250 | ●     | 6    |
|           |              |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-G25-250 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



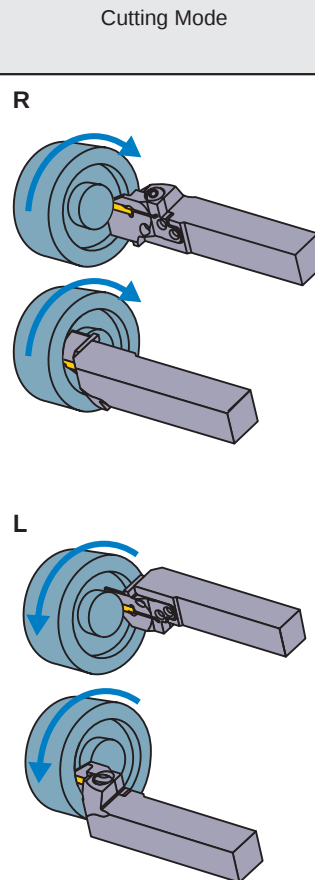
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench *           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| G         | GY0000400/0424G0000000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                  |          |             |                       |
|---------------------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                             | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| G                                     | .157", 4.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving > F013, F014 |                |             |          |             |                         |
|-------------------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                                 | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| G                                         | .157", 4.00 mm | ●           | ●        | ●           | ●                       |
|                                           | RE .008"       | ●           | ●        | ●           | ●                       |
|                                           | RE .016"       | ●           | ●        | ●           | ●                       |
|                                           | RE .031"       | ●           | ●        | ●           | ●                       |
|                                           | .167", 4.24 mm | ●           | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

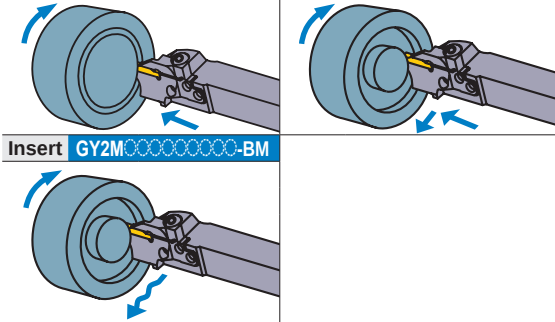
GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

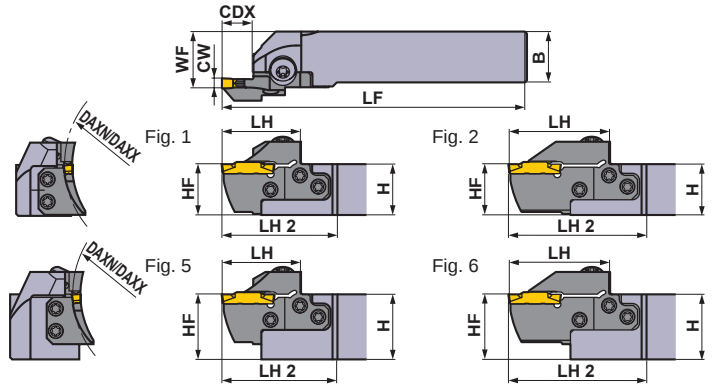
## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



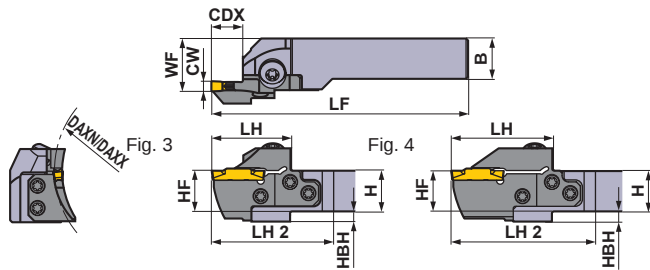
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | .187<br>.197<br>.206 | 1.969       | 2.362       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-050 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-050 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-050 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-050 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-050 | ●     | 5    |
|           |                      | 2.362       | 3.346       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-060 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-060 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-060 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-060 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-060 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-060 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-060 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-060 | ●     | 5    |
|           |                      | .984★2      |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H25-060 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H25-060 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H25-060 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H25-060 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H25-060 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H25-060 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H25-060 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H25-060 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

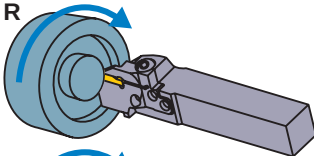
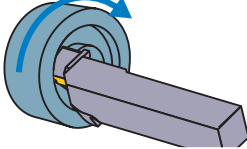
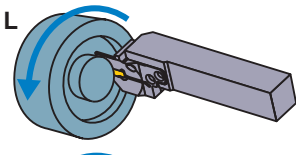
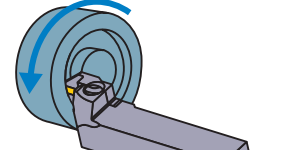
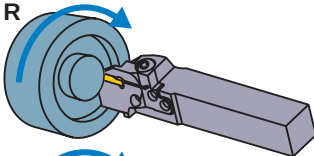
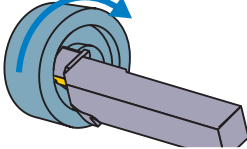
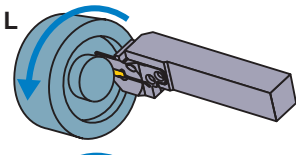
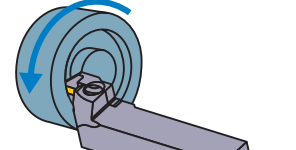
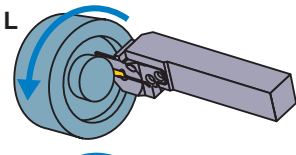
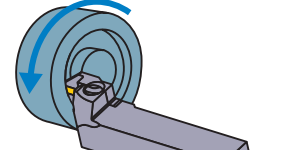


★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | Clamp Screw                               | Blade Screw<br>5 pcs.                 | Wrench ★           |
|----------------------|-------------------------------------------|---------------------------------------|--------------------|
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque<br>: 53 lbf-in) | TS55<br>(Clamp Torque<br>: 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS20D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS24E00-M25R/L |                                           |                                       |                    |

Right hand tool holder shown.

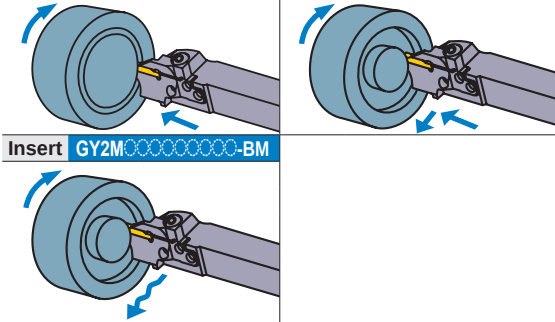
| Dimensions (inch) ★1                      |                                 |                  |          |             |                         |       |      |                                                                                     | Cutting Mode                                                                        | Select an Insert                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
|-------------------------------------------|---------------------------------|------------------|----------|-------------|-------------------------|-------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------|---|---------------------------------|--|--|-----------|---------|------------------|----------|-------------|-------------------------|---|----|--|--|--|-----------|----------------|--|---|---|---|---|----------------|---|---|---|---|---|----------|---|--|--|--|--|----------|---|--|--|--|--|----------------|--|--|--|--|---|----------|---|--|--|--|--|----------|---|--|---|---|--|----------|---|--|---|---|--|----------------|---|--|--|--|--|
| H                                         | B                               | LF               | LH       | LH 2        | HF                      | WF    | HBH  |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.000            | 1.535    | .241        | .750                    | 1.000 | .250 |    |   | <table><tr><th>Seat Size</th><th>Insert Number</th></tr><tr><td>H</td><td>GY000475/0500/0524H0000-Breaker</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Seat Size                                 | Insert Number | H | GY000475/0500/0524H0000-Breaker |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| Seat Size                                 | Insert Number                   |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| H                                         | GY000475/0500/0524H0000-Breaker |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.000            | 1.535    | .241        | .750                    | 1.000 | .250 |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.000            | 1.535    | 1.241       | 1.000                   | 1.125 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.000            | 1.535    | 1.241       | 1.000                   | 1.125 | —    |  |  | <table><tr><th colspan="6">For Grooving/Cutting off &gt; F011, F012</th></tr><tr><th>Seat Size</th><th>Breaker</th><th>GU (Gummy Steel)</th><th>GS (Low)</th><th>GM (Medium)</th><th>GFGS (Hardened steel)</th></tr><tr><td>H</td><td>CW</td><td></td><td></td><td></td><td></td></tr><tr><td>.187", 4.75 mm</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>.197", 5.00 mm</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | For Grooving/Cutting off > F011, F012     |               |   |                                 |  |  | Seat Size | Breaker | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel)   | H | CW |  |  |  |           | .187", 4.75 mm |  | ● | ● | ● | ● | .197", 5.00 mm |   | ● | ● | ● | ● |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| For Grooving/Cutting off > F011, F012     |                                 |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| Seat Size                                 | Breaker                         | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel)   |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| H                                         | CW                              |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .187", 4.75 mm                            |                                 | ●                | ●        | ●           | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .197", 5.00 mm                            |                                 | ●                | ●        | ●           | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.000            | 1.535    | 1.241       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.000            | 1.535    | 1.241       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.000            | 1.535    | 2.241       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.000            | 1.535    | 2.241       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.000            | 1.535    | .241        | .750                    | 1.000 | .250 |    |   | <table><tr><th colspan="6">For Multifunctional Grooving &gt; F013, F014</th></tr><tr><th>Seat Size</th><th>Breaker</th><th>MF (Finish)</th><th>MS (Low)</th><th>MM (Medium)</th><th>BM (Copying, Recessing)</th></tr><tr><td>H</td><td>CW</td><td></td><td></td><td></td><td>Ball nose</td></tr><tr><td>.187", 4.75 mm</td><td></td><td></td><td></td><td></td><td>●</td></tr><tr><td>RE .008"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .016"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .031"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>.197", 5.00 mm</td><td></td><td></td><td></td><td></td><td>●</td></tr><tr><td>RE .008"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .016"</td><td>●</td><td></td><td>●</td><td>●</td><td></td></tr><tr><td>RE .031"</td><td>●</td><td></td><td>●</td><td>●</td><td></td></tr><tr><td>.206", 5.24 mm</td><td>●</td><td></td><td></td><td></td><td></td></tr></table> | For Multifunctional Grooving > F013, F014 |               |   |                                 |  |  | Seat Size | Breaker | MF (Finish)      | MS (Low) | MM (Medium) | BM (Copying, Recessing) | H | CW |  |  |  | Ball nose | .187", 4.75 mm |  |   |   |   | ● | RE .008"       | ● |   |   |   |   | RE .016" | ● |  |  |  |  | RE .031" | ● |  |  |  |  | .197", 5.00 mm |  |  |  |  | ● | RE .008" | ● |  |  |  |  | RE .016" | ● |  | ● | ● |  | RE .031" | ● |  | ● | ● |  | .206", 5.24 mm | ● |  |  |  |  |
| For Multifunctional Grooving > F013, F014 |                                 |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| Seat Size                                 | Breaker                         | MF (Finish)      | MS (Low) | MM (Medium) | BM (Copying, Recessing) |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| H                                         | CW                              |                  |          |             | Ball nose               |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .187", 4.75 mm                            |                                 |                  |          |             | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .008"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .016"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .031"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .197", 5.00 mm                            |                                 |                  |          |             | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .008"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .016"                                  | ●                               |                  | ●        | ●           |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .031"                                  | ●                               |                  | ●        | ●           |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .206", 5.24 mm                            | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.000            | 1.535    | .241        | .750                    | 1.000 | .250 |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.000            | 1.535    | 1.241       | 1.000                   | 1.125 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.000            | 1.535    | 1.241       | 1.000                   | 1.125 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.000            | 1.535    | 1.241       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.000            | 1.535    | 1.241       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.000            | 1.535    | 2.241       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.000            | 1.535    | 2.241       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.433            | 1.969    | .674        | .750                    | 1.000 | .250 |  |  | <table><tr><th colspan="6">For Grooving/Cutting off &gt; F011, F012</th></tr><tr><th>Seat Size</th><th>Breaker</th><th>GU (Gummy Steel)</th><th>GS (Low)</th><th>GM (Medium)</th><th>GFGS (Hardened steel)</th></tr><tr><td>H</td><td>CW</td><td></td><td></td><td></td><td></td></tr><tr><td>.187", 4.75 mm</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td></tr><tr><td>.197", 5.00 mm</td><td></td><td>●</td><td>●</td><td>●</td><td>●</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | For Grooving/Cutting off > F011, F012     |               |   |                                 |  |  | Seat Size | Breaker | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel)   | H | CW |  |  |  |           | .187", 4.75 mm |  | ● | ● | ● | ● | .197", 5.00 mm |   | ● | ● | ● | ● |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| For Grooving/Cutting off > F011, F012     |                                 |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| Seat Size                                 | Breaker                         | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel)   |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| H                                         | CW                              |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .187", 4.75 mm                            |                                 | ●                | ●        | ●           | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .197", 5.00 mm                            |                                 | ●                | ●        | ●           | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .750                                      | .750                            | 5.433            | 1.969    | .674        | .750                    | 1.000 | .250 |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.433            | 1.969    | 1.674       | 1.000                   | 1.125 | —    |  |  | <table><tr><th colspan="6">For Multifunctional Grooving &gt; F013, F014</th></tr><tr><th>Seat Size</th><th>Breaker</th><th>MF (Finish)</th><th>MS (Low)</th><th>MM (Medium)</th><th>BM (Copying, Recessing)</th></tr><tr><td>H</td><td>CW</td><td></td><td></td><td></td><td>Ball nose</td></tr><tr><td>.187", 4.75 mm</td><td></td><td></td><td></td><td></td><td>●</td></tr><tr><td>RE .008"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .016"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .031"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>.197", 5.00 mm</td><td></td><td></td><td></td><td></td><td>●</td></tr><tr><td>RE .008"</td><td>●</td><td></td><td></td><td></td><td></td></tr><tr><td>RE .016"</td><td>●</td><td></td><td>●</td><td>●</td><td></td></tr><tr><td>RE .031"</td><td>●</td><td></td><td>●</td><td>●</td><td></td></tr><tr><td>.206", 5.24 mm</td><td>●</td><td></td><td></td><td></td><td></td></tr></table> | For Multifunctional Grooving > F013, F014 |               |   |                                 |  |  | Seat Size | Breaker | MF (Finish)      | MS (Low) | MM (Medium) | BM (Copying, Recessing) | H | CW |  |  |  | Ball nose | .187", 4.75 mm |  |   |   |   | ● | RE .008"       | ● |   |   |   |   | RE .016" | ● |  |  |  |  | RE .031" | ● |  |  |  |  | .197", 5.00 mm |  |  |  |  | ● | RE .008" | ● |  |  |  |  | RE .016" | ● |  | ● | ● |  | RE .031" | ● |  | ● | ● |  | .206", 5.24 mm | ● |  |  |  |  |
| For Multifunctional Grooving > F013, F014 |                                 |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| Seat Size                                 | Breaker                         | MF (Finish)      | MS (Low) | MM (Medium) | BM (Copying, Recessing) |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| H                                         | CW                              |                  |          |             | Ball nose               |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .187", 4.75 mm                            |                                 |                  |          |             | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .008"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .016"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .031"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .197", 5.00 mm                            |                                 |                  |          |             | ●                       |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .008"                                  | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .016"                                  | ●                               |                  | ●        | ●           |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| RE .031"                                  | ●                               |                  | ●        | ●           |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| .206", 5.24 mm                            | ●                               |                  |          |             |                         |       |      |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.000                                     | 1.000                           | 6.433            | 1.969    | 1.674       | 1.000                   | 1.125 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.433            | 1.969    | 1.674       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.250                                     | 1.250                           | 6.433            | 1.969    | 1.674       | 1.250                   | 1.375 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.433            | 1.969    | 2.674       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |
| 1.500                                     | 1.500                           | 7.433            | 1.969    | 2.674       | 1.500                   | 1.625 | —    |                                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                           |               |   |                                 |  |  |           |         |                  |          |             |                         |   |    |  |  |  |           |                |  |   |   |   |   |                |   |   |   |   |   |          |   |  |  |  |  |          |   |  |  |  |  |                |  |  |  |  |   |          |   |  |  |  |  |          |   |  |   |   |  |          |   |  |   |   |  |                |   |  |  |  |  |

● : Gauge insert shown dimensions

# GY SERIES (FACE GROOVING)

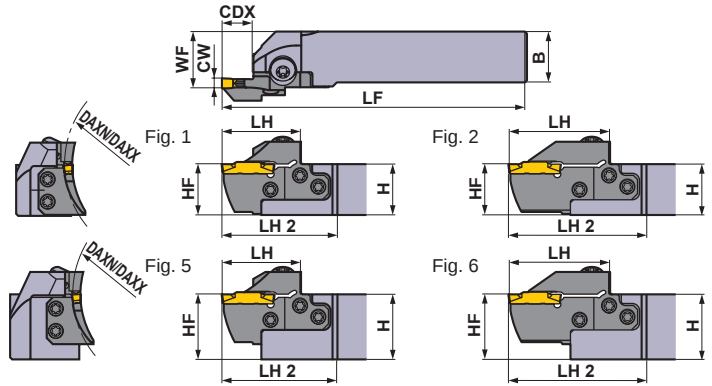
## 4-1 00° type holder (Inch)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



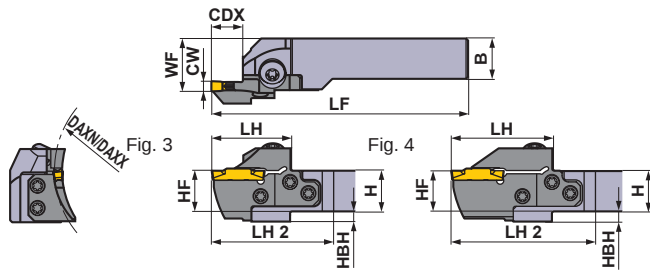
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | .187<br>.197<br>.206 | 3.346       | 4.921       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-085 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-085 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-085 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-085 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-085 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-085 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-085 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-085 | ●     | 5    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H25-085 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H25-085 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H25-085 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H25-085 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H25-085 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H25-085 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H25-085 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H25-085 | ●     | 6    |
|           |                      | 4.921       | 7.874       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-125 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-125 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-125 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-125 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-125 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-125 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-125 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-125 | ●     | 5    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H25-125 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H25-125 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H25-125 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H25-125 | ●     | 2    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H25-125 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H25-125 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H25-125 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H25-125 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



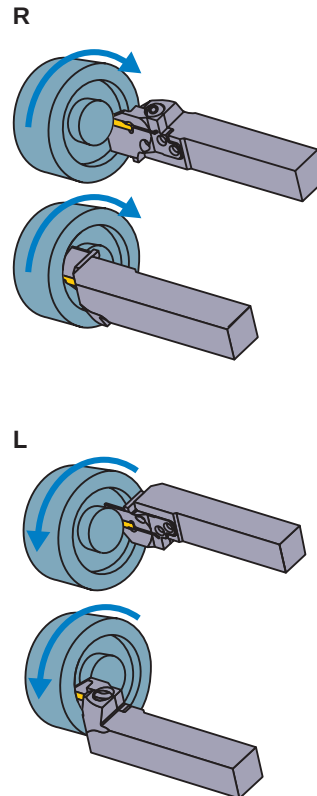
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off |         | > F011, F012     |          |             |                       |
|--------------------------|---------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| H                        | CW      |                  |          |             |                       |
|                          | H       |                  |          |             |                       |

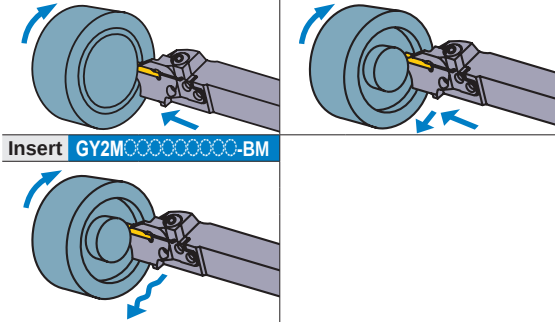
| For Multifunctional Grooving |         | > F013, F014 |          |             |                         |
|------------------------------|---------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| H                            | CW      |              |          |             |                         |
|                              | H       |              |          |             |                         |

● : Gauge insert shown dimensions

# GY SERIES (FACE GROOVING)

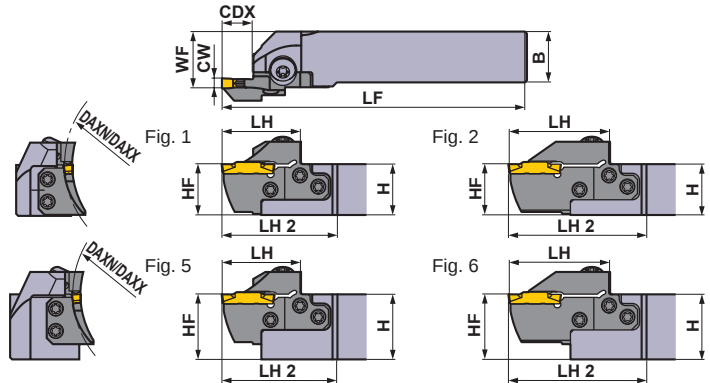
## 4-1 00° type holder (Inch)

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1G | GM-GFS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



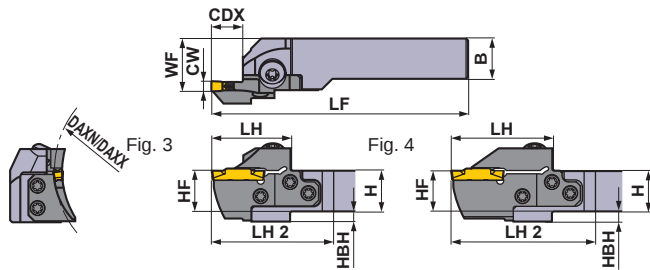
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | .187<br>.197<br>.206 | 7.087       | 11.024      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-180 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-180 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-180 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-180 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-180 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-180 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-180 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-180 | ●     | 5    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H25-180 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H25-180 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H25-180 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H25-180 | ●     | 2    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H25-180 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H25-180 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H25-180 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H25-180 | ●     | 6    |
|           |                      | 9.843       | 39.331      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H14-250 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H14-250 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H14-250 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H14-250 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H14-250 | ●     | 5    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-H25-250 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-H25-250 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-H25-250 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-H25-250 | ●     | 2    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-H25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-H25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-H25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-H25-250 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



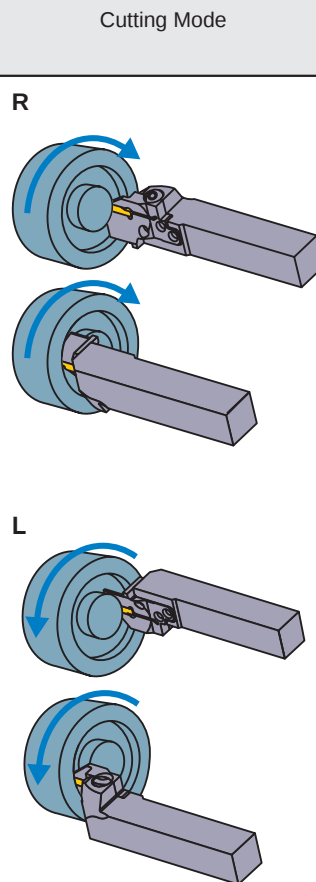
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS20D00-M25R/L |                                        |                                    |                    |
| GYHR/LUS24E00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |   |
|----------------------|-------|-------|-------|-------|-------|-------|------|---|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | R |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    | R |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    | R |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | R |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |   |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | L |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |   |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    | L |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |   |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | L |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |   |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | L |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |   |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| H                        | CW             |                  |          |             |                       |
|                          |                |                  |          |             |                       |
| H                        | .187", 4.75 mm | ●                | ●        | ●           | ●                     |
|                          | .197", 5.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| H                            | CW             |              |          |             | Ball nose               |
|                              |                |              |          |             |                         |
| H                            | .187", 4.75 mm | ●            |          |             | ●                       |
|                              | RE .008"       | ●            |          |             |                         |
| H                            | RE .016"       | ●            |          |             |                         |
|                              | RE .031"       | ●            |          |             |                         |
| H                            | .197", 5.00 mm | ●            | ●        | ●           | ●                       |
|                              | RE .008"       | ●            |          |             |                         |
| H                            | RE .016"       | ●            | ●        | ●           |                         |
|                              | RE .031"       | ●            | ●        | ●           |                         |
| H                            | .206", 5.24 mm | ●            |          |             |                         |
|                              |                |              |          |             |                         |

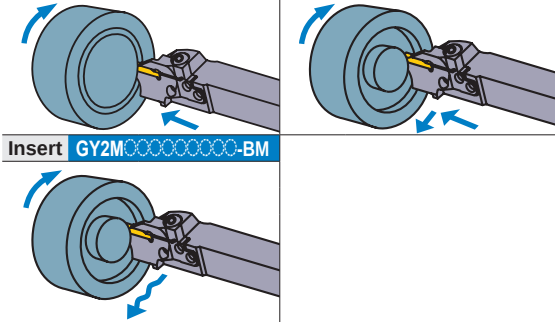
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

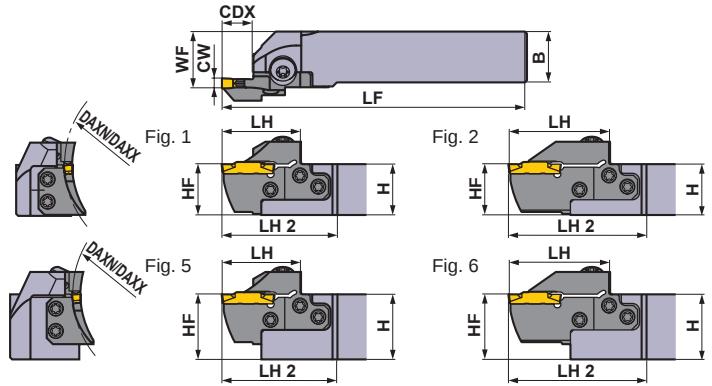
## 4-1 00° type holder (Inch)

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS <sub>GS</sub> | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

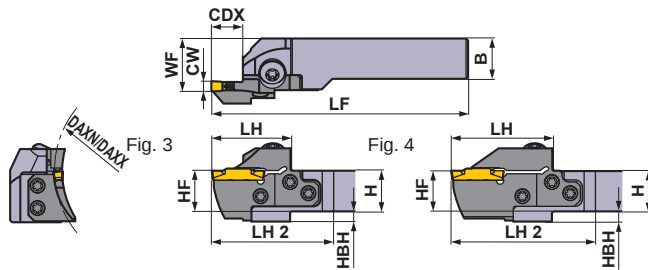
| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | .236<br>.248<br>.250 | 1.969       | 2.756       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J14-050 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J14-050 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J14-050 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J14-050 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J14-050 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J14-050 | ●     | 5    |
|           |                      | 2.756       | 4.331       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J14-070 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J14-070 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J14-070 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J14-070 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J14-070 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J14-070 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J14-070 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J14-070 | ●     | 5    |
|           |                      | 4.331       | 7.874       | .984*2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J25-070 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J25-070 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J25-070 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J25-070 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J25-070 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J25-070 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J25-070 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J25-070 | ●     | 6    |
|           |                      | 4.331       | 7.874       | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J14-110 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J14-110 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J14-110 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J14-110 | ●     | 1    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J14-110 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J14-110 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J14-110 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J14-110 | ●     | 5    |
|           |                      | 4.331       | 7.874       | .984*2     | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J25-110 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J25-110 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J25-110 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J25-110 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J25-110 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J25-110 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J25-110 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J25-110 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock



★ Wrench : ① : Clamp Screw, ② : Blade Screw

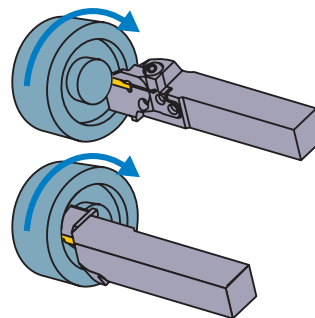
## SPARE PARTS

| Holder Number        | 5 pcs.                                    | 5 pcs.                                | ① ②                |
|----------------------|-------------------------------------------|---------------------------------------|--------------------|
|                      | Clamp Screw                               | Blade Screw                           | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque<br>: 53 lbf-in) | TS55<br>(Clamp Torque<br>: 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS20D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS24E00-M25R/L |                                           |                                       |                    |

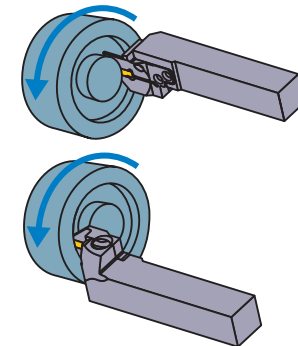
Right hand tool holder shown.

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |
|----------------------|-------|-------|-------|-------|-------|-------|------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |

R



L



## Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| J         | GY0000600/0631/0635J00000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                        | CW             |                     |             |                |                          |
|                          | .236", 6.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .250", 6.35 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                            | CW             |                |             |                | Ball nose                  |
|                              | .236", 6.00 mm |                |             |                | ●                          |
|                              | RE .008"       | ●              | ●           | ●              |                            |
|                              | RE .016"       | ●              | ●           | ●              |                            |
|                              | RE .031"       | ●              | ●           | ●              |                            |
|                              | .248", 6.31 mm | ●              |             |                |                            |
|                              | .250", 6.35 mm | ●              |             |                | ●                          |
|                              | RE .008"       | ●              |             |                |                            |
|                              | RE .016"       | ●              |             |                |                            |
|                              | RE .031"       | ●              |             |                |                            |

● : Gauge insert shown dimensions

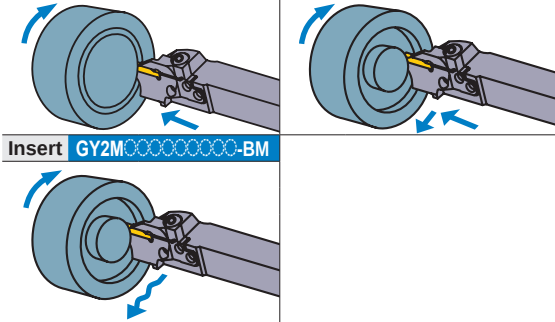
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

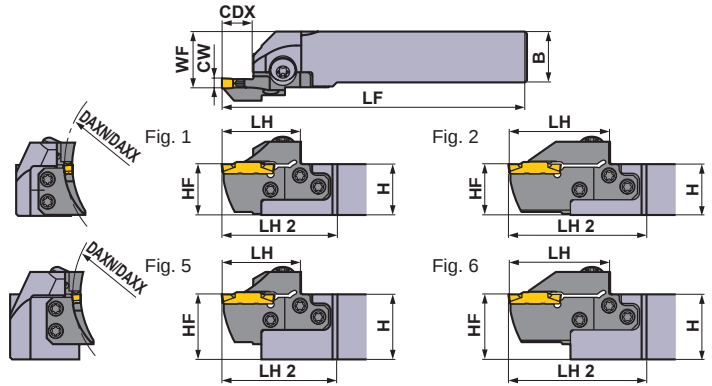
## 4-1 00° type holder (Inch)

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS <sub>GS</sub> | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



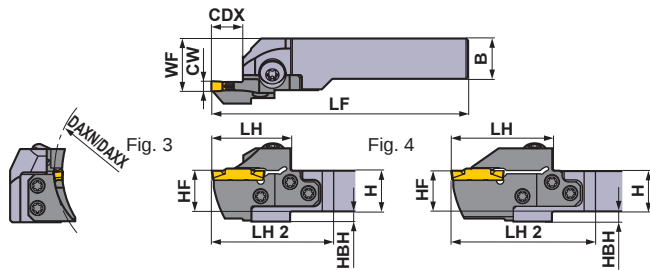
Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | .236<br>.248<br>.250 | 6.693       | 11.024      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J14-170 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J14-170 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J14-170 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J14-170 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J14-170 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J14-170 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J14-170 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J14-170 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J25-170 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J25-170 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J25-170 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J25-170 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J25-170 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J25-170 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J25-170 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J25-170 | ●     | 6    |
|           |                      | 9.843       | 39.331      | .551       | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J14-250 | ●     | 3    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J14-250 | ●     | 3    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J14-250 | ●     | 1    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J14-250 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J14-250 | ●     | 5    |
|           |                      |             |             |            | Modular | R          | GYHRUS12C00-M25R | ●     | GYM25RD-J25-250 | ●     | 4    |
|           |                      |             |             |            | Modular | L          | GYHLUS12C00-M25L | ●     | GYM25LD-J25-250 | ●     | 4    |
|           |                      |             |             |            | Modular | R          | GYHRUS16D00-M25R | ●     | GYM25RD-J25-250 | ●     | 2    |
|           |                      |             |             |            | Modular | L          | GYHLUS16D00-M25L | ●     | GYM25LD-J25-250 | ●     | 2    |
|           |                      |             |             |            | Modular | R          | GYHRUS20D00-M25R | ●     | GYM25RD-J25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS20D00-M25L | ●     | GYM25LD-J25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | R          | GYHRUS24E00-M25R | ●     | GYM25RD-J25-250 | ●     | 6    |
|           |                      |             |             |            | Modular | L          | GYHLUS24E00-M25L | ●     | GYM25LD-J25-250 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



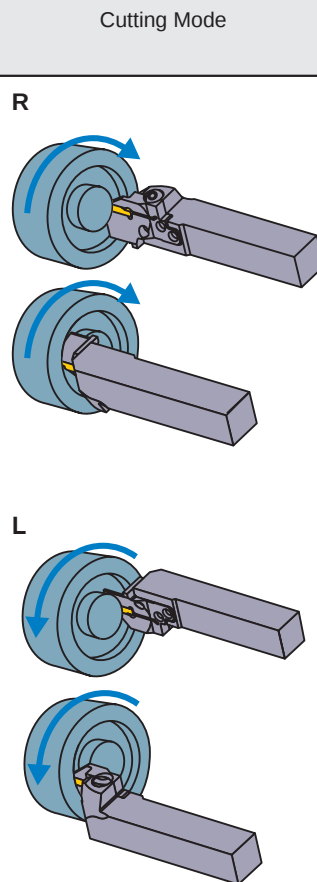
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                    | 5 pcs.                                | ① ②                |
|----------------------|-------------------------------------------|---------------------------------------|--------------------|
|                      | Clamp Screw                               | Blade Screw                           | Wrench ★           |
| GYHR/LUS12C00-M25R/L | GY06013M<br>(Clamp Torque<br>: 53 lbf-in) | TS55<br>(Clamp Torque<br>: 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/LUS16D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS20D00-M25R/L |                                           |                                       |                    |
| GYHR/LUS24E00-M25R/L |                                           |                                       |                    |

| Dimensions (inch) ★1 |       |       |       |       |       |       |      |          |
|----------------------|-------|-------|-------|-------|-------|-------|------|----------|
| H                    | B     | LF    | LH    | LH 2  | HF    | WF    | HBH  |          |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 | <b>R</b> |
| .750                 | .750  | 5.000 | 1.535 | .241  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.000 | 1.535 | 1.241 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.000 | 1.535 | 1.241 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.000 | 1.535 | 2.241 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    | <b>L</b> |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 | <b>L</b> |
| .750                 | .750  | 5.433 | 1.969 | .674  | .750  | 1.000 | .250 |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.000                | 1.000 | 6.433 | 1.969 | 1.674 | 1.000 | 1.125 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.250                | 1.250 | 6.433 | 1.969 | 1.674 | 1.250 | 1.375 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    | <b>L</b> |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |
| 1.500                | 1.500 | 7.433 | 1.969 | 2.674 | 1.500 | 1.625 | —    |          |



## Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| J         | GY0000600/0631/0635J00000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                        | CW             |                     |             |                |                          |
|                          | .236", 6.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .250", 6.35 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                            | CW             |                |             |                | Ball nose                  |
|                              | .236", 6.00 mm |                |             |                | ●                          |
|                              | RE .008"       | ●              |             | ●              |                            |
|                              | RE .016"       | ●              | ●           | ●              |                            |
|                              | RE .031"       | ●              | ●           | ●              |                            |
|                              | .248", 6.31 mm | ●              |             |                |                            |
|                              | .250", 6.35 mm | ●              |             |                | ●                          |
|                              | RE .008"       | ●              |             |                |                            |
|                              | RE .016"       | ●              |             |                |                            |
|                              | RE .031"       | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

5-1

90° type holder (inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |                    |        |                    |
|--------|--------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup> | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup> | Insert | GY2M <sup>MS</sup> |
| Insert | GY1M <sup>GM</sup> | Insert | GY2M <sup>MM</sup> |

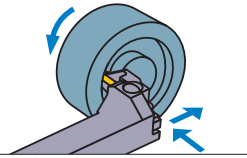
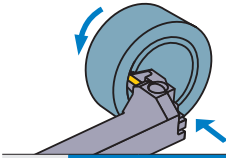
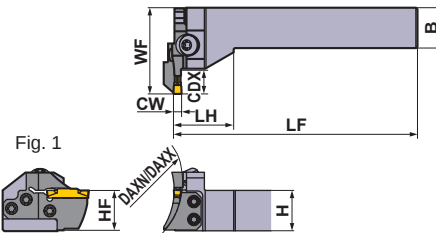
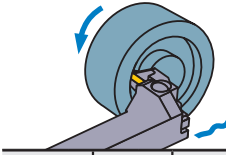
Insert GY2M<sup>BM</sup>

Fig. 1

Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| D         | .079<br>.088         | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-040 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-040 | ●     | 1    |
|           |                      | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-050 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-050 | ●     | 1    |
|           |                      | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-060 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-060 | ●     | 1    |
|           |                      | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-075 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-075 | ●     | 1    |
|           |                      | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-100 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-100 | ●     | 1    |
|           |                      | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-135 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-135 | ●     | 1    |
|           |                      | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-D12-180 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-D12-180 | ●     | 1    |
| E         | .094<br>.098<br>.108 | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-040 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-040 | ●     | 1    |
|           |                      | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-050 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-050 | ●     | 1    |
|           |                      | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-060 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-060 | ●     | 1    |
|           |                      | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-075 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-075 | ●     | 1    |
|           |                      | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-100 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-100 | ●     | 1    |
|           |                      | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-135 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-135 | ●     | 1    |
|           |                      | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-E12-180 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-E12-180 | ●     | 1    |

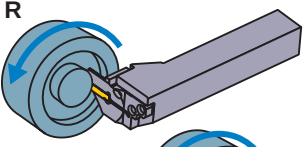
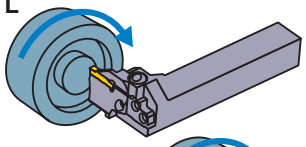
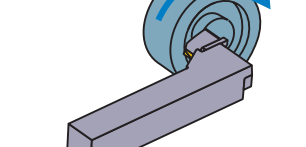
CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS16D90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★1 |       |       |       |       |       | Cutting Mode                                                                        |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |    |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                      |
|-----------|------------------------------------|
| D         | GY0000200/0224D000000-Breaker      |
| E         | GY0000239/0250/0274E000000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
|                          | CW             |                     |             |                |                          |
| D                        | .079", 2.00 mm | ●                   | ●           | ●              | ●                        |
| E                        | .094", 2.39 mm | ●                   | ●           | ●              | ●                        |
|                          | .098", 2.50 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                                         |
|------------------------------|----------------|----------------|-------------|----------------|-----------------------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing)<br>Ball nose |
|                              | CW             |                |             |                |                                         |
| D                            | .079", 2.00 mm | ●              | ●           | ●              | ●                                       |
|                              | .088", 2.24 mm | ●              |             |                |                                         |
| E                            | .094", 2.39 mm | ●              | ●           | ●              | ●                                       |
|                              | .098", 2.50 mm | ●              | ●           | ●              | ●                                       |
|                              | .108", 2.74 mm | ●              |             |                |                                         |

● : Gauge insert shown dimensions

# GY SERIES (FACE GROOVING)

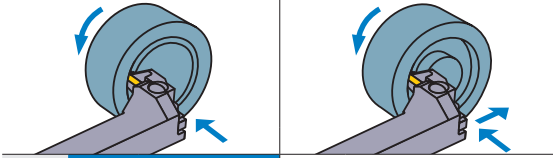
5-1

90° type holder (inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |        |        |      |    |
|--------|------|--------|--------|------|----|
| Insert | GY2M | GS-GM  | Insert | GY2G | MF |
| Insert | GY2M | GU     | Insert | GY2M | MS |
| Insert | GY1M | GM-GFS | Insert | GY2M | MM |



Insert GY2M

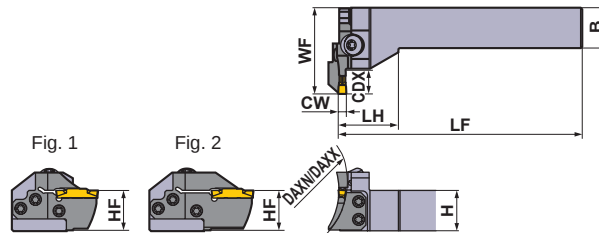
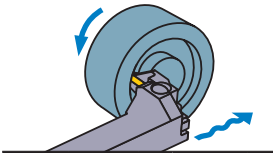


Fig. 1

Fig. 2

Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | .118<br>.125<br>.128 | 1.378       | 1.575       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-035 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-035 | ●     | 1    |
|           |                      | 1.575       | 1.969       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-040 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-040 | ●     | 1    |
|           |                      | 1.969       | 2.362       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-050 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-050 | ●     | 1    |
|           |                      | 2.362       | 2.953       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-060 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-060 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-060 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-060 | ●     | 2    |
|           |                      | 2.953       | 3.937       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-075 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-075 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-075 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-075 | ●     | 2    |
|           |                      | 3.937       | 5.906       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-100 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-100 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-100 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-100 | ●     | 2    |
|           |                      | 5.315       | 7.874       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-135 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-135 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-135 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-135 | ●     | 2    |
|           |                      | 7.087       | 9.843       | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-180 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-180 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-180 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-180 | ●     | 2    |
|           |                      | 8.858       | 39.331      | .472       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F12-225 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F12-225 | ●     | 1    |
|           |                      |             |             | .787*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-F20-225 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-F20-225 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

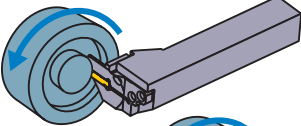
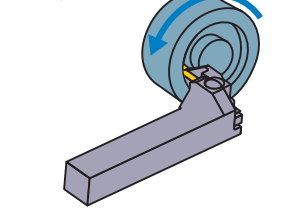
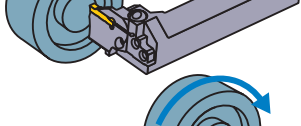
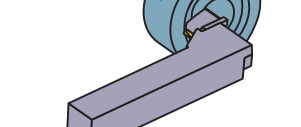
\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS16D90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★1 |       |       |       |       |       | Cutting Mode                                                                        |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |    |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |   |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.330 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| F         | GY0000300/0318/0324F00000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                                     | .118", 3.00 mm | ●                   | ●           | ●              | ●                        |
|                                       | .125", 3.18 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                                         | .118", 3.00 mm |                |             |                | Ball nose                  |
|                                           | RE .008"       | ●              | ●           | ●              | ●                          |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       |                |             | ●              |                            |
|                                           | .125", 3.18 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

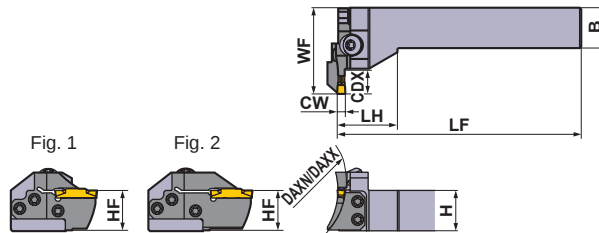
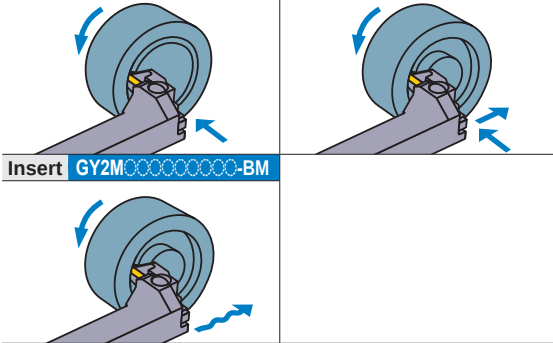
5-1

90° type holder (inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |      |        |      |    |
|--------|------|------|--------|------|----|
| Insert | GY2M | GS   | Insert | GY2G | MF |
| Insert | GY2M | GU   | Insert | GY2M | MS |
| Insert | GY1G | GM   | Insert | GY2M | MM |
|        |      | GFGS |        |      |    |



Right hand tool holder shown.

| Seat Size | CW (inch)    | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | .157<br>.167 | 1.575       | 1.969       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-040 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-040 | ●     | 1    |
|           |              | 1.969       | 2.362       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-050 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-050 | ●     | 1    |
|           |              | 2.362       | 3.346       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-060 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-060 | ●     | 1    |
|           |              |             |             | .984*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G25-060 | ●     | 2    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G25-060 | ●     | 2    |
|           |              | 3.346       | 4.921       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-085 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-085 | ●     | 1    |
|           |              |             |             | .984*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G25-085 | ●     | 2    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G25-085 | ●     | 2    |
|           |              | 4.921       | 7.874       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-125 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-125 | ●     | 1    |
|           |              |             |             | .984*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G25-125 | ●     | 2    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G25-125 | ●     | 2    |
|           |              | 7.087       | 11.024      | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-180 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-180 | ●     | 1    |
|           |              |             |             | .984*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G25-180 | ●     | 2    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G25-180 | ●     | 2    |
|           |              | 9.843       | 39.331      | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G14-250 | ●     | 1    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G14-250 | ●     | 1    |
|           |              |             |             | .984*2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-G25-250 | ●     | 2    |
|           |              |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-G25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

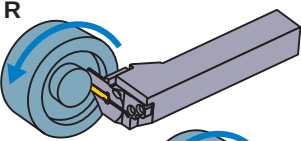
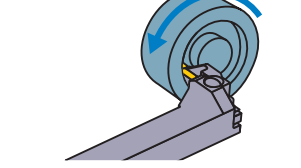
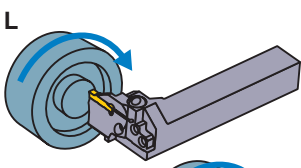
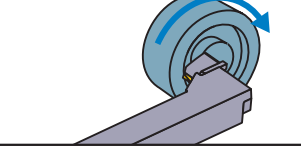
\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS16D90-M25L</b> | GY06013M<br>(Clamp Torque<br>: 53 lbf-in)                                           | TS55<br>(Clamp Torque<br>: 44 lbf-in)                                                      | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★1 |       |       |       |       |       | Cutting Mode                                                                        |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |    |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |   |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| G         | GY000400/0424G000000-Breaker |

| For Grooving/Cutting off > F011, F012 |                      |                     |             |                |                          |
|---------------------------------------|----------------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker              | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                                     | CW<br>.157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                      |                |             |                |                            |
|-------------------------------------------|----------------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker              | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                                         | CW<br>.157", 4.00 mm |                |             |                | Ball nose                  |
|                                           | RE .008"             | ●              | ●           | ●              |                            |
|                                           | RE .016"             | ●              | ●           | ●              |                            |
|                                           | RE .031"             | ●              | ●           | ●              |                            |
|                                           | .167", 4.24 mm       | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | > F008, F009 |
| CUTTING CONDITIONS | > F216       |
| INSTRUCTION MANUAL | > F218       |

# GY SERIES (FACE GROOVING)

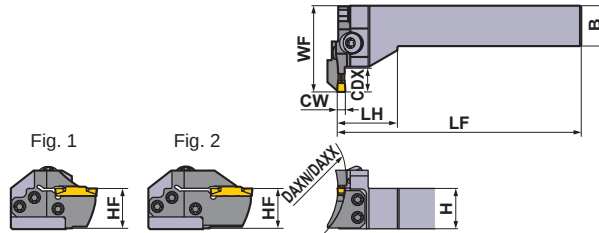
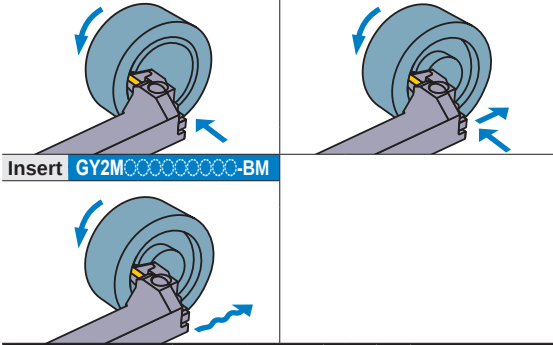
5-1

90° type holder (inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |                   |        |      |    |
|--------|------|-------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>  | Insert | GY2G | MF |
| Insert | GY2M | GU                | Insert | GY2M | MS |
| Insert | GY1G | GM <sub>GFS</sub> | Insert | GY2M | MM |



Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | .187<br>.197<br>.206 | 1.969       | 2.362       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-050 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-050 | ●     | 1    |
|           |                      | 2.362       | 3.346       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-060 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-060 | ●     | 1    |
|           |                      | 3.346       | 4.921       | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H25-060 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H25-060 | ●     | 2    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-085 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-085 | ●     | 1    |
|           |                      | 4.921       | 7.874       | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H25-085 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H25-085 | ●     | 2    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-125 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-125 | ●     | 1    |
|           |                      | 7.087       | 11.024      | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H25-125 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H25-125 | ●     | 2    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-180 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-180 | ●     | 1    |
|           |                      | 9.843       | 39.331      | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H25-180 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H25-180 | ●     | 2    |
|           |                      |             |             | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H14-250 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H14-250 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-H25-250 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-H25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

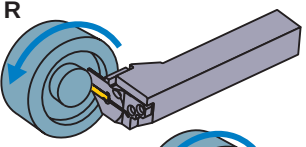
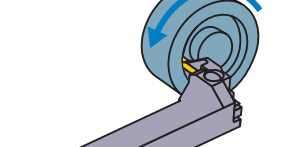
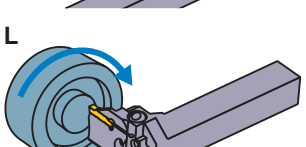
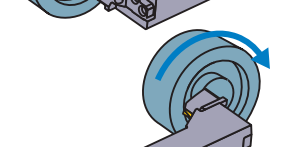
★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS16D90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★1 |       |       |       |       |       | Cutting Mode                                                                        |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |    |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |   |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                                     | CW             |                     |             |                |                          |
|                                       |                |                     |             |                |                          |
|                                       | .187", 4.75 mm | ●                   | ●           | ●              | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H                                         | CW             |                |             |                | Ball nose                  |
|                                           |                |                |             |                |                            |
|                                           | .187", 4.75 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .206", 5.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

# GY SERIES (FACE GROOVING)

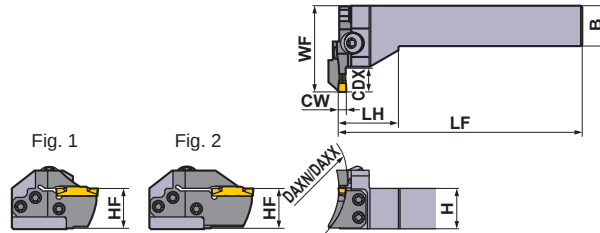
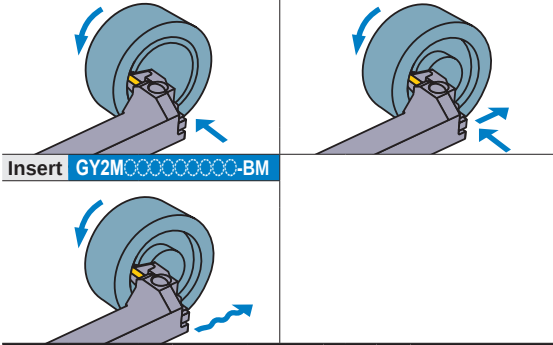
## 5-1

90° type holder (inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS <sub>GS</sub> | Insert | GY2M | MM |



Right hand tool holder shown.

| Seat Size | CW (inch)            | DAXN (inch) | DAXX (inch) | CDX (inch) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-------------|-------------|------------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |             |             |            |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | .236<br>.248<br>.250 | 1.969       | 2.756       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J14-050 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J14-050 | ●     | 1    |
|           |                      | 2.756       | 4.331       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J14-070 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J14-070 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J25-070 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J25-070 | ●     | 2    |
|           |                      | 4.331       | 7.874       | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J14-110 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J14-110 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J25-110 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J25-110 | ●     | 2    |
|           |                      | 6.693       | 11.024      | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J14-170 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J14-170 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J25-170 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J25-170 | ●     | 2    |
|           |                      | 9.843       | 39.331      | .551       | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J14-250 | ●     | 1    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J14-250 | ●     | 1    |
|           |                      |             |             | .984★2     | Modular | R          | GYHRUS16D90-M25L | ●     | GYM25LD-J25-250 | ●     | 2    |
|           |                      |             |             |            |         | L          | GYHLUS16D90-M25R | ●     | GYM25RD-J25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

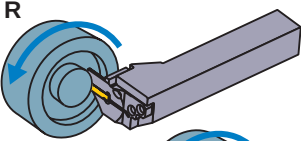
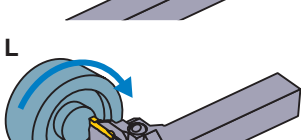
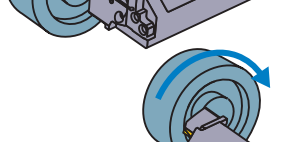
★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHRUS16D90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHLUS16D90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★1 |       |       |       |       |       | Cutting Mode                                                                        |
|--|----------------------|-------|-------|-------|-------|-------|-------------------------------------------------------------------------------------|
|  | H                    | B     | LF    | LH    | HF    | WF    |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |    |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |   |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |  |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.094 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |
|  | 1.000                | 1.000 | 6.000 | 1.500 | 1.000 | 2.527 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| J         | GY0000600/0631/0635J00000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                                     | CW             |                     |             |                |                          |
|                                       |                |                     |             |                |                          |
|                                       | .236", 6.00 mm | ●                   | ●           | ●              | ●                        |
|                                       | .250", 6.35 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                                         | CW             |                |             |                | Ball nose                  |
|                                           |                |                |             |                |                            |
|                                           | .236", 6.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             | ●              |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .248", 6.31 mm | ●              |             |                |                            |
|                                           | .250", 6.35 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |

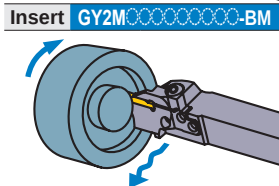
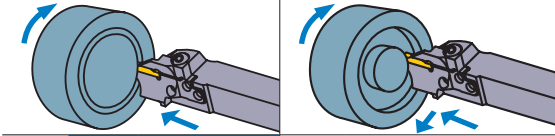
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |    |      |        |      |    |
|--------|------|----|------|--------|------|----|
| Insert | GY2M | GS | GM   | Insert | GY2G | MF |
| Insert | GY2M | GU |      | Insert | GY2M | MS |
| Insert | GY1M | GM | GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

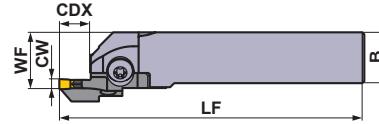


Fig. 1

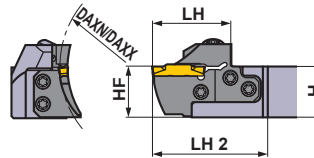
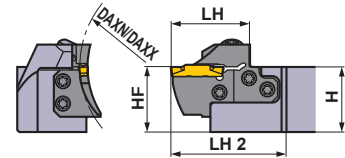


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| D         | 2.00<br>2.24 | 40        | 50        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-040 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-040 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-040 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-040 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ●     | GYM25RD-D12-040 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ●     | GYM25LD-D12-040 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ●     | GYM25RD-D12-040 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ●     | GYM25LD-D12-040 | ●     | 2    |
|           |              | 50        | 60        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-050 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-050 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-050 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-050 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-050 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-050 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-050 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-050 | ●     | 2    |
|           |              | 60        | 75        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-060 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-060 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-060 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-060 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-060 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-060 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-060 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-060 | ●     | 2    |
|           |              | 75        | 100       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-075 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-075 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-075 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-075 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-075 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-075 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-075 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-075 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

● : USA Stock ★ : Stocked in Japan

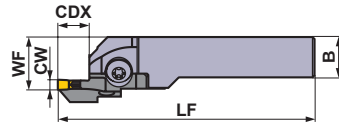
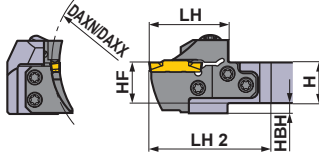


Fig. 3



Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

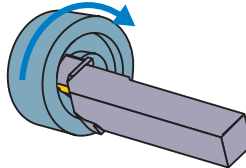
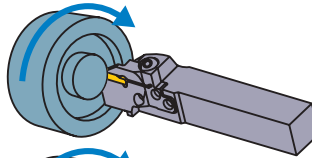
## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/L2020K00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/L2525M00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3225P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3232P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

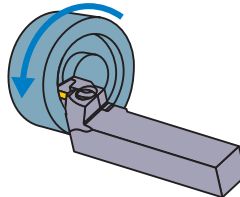
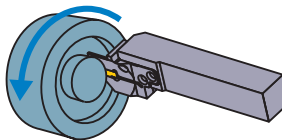
|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     |
|--|--------------------|----|-----|----|------|----|----|-----|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |

Cutting Mode

R



L



## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| D         | GY0000200/0224D00000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| D                        | .079", 2.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| D                            | .079", 2.00 mm | ●            | ●        | ●           | ●                       |
|                              | .088", 2.24 mm | ●            | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

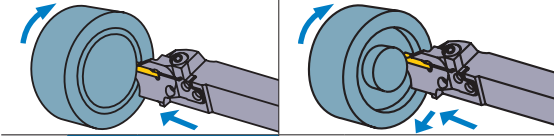
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

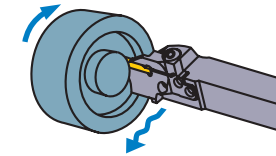
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

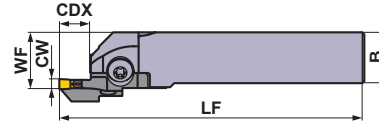


Fig. 1

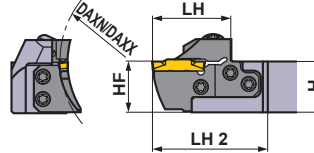
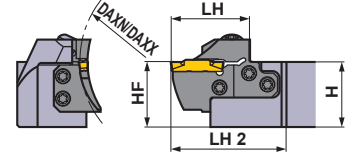


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| D         | 2.00<br>2.24 | 100       | 150       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-100 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-100 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-100 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-100 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-100 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-100 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-100 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-100 | ●     | 2    |
|           |              | 135       | 200       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-135 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-135 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-135 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-135 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-135 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-135 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-135 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-135 | ●     | 2    |
|           |              | 180       | 250       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-D12-180 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-D12-180 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-D12-180 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-D12-180 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-D12-180 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-D12-180 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-D12-180 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-D12-180 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

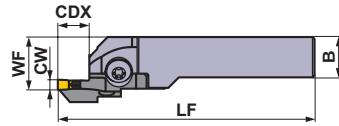
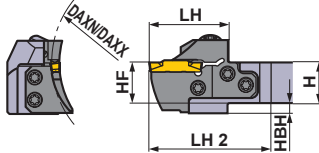


Fig. 3

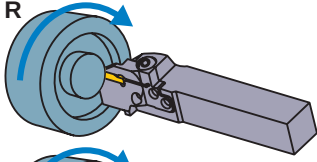
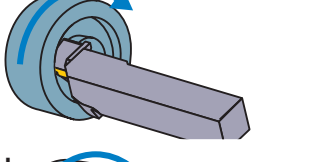
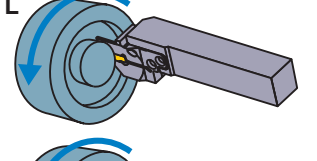
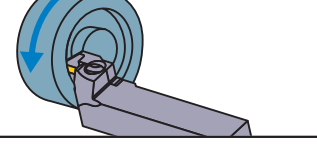


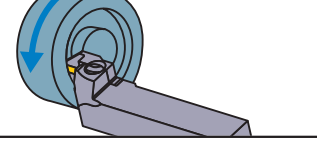
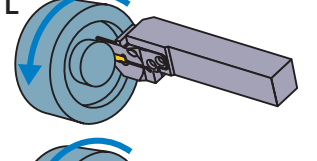
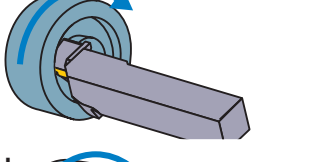
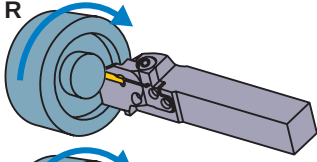
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/L2020K00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/L2525M00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3225P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3232P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (mm) ★1 |    |     |    |      |    |    |     |                                                                                     |
|--------------------|----|-----|----|------|----|----|-----|-------------------------------------------------------------------------------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |    |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |



### Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| D         | GY0000200/0224D0000000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                  |          |             |                       |
|---------------------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                             | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| D                                     | .079", 2.00 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving > F013, F014 |                |             |          |             |                         |
|-------------------------------------------|----------------|-------------|----------|-------------|-------------------------|
| Seat Size                                 | Breaker        | MF (Finish) | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| D                                         | .079", 2.00 mm | ●           | ●        | ●           | ●                       |
|                                           | .088", 2.24 mm | ●           | ●        | ●           | ●                       |

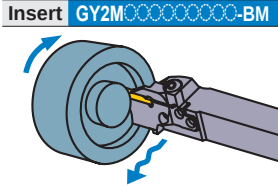
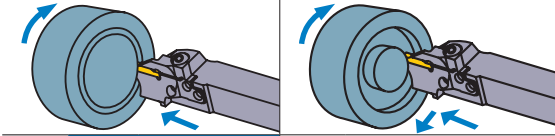
● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |      |        |      |    |
|--------|------|------|--------|------|----|
| Insert | GY2M | GS   | Insert | GY2G | MF |
| Insert | GY2M | GU   | Insert | GY2M | MS |
| Insert | GY1M | GM   | Insert | GY2M | MM |
|        | 1G   | GFGS |        |      |    |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

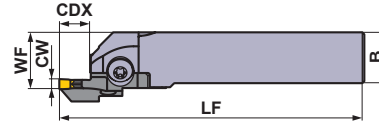


Fig. 1

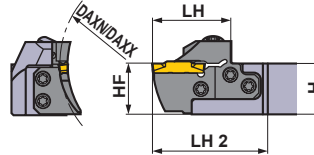
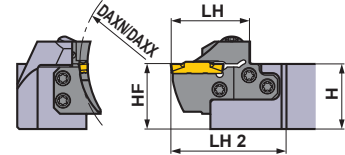


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| E         | 2.39<br>2.50<br>2.74 | 40        | 50        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-040 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-040 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-040 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-040 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-040 | ●     | 2    |
|           |                      | 50        | 60        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-050 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-050 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-050 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-050 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-050 | ●     | 2    |
|           |                      | 60        | 75        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-060 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-060 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-060 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-060 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-060 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-060 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-060 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-060 | ●     | 2    |
|           |                      | 75        | 100       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-075 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-075 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-075 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-075 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-075 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-075 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-075 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-075 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

● : USA Stock ★ : Stocked in Japan

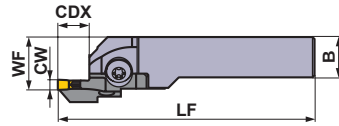
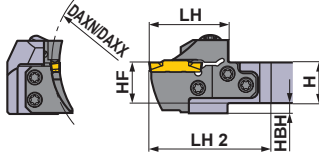


Fig. 3



Right hand tool holder shown.

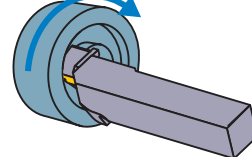
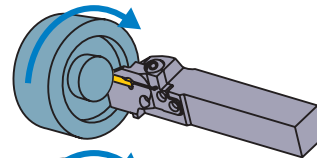
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

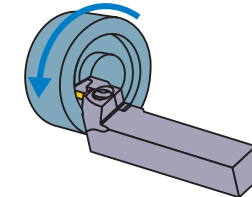
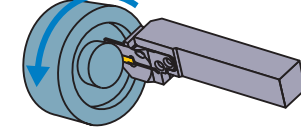
| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
| Holder Number        | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L2525M00-M25R/L |                                        |                                    |                    |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

| Dimensions (mm) ★1 |    |     |    |      |    |    |     |   |
|--------------------|----|-----|----|------|----|----|-----|---|
| H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | L |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | L |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |

R



L



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| E         | GY000239/0250/0274E0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| E                        | CW             |                  |          |             |                       |
|                          | .094", 2.39 mm | ●                | ●        | ●           | ●                     |
|                          | .098", 2.50 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| E                            | CW             |              |          |             |                         |
|                              | .094", 2.39 mm | ●            |          |             | ●                       |
|                              | .098", 2.50 mm | ●            | ●        | ●           | ●                       |
|                              | .108", 2.74 mm | ●            |          |             |                         |

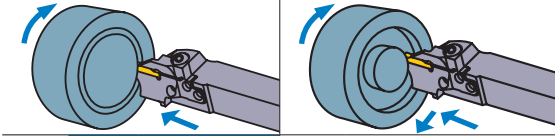
● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

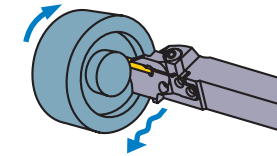
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

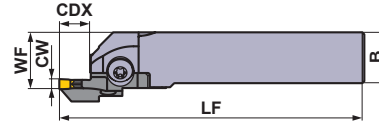


Fig. 1

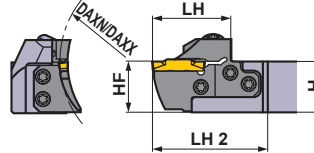
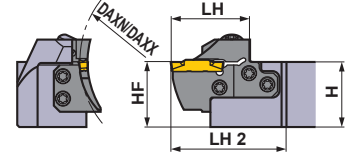


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| E         | 2.39<br>2.50<br>2.74 | 100       | 150       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-100 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-100 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-100 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-100 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-100 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-100 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-100 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-100 | ●     | 2    |
|           |                      | 135       | 200       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-135 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-135 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-135 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-135 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-135 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-135 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-135 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-135 | ●     | 2    |
|           |                      | 180       | 250       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-E12-180 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-E12-180 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-E12-180 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-E12-180 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-E12-180 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-E12-180 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-E12-180 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-E12-180 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

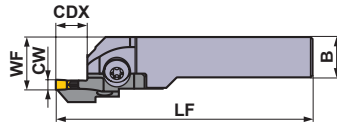
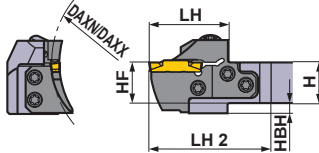


Fig. 3

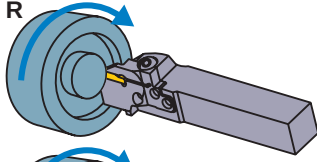
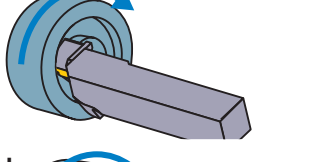
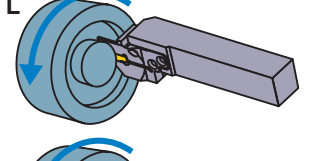
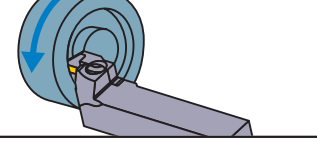


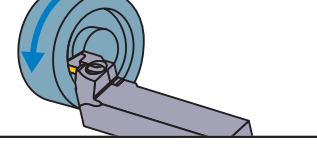
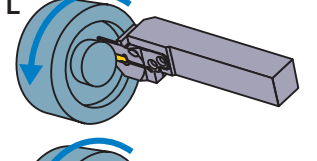
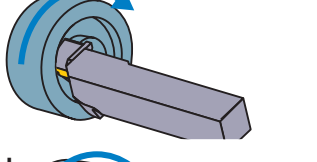
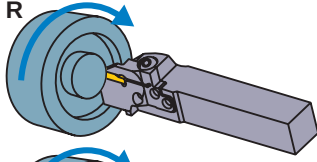
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/L2020K00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/L2525M00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3225P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3232P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (mm) ★1 |    |     |    |      |    |    |     |                                                                                     |
|--------------------|----|-----|----|------|----|----|-----|-------------------------------------------------------------------------------------|
| H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |    |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |  |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |                                                                                     |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |  |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |                                                                                     |



## Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| E         | GY00239/0250/0274E0000-Breaker |

| For Grooving/Cutting off |         | > F011, F012     |          |             |                       |
|--------------------------|---------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| E                        | CW      | ●                | ●        | ●           | ●                     |
|                          | ●       | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |         | > F013, F014 |          |             |                         |
|------------------------------|---------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| E                            | CW      | ●            | ●        | ●           | ●                       |
|                              | ●       | ●            | ●        | ●           | ●                       |
|                              | ●       | ●            | ●        | ●           | ●                       |

● : Gauge insert shown dimensions

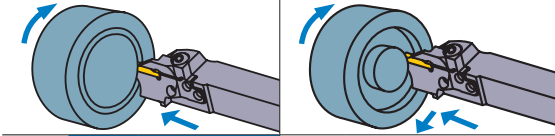
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

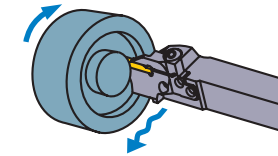
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

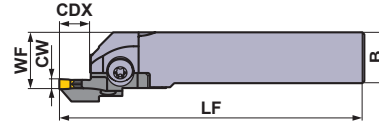


Fig. 1

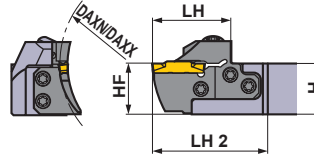
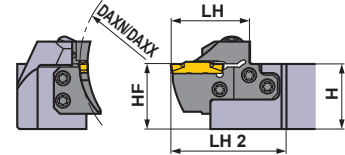


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 35        | 40        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-035 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-035 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-035 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-035 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-035 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-035 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-035 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-035 | ●     | 2    |
|           |                      | 40        | 50        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-040 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-040 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-040 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-040 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-040 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-040 | ●     | 2    |
|           |                      | 50        | 60        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-050 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-050 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-050 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-050 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-050 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-050 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

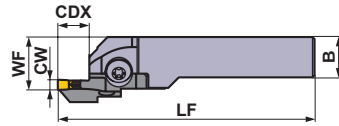
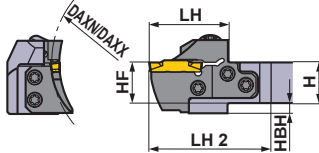


Fig. 3



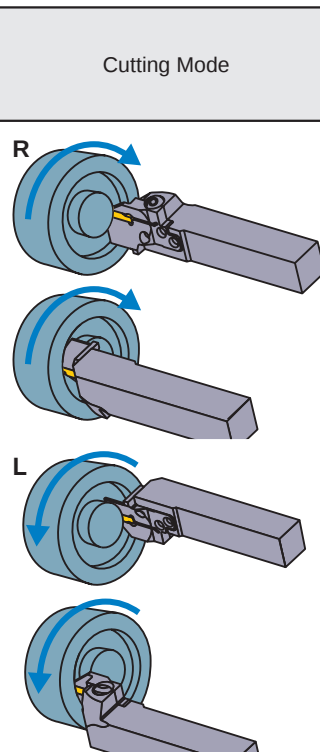
Right hand tool holder shown.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| GYHR/L2020K00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| GYHR/L2525M00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3225P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |
| GYHR/L3232P00-M25R/L |                                                                                     |                                                                                            |                                                                                     |

| Dimensions (mm) ★1 |    |     |    |      |    |    |     |   |
|--------------------|----|-----|----|------|----|----|-----|---|
| H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | R |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | R |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | R |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | L |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | L |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | L |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | L |
| 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |   |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | L |
| 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |   |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | L |
| 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |   |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L |
| 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |   |



### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012     |          |             |                       |
|--------------------------|----------------|------------------|----------|-------------|-----------------------|
| Seat Size                | Breaker        | GU (Gummy Steel) | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| F                        | CW             |                  |          |             |                       |
|                          | .118", 3.00 mm | ●                | ●        | ●           | ●                     |
|                          | .125", 3.18 mm | ●                | ●        | ●           | ●                     |

| For Multifunctional Grooving |                | > F013, F014 |          |             |                         |
|------------------------------|----------------|--------------|----------|-------------|-------------------------|
| Seat Size                    | Breaker        | MF (Finish)  | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| F                            | CW             |              |          |             | Ball nose               |
|                              | .118", 3.00 mm |              |          |             | ●                       |
|                              | RE 0.2 mm      | ●            | ●        | ●           |                         |
|                              | RE 0.4 mm      | ●            | ●        | ●           |                         |
|                              | RE 0.8 mm      |              |          | ●           |                         |
|                              | .125", 3.18 mm |              |          |             | ●                       |
|                              | RE 0.2 mm      | ●            |          |             |                         |
|                              | RE 0.4 mm      | ●            |          |             |                         |
|                              | .128", 3.24 mm | ●            |          |             |                         |

● : Gauge insert shown dimensions

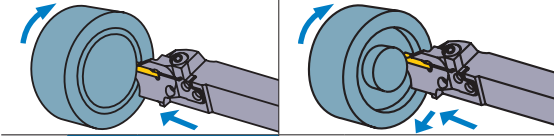
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

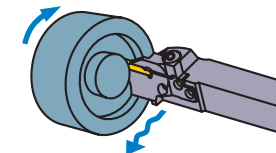
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |    |        |      |    |
|--------|------|----|--------|------|----|
| Insert | GY2M | GS | Insert | GY2G | MF |
| Insert | GY2M | GU | Insert | GY2M | MS |
| Insert | GY1G | GM | Insert | GY2M | MM |

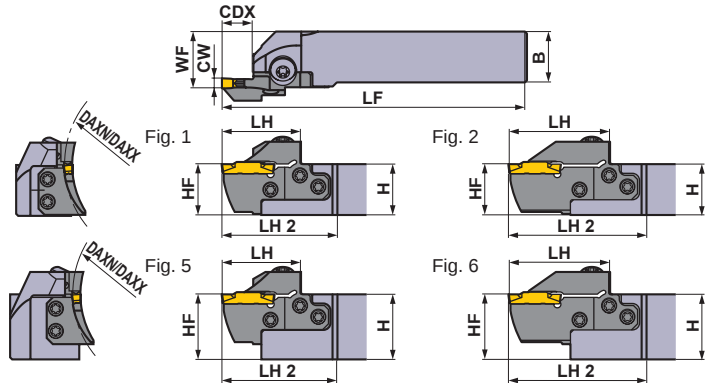


Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

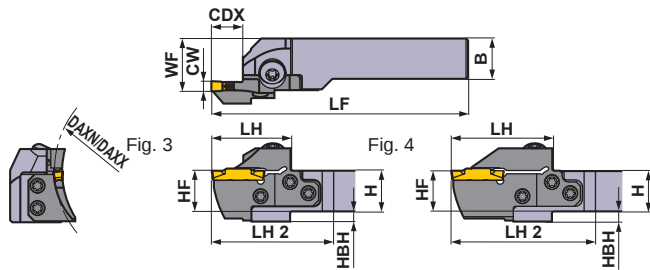
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 60        | 75        | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-060 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-060 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-060 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-060 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-060 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-060 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-060 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-060 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-060 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F20-060 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-060 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-060 | ●     | 2    |
|           |                      |           |           | 12       | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-060 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-060 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F20-060 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F20-060 | ●     | 6    |
|           |                      | 75        | 100       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-075 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-075 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-075 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-075 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-075 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-075 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-075 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-075 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-075 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F20-075 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-075 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-075 | ●     | 2    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-075 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-075 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F20-075 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F20-075 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | Clamp Screw                            | Blade Screw<br>5 pcs.              | Wrench ★           |
|----------------------|----------------------------------------|------------------------------------|--------------------|
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                        | CW             |                     |             |                |                          |
|                          | .118", 3.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .125", 3.18 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                            | CW             |                |             |                | Ball nose                  |
|                              | .118", 3.00 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      |                |             | ●              |                            |
|                              | .125", 3.18 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              |             |                |                            |
|                              | RE 0.4 mm      | ●              |             |                |                            |
|                              | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

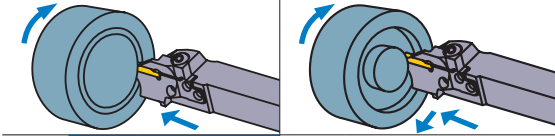
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

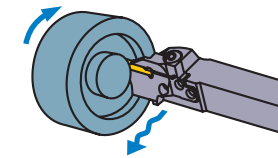
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |

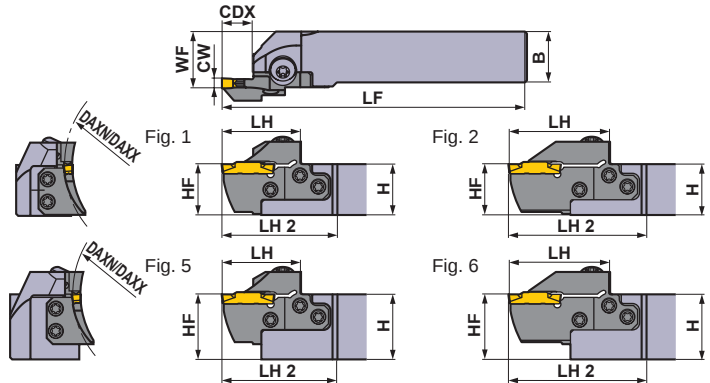


Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

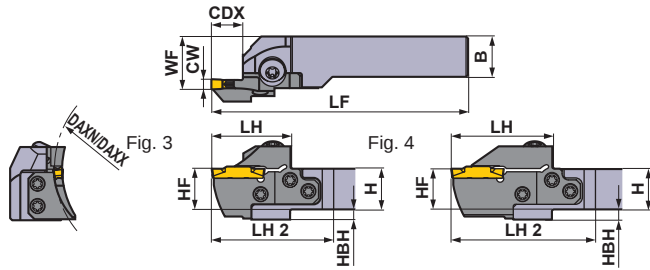
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 100       | 150       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-100 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-100 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-100 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-100 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-100 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-100 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-100 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-100 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-100 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-100 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-100 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-100 | ●     | 2    |
|           |                      |           |           | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-100 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-100 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-100 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-100 | ●     | 6    |
|           |                      | 135       | 200       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-135 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-135 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-135 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-135 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-135 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-135 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-135 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-135 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-135 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F20-135 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-135 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-135 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-135 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-135 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-135 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-135 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



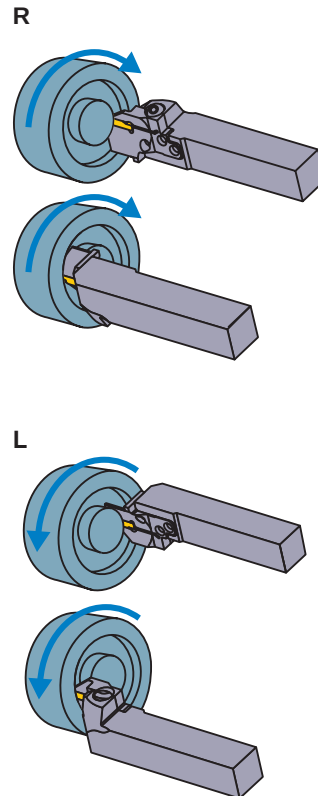
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L            |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   | L            |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                        | CW             |                     |             |                |                          |
|                          | .118", 3.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .125", 3.18 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                            | CW             |                |             |                | Ball nose                  |
|                              | .118", 3.00 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      |                |             | ●              |                            |
|                              | .125", 3.18 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              |             |                |                            |
|                              | RE 0.4 mm      | ●              |             |                |                            |
|                              | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

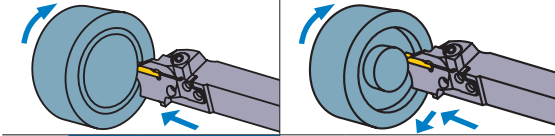
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

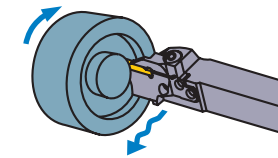
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |                    |        |      |    |
|--------|------|--------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>   | Insert | GY2G | MF |
| Insert | GY2M | GU                 | Insert | GY2M | MS |
| Insert | GY1G | GM <sub>GFGS</sub> | Insert | GY2M | MM |

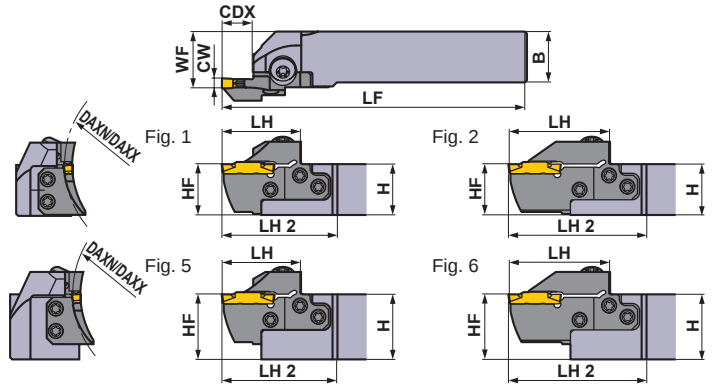


Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

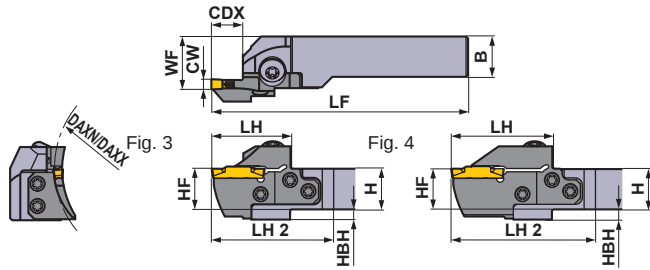
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 180       | 250       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-180 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-180 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-180 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-180 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-180 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-180 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-180 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-180 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-180 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F20-180 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-180 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-180 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-180 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-180 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F20-180 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F20-180 | ●     | 6    |
|           |                      | 225       | 999       | 12       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F12-225 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F12-225 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F12-225 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F12-225 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F12-225 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F12-225 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F12-225 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F12-225 | ●     | 5    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-F20-225 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-F20-225 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-F20-225 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-F20-225 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-F20-225 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-F20-225 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-F20-225 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-F20-225 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



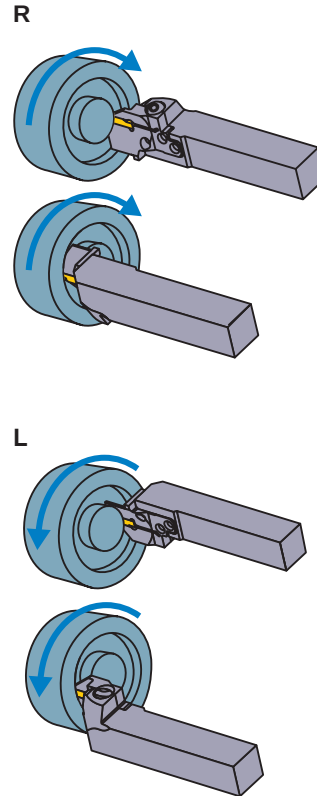
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 131 | 45 | 66   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 25                 | 25 | 156 | 45 | 63   | 25 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 25 | 176 | 45 | 63   | 32 | 28 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |
|  | 32                 | 32 | 176 | 45 | 63   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| F         | GY0000300/0318/0324F0000-Breaker |

| For Grooving/Cutting off |         | > F011, F012        |             |                |                          |
|--------------------------|---------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| F                        | CW      |                     |             |                |                          |
|                          |         |                     |             |                |                          |

| For Multifunctional Grooving |         | > F013, F014   |             |                |                            |
|------------------------------|---------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                            | CW      |                |             |                | Ball nose                  |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |

● : Gauge insert shown dimensions

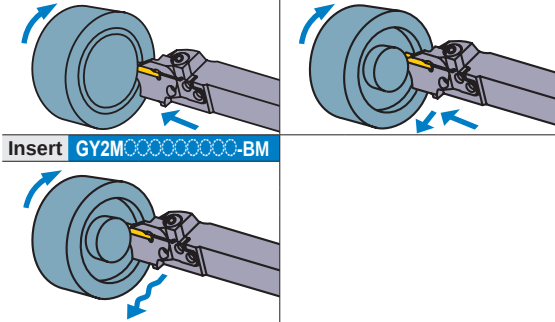
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

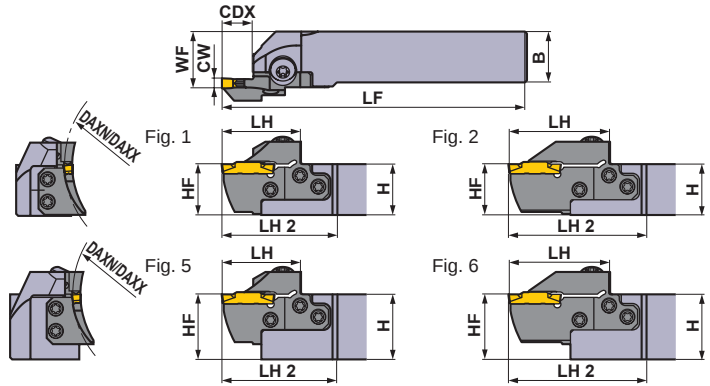
## 4-2 00° type holder (Metric)

|        |                      |        |                    |
|--------|----------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup>   | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup>   | Insert | GY2M <sup>MS</sup> |
| Insert | GY1G <sup>GFGS</sup> | Insert | GY2M <sup>MM</sup> |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

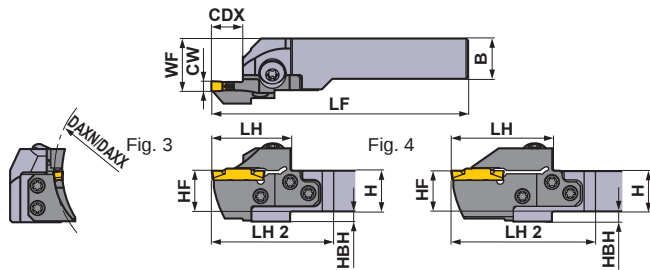
| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | 4.00<br>4.24 | 40        | 50        | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-040 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-040 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-040 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-040 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-040 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-040 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-040 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-040 | ●     | 5    |
|           |              | 50        | 60        | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-050 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-050 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-050 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-050 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-050 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-050 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-050 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-050 | ●     | 5    |
|           |              | 60        | 85        | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-060 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-060 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-060 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-060 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-060 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-060 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-060 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-060 | ●     | 5    |
|           |              | 25 ★2     |           |          | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G25-060 | ●     | 4    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G25-060 | ●     | 4    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G25-060 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G25-060 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G25-060 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G25-060 | ●     | 6    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G25-060 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G25-060 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock    ★ : Stocked in Japan



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |

## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| G         | GY000400/0424G000000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                        | .157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                            | .157", 4.00 mm | ●              | ●           | ●              | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              | ●                          |
|                              | RE 0.4 mm      | ●              | ●           | ●              | ●                          |
|                              | RE 0.8 mm      | ●              | ●           | ●              | ●                          |
|                              | .167", 4.24 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

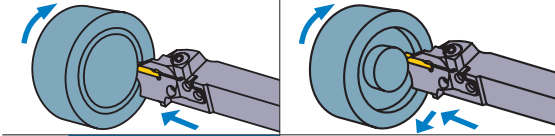
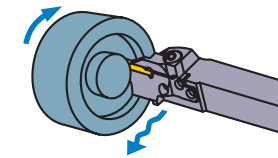
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

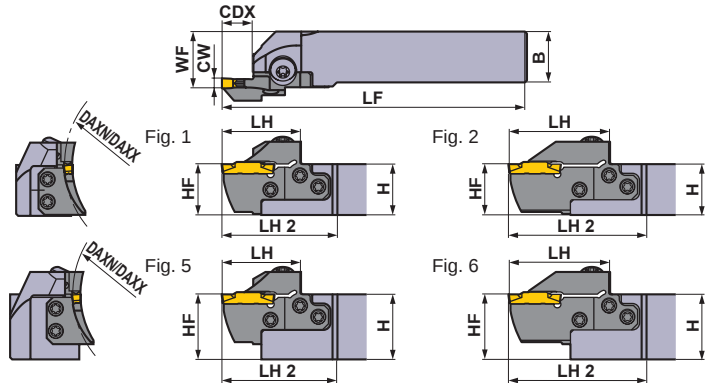
## 4-2 00° type holder (Metric)

|        |                      |        |                    |
|--------|----------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup>   | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup>   | Insert | GY2M <sup>MS</sup> |
| Insert | GY1G <sup>GFGS</sup> | Insert | GY2M <sup>MM</sup> |

Insert GY2M<sup>BM</sup>

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

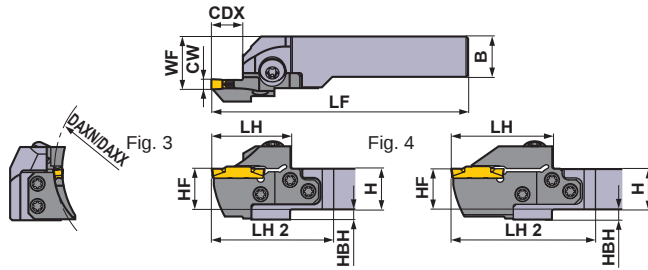
| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | 4.00<br>4.24 | 85        | 125       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-085 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-085 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-085 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-085 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-085 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-085 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-085 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-085 | ●     | 5    |
|           |              |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G25-085 | ●     | 4    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G25-085 | ●     | 4    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G25-085 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G25-085 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G25-085 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G25-085 | ●     | 6    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G25-085 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G25-085 | ●     | 6    |
|           |              | 125       | 200       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-125 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-125 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-125 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-125 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-125 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-125 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-125 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-125 | ●     | 5    |
|           |              |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G25-125 | ●     | 4    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G25-125 | ●     | 4    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G25-125 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G25-125 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G25-125 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G25-125 | ●     | 6    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G25-125 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G25-125 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock    ★ : Stocked in Japan



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | <b>R</b><br> |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | <b>L</b><br> |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | <b>L</b><br> |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | <b>L</b><br> |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |

## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| G         | GY000400/0424G000000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                        | .157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                            | .157", 4.00 mm |                |             |                | Ball nose                  |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                              | .167", 4.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

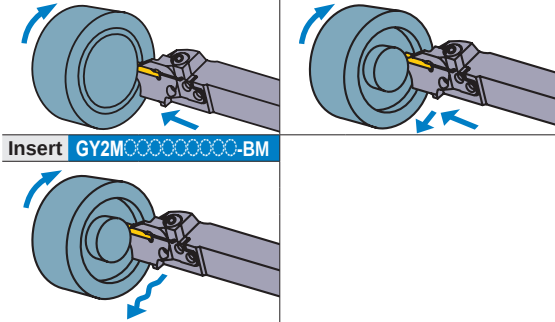
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

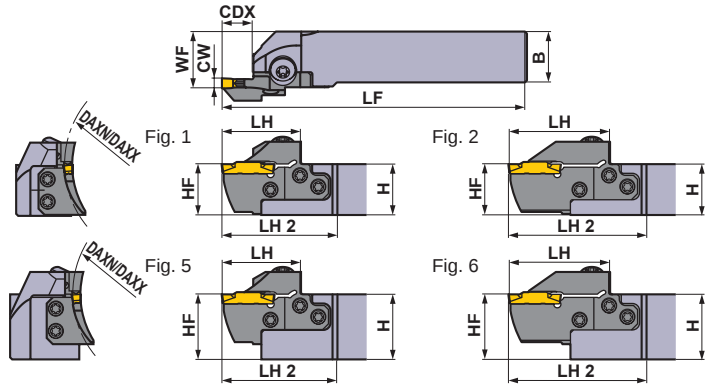
## 4-2 00° type holder (Metric)

|        |                      |        |                    |
|--------|----------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup>   | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup>   | Insert | GY2M <sup>MS</sup> |
| Insert | GY1G <sup>GFGS</sup> | Insert | GY2M <sup>MM</sup> |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

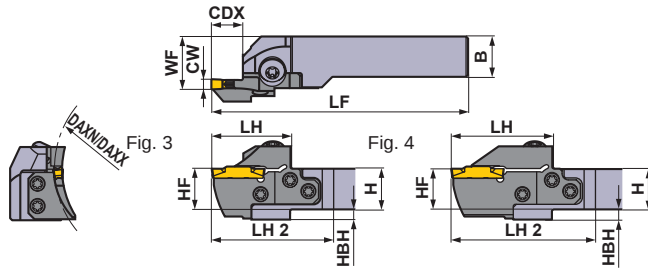
| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | 4.00<br>4.24 | 180       | 280       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-180 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-180 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-180 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-180 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-180 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-180 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-180 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-180 | ●     | 5    |
|           |              |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G25-180 | ●     | 4    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G25-180 | ●     | 4    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G25-180 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G25-180 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G25-180 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G25-180 | ●     | 6    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G25-180 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G25-180 | ●     | 6    |
|           |              | 250       | 999       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G14-250 | ●     | 3    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G14-250 | ●     | 3    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G14-250 | ●     | 1    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G14-250 | ●     | 1    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G14-250 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G14-250 | ●     | 5    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G14-250 | ●     | 5    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G14-250 | ●     | 5    |
|           |              |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-G25-250 | ●     | 4    |
|           |              |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-G25-250 | ●     | 4    |
|           |              |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-G25-250 | ●     | 2    |
|           |              |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-G25-250 | ●     | 2    |
|           |              |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-G25-250 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-G25-250 | ●     | 6    |
|           |              |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-G25-250 | ●     | 6    |
|           |              |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-G25-250 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock    ★ : Stocked in Japan



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench *           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |

### Select an Insert

| Seat Size | Insert Number                 |
|-----------|-------------------------------|
| G         | GY0000400/0424G000000-Breaker |

|           |                | > F011, F012        |             |                |                          |
|-----------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G         | .157", 4.00 mm | ●                   | ●           | ●              | ●                        |

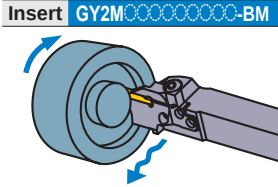
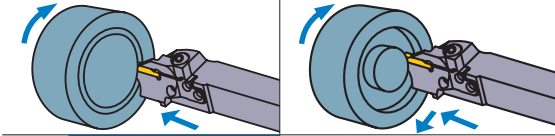
|           |                | > F013, F014   |             |                |                            |
|-----------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G         | .157", 4.00 mm |                |             |                | Ball nose                  |
|           | RE 0.2 mm      | ●              | ●           | ●              |                            |
|           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|           | RE 0.8 mm      | ●              | ●           | ●              |                            |
|           | .167", 4.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

# GY SERIES (FACE GROOVING)

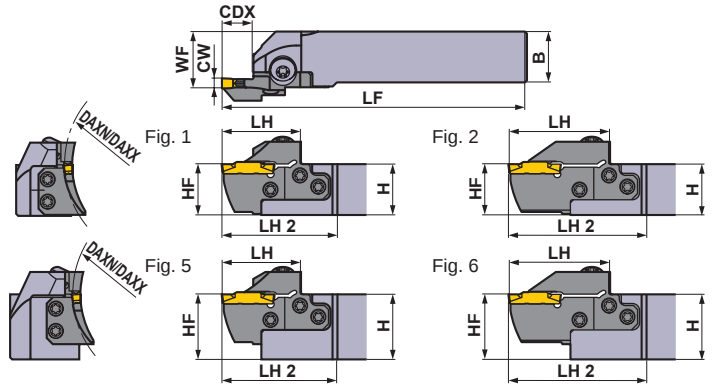
## 4-2 00° type holder (Metric)

|        |      |         |        |      |    |
|--------|------|---------|--------|------|----|
| Insert | GY2M | GS-GM   | Insert | GY2G | MF |
| Insert | GY2M | GU      | Insert | GY2M | MS |
| Insert | GY1M | GM-GFGS | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



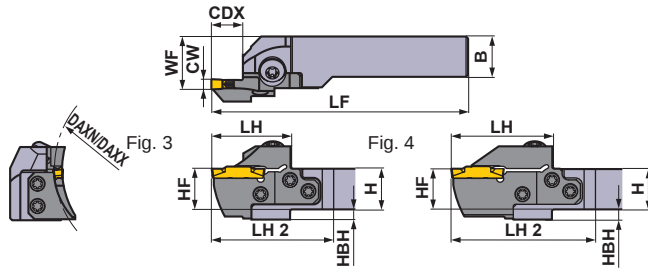
Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L)       | Order Number     |                 |                 |       | Fig. |  |
|-----------|----------------------|-----------|-----------|----------|---------|------------------|------------------|-----------------|-----------------|-------|------|--|
|           |                      |           |           |          |         |                  | Holder           | Stock           | Modular Blade   | Stock |      |  |
| H         | 4.75<br>5.00<br>5.24 | 50        | 60        | 14       | Modular | R                | GYHR2020K00-M25R | ●               | GYM25RD-H14-050 | ●     | 3    |  |
|           |                      |           |           |          |         | L                | GYHL2020K00-M25L | ●               | GYM25LD-H14-050 | ●     | 3    |  |
|           |                      |           |           |          | Modular | R                | GYHR2525M00-M25R | ●               | GYM25RD-H14-050 | ●     | 1    |  |
|           |                      |           |           |          |         | L                | GYHL2525M00-M25L | ●               | GYM25LD-H14-050 | ●     | 1    |  |
|           |                      |           |           |          | Modular | R                | GYHR3225P00-M25R | ★               | GYM25RD-H14-050 | ●     | 5    |  |
|           |                      |           |           |          |         | L                | GYHL3225P00-M25L | ★               | GYM25LD-H14-050 | ●     | 5    |  |
|           |                      |           |           |          | Modular | R                | GYHR3232P00-M25R | ★               | GYM25RD-H14-050 | ●     | 5    |  |
|           |                      |           |           |          |         | L                | GYHL3232P00-M25L | ★               | GYM25LD-H14-050 | ●     | 5    |  |
|           |                      | 60        | 85        | 14       | Modular | R                | GYHR2020K00-M25R | ●               | GYM25RD-H14-060 | ●     | 3    |  |
|           |                      |           |           |          |         | L                | GYHL2020K00-M25L | ●               | GYM25LD-H14-060 | ●     | 3    |  |
|           |                      |           |           |          | Modular | R                | GYHR2525M00-M25R | ●               | GYM25RD-H14-060 | ●     | 1    |  |
|           |                      |           |           |          |         | L                | GYHL2525M00-M25L | ●               | GYM25LD-H14-060 | ●     | 1    |  |
|           |                      |           |           |          | Modular | R                | GYHR3225P00-M25R | ★               | GYM25RD-H14-060 | ●     | 5    |  |
|           |                      |           |           |          |         | L                | GYHL3225P00-M25L | ★               | GYM25LD-H14-060 | ●     | 5    |  |
|           |                      |           |           |          | Modular | R                | GYHR3232P00-M25R | ★               | GYM25RD-H14-060 | ●     | 5    |  |
|           |                      |           |           |          |         | L                | GYHL3232P00-M25L | ★               | GYM25LD-H14-060 | ●     | 5    |  |
|           |                      |           | 25 ★2     | Modular  | R       | GYHR2020K00-M25R | ●                | GYM25RD-H25-060 | ●               | 4     |      |  |
|           |                      |           |           |          | L       | GYHL2020K00-M25L | ●                | GYM25LD-H25-060 | ●               | 4     |      |  |
|           |                      |           |           | Modular  | R       | GYHR2525M00-M25R | ●                | GYM25RD-H25-060 | ●               | 2     |      |  |
|           |                      |           |           |          | L       | GYHL2525M00-M25L | ●                | GYM25LD-H25-060 | ●               | 2     |      |  |
|           |                      |           |           | Modular  | R       | GYHR3225P00-M25R | ★                | GYM25RD-H25-060 | ●               | 6     |      |  |
|           |                      |           |           |          | L       | GYHL3225P00-M25L | ★                | GYM25LD-H25-060 | ●               | 6     |      |  |
|           |                      |           |           | Modular  | R       | GYHR3232P00-M25R | ★                | GYM25RD-H25-060 | ●               | 6     |      |  |
|           |                      |           |           |          | L       | GYHL3232P00-M25L | ★                | GYM25LD-H25-060 | ●               | 6     |      |  |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.



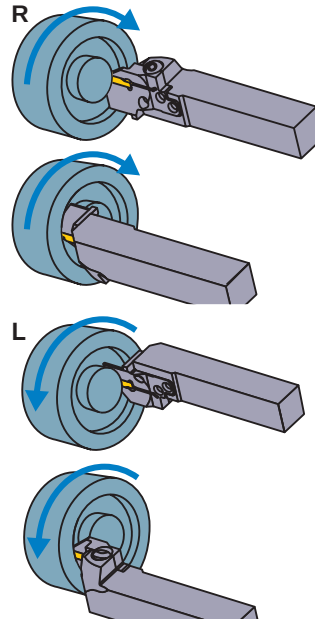
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

|           |         | For Grooving/Cutting off > F011, F012 |          |             |                       |
|-----------|---------|---------------------------------------|----------|-------------|-----------------------|
| Seat Size | Breaker | GU (Gummy Steel)                      | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| H         | CW      |                                       |          |             |                       |
|           |         |                                       |          |             |                       |

|           |         | For Multifunctional Grooving > F013, F014 |          |             |                         |
|-----------|---------|-------------------------------------------|----------|-------------|-------------------------|
| Seat Size | Breaker | MF (Finish)                               | MS (Low) | MM (Medium) | BM (Copying, Recessing) |
| H         | CW      |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |
|           |         |                                           |          |             |                         |

● : Gauge insert shown dimensions

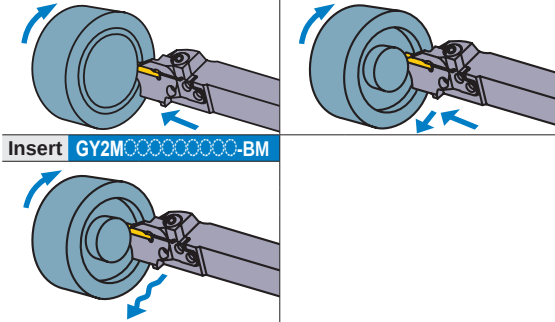
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

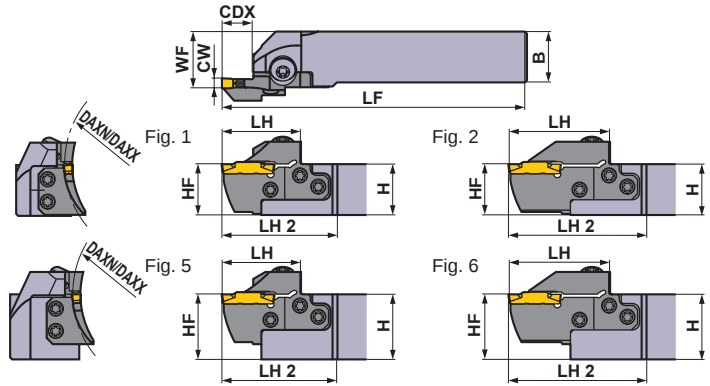
## 4-2 00° type holder (Metric)

|        |                    |        |                    |
|--------|--------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup> | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup> | Insert | GY2M <sup>MS</sup> |
| Insert | GY1G <sup>GM</sup> | Insert | GY2M <sup>MM</sup> |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

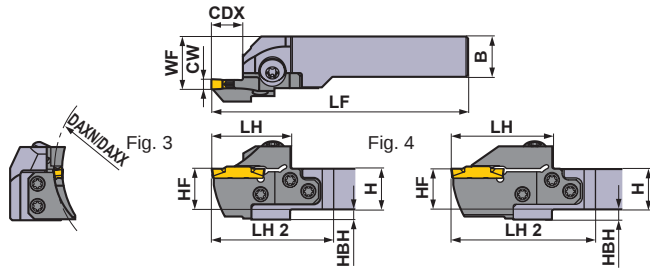
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | 4.75<br>5.00<br>5.24 | 85        | 125       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-085 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-085 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H14-085 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H14-085 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H14-085 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H14-085 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-H14-085 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-H14-085 | ●     | 5    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H25-085 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H25-085 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H25-085 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H25-085 | ●     | 2    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H25-085 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H25-085 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-H25-085 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-H25-085 | ●     | 6    |
|           |                      | 125       | 200       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-125 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-125 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H14-125 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H14-125 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H14-125 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H14-125 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-H14-125 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-H14-125 | ●     | 5    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H25-125 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H25-125 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H25-125 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H25-125 | ●     | 2    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H25-125 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H25-125 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-H25-125 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-H25-125 | ●     | 6    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock    ★ : Stocked in Japan



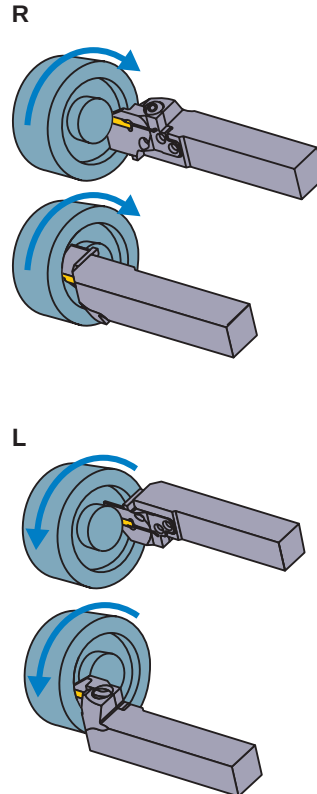
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off |         | > F011, F012        |             |                |                          |
|--------------------------|---------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                        | CW      |                     |             |                |                          |
|                          |         |                     |             |                |                          |

| For Multifunctional Grooving |         | > F013, F014   |             |                |                            |
|------------------------------|---------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H                            | CW      |                |             |                | Ball nose                  |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |

● : Gauge insert shown dimensions

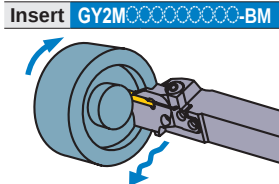
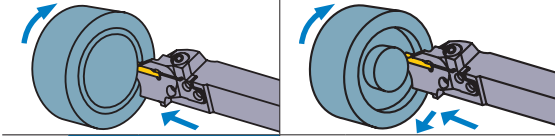
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

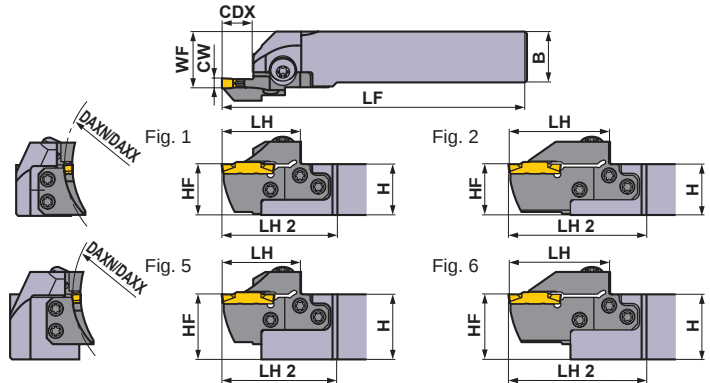
## 4-2 00° type holder (Metric)

|        |                      |        |                    |
|--------|----------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup>   | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup>   | Insert | GY2M <sup>MS</sup> |
| Insert | GY1G <sup>GFGS</sup> | Insert | GY2M <sup>MM</sup> |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

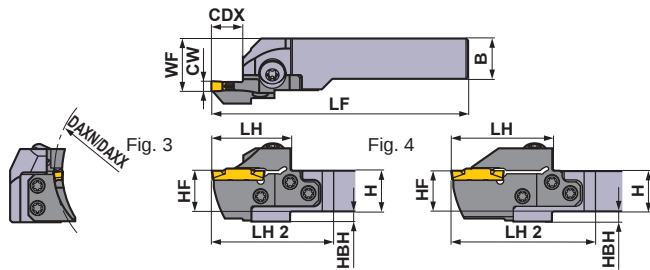
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | 4.75<br>5.00<br>5.24 | 180       | 280       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-180 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-180 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H14-180 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H14-180 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H14-180 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H14-180 | ●     | 5    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-180 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-180 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H25-180 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H25-180 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H25-180 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H25-180 | ●     | 2    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H25-180 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H25-180 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H25-180 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H25-180 | ●     | 6    |
|           |                      | 250       | 999       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-250 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-250 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H14-250 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H14-250 | ●     | 1    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H14-250 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H14-250 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H14-250 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H14-250 | ●     | 5    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H25-250 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H25-250 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-H25-250 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-H25-250 | ●     | 2    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-H25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-H25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-H25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-H25-250 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | Clamp Screw                            | Blade Screw<br>5 pcs.              | Wrench ★           |
|----------------------|----------------------------------------|------------------------------------|--------------------|
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | <b>R</b><br> |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   | <b>L</b><br> |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |

## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                        | .187", 4.75 mm | ●                   | ●           | ●              | ●                        |
|                          | .197", 5.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                                         |
|------------------------------|----------------|----------------|-------------|----------------|-----------------------------------------|
| Seat Size                    | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing)<br>Ball nose |
| H                            | .187", 4.75 mm |                |             |                | ●                                       |
|                              | RE 0.2 mm      | ●              |             |                |                                         |
|                              | RE 0.4 mm      | ●              |             |                |                                         |
|                              | RE 0.8 mm      | ●              |             |                |                                         |
|                              | .197", 5.00 mm |                |             |                | ●                                       |
|                              | RE 0.2 mm      | ●              |             |                |                                         |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                                         |
|                              | RE 0.8 mm      | ●              | ●           | ●              |                                         |
|                              | .206", 5.24 mm | ●              |             |                |                                         |

● : Gauge insert shown dimensions

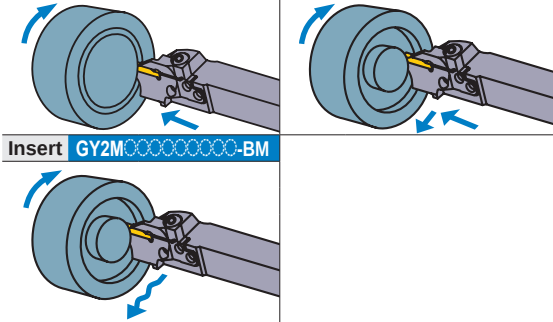
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

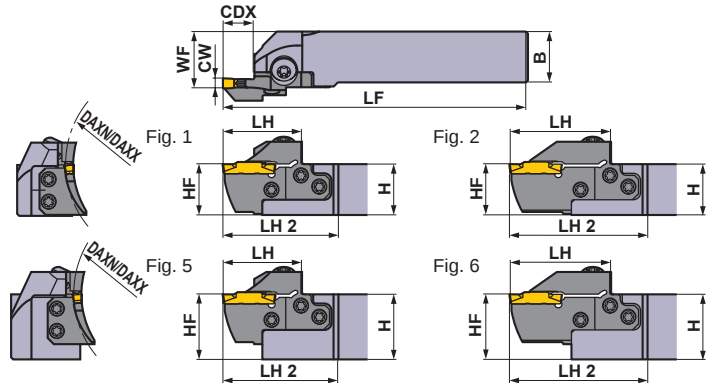
## 4-2 00° type holder (Metric)

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS <sub>GS</sub> | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

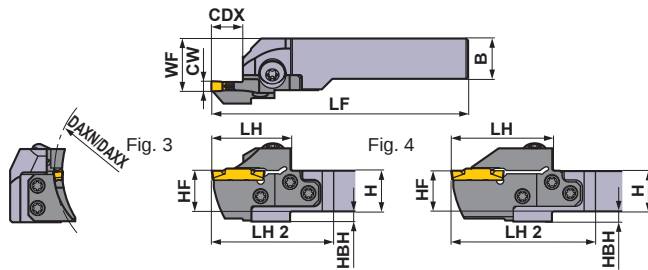
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | 6.00<br>6.31<br>6.35 | 50        | 70        | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J14-050 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J14-050 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J14-050 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J14-050 | ●     | 1    |
|           |                      |           |           | 14       | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J14-050 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J14-050 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J14-050 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J14-050 | ●     | 5    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J14-070 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J14-070 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J14-070 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J14-070 | ●     | 1    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J14-070 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J14-070 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J14-070 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J14-070 | ●     | 5    |
|           |                      | 110       | 200       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J25-070 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J25-070 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J25-070 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J25-070 | ●     | 2    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J25-070 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J25-070 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J25-070 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J25-070 | ●     | 6    |
|           |                      |           |           | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J14-110 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J14-110 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J14-110 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J14-110 | ●     | 1    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J14-110 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J14-110 | ●     | 5    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J14-110 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J14-110 | ●     | 5    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J25-110 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J25-110 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J25-110 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J25-110 | ●     | 2    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J25-110 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J25-110 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J25-110 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J25-110 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



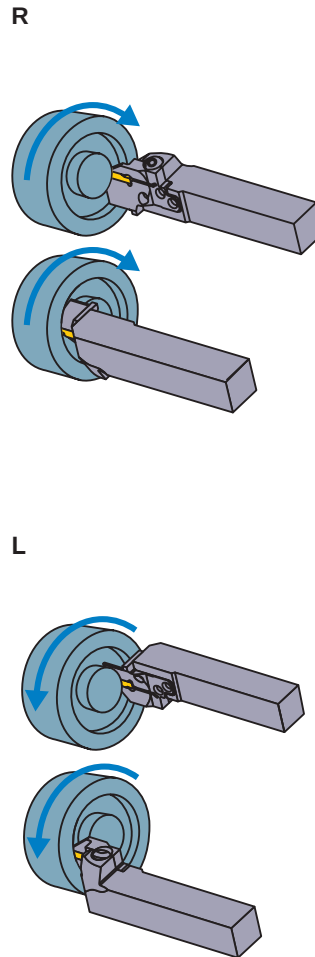
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | L            |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L            |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| J         | GY0000600/0631/0635J00000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |          |             |                       |
|-----------|----------------|---------------------------------------|----------|-------------|-----------------------|
| Seat Size | Breaker CW     | GU (Gummy Steel)                      | GS (Low) | GM (Medium) | GFGS (Hardened steel) |
| J         | .236", 6.00 mm | ●                                     | ●        | ●           | ●                     |
|           | .250", 6.35 mm | ●                                     | ●        | ●           | ●                     |

|           |                | For Multifunctional Grooving > F013, F014 |          |             |                                   |
|-----------|----------------|-------------------------------------------|----------|-------------|-----------------------------------|
| Seat Size | Breaker CW     | MF (Finish)                               | MS (Low) | MM (Medium) | BM (Copying, Recessing) Ball nose |
| J         | .236", 6.00 mm |                                           |          |             | ●                                 |
|           | RE 0.2 mm      | ●                                         | ●        | ●           |                                   |
|           | RE 0.4 mm      | ●                                         | ●        | ●           |                                   |
|           | RE 0.8 mm      | ●                                         | ●        | ●           |                                   |
|           | .248", 6.31 mm | ●                                         |          |             |                                   |
|           | .250", 6.35 mm |                                           |          |             | ●                                 |
|           | RE 0.2 mm      | ●                                         |          |             |                                   |
|           | RE 0.4 mm      | ●                                         |          |             |                                   |
|           | RE 0.8 mm      | ●                                         |          |             |                                   |

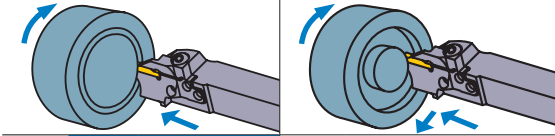
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

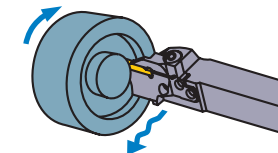
# GY SERIES (FACE GROOVING)

## 4-2 00° type holder (Metric)

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS               | Insert | GY2M | MM |

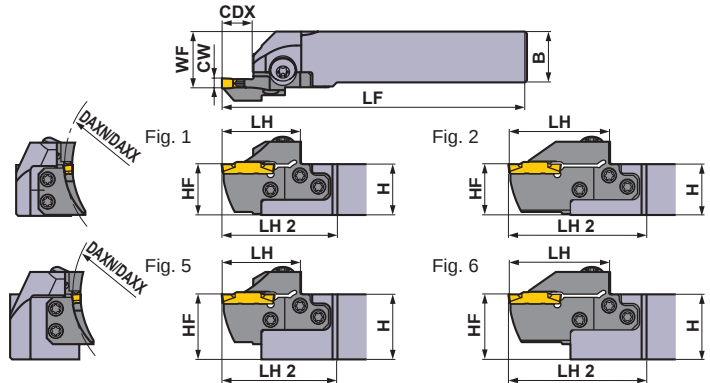


Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

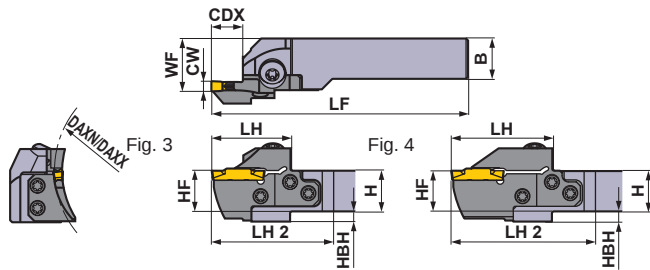
| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | 6.00<br>6.31<br>6.35 | 170       | 280       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J14-170 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J14-170 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J14-170 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J14-170 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J14-170 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J14-170 | ●     | 5    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J25-170 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J25-170 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J25-170 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J25-170 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J25-170 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J25-170 | ●     | 6    |
|           |                      | 250       | 999       | 14       | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J14-250 | ●     | 3    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J14-250 | ●     | 3    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J14-250 | ●     | 1    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J14-250 | ●     | 1    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J14-250 | ●     | 5    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J14-250 | ●     | 5    |
|           |                      |           |           | 25 ★2    | Modular | R          | GYHR2020K00-M25R | ●     | GYM25RD-J25-250 | ●     | 4    |
|           |                      |           |           |          | Modular | L          | GYHL2020K00-M25L | ●     | GYM25LD-J25-250 | ●     | 4    |
|           |                      |           |           |          | Modular | R          | GYHR2525M00-M25R | ●     | GYM25RD-J25-250 | ●     | 2    |
|           |                      |           |           |          | Modular | L          | GYHL2525M00-M25L | ●     | GYM25LD-J25-250 | ●     | 2    |
|           |                      |           |           |          | Modular | R          | GYHR3225P00-M25R | ★     | GYM25RD-J25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3225P00-M25L | ★     | GYM25LD-J25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | R          | GYHR3232P00-M25R | ★     | GYM25RD-J25-250 | ●     | 6    |
|           |                      |           |           |          | Modular | L          | GYHL3232P00-M25L | ★     | GYM25LD-J25-250 | ●     | 6    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, LH 2, and WF values may vary.

★2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

● : USA Stock ★ : Stocked in Japan



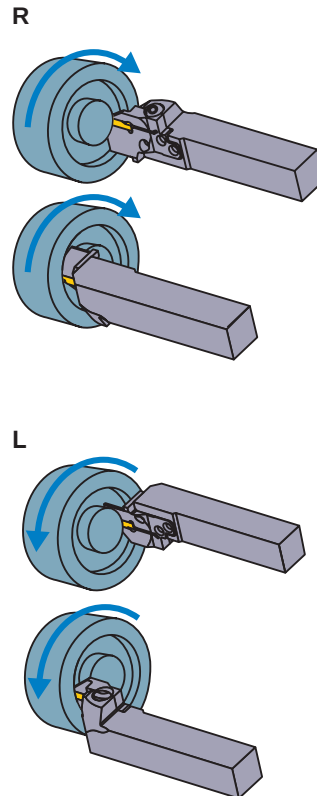
★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        | 5 pcs.                                 | 5 pcs.                             | ① ②                |
|----------------------|----------------------------------------|------------------------------------|--------------------|
|                      | Clamp Screw                            | Blade Screw                        | Wrench ★           |
| GYHR/L2020K00-M25R/L |                                        |                                    |                    |
| GYHR/L2525M00-M25R/L | GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in) | ①TKY30R<br>②TKY25D |
| GYHR/L3225P00-M25R/L |                                        |                                    |                    |
| GYHR/L3232P00-M25R/L |                                        |                                    |                    |

Right hand tool holder shown.

|  | Dimensions (mm) ★1 |    |     |    |      |    |    |     | Cutting Mode |
|--|--------------------|----|-----|----|------|----|----|-----|--------------|
|  | H                  | B  | LF  | LH | LH 2 | HF | WF | HBH |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   | R            |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   | L            |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   | L            |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 20                 | 20 | 125 | 39 | 60   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   | L            |
|  | 25                 | 25 | 150 | 39 | 57   | 25 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 25 | 170 | 39 | 57   | 32 | 28 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 32                 | 32 | 170 | 39 | 57   | 32 | 35 | —   |              |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   | L            |
|  | 20                 | 20 | 136 | 50 | 71   | 20 | 26 | 5   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 25                 | 25 | 161 | 50 | 68   | 25 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 25 | 181 | 50 | 68   | 32 | 28 | —   |              |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   | L            |
|  | 32                 | 32 | 181 | 50 | 68   | 32 | 35 | —   |              |



## Select an Insert

| Seat Size | Insert Number                     |
|-----------|-----------------------------------|
| J         | GY0000600/0631/0635J00000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                        | CW             |                     |             |                |                          |
|                          | .236", 6.00 mm | ●                   | ●           | ●              | ●                        |
|                          | .250", 6.35 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                            | CW             |                |             |                | Ball nose                  |
|                              | .236", 6.00 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                              | .248", 6.31 mm | ●              |             |                |                            |
|                              | .250", 6.35 mm | ●              |             |                | ●                          |
|                              | RE 0.2 mm      | ●              |             |                |                            |
|                              | RE 0.4 mm      | ●              |             |                |                            |
|                              | RE 0.8 mm      | ●              |             |                |                            |

● : Gauge insert shown dimensions

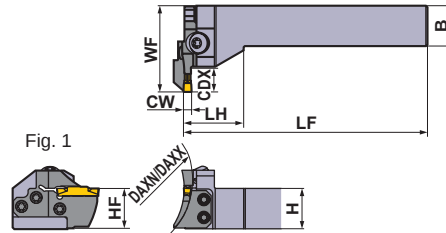
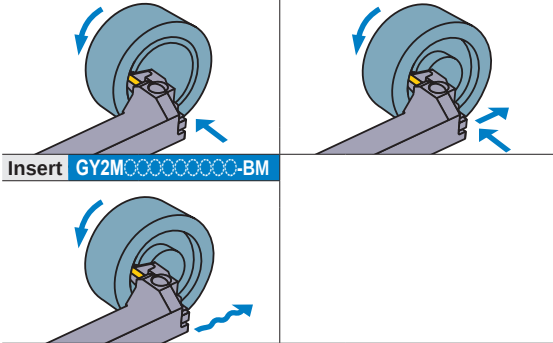
# GY SERIES (FACE GROOVING)

## 5-2 90° type holder (Metric)

|        |                    |        |                    |
|--------|--------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup> | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup> | Insert | GY2M <sup>MS</sup> |
| Insert | GY1M <sup>GM</sup> | Insert | GY2M <sup>MM</sup> |

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number                         |        |                                    |        | Fig.   |
|-----------|--------------|-----------|-----------|----------|---------|------------|--------------------------------------|--------|------------------------------------|--------|--------|
|           |              |           |           |          |         |            | Holder                               | Stock  | Modular Blade                      | Stock  |        |
| D         | 2.00<br>2.24 | 40        | 50        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-040<br>GYM25RD-D12-040 | ●<br>● | 1<br>1 |
|           |              | 50        | 60        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-050<br>GYM25RD-D12-050 | ●<br>● | 1<br>1 |
|           |              | 60        | 75        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-060<br>GYM25RD-D12-060 | ●<br>● | 1<br>1 |
|           |              | 75        | 100       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-075<br>GYM25RD-D12-075 | ●<br>● | 1<br>1 |
|           |              | 100       | 150       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-100<br>GYM25RD-D12-100 | ●<br>● | 1<br>1 |
|           |              | 135       | 200       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-135<br>GYM25RD-D12-135 | ●<br>● | 1<br>1 |
|           |              | 180       | 250       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-D12-180<br>GYM25RD-D12-180 | ●<br>● | 1<br>1 |
|           |              | 40        | 50        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-040<br>GYM25RD-E12-040 | ●<br>● | 1<br>1 |
|           |              | 50        | 60        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-050<br>GYM25RD-E12-050 | ●<br>● | 1<br>1 |
|           |              | 60        | 75        | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-060<br>GYM25RD-E12-060 | ●<br>● | 1<br>1 |
|           |              | 75        | 100       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-075<br>GYM25RD-E12-075 | ●<br>● | 1<br>1 |
|           |              | 100       | 150       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-100<br>GYM25RD-E12-100 | ●<br>● | 1<br>1 |
|           |              | 135       | 200       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-135<br>GYM25RD-E12-135 | ●<br>● | 1<br>1 |
|           |              | 180       | 250       | 12       | Modular | R<br>L     | GYHR2525M90-M25L<br>GYHL2525M90-M25R | ●<br>● | GYM25LD-E12-180<br>GYM25RD-E12-180 | ●<br>● | 1<br>1 |

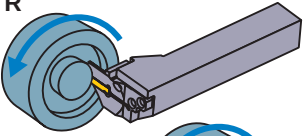
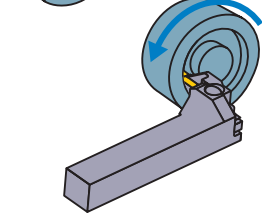
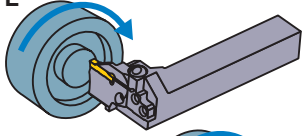
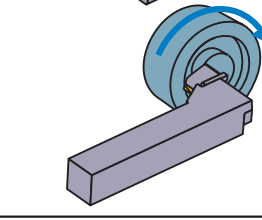
CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

★1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2525M90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★1 |    |     |    |    |    | Cutting Mode                                                                        |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |    |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |   |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                      |
|-----------|------------------------------------|
| D         | GY0000200/0224D000000-Breaker      |
| E         | GY0000239/0250/0274E000000-Breaker |

| For Grooving/Cutting off |                | > F011, F012        |             |                |                          |
|--------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
|                          | CW             |                     |             |                |                          |
| D                        | .079", 2.00 mm | ●                   | ●           | ●              | ●                        |
| E                        | .094", 2.39 mm | ●                   | ●           | ●              | ●                        |
|                          | .098", 2.50 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                | > F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              | CW             |                |             |                | Ball nose                  |
| D                            | .079", 2.00 mm | ●              | ●           | ●              | ●                          |
|                              | .088", 2.24 mm | ●              |             |                |                            |
| E                            | .094", 2.39 mm | ●              | ●           | ●              | ●                          |
|                              | .098", 2.50 mm | ●              | ●           | ●              | ●                          |
|                              | .108", 2.74 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

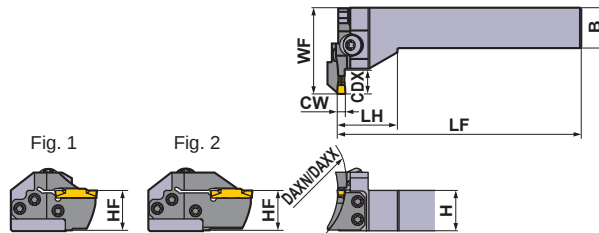
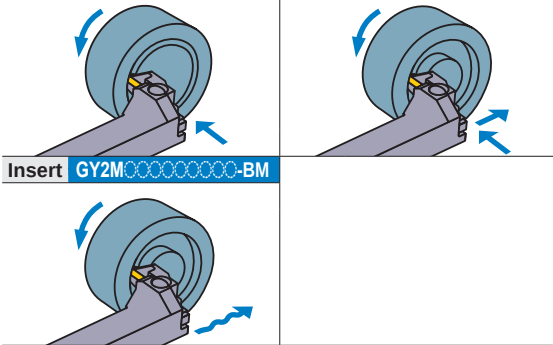
# GY SERIES (FACE GROOVING)

## 5-2 90° type holder (Metric)

|        |      |                   |        |      |    |
|--------|------|-------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>  | Insert | GY2G | MF |
| Insert | GY2M | GU                | Insert | GY2M | MS |
| Insert | GY1M | GM <sub>GFS</sub> | Insert | GY2M | MM |

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 35        | 40        | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-035 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-035 | ●     | 1    |
|           |                      | 40        | 50        | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-040 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-040 | ●     | 1    |
|           |                      | 50        | 60        | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-050 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-050 | ●     | 1    |
|           |                      | 60        | 75        | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-060 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-060 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-060 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-060 | ●     | 2    |
|           |                      | 75        | 100       | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-075 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-075 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-075 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-075 | ●     | 2    |
|           |                      | 100       | 150       | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-100 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-100 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-100 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-100 | ●     | 2    |
|           |                      | 135       | 200       | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-135 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-135 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-135 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-135 | ●     | 2    |
|           |                      | 180       | 250       | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-180 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-180 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-180 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-180 | ●     | 2    |
|           |                      | 225       | 999       | 12       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F12-225 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F12-225 | ●     | 1    |
|           |                      |           |           | 20 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-F20-225 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-F20-225 | ●     | 2    |

CW = Cutting Width    DAXN = Axial groove outside diameter minimum    DAXX = Axial groove outside diameter maximum    CDX = Max. Groove Depth

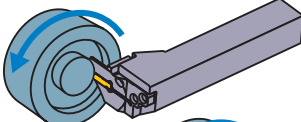
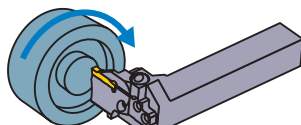
\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

\* Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  | <br>5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                   | Wrench *                                                                            |
| <b>GYHR2525M90-M25L</b> | GY06013M<br>(Clamp Torque<br>: 53 lbf-in)                                           | TS55<br>(Clamp Torque<br>: 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                               |                                                                                     |

|  | Dimensions (mm) ★1 |    |     |    |    |    | Cutting Mode                                                                                    |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 | <b>R</b><br>   |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 | <b>L</b><br> |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |
|  | 25                 | 25 | 150 | 38 | 25 | 59 |                                                                                                 |

### Select an Insert

|           |                           |
|-----------|---------------------------|
| Seat Size | Insert Number             |
| F         | GY0300/0318/0324F-Breaker |

| For Grooving/Cutting off |                | > F011, F012  |       |          |                  |
|--------------------------|----------------|---------------|-------|----------|------------------|
| Seat Size                | Breaker        | GU            | GS    | GM       | GFGS             |
|                          | CW             | (Gummy Steel) | (Low) | (Medium) | (Hardened steel) |
| F                        | .118", 3.00 mm | ●             | ●     | ●        | ●                |
|                          | .125", 3.18 mm | ●             | ●     | ●        | ●                |

| For Multifunctional Grooving |                |                |             |                | > F013, F014               |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              |                |                |             |                | Ball nose                  |
| F                            | .118", 3.00 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm      |                |             | ●              |                            |
|                              | .125", 3.18 mm |                |             |                | ●                          |
|                              | RE 0.2 mm      | ●              |             |                |                            |
|                              | RE 0.4 mm      | ●              |             |                |                            |
|                              | .128", 3.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

**GROOVING / CUTTING OFF**

|                    |              |
|--------------------|--------------|
| IDENTIFICATION     | ➤ F008, F009 |
| CUTTING CONDITIONS | ➤ F216       |
| INSTRUCTION MANUAL | ➤ F218       |

# GY SERIES (FACE GROOVING)

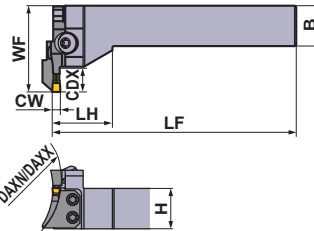
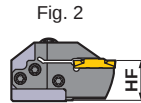
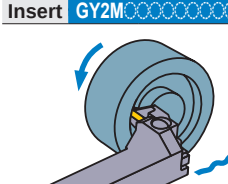
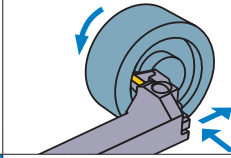
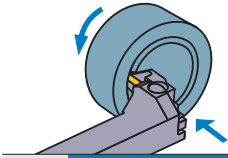
5-2

90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |                    |        |                    |
|--------|--------------------|--------|--------------------|
| Insert | GY2M <sup>GS</sup> | Insert | GY2G <sup>MF</sup> |
| Insert | GY2M <sup>GU</sup> | Insert | GY2M <sup>MS</sup> |
| Insert | GY1M <sup>GM</sup> | Insert | GY2M <sup>MM</sup> |



Right hand tool holder shown.

| Seat Size | CW (mm)      | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|--------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |              |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| G         | 4.00<br>4.24 | 40        | 50        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-040 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-040 | ●     | 1    |
|           |              | 50        | 60        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-050 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-050 | ●     | 1    |
|           |              | 60        | 85        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-060 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-060 | ●     | 1    |
|           |              | 85        | 125       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G25-060 | ●     | 2    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G25-060 | ●     | 2    |
|           |              |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-085 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-085 | ●     | 1    |
|           |              | 125       | 200       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G25-085 | ●     | 2    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G25-085 | ●     | 2    |
|           |              |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-125 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-125 | ●     | 1    |
|           |              | 180       | 280       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G25-125 | ●     | 2    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G25-125 | ●     | 2    |
|           |              |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-180 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-180 | ●     | 1    |
|           |              | 250       | 999       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G25-180 | ●     | 2    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G25-180 | ●     | 2    |
|           |              |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G14-250 | ●     | 1    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G14-250 | ●     | 1    |
|           |              | 250       | 999       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-G25-250 | ●     | 2    |
|           |              |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-G25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

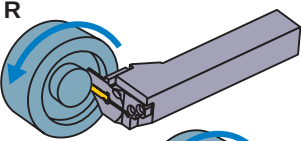
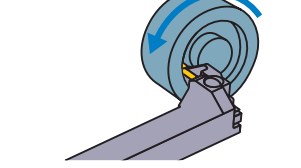
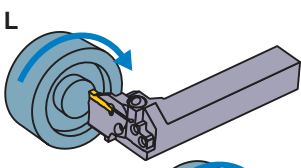
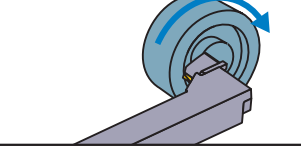
\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2525M90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★1 |    |     |    |    |    | Cutting Mode                                                                        |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |    |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |   |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| G         | GY000400/0424G000000-Breaker |

| For Grooving/Cutting off |                      | > F011, F012        |             |                |                          |
|--------------------------|----------------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker              | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                        | CW<br>.157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving |                      | > F013, F014   |             |                |                            |
|------------------------------|----------------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker              | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                            | CW<br>.157", 4.00 mm |                |             |                | Ball nose                  |
|                              | RE 0.2 mm            | ●              | ●           | ●              |                            |
|                              | RE 0.4 mm            | ●              | ●           | ●              |                            |
|                              | RE 0.8 mm            | ●              | ●           | ●              |                            |
|                              | .167", 4.24 mm       | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

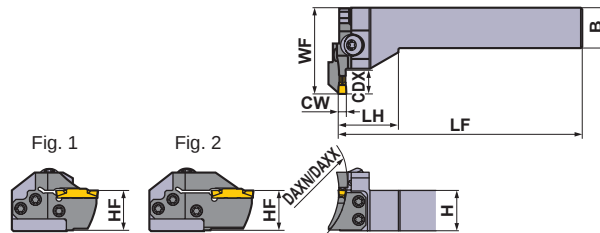
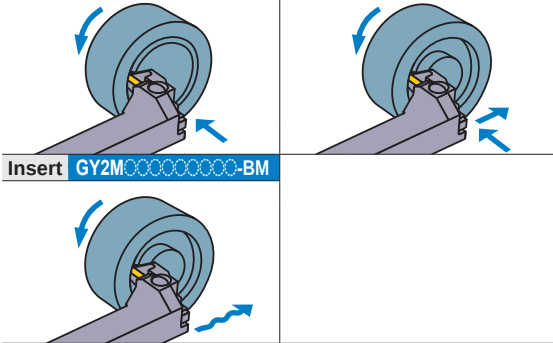
## 5-2

90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |                   |        |      |    |
|--------|------|-------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>  | Insert | GY2G | MF |
| Insert | GY2M | GU                | Insert | GY2M | MS |
| Insert | GY1M | GM <sub>GFS</sub> | Insert | GY2M | MM |



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| H         | 4.75<br>5.00<br>5.24 | 50        | 60        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-050 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-050 | ●     | 1    |
|           |                      | 60        | 85        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-060 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-060 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H25-060 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H25-060 | ●     | 2    |
|           |                      | 85        | 125       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-085 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-085 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H25-085 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H25-085 | ●     | 2    |
|           |                      | 125       | 200       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-125 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-125 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H25-125 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H25-125 | ●     | 2    |
|           |                      | 180       | 280       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-180 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-180 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H25-180 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H25-180 | ●     | 2    |
|           |                      | 250       | 999       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H14-250 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H14-250 | ●     | 1    |
|           |                      |           |           | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-H25-250 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-H25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

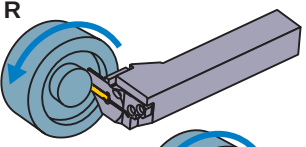
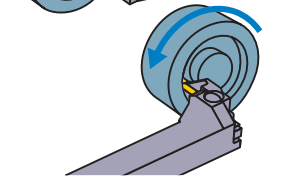
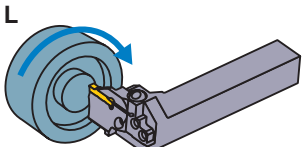
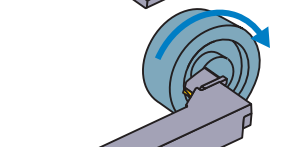
\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2525M90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★1 |    |     |    |    |    | Cutting Mode                                                                        |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |    |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |   |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY000475/0500/0524H0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                                     | CW             |                     |             |                |                          |
|                                       | .187", 4.75 mm | ●                   | ●           | ●              | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H                                         | CW             |                |             |                | Ball nose                  |
|                                           | .187", 4.75 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | RE 0.8 mm      | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                                           | .206", 5.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (FACE GROOVING)

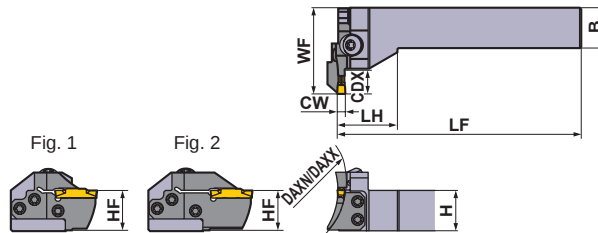
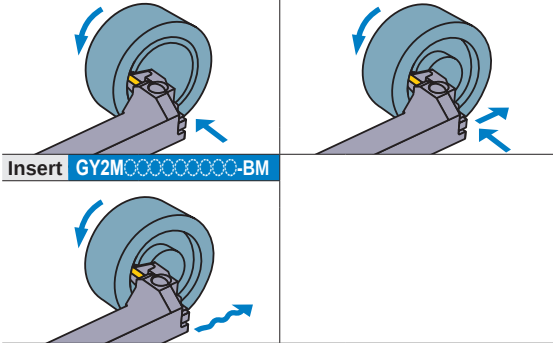
5-2

90° type holder (Metric)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

|        |      |                  |        |      |    |
|--------|------|------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub> | Insert | GY2G | MF |
| Insert | GY2M | GU               | Insert | GY2M | MS |
| Insert | GY1G | GS <sub>GS</sub> | Insert | GY2M | MM |



Right hand tool holder shown.

| Seat Size | CW (mm)              | DAXN (mm) | DAXX (mm) | CDX (mm) | Type    | Hand (R/L) | Order Number     |       |                 |       | Fig. |
|-----------|----------------------|-----------|-----------|----------|---------|------------|------------------|-------|-----------------|-------|------|
|           |                      |           |           |          |         |            | Holder           | Stock | Modular Blade   | Stock |      |
| J         | 6.00<br>6.31<br>6.35 | 50        | 70        | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J14-050 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J14-050 | ●     | 1    |
|           |                      | 70        | 110       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J14-070 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J14-070 | ●     | 1    |
|           |                      | 70        | 110       | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J25-070 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J25-070 | ●     | 2    |
|           |                      | 110       | 200       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J14-110 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J14-110 | ●     | 1    |
|           |                      | 110       | 200       | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J25-110 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J25-110 | ●     | 2    |
|           |                      | 170       | 280       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J14-170 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J14-170 | ●     | 1    |
|           |                      | 170       | 280       | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J25-170 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J25-170 | ●     | 2    |
|           |                      | 250       | 999       | 14       | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J14-250 | ●     | 1    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J14-250 | ●     | 1    |
|           |                      | 250       | 999       | 25 *2    | Modular | R          | GYHR2525M90-M25L | ●     | GYM25LD-J25-250 | ●     | 2    |
|           |                      |           |           |          |         | L          | GYHL2525M90-M25R | ●     | GYM25RD-J25-250 | ●     | 2    |

CW = Cutting Width DAXN = Axial groove outside diameter minimum DAXX = Axial groove outside diameter maximum CDX = Max. Groove Depth

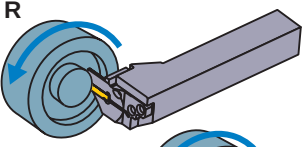
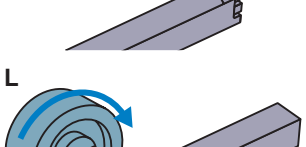
\*1 Dimensions shown are when gauge insert is used. If other insert geometries are used then LF, LH, and WF values may vary.

\*2 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages F011 to F015.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number           |  |  5 pcs. |  |
|-------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                         | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>GYHR2525M90-M25L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>GYHL2525M90-M25R</b> |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (mm) ★1 |    |     |    |    |    | Cutting Mode                                                                        |
|--|--------------------|----|-----|----|----|----|-------------------------------------------------------------------------------------|
|  | H                  | B  | LF  | LH | HF | WF |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |    |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |   |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |  |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 53 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |
|  | 25                 | 25 | 150 | 38 | 25 | 64 |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| J         | GY000600/0631/0635J00000-Breaker |

| For Grooving/Cutting off |         | > F011, F012        |             |                |                          |
|--------------------------|---------|---------------------|-------------|----------------|--------------------------|
| Seat Size                | Breaker | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                        | CW      |                     |             |                |                          |
|                          |         |                     |             |                |                          |

| For Multifunctional Grooving |         | > F013, F014   |             |                |                            |
|------------------------------|---------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                            | CW      |                |             |                | Ball nose                  |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |
|                              |         |                |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

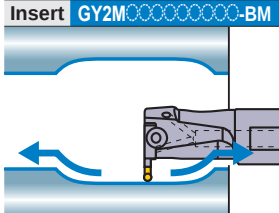
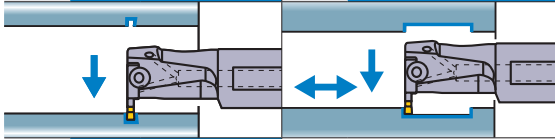
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F216  
INSTRUCTION MANUAL > F218

# GY SERIES (INTERNAL GROOVING)

6-1

90° type holder (Inch)

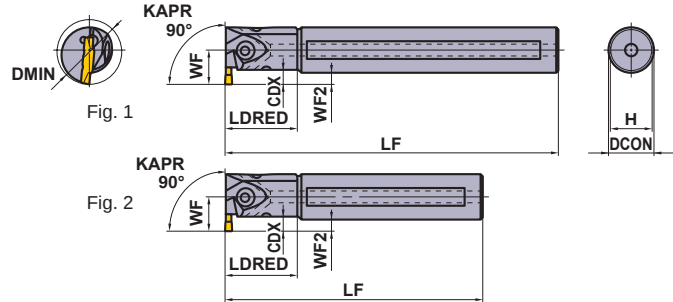
|        |      |                   |        |      |    |
|--------|------|-------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>  | Insert | GY2G | MF |
| Insert | GY2S | GU <sub>GL</sub>  | Insert | GY2M | MS |
| Insert | GY1G | GM <sub>GFS</sub> | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

## ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch)    | DMIN (inch) | Type       | Hand (R/L) | Order Number      |       |               |       | Fig. |
|-----------|--------------|---------------|-------------|------------|------------|-------------------|-------|---------------|-------|------|
|           |              |               |             |            |            | Holder            | Stock | Modular Blade | Stock |      |
| D         | .079<br>.088 | .236          | 1.000       | Mono Block | R          | GYARUS12K90A-D06  | ●     | —             | —     | 2    |
|           |              |               |             | Mono Block | L          | GYALUS12K90A-D06  | ●     | —             | —     | 2    |
|           |              |               | 1.250       | Mono Block | R          | GYARUS12Q90A-D06  | ●     | —             | —     | 1    |
|           |              |               |             | Mono Block | L          | GYALUS12Q90A-D06  | ●     | —             | —     | 1    |
|           |              | .157— .374 *1 | 1.625       | Mono Block | R          | GYARUS16K90B-D06  | ●     | —             | —     | 2    |
|           |              |               |             | Mono Block | L          | GYALUS16K90B-D06  | ●     | —             | —     | 2    |
|           |              |               | 2.000       | Mono Block | R          | GYARUS16R90B-D06  | ●     | —             | —     | 1    |
|           |              |               |             | Mono Block | L          | GYALUS16R90B-D06  | ●     | —             | —     | 1    |
|           |              | .217— .374 *1 | 2.500       | Modular    | R          | GYDRUS20L90C-M20L | ●     | GYM20LA-D10   | ●     | 4    |
|           |              |               |             | Modular    | L          | GYDLUS20L90C-M20R | ●     | GYM20RA-D10   | ●     | 4    |
|           |              |               | 2.750       | Modular    | R          | GYDRUS20S90C-M20L | ●     | GYM20LA-D10   | ●     | 3    |
|           |              |               |             | Modular    | L          | GYDLUS20S90C-M20R | ●     | GYM20RA-D10   | ●     | 3    |
|           |              | .276— .453 *1 | 2.500       | Modular    | R          | GYDRUS24M90D-M20L | ●     | GYM20LA-D10   | ●     | 4    |
|           |              |               |             | Modular    | L          | GYDLUS24M90D-M20R | ●     | GYM20RA-D10   | ●     | 4    |
|           |              |               | 2.500       | Modular    | R          | GYDRUS24T90D-M20L | ●     | GYM20LA-D10   | ●     | 3    |
|           |              |               |             | Modular    | L          | GYDLUS24T90D-M20R | ●     | GYM20RA-D10   | ●     | 3    |
|           |              |               | 2.500       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-D12   | ●     | 4    |
|           |              |               |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-D12   | ●     | 4    |
|           |              |               | 2.750       | Modular    | R          | GYDRUS24T90D-M25L | ●     | GYM25LA-D12   | ●     | 3    |
|           |              |               |             | Modular    | L          | GYDLUS24T90D-M25R | ●     | GYM25RA-D12   | ●     | 3    |
|           |              | .276— .453 *1 | 2.500       | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-D12   | ●     | 4    |
|           |              |               |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-D12   | ●     | 4    |
|           |              |               | 2.750       | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-D12   | ●     | 3    |
|           |              |               |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-D12   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

\* Wrench : ① : Clamp Screw, ② : Blade Screw



Fig. 4

## SPARE PARTS

|                       |                                         |                                     |                    |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/LUS12○90A-○06    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/LUS16○90B-○06    |                                         |                                     |                    |
| GYDR/LUS20○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/LUS24○90D-M20L/R |                                         |                                     |                    |
| GYDR/LUS24○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS32○90F-M25L/R |                                         |                                     |                    |

|           |                            |
|-----------|----------------------------|
| Seat Size | Insert Number              |
| D         | GY000200/0224D0000-Breaker |

| For Multifunctional Grooving |                |                |             |                | > F013, F014              |
|------------------------------|----------------|----------------|-------------|----------------|---------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Reessing) |
|                              | CW             |                |             |                | Ball nose                 |
| D                            | .079", 2.00 mm | ●              | ●           |                |                           |
|                              | .088", 2.24 mm | ●              |             | ●              | ●                         |

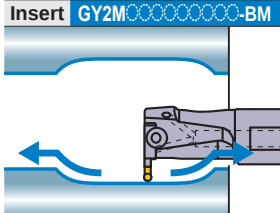
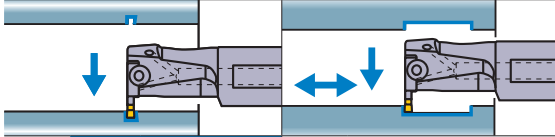
## GROOVING / CUTTING OFF

F171

# GY SERIES (INTERNAL GROOVING)

## 6-1 90° type holder (Inch)

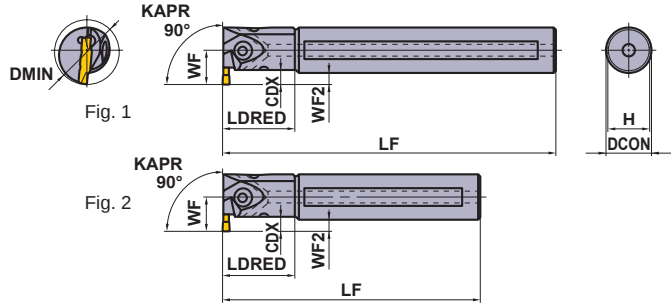
|        |      |                    |        |      |    |
|--------|------|--------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>   | Insert | GY2G | MF |
| Insert | GY2S | GU <sub>GL</sub>   | Insert | GY2M | MS |
| Insert | GY1G | GM <sub>GFGS</sub> | Insert | GY2M | MM |



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

### ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)    | DMIN (inch) | Type       | Hand (R/L) | Order Number      |       |               |       | Fig. |
|-----------|----------------------|---------------|-------------|------------|------------|-------------------|-------|---------------|-------|------|
|           |                      |               |             |            |            | Holder            | Stock | Modular Blade | Stock |      |
| E         | .094<br>.098<br>.108 | .236          | 1.000       | Mono Block | R          | GYARUS12K90A-E06  | ●     | —             | —     | 2    |
|           |                      |               |             | Mono Block | L          | GYALUS12K90A-E06  | ●     | —             | —     | 2    |
|           |                      |               | 1.250       | Mono Block | R          | GYARUS12Q90A-E06  | ●     | —             | —     | 1    |
|           |                      |               |             | Mono Block | L          | GYALUS12Q90A-E06  | ●     | —             | —     | 1    |
|           |                      | .157— .374 *1 | 1.625       | Mono Block | R          | GYARUS16K90B-E06  | ●     | —             | —     | 2    |
|           |                      |               |             | Mono Block | L          | GYALUS16K90B-E06  | ●     | —             | —     | 2    |
|           |                      |               | 2.000       | Mono Block | R          | GYARUS16R90B-E06  | ●     | —             | —     | 1    |
|           |                      |               |             | Mono Block | L          | GYALUS16R90B-E06  | ●     | —             | —     | 1    |
|           |                      | .217— .374 *1 | 2.500       | Modular    | R          | GYDRUS20L90C-M20L | ●     | GYM20LA-E10   | ●     | 4    |
|           |                      |               |             | Modular    | L          | GYDLUS20L90C-M20R | ●     | GYM20RA-E10   | ●     | 4    |
|           |                      |               | 2.750       | Modular    | R          | GYDRUS20S90C-M20L | ●     | GYM20LA-E10   | ●     | 3    |
|           |                      |               |             | Modular    | L          | GYDLUS20S90C-M20R | ●     | GYM20RA-E10   | ●     | 3    |
|           |                      | .276— .453 *1 | 2.500       | Modular    | R          | GYDRUS24M90D-M20L | ●     | GYM20LA-E10   | ●     | 4    |
|           |                      |               |             | Modular    | L          | GYDLUS24M90D-M20R | ●     | GYM20RA-E10   | ●     | 4    |
|           |                      |               | 2.500       | Modular    | R          | GYDRUS24T90D-M20L | ●     | GYM20LA-E10   | ●     | 3    |
|           |                      |               |             | Modular    | L          | GYDLUS24T90D-M20R | ●     | GYM20RA-E10   | ●     | 3    |
|           |                      |               | 2.500       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-E12   | ●     | 4    |
|           |                      |               |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-E12   | ●     | 4    |
|           |                      |               | 2.750       | Modular    | R          | GYDRUS24T90D-M25L | ●     | GYM25LA-E12   | ●     | 3    |
|           |                      |               |             | Modular    | L          | GYDLUS24T90D-M25R | ●     | GYM25RA-E12   | ●     | 3    |
|           |                      | .276— .453 *1 | 2.500       | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-E12   | ●     | 4    |
|           |                      |               |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-E12   | ●     | 4    |
|           |                      |               | 2.750       | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-E12   | ●     | 3    |
|           |                      |               |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-E12   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

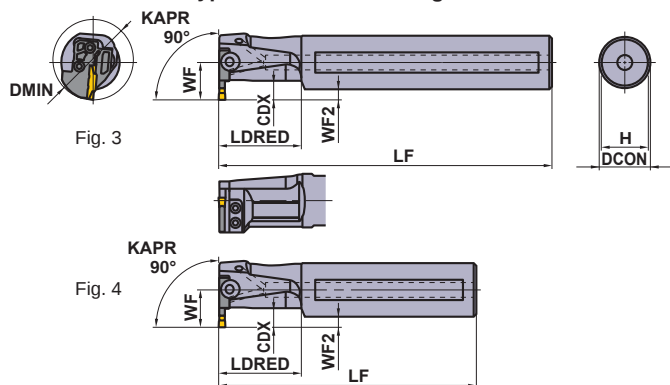
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number         | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/LUS12○90A○06     | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/LUS16○90B○06     | —                                       | —                                   | —                  |
| GYDR/LUS20○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/LUS24○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS24○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS32○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|  | Dimensions (inch) ★2 |        |       |       |      |       | Cutting Mode |
|--|----------------------|--------|-------|-------|------|-------|--------------|
|  | DCON                 | LF     | LDRED | WF    | WF2  | H     |              |
|  | .750                 | 5.000  | 1.250 | .605  | .230 | .671  | R            |
|  | .750                 | 5.000  | 1.250 | .605  | .230 | .671  |              |
|  | .750                 | 7.000  | 1.250 | .605  | .230 | .671  |              |
|  | .750                 | 7.000  | 1.250 | .605  | .230 | .671  |              |
|  | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|  | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|  | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|  | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|  | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 | L            |
|  | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |              |
|  | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|  | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|  | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|  | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|  | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|  | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |
|  | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |

## Select an Insert

| Seat Size | Insert Number               |
|-----------|-----------------------------|
| E         | GY○0239/0250/0274E○-Breaker |

| For Grooving/Cutting off |                | F011, F012          |             |                |                        |                          |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | GFGS<br>(Hardened steel) |
| E                        | .094", 2.39 mm | ●                   | ●           | ●              | ●                      | ●                        |
|                          | .098", 2.50 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving |                | F013, F014     |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| E                            | .094", 2.39 mm | ●              | ●           | ●              | ●                          |
|                              | .098", 2.50 mm | ●              | ●           | ●              | ●                          |
|                              | .108", 2.74 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

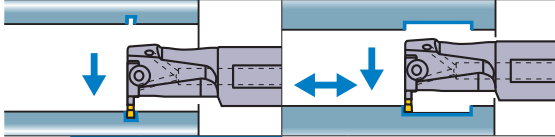
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223  
INSTRUCTION MANUAL > F225

# GY SERIES (INTERNAL GROOVING)

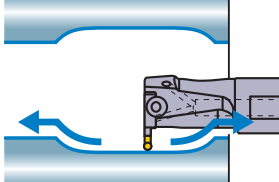
6-1

90° type holder (Inch)

|        |      |    |        |      |    |
|--------|------|----|--------|------|----|
| Insert | GY2M | GS | Insert | GY2G | MF |
| Insert | GY2S | GU | Insert | GY2M | MS |
| Insert | GY1G | GM | Insert | GY2M | MM |



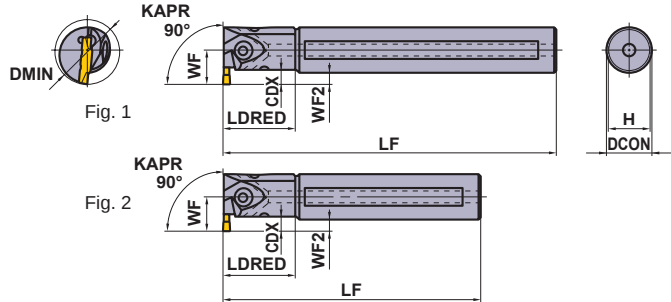
Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

## ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)     | DMIN (inch) | Type       | Hand (R/L) | Order Number      |       |               |       | Fig. |
|-----------|----------------------|----------------|-------------|------------|------------|-------------------|-------|---------------|-------|------|
|           |                      |                |             |            |            | Holder            | Stock | Modular Blade | Stock |      |
| F         | .118<br>.125<br>.128 | .236           | 1.000       | Mono Block | R          | GYARUS12K90A-F06  | ●     | —             | —     | 2    |
|           |                      |                |             | Mono Block | L          | GYALUS12K90A-F06  | ●     | —             | —     | 2    |
|           |                      |                | 1.250       | Mono Block | R          | GYARUS12Q90A-F06  | ●     | —             | —     | 1    |
|           |                      |                |             | Mono Block | L          | GYALUS12Q90A-F06  | ●     | —             | —     | 1    |
|           |                      | .157— .374 *1  | 1.625       | Mono Block | R          | GYARUS16K90B-F06  | ●     | —             | —     | 2    |
|           |                      |                |             | Mono Block | L          | GYALUS16K90B-F06  | ●     | —             | —     | 2    |
|           |                      |                | 2.000       | Mono Block | R          | GYARUS16R90B-F06  | ●     | —             | —     | 1    |
|           |                      |                |             | Mono Block | L          | GYALUS16R90B-F06  | ●     | —             | —     | 1    |
|           |                      | .217— .374 *1  | 2.500       | Modular    | R          | GYDRUS20L90C-M20L | ●     | GYM20LA-F10   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS20L90C-M20R | ●     | GYM20RA-F10   | ●     | 4    |
|           |                      |                | 2.750       | Modular    | R          | GYDRUS20S90C-M20L | ●     | GYM20LA-F10   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS20S90C-M20R | ●     | GYM20RA-F10   | ●     | 3    |
|           |                      |                | 2.000       | Modular    | R          | GYDRUS24M90D-M20L | ●     | GYM20LA-F10   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M20R | ●     | GYM20RA-F10   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS24T90D-M20L | ●     | GYM20LA-F10   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M20R | ●     | GYM20RA-F10   | ●     | 3    |
|           |                      | .276— .453 *1  | 2.500       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-F12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-F12   | ●     | 4    |
|           |                      |                | 2.750       | Modular    | R          | GYDRUS24T90D-M25L | ●     | GYM25LA-F12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M25R | ●     | GYM25RA-F12   | ●     | 3    |
|           |                      |                | 2.000       | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-F12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-F12   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-F12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-F12   | ●     | 3    |
| G         | .157<br>.167         | .276           | 1.250       | Mono Block | R          | GYARUS16K90B-G07  | ●     | —             | —     | 2    |
|           |                      |                |             | Mono Block | L          | GYALUS16K90B-G07  | ●     | —             | —     | 2    |
|           |                      |                | 1.625       | Mono Block | R          | GYARUS16R90B-G07  | ●     | —             | —     | 1    |
|           |                      |                |             | Mono Block | L          | GYALUS16R90B-G07  | ●     | —             | —     | 1    |
|           |                      | .197 - .453 *1 | 2.000       | Modular    | R          | GYDRUS20L90C-M20L | ●     | GYM20LA-G12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS20L90C-M20R | ●     | GYM20RA-G12   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS20S90C-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS20S90C-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |                      | .236 - .453 *1 | 2.000       | Modular    | R          | GYDRUS24M90D-M20L | ●     | GYM20LA-G12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M20R | ●     | GYM20RA-G12   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS24T90D-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |                      | .295 - .512 *1 | 2.750       | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-G14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-G14   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-G14   | ●     | 3    |
|           |                      | .315 - .512 *1 | 2.500       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-G14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-G14   | ●     | 4    |
|           |                      |                | 2.500       | Modular    | R          | GYDRUS24T90D-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M25R | ●     | GYM25RA-G14   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

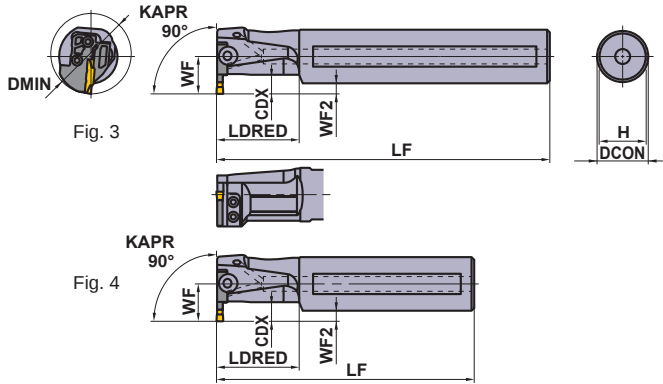
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

SPARE PARTS

| Holder Number         | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/LUS12○90A-F06    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/LUS16○90B-○○○    | —                                       | —                                   | —                  |
| GYDR/LUS20○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/LUS24○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS24○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS32○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|   | Dimensions (inch) ★2 |        |       |       |      |       | Cutting Mode |
|---|----------------------|--------|-------|-------|------|-------|--------------|
|   | DCON                 | LF     | LDRED | WF    | WF2  | H     |              |
| R | .750                 | 5.000  | 1.250 | .605  | .230 | .671  |              |
|   | .750                 | 5.000  | 1.250 | .605  | .230 | .671  |              |
|   | .750                 | 7.000  | 1.250 | .605  | .230 | .671  |              |
|   | .750                 | 7.000  | 1.250 | .605  | .230 | .671  |              |
|   | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
| L | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |              |
|   | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |
|   | 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |              |

Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY○○0300/0318/0324F○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | GFGS<br>(Hardened steel) |
| F                                     | .118", 3.00 mm | ●                   | ●           | ●              | ●                      | ●                        |
|                                       | .125", 3.18 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                                         | .118", 3.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              | ●           | ●              |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       |                |             | ●              |                            |
|                                           | .125", 3.18 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | .128", 3.24 mm | ●              |             |                |                            |

| Seat Size | Insert Number              |
|-----------|----------------------------|
| G         | GY○○0400/0424G○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |
|---------------------------------------|----------------|---------------------|-------------|----------------|
| Seat Size                             | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) |
| G                                     | .157", 4.00 mm | ●                   | ●           | ●              |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |
|-------------------------------------------|----------------|----------------|-------------|----------------|
| Seat Size                                 | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) |
| G                                         | .157", 4.00 mm |                |             | ●              |
|                                           | RE .008"       | ●              | ●           | ●              |
|                                           | RE .016"       | ●              | ●           | ●              |
|                                           | RE .031"       | ●              |             | ●              |
|                                           | .167", 4.24 mm | ●              |             |                |

● : Gauge insert shown dimensions

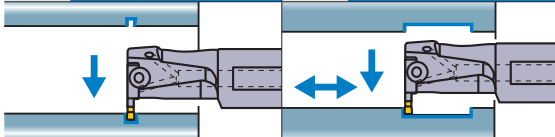
IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223  
INSTRUCTION MANUAL > F225

# GY SERIES (INTERNAL GROOVING)

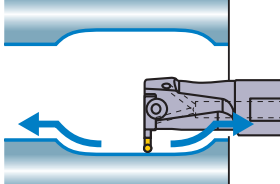
6-1

90° type holder (Inch)

|        |      |                   |        |      |    |
|--------|------|-------------------|--------|------|----|
| Insert | GY2M | GS <sub>GM</sub>  | Insert | GY2G | MF |
| Insert | GY2S | GU <sub>GL</sub>  | Insert | GY2M | MS |
| Insert | GY1G | GM <sub>GFS</sub> | Insert | GY2M | MM |



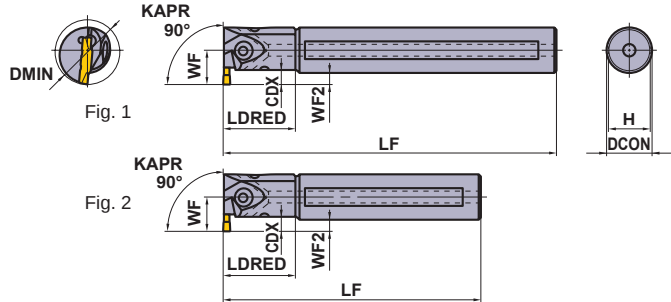
Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

## ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)     | DMIN (inch) | Type       | Hand (R/L) | Order Number      |       |               |       | Fig. |
|-----------|----------------------|----------------|-------------|------------|------------|-------------------|-------|---------------|-------|------|
|           |                      |                |             |            |            | Holder            | Stock | Modular Blade | Stock |      |
| H         | .187<br>.197<br>.206 | .276           | 1.250       | Mono Block | R          | GYARUS16K90B-H07  | ●     | —             | —     | 2    |
|           |                      |                |             | Mono Block | L          | GYALUS16K90B-H07  | ●     | —             | —     | 2    |
|           |                      | .197 - .453 *1 | 1.625       | Mono Block | R          | GYARUS16R90B-H07  | ●     | —             | —     | 1    |
|           |                      |                |             | Mono Block | L          | GYALUS16R90B-H07  | ●     | —             | —     | 1    |
|           |                      |                |             | Modular    | R          | GYDRUS20L90C-M20L | ●     | GYM20LA-H12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS20L90C-M20R | ●     | GYM20RA-H12   | ●     | 4    |
|           |                      |                |             | Modular    | R          | GYDRUS20S90C-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS20S90C-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      | .236 - .453 *1 | 2.000       | Modular    | R          | GYDRUS24M90D-M20L | ●     | GYM20LA-H12   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M20R | ●     | GYM20RA-H12   | ●     | 4    |
|           |                      |                |             | Modular    | R          | GYDRUS24T90D-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      | .295 - .512 *1 | 2.750       | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-H14   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-H14   | ●     | 3    |
| J         | .236<br>.248<br>.250 | .295 - .512 *1 | 2.750       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | R          | GYDRUS32P90F-M25L | ●     | GYM25LA-J14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS32P90F-M25R | ●     | GYM25RA-J14   | ●     | 4    |
|           |                      | .315 - .512 *1 | 2.500       | Modular    | R          | GYDRUS24M90D-M25L | ●     | GYM25LA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | L          | GYDLUS24M90D-M25R | ●     | GYM25RA-H14   | ●     | 4    |
|           |                      |                |             | Modular    | R          | GYDRUS24T90D-M25L | ●     | GYM25LA-H14   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS24T90D-M25R | ●     | GYM25RA-H14   | ●     | 3    |
|           |                      |                |             | Modular    | R          | GYDRUS32T90F-M25L | ●     | GYM25LA-J14   | ●     | 3    |
|           |                      |                |             | Modular    | L          | GYDLUS32T90F-M25R | ●     | GYM25RA-J14   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

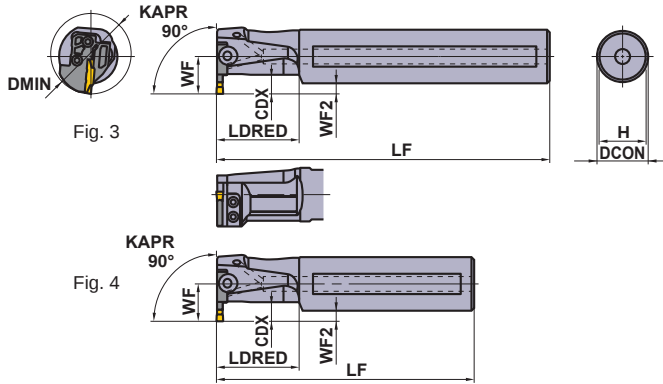
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



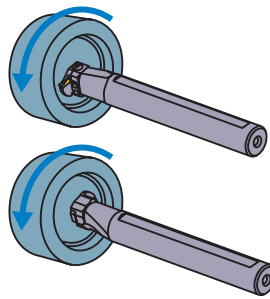
Right hand tool holder shown.

## SPARE PARTS

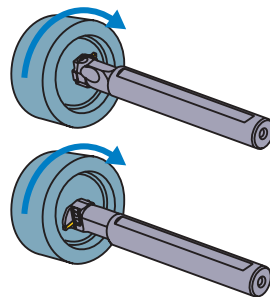
| Holder Number         | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|-----------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/LUS16○90B-○07    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYDR/LUS20○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/LUS24○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS32○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/LUS32○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (inch) ★2 |        |       |       |      |       |
|----------------------|--------|-------|-------|------|-------|
| DCON                 | LF     | LDRED | WF    | WF2  | H     |
| 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |
| 1.000                | 5.000  | 1.500 | .730  | .230 | .921  |
| 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |
| 1.000                | 8.000  | 1.500 | .730  | .230 | .921  |
| 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |
| 1.250                | 5.500  | 2.000 | .875  | .250 | 1.171 |
| 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |
| 1.250                | 10.000 | 2.000 | .875  | .250 | 1.171 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |
| 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |
| 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 6.750  | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |
| 2.000                | 12.000 | 3.250 | 1.250 | .250 | 1.882 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 6.000  | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |
| 1.500                | 12.000 | 2.500 | 1.125 | .375 | 1.382 |

R



L



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY○0475/0500/0524H○0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                                     | .187", 4.75 mm | ●                   | ●           | ●              | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H                                         | .187", 4.75 mm |                |             |                | Ball nose                  |
|                                           | RE .008"       | ●              |             |                | ●                          |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .206", 5.24 mm | ●              |             |                |                            |

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| J         | GY○0600/0631/0635J○0000-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                                     | .236", 6.00 mm | ●                   | ●           | ●              | ●                        |
|                                       | .250", 6.35 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                                         | .236", 6.00 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              | ●           | ●              |                            |
|                                           | RE .031"       | ●              | ●           | ●              |                            |
|                                           | .248", 6.31 mm | ●              |             |                |                            |
|                                           | .250", 6.35 mm |                |             |                | ●                          |
|                                           | RE .008"       | ●              |             |                |                            |
|                                           | RE .016"       | ●              |             |                |                            |
|                                           | RE .031"       | ●              |             |                |                            |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223

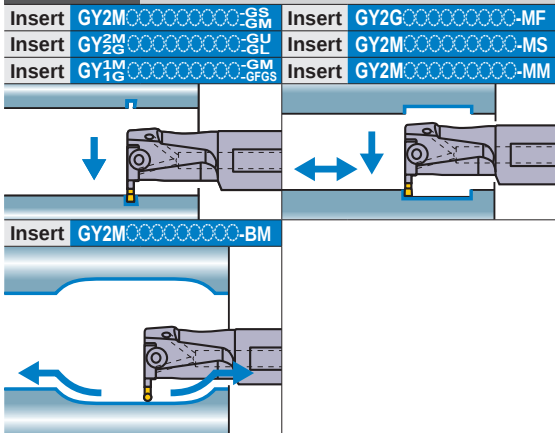
INSTRUCTION MANUAL > F225

F177

GROOVING / CUTTING OFF

# GY SERIES (INTERNAL GROOVING)

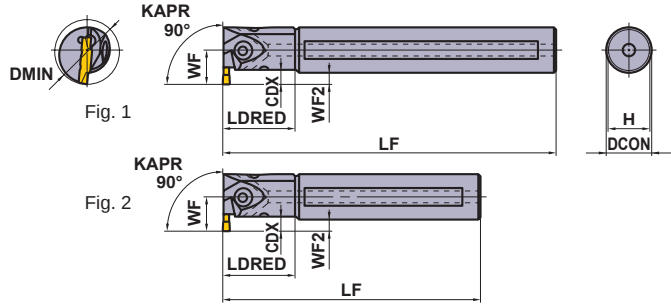
## 6-2 90° type holder (Metric)



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

### ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (mm)      | CDX (mm) *3 | DMIN (mm) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |
|-----------|--------------|-------------|-----------|------------|------------|-----------------|-------|---------------|-------|------|
|           |              |             |           |            |            | Holder          | Stock | Modular Blade | Stock |      |
| D         | 2.00<br>2.24 | 6           | 25        | Mono Block | R          | GYAR20K90A-D06  | ●     | —             | —     | 2    |
|           |              |             |           | Mono Block | L          | GYAL20K90A-D06  | ●     | —             | —     | 2    |
|           |              |             | 32        | Mono Block | R          | GYAR20Q90A-D06  | ●     | —             | —     | 1    |
|           |              |             |           | Mono Block | L          | GYAL20Q90A-D06  | ●     | —             | —     | 1    |
|           |              |             |           | Mono Block | R          | GYAR25K90B-D06  | ●     | —             | —     | 2    |
|           |              |             |           | Mono Block | L          | GYAL25K90B-D06  | ●     | —             | —     | 2    |
|           |              | 4—9.5 *1    | 40        | Modular    | R          | GYDR32L90C-M20L | ●     | GYM20LA-D10   | ●     | 4    |
|           |              |             |           | Modular    | L          | GYDL32L90C-M20R | ●     | GYM20RA-D10   | ●     | 4    |
|           |              |             |           | Modular    | R          | GYDR32S90C-M20L | ●     | GYM20LA-D10   | ●     | 3    |
|           |              |             |           | Modular    | L          | GYDL32S90C-M20R | ●     | GYM20RA-D10   | ●     | 3    |
|           |              | 5.5—9.5 *1  | 50        | Modular    | R          | GYDR40M90D-M20L | ●     | GYM20LA-D10   | ●     | 4    |
|           |              |             |           | Modular    | L          | GYDL40M90D-M20R | ●     | GYM20RA-D10   | ●     | 4    |
|           |              |             |           | Modular    | R          | GYDR40T90D-M20L | ●     | GYM20LA-D10   | ●     | 3    |
|           |              |             |           | Modular    | L          | GYDL40T90D-M20R | ●     | GYM20RA-D10   | ●     | 3    |
|           |              | 7—11.5 *1   | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-D12   | ●     | 4    |
|           |              |             |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-D12   | ●     | 4    |
|           |              |             |           | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-D12   | ●     | 3    |
|           |              |             |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-D12   | ●     | 3    |
|           |              |             | 70        | Modular    | R          | GYDR50P90F-M25L | ●     | GYM25LA-D12   | ●     | 4    |
|           |              |             |           | Modular    | L          | GYDL50P90F-M25R | ●     | GYM25RA-D12   | ●     | 4    |
|           |              |             | 70        | Modular    | R          | GYDR50T90F-M25L | ●     | GYM25LA-D12   | ●     | 3    |
|           |              |             |           | Modular    | L          | GYDL50T90F-M25R | ●     | GYM25RA-D12   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

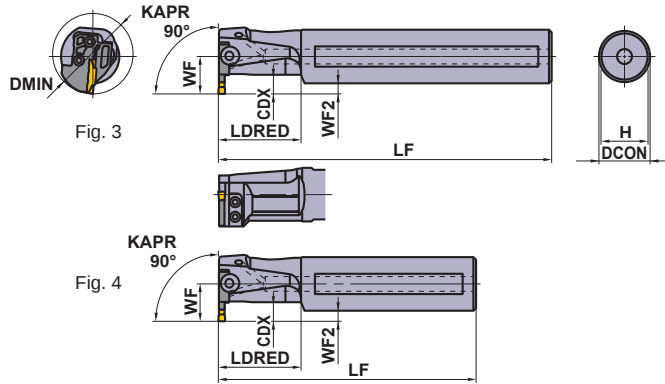
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number       | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|---------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/L20○90A-○06    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/L25○90B-○06    | —                                       | —                                   | —                  |
| GYDR/L32○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/L40○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L40○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L50○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|  | Dimensions (mm) ★2 |     |       |      |     |    | Cutting Mode |
|--|--------------------|-----|-------|------|-----|----|--------------|
|  | DCON               | LF  | LDRED | WF   | WF2 | H  |              |
|  | 20                 | 125 | 30    | 14.5 | 4.5 | 18 | R            |
|  | 20                 | 125 | 30    | 14.5 | 4.5 | 18 |              |
|  | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|  | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|  | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|  | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|  | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|  | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|  | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 | L            |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |

## Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| D         | GY○○○0200/0224D○○○○○-Breaker |

| For Grooving/Cutting off |                | ★ F011, F012        |             |                |                        |                          |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker        | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | GFGS<br>(Hardened steel) |
| CW                       |                | ●                   | ●           | ●              | ●                      | ●                        |
| D                        | .079", 2.00 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving |                | ★ F013, F014   |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Reversing) |
| CW                           |                | ●              | ●           | ●              | ●                          |
| D                            | .079", 2.00 mm | ●              | ●           | ●              | ●                          |
|                              | .088", 2.24 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

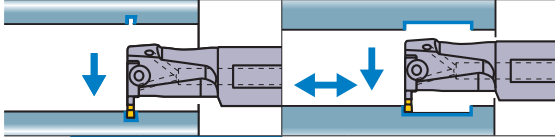
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223  
INSTRUCTION MANUAL > F225

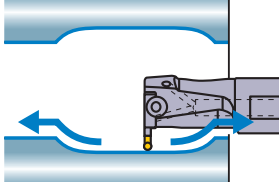
# GY SERIES (INTERNAL GROOVING)

## 6-2 90° type holder (Metric)

|        |      |    |        |      |    |
|--------|------|----|--------|------|----|
| Insert | GY2M | GS | Insert | GY2G | MF |
| Insert | GY2S | GU | Insert | GY2M | MS |
| Insert | GY1G | GM | Insert | GY2M | MM |



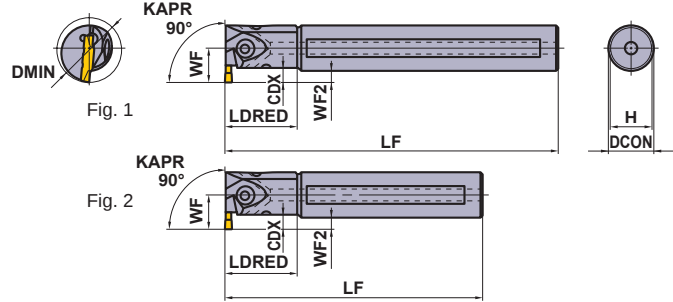
Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

### ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm)   | DMIN (mm) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |
|-----------|----------------------|------------|-----------|------------|------------|-----------------|-------|---------------|-------|------|
|           |                      |            |           |            |            | Holder          | Stock | Modular Blade | Stock |      |
| E         | 2.39<br>2.50<br>2.74 | 6          | 25        | Mono Block | R          | GYAR20K90A-E06  | ●     | —             | —     | 2    |
|           |                      |            |           | Mono Block | L          | GYAL20K90A-E06  | ●     | —             | —     | 2    |
|           |                      |            |           | Mono Block | R          | GYAR20Q90A-E06  | ●     | —             | —     | 1    |
|           |                      |            |           | Mono Block | L          | GYAL20Q90A-E06  | ●     | —             | —     | 1    |
|           |                      |            | 32        | Mono Block | R          | GYAR25K90B-E06  | ●     | —             | —     | 2    |
|           |                      |            |           | Mono Block | L          | GYAL25K90B-E06  | ●     | —             | —     | 2    |
|           |                      |            |           | Mono Block | R          | GYAR25R90B-E06  | ●     | —             | —     | 1    |
|           |                      |            |           | Mono Block | L          | GYAL25R90B-E06  | ●     | —             | —     | 1    |
|           |                      | 4—9.5 *1   | 40        | Modular    | R          | GYDR32L90C-M20L | ●     | GYM20LA-E10   | ●     | 4    |
|           |                      |            |           | Modular    | L          | GYDL32L90C-M20R | ●     | GYM20RA-E10   | ●     | 4    |
|           |                      |            |           | Modular    | R          | GYDR32S90C-M20L | ●     | GYM20LA-E10   | ●     | 3    |
|           |                      |            |           | Modular    | L          | GYDL32S90C-M20R | ●     | GYM20RA-E10   | ●     | 3    |
|           |                      | 5.5—9.5 *1 | 50        | Modular    | R          | GYDR40M90D-M20L | ●     | GYM20LA-E10   | ●     | 4    |
|           |                      |            |           | Modular    | L          | GYDL40M90D-M20R | ●     | GYM20RA-E10   | ●     | 4    |
|           |                      |            |           | Modular    | R          | GYDR40T90D-M20L | ●     | GYM20LA-E10   | ●     | 3    |
|           |                      |            |           | Modular    | L          | GYDL40T90D-M20R | ●     | GYM20RA-E10   | ●     | 3    |
|           |                      | 7—11.5 *1  | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-E12   | ●     | 4    |
|           |                      |            |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-E12   | ●     | 4    |
|           |                      |            |           | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-E12   | ●     | 3    |
|           |                      |            |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-E12   | ●     | 3    |
|           |                      |            | 70        | Modular    | R          | GYDR50P90F-M25L | ●     | GYM25LA-E12   | ●     | 4    |
|           |                      |            |           | Modular    | L          | GYDL50P90F-M25R | ●     | GYM25RA-E12   | ●     | 4    |
|           |                      |            |           | Modular    | R          | GYDR50T90F-M25L | ●     | GYM25LA-E12   | ●     | 3    |
|           |                      |            |           | Modular    | L          | GYDL50T90F-M25R | ●     | GYM25RA-E12   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

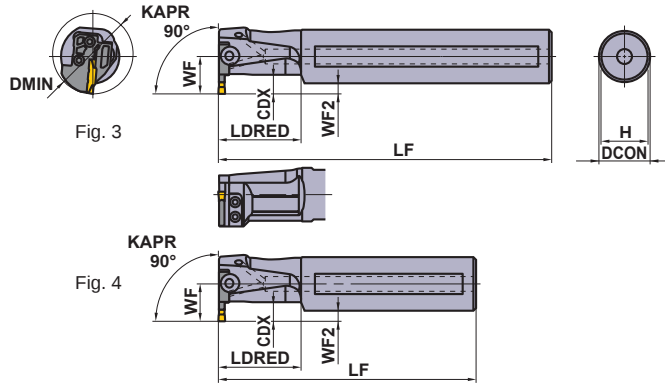
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

## SPARE PARTS

| Holder Number       | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|---------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/L20○90A-○06    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/L25○90B-○06    | —                                       | —                                   | —                  |
| GYDR/L32○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/L40○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L40○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L50○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|  | Dimensions (mm) ★2 |     |       |      |     |    | Cutting Mode |
|--|--------------------|-----|-------|------|-----|----|--------------|
|  | DCON               | LF  | LDRED | WF   | WF2 | H  |              |
|  | 20                 | 125 | 30    | 14.5 | 4.5 | 18 | R            |
|  | 20                 | 125 | 30    | 14.5 | 4.5 | 18 |              |
|  | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|  | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|  | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|  | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|  | 32                 | 140 | 50    | 22.0 | 6.0 | 30 | L            |
|  | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|  | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|  | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|  | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|  | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |

## Select an Insert

| Seat Size | Insert Number               |
|-----------|-----------------------------|
| E         | GY○0239/0250/0274E○-Breaker |

| For Grooving/Cutting off |                | F011, F012          |             |                |                        |                          |
|--------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | GFGS<br>(Hardened steel) |
| E                        | .094", 2.39 mm | ●                   | ●           | ●              | ●                      | ●                        |
|                          | .098", 2.50 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving |                | F013, F014     |             |                |                            |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| E                            | .094", 2.39 mm | ●              | ●           | ●              | ●                          |
|                              | .098", 2.50 mm | ●              | ●           | ●              | ●                          |
|                              | .108", 2.74 mm | ●              | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

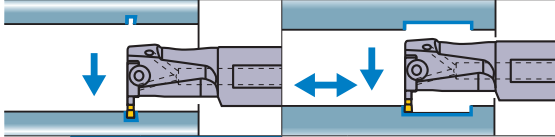
GROOVING / CUTTING OFF

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223  
INSTRUCTION MANUAL > F225

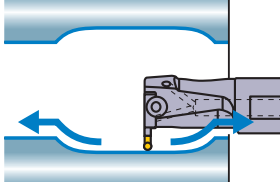
# GY SERIES (INTERNAL GROOVING)

## 6-2 90° type holder (Metric)

|        |      |    |        |      |    |
|--------|------|----|--------|------|----|
| Insert | GY2M | GS | Insert | GY2G | MF |
| Insert | GY2S | GU | Insert | GY2M | MS |
| Insert | GY1G | GM | Insert | GY2M | MM |



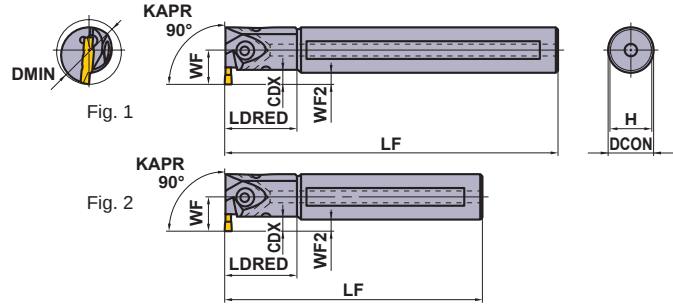
Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

### ● Mono block type (Air / coolant through)



Right hand tool holder shown.

| Seat Size | CW (mm)              | CDX (mm)    | DMIN (mm) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |
|-----------|----------------------|-------------|-----------|------------|------------|-----------------|-------|---------------|-------|------|
|           |                      |             |           |            |            | Holder          | Stock | Modular Blade | Stock |      |
| F         | 3.00<br>3.18<br>3.24 | 6           | 25        | Mono Block | R          | GYAR20K90A-F06  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | L          | GYAL20K90A-F06  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | R          | GYAR20Q90A-F06  | ●     | —             | —     | 1    |
|           |                      |             |           | Mono Block | L          | GYAL20Q90A-F06  | ●     | —             | —     | 1    |
|           |                      |             | 32        | Mono Block | R          | GYAR25K90B-F06  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | L          | GYAL25K90B-F06  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | R          | GYAR25R90B-F06  | ●     | —             | —     | 1    |
|           |                      |             |           | Mono Block | L          | GYAL25R90B-F06  | ●     | —             | —     | 1    |
|           |                      | 4—9.5 *1    | 40        | Modular    | R          | GYDR32L90C-M20L | ●     | GYM20LA-F10   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL32L90C-M20R | ●     | GYM20RA-F10   | ●     | 4    |
|           |                      |             | 50        | Modular    | R          | GYDR32S90C-M20L | ●     | GYM20LA-F10   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL32S90C-M20R | ●     | GYM20RA-F10   | ●     | 3    |
|           |                      | 5.5—9.5 *1  | 50        | Modular    | R          | GYDR40M90D-M20L | ●     | GYM20LA-F10   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M20R | ●     | GYM20RA-F10   | ●     | 4    |
|           |                      |             |           | Modular    | R          | GYDR40T90D-M20L | ●     | GYM20LA-F10   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M20R | ●     | GYM20RA-F10   | ●     | 3    |
|           |                      |             | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-F12   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-F12   | ●     | 4    |
|           |                      |             |           | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-F12   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-F12   | ●     | 3    |
| G         | 4.00<br>4.24         | 7           | 32        | Mono Block | R          | GYAR25K90B-G07  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | L          | GYAL25K90B-G07  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | R          | GYAR25R90B-G07  | ●     | —             | —     | 1    |
|           |                      |             |           | Mono Block | L          | GYAL25R90B-G07  | ●     | —             | —     | 1    |
|           |                      |             | 40        | Modular    | R          | GYDR32L90C-M20L | ●     | GYM20LA-G12   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL32L90C-M20R | ●     | GYM20RA-G12   | ●     | 4    |
|           |                      |             | 50        | Modular    | R          | GYDR32S90C-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL32S90C-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |                      | 4.5—11.5 *1 | 50        | Modular    | R          | GYDR40M90D-M20L | ●     | GYM20LA-G12   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M20R | ●     | GYM20RA-G12   | ●     | 4    |
|           |                      |             |           | Modular    | R          | GYDR40T90D-M20L | ●     | GYM20LA-G12   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M20R | ●     | GYM20RA-G12   | ●     | 3    |
|           |                      |             | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-G14   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-G14   | ●     | 4    |
|           |                      |             |           | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-G14   | ●     | 3    |
|           |                      | 7.5—13 *1   | 70        | Modular    | R          | GYDR50P90F-M25L | ●     | GYM25LA-G14   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL50P90F-M25R | ●     | GYM25RA-G14   | ●     | 4    |
|           |                      |             | 70        | Modular    | R          | GYDR50T90F-M25L | ●     | GYM25LA-G14   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL50T90F-M25R | ●     | GYM25RA-G14   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

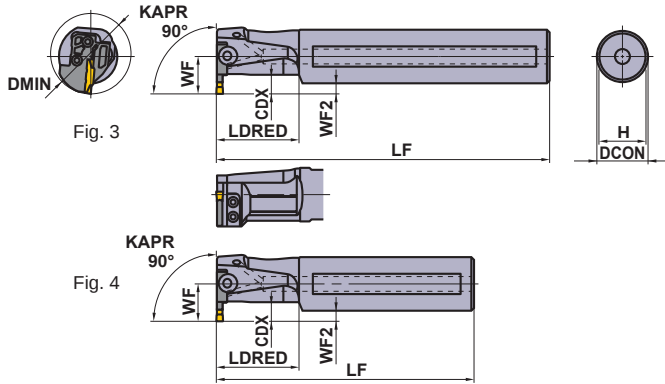
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



Right hand tool holder shown.

SPARE PARTS

| Holder Number       | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|---------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/L20○90A-F06    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYAR/L25○90B-○○○    | —                                       | —                                   | —                  |
| GYDR/L32○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/L40○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L40○90D-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L50○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

|   | Dimensions (mm) ★2 |     |       |      |     |    | Cutting Mode |
|---|--------------------|-----|-------|------|-----|----|--------------|
|   | DCON               | LF  | LDRED | WF   | WF2 | H  |              |
| R | 20                 | 125 | 30    | 14.5 | 4.5 | 18 |              |
|   | 20                 | 125 | 30    | 14.5 | 4.5 | 18 |              |
|   | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|   | 20                 | 180 | 30    | 14.5 | 4.5 | 18 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
| L | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|   | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
| L | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
| L | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|   | 32                 | 250 | 50    | 22.0 | 6.0 | 30 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 150 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
|   | 40                 | 300 | 60    | 28.0 | 8.0 | 37 |              |
| L | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 170 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|   | 50                 | 300 | 80    | 34.0 | 9.0 | 47 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 125 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 25                 | 200 | 40    | 19.0 | 6.5 | 23 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |
|   | 32                 | 140 | 50    | 22.0 | 6.0 | 30 |              |

Select an Insert

| Seat Size | Insert Number                    |
|-----------|----------------------------------|
| F         | GY○○0300/0318/0324F○○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                        |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | GFGS<br>(Hardened steel) |
| F                                     | .118", 3.00 mm | ●                   | ●           | ●              | ●                      | ●                        |
|                                       | .125", 3.18 mm | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| F                                         | .118", 3.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      |                |             | ●              |                            |
|                                           | .125", 3.18 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | .128", 3.24 mm | ●              |             |                |                            |

| Seat Size | Insert Number               |
|-----------|-----------------------------|
| G         | GY○○0400/0424G○○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| G                                     | .157", 4.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| G                                         | .157", 4.00 mm |                |             |                | ●                          |
|                                           | RE 0.2mm       | ●              | ●           | ●              |                            |
|                                           | RE 0.4mm       | ●              | ●           | ●              |                            |
|                                           | RE 0.8mm       | ●              |             | ●              |                            |
|                                           | .167", 4.24 mm | ●              |             |                |                            |

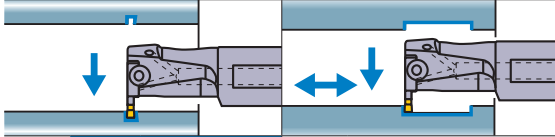
● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223  
INSTRUCTION MANUAL > F225

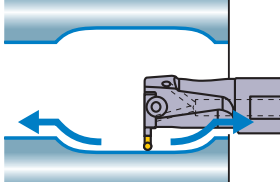
# GY SERIES (INTERNAL GROOVING)

## 6-2 90° type holder (Metric)

|        |      |    |        |      |    |
|--------|------|----|--------|------|----|
| Insert | GY2M | GS | Insert | GY2G | MF |
| Insert | GY2S | GU | Insert | GY2M | MS |
| Insert | GY1G | GM | Insert | GY2M | MM |



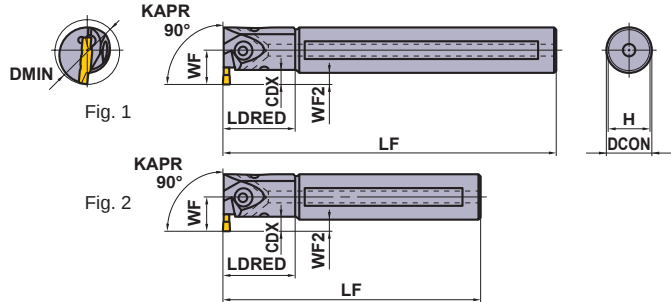
Insert GY2M



Note 1) For modular blades and holders, please order separately.

Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.

### ● Mono block type (Air / coolant through)



Right hand tool holder shown.

GROOVING / CUTTING OFF

| Seat Size | CW (mm)              | CDX (mm)    | DMIN (mm) | Type       | Hand (R/L) | Order Number    |       |               |       | Fig. |
|-----------|----------------------|-------------|-----------|------------|------------|-----------------|-------|---------------|-------|------|
|           |                      |             |           |            |            | Holder          | Stock | Modular Blade | Stock |      |
| H         | 4.75<br>5.00<br>5.24 | 7           | 32        | Mono Block | R          | GYAR25K90B-H07  | ●     | —             | —     | 2    |
|           |                      |             |           | Mono Block | L          | GYAL25K90B-H07  | ●     | —             | —     | 2    |
|           |                      |             | 40        | Mono Block | R          | GYAR25R90B-H07  | ●     | —             | —     | 1    |
|           |                      |             |           | Mono Block | L          | GYAL25R90B-H07  | ●     | —             | —     | 1    |
|           |                      | 4.5—11.5 *1 | 40        | Modular    | R          | GYDR32L90C-M20L | ●     | GYM20LA-H12   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL32L90C-M20R | ●     | GYM20RA-H12   | ●     | 4    |
|           |                      |             | 50        | Modular    | R          | GYDR32S90C-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL32S90C-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      | 6—11.5 *1   | 50        | Modular    | R          | GYDR40M90D-M20L | ●     | GYM20LA-H12   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M20R | ●     | GYM20RA-H12   | ●     | 4    |
|           |                      |             | 60        | Modular    | R          | GYDR40T90D-M20L | ●     | GYM20LA-H12   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M20R | ●     | GYM20RA-H12   | ●     | 3    |
|           |                      | 7.5—13 *1   | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-H14   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-H14   | ●     | 4    |
|           |                      |             | 70        | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-H14   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-H14   | ●     | 3    |
| J         | 6.00<br>6.31<br>6.35 | 7.5—13 *1   | 60        | Modular    | R          | GYDR40M90D-M25L | ●     | GYM25LA-J14   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL40M90D-M25R | ●     | GYM25RA-J14   | ●     | 4    |
|           |                      |             | 70        | Modular    | R          | GYDR40T90D-M25L | ●     | GYM25LA-J14   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL40T90D-M25R | ●     | GYM25RA-J14   | ●     | 3    |
|           |                      |             | 60        | Modular    | R          | GYDR50P90F-M25L | ●     | GYM25LA-J14   | ●     | 4    |
|           |                      |             |           | Modular    | L          | GYDL50P90F-M25R | ●     | GYM25RA-J14   | ●     | 4    |
|           |                      |             | 70        | Modular    | R          | GYDR50T90F-M25L | ●     | GYM25LA-J14   | ●     | 3    |
|           |                      |             |           | Modular    | L          | GYDL50T90F-M25R | ●     | GYM25RA-J14   | ●     | 3    |

CW = Cutting Width CDX = Max. Groove Depth DMIN = Minimum cutting diameter

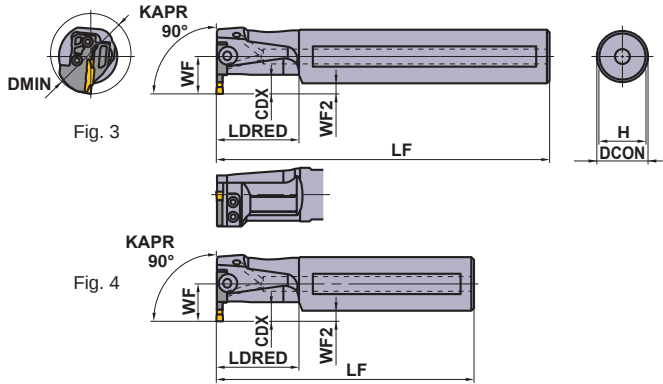
\*1 The maximum groove depth (CDX) varies according to the cutting diameter (DMIN). For details, please refer to page F222.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LDRED, WF and WF2 values may vary.

\*3 The maximum groove depth (CDX) is a value within the dimension (LDRED).

●Modular blade type (Air / coolant through)

★ Wrench : ① : Clamp Screw, ② : Blade Screw



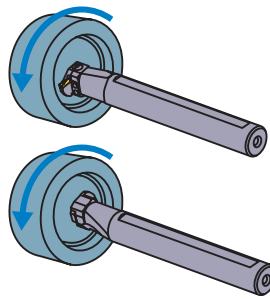
Right hand tool holder shown.

## SPARE PARTS

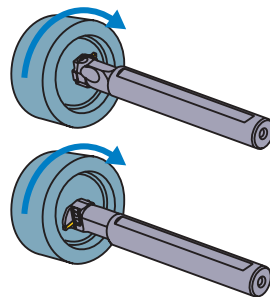
| Holder Number       | ①<br>Clamp Screw                        | ②<br>Blade Screw<br>4 pcs.          | ①<br>Wrench ★      |
|---------------------|-----------------------------------------|-------------------------------------|--------------------|
| GYAR/L25○90B-○07    | ①GY05016S<br>(Clamp Torque : 44 lbf-in) | —                                   | ①TKY20R            |
| GYDR/L32○90C-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in) | ①TKY30R<br>②TKY15D |
| GYDR/L40○90D-M20L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |
| GYDR/L50○90F-M25L/R | ②GY06013M<br>(Clamp Torque : 53 lbf-in) | TS55<br>(Clamp Torque : 44 lbf-in)  | ①TKY30R<br>②TKY25D |

| Dimensions (mm) ★2 |     |       |    |     |    | Cutting Mode |
|--------------------|-----|-------|----|-----|----|--------------|
| DCON               | LF  | LDRED | WF | WF2 | H  |              |
| 25                 | 125 | 40    | 19 | 6.5 | 23 | R            |
| 25                 | 125 | 40    | 19 | 6.5 | 23 |              |
| 25                 | 200 | 40    | 19 | 6.5 | 23 |              |
| 25                 | 200 | 40    | 19 | 6.5 | 23 |              |
| 32                 | 140 | 50    | 22 | 6.0 | 30 |              |
| 32                 | 140 | 50    | 22 | 6.0 | 30 |              |
| 32                 | 250 | 50    | 22 | 6.0 | 30 |              |
| 32                 | 250 | 50    | 22 | 6.0 | 30 |              |
| 40                 | 150 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 150 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 300 | 60    | 28 | 8.0 | 37 | L            |
| 40                 | 300 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 150 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 150 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 300 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 300 | 60    | 28 | 8.0 | 37 |              |
| 50                 | 170 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 170 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |
| 40                 | 150 | 60    | 28 | 8.0 | 37 | L            |
| 40                 | 150 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 300 | 60    | 28 | 8.0 | 37 |              |
| 40                 | 300 | 60    | 28 | 8.0 | 37 |              |
| 50                 | 170 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 170 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |
| 50                 | 300 | 80    | 34 | 9.0 | 47 |              |

R



L



## Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| H         | GY○○0475/0500/0524H○○○○-Breaker |

| For Grooving/Cutting off > F011, F012 |                |                     |             |                |                          |
|---------------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                             | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| H                                     | .187", 4.75 mm | ●                   | ●           | ●              | ●                        |
|                                       | .197", 5.00 mm | ●                   | ●           | ●              | ●                        |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| H                                         | .187", 4.75 mm |                |             |                | Ball nose                  |
|                                           | RE 0.2 mm      | ●              |             |                | ●                          |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | RE 0.8 mm      | ●              |             |                |                            |
|                                           | .197", 5.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                                           | .206", 5.24 mm | ●              |             |                |                            |

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| J         | GY○○0600/0631/0635J○○○○-Breaker |

| For Grooving/Cutting off > F011 |                |                     |             |                |                          |
|---------------------------------|----------------|---------------------|-------------|----------------|--------------------------|
| Seat Size                       | Breaker<br>CW  | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | GFGS<br>(Hardened steel) |
| J                               | .236", 6.00 mm | ●                   | ●           | ●              |                          |
|                                 | .250", 6.35 mm | ●                   | ●           | ●              |                          |

| For Multifunctional Grooving > F013, F014 |                |                |             |                |                            |
|-------------------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                                 | Breaker<br>CW  | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
| J                                         | .236", 6.00 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              | ●           | ●              |                            |
|                                           | RE 0.8 mm      | ●              | ●           | ●              |                            |
|                                           | .248", 6.31 mm | ●              |             |                |                            |
|                                           | .250", 6.35 mm |                |             |                | ●                          |
|                                           | RE 0.2 mm      | ●              |             |                |                            |
|                                           | RE 0.4 mm      | ●              |             |                |                            |
|                                           | RE 0.8 mm      | ●              |             |                |                            |

● : Gauge insert shown dimensions

IDENTIFICATION > F008, F009  
CUTTING CONDITIONS > F223

INSTRUCTION MANUAL > F225

F185

GROOVING / CUTTING OFF

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

7-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

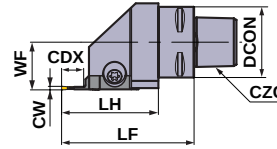
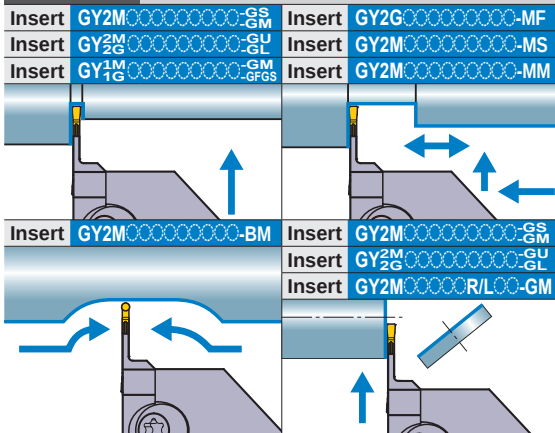


Fig. 1

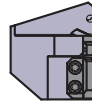
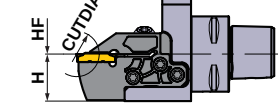


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch)         | CUTDIA (inch)       | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|--------------|--------------------|---------------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |              |                    |                     |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| D         | .079<br>.088 | .236               | .472                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-D06   | ●     | 1    | C3  |  |
|           |              |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-D06   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-D06   | ●     | 1    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-D06   | ●     | 1    |     |  |
|           |              | .394               | .787                | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-D06   | ●     | 1    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-D06   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-D06   | ●     | 1    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-D06   | ●     | 1    |     |  |
|           |              | .472               | .945                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-D10   | ●     | 1    | C3  |  |
|           |              |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-D10   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-D12   | ●     | 1    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-D12   | ●     | 1    |     |  |
|           |              | .709 <sup>*4</sup> | 1.417               | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-D12   | ●     | 1    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-D12   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-D12   | ●     | 1    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-D12   | ●     | 1    |     |  |
|           |              | .787 <sup>*1</sup> | 1.575 <sup>*2</sup> | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RB-D18   | ●     | 2    | C3  |  |
|           |              |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LB-D18   | ●     | 2    |     |  |
|           |              |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-D20   | ●     | 2    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-D20   | ●     | 2    |     |  |
|           |              |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-D20   | ●     | 2    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-D20   | ●     | 2    |     |  |
|           |              |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-D20   | ●     | 2    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-D20   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

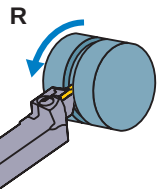
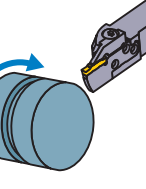
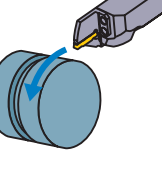
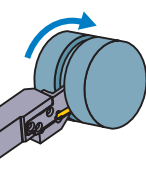
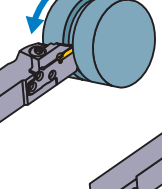
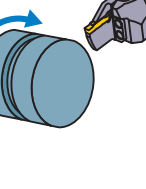
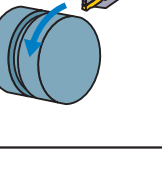
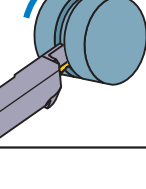
\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |                                            |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                                                                   | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LDX00-M20R/L</b> | <br>GY06013M<br>(Clamp Torque : 53 lbf-in) | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LEX00-M25R/L</b> |                                                                                                                               | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LEX00-M25R/L</b> |                                                                                                                               |                                                                                            |                                                                                     |
| <b>C6-GYHR/LF00-M25R/L</b>  |                                                                                                                               |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | H     | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |   |   |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |  |  |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |  |  |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |  |  |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                |
|-----------|------------------------------|
| D         | GY000200/0224D000000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |       |          |                  |               |                  |
|-----------|----------------|---------------------------------------|-------|----------|------------------|---------------|------------------|
| Seat Size | Breaker        | GU                                    | GS    | GM       | GL               | 05-GM         | GFGS             |
|           |                | (Gummy Steel)                         | (Low) | (Medium) | (Aluminum Alloy) | (Cutting off) | (Hardened steel) |
|           | CW             | Neutral                               |       |          |                  | Hand          | Neutral          |
| D         | .079", 2.00 mm | ●                                     | ●     | ●        | ●                | ●             | ●                |

|           |                | For Multifunctional Grooving > F013, F014 |       |          |                      |
|-----------|----------------|-------------------------------------------|-------|----------|----------------------|
| Seat Size | Breaker        | MF                                        | MS    | MM       | BM                   |
|           |                | (Finish)                                  | (Low) | (Medium) | (Copying, Recessing) |
|           | CW             | Ball nose                                 |       |          |                      |
| D         | .079", 2.00 mm | ●                                         | ●     | ●        | ●                    |
|           | .088", 2.24 mm | ●                                         |       |          |                      |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

7-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

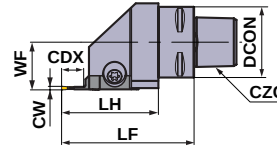
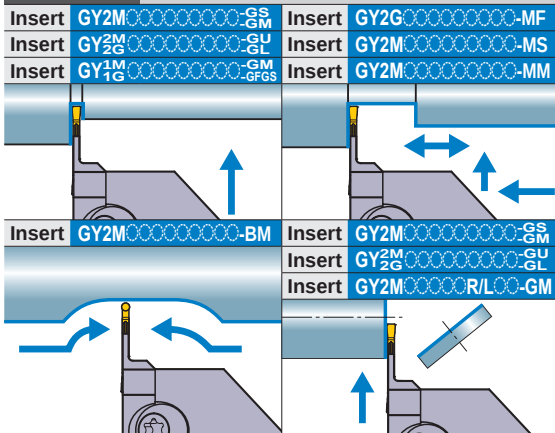
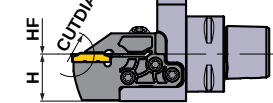
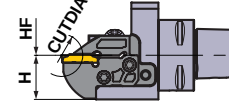
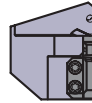


Fig. 1

Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|----------------------|--------------------|---------------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |                      |                    |                     |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| E         | .094<br>.098<br>.108 | .236               | .472                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-E06   | ●     | 1    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-E06   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-E06   | ●     | 1    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-E06   | ●     | 1    |     |  |
|           |                      | .394               | .787                | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-E06   | ●     | 1    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-E06   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-E06   | ●     | 1    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-E06   | ●     | 1    |     |  |
|           |                      | .472               | .945                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-E10   | ●     | 1    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-E10   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-E12   | ●     | 1    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-E12   | ●     | 1    |     |  |
|           |                      | .709 <sup>*4</sup> | 1.417               | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-E12   | ●     | 1    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-E12   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-E12   | ●     | 1    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-E12   | ●     | 1    |     |  |
|           |                      | .787 <sup>*1</sup> | 1.575 <sup>*2</sup> | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RB-E18   | ●     | 2    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LB-E18   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-E20   | ●     | 2    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-E20   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-E20   | ●     | 2    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-E20   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-E20   | ●     | 2    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-E20   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

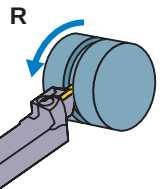
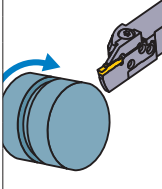
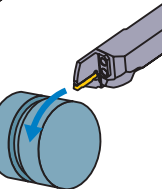
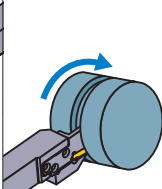
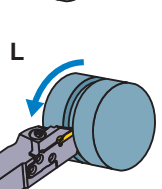
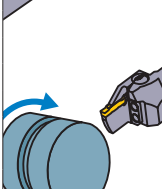
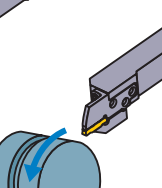
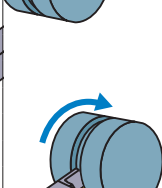
\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LDX00-M20R/L</b> |                                                                                     | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LEX00-M25R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LEX00-M25R/L</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LF00-M25R/L</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | H     | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |   |   |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |  |  |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |  |  |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |  |  |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| E         | GY00239/0250/0274E0000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                |                        | Hand                   | Neutral                  |
| E         | .094", 2.39 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .098", 2.50 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                |                                           |             |                | Ball nose                  |
| E         | .094", 2.39 mm | ●                                         |             |                |                            |
|           | .098", 2.50 mm | ●                                         | ●           | ●              | ●                          |
|           | .108", 2.74 mm | ●                                         |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F010  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

7-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

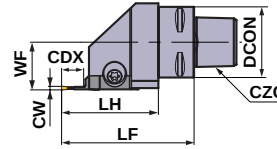
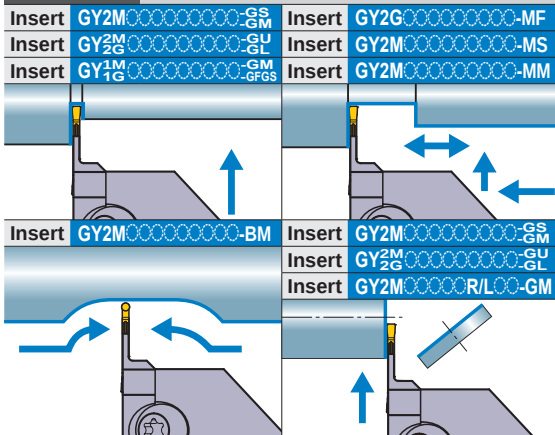
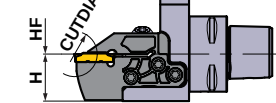
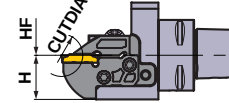
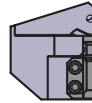


Fig. 1

Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)         | CUTDIA (inch)       | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|----------------------|--------------------|---------------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |                      |                    |                     |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| F         | .118<br>.125<br>.128 | .236               | .472                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-F06   | ●     | 1    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-F06   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-F06   | ●     | 1    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-F06   | ●     | 1    |     |  |
|           |                      | .394               | .787                | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-F06   | ●     | 1    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-F06   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-F06   | ●     | 1    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-F06   | ●     | 1    |     |  |
|           |                      | .472               | .945                | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-F10   | ●     | 1    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-F10   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-F12   | ●     | 1    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-F12   | ●     | 1    |     |  |
|           |                      | .709 <sup>★4</sup> | 1.417               | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-F12   | ●     | 1    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-F12   | ●     | 1    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-F12   | ●     | 1    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-F12   | ●     | 1    |     |  |
|           |                      | .787 <sup>★1</sup> | 1.575 <sup>★2</sup> | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RB-F18   | ●     | 2    | C3  |  |
|           |                      |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LB-F18   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-F20   | ●     | 2    | C4  |  |
|           |                      |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-F20   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-F20   | ●     | 2    | C5  |  |
|           |                      |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-F20   | ●     | 2    |     |  |
|           |                      |                    |                     | Modular | R          | C6-GYHRF00-M25R  | ●     | GYM25RA-F20   | ●     | 2    | C6  |  |
|           |                      |                    |                     | Modular | L          | C6-GYHLF00-M25L  | ●     | GYM25LA-F20   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

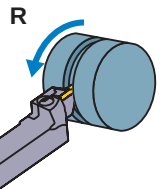
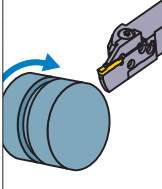
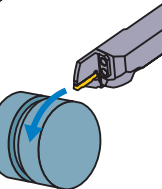
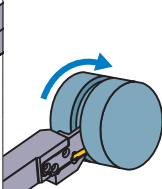
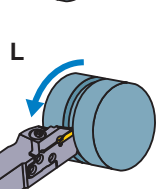
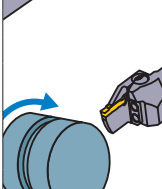
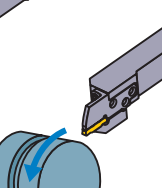
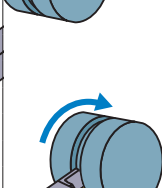
★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

★4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LDX00-M20R/L</b> |                                                                                     | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LEX00-M25R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LEX00-M25R/L</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LF00-M25R/L</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | H     | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |   |   |
|  | 1.260                | 2.323 | 1.724 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.638 | 1.843 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 2.638 | 1.843 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |  |  |
|  | 2.480                | 2.835 | 1.961 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |  |  |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.795 | 2.197 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |  |  |
|  | 1.575                | 3.189 | 2.394 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 3.189 | 2.394 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 3.386 | 2.512 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                   |
|-----------|---------------------------------|
| F         | GY000300/0318/0324F0000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | GL<br>(Aluminum Alloy) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                |                        | Hand                   | Neutral                  |
| F         | .118", 3.00 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |
|           | .125", 3.18 mm | ●                                     | ●           | ●              | ●                      | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| F         | .118", 3.00 mm |                                           |             |                | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              |                            |
|           | RE .016"       | ●                                         | ●           | ●              |                            |
|           | RE .031"       |                                           |             | ●              |                            |
|           | .125", 3.18 mm |                                           |             |                | ●                          |
|           | RE .008"       | ●                                         |             |                |                            |
|           | RE .016"       | ●                                         |             |                |                            |
|           | .128", 3.24 mm | ●                                         |             |                |                            |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F010  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

7-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

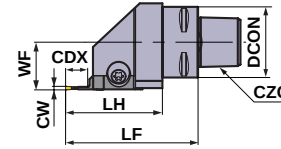
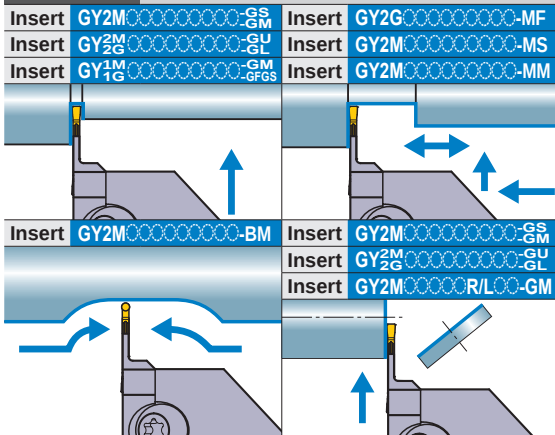


Fig. 1

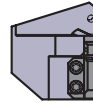
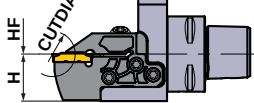


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch)         | CUTDIA (inch)       | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|--------------|--------------------|---------------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |              |                    |                     |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| G         | .157<br>.167 | .315               | .630                | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-G08   | ●     | 1    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-G08   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-G08   | ●     | 1    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-G08   | ●     | 1    |     |  |
|           |              | .472               | .945                | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-G08   | ●     | 1    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-G08   | ●     | 1    |     |  |
|           |              | .551               | 1.102               | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-G12   | ●     | 1    | C3  |  |
|           |              |                    |                     | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-G12   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-G14   | ●     | 1    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-G14   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-G14   | ●     | 1    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-G14   | ●     | 1    |     |  |
|           |              | .984 <sup>★1</sup> | 1.969 <sup>★2</sup> | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-G14   | ●     | 1    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-G14   | ●     | 1    |     |  |
|           |              |                    |                     | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-G25   | ●     | 2    | C4  |  |
|           |              |                    |                     | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-G25   | ●     | 2    |     |  |
|           |              |                    |                     | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-G25   | ●     | 2    | C5  |  |
|           |              |                    |                     | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-G25   | ●     | 2    |     |  |
|           |              |                    |                     | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-G25   | ●     | 2    | C6  |  |
|           |              |                    |                     | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-G25   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

★1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

★2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

★3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

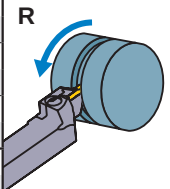
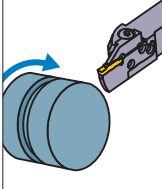
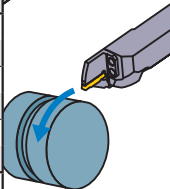
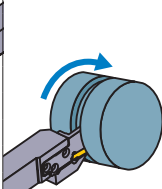
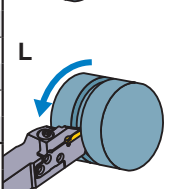
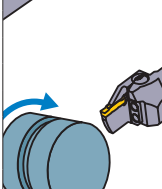
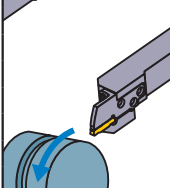
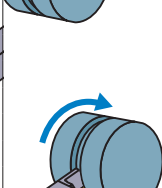
★4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LDX00-M20R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LEX00-M25R/L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LEX00-M25R/L</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LF00-M25R/L</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | H     | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |   |   |
|  | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |  |  |
|  | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |  |  |
|  | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|  | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|  | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |  |  |
|  | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number            |
|-----------|--------------------------|
| G         | GY0400/0424G0000-Breaker |

|           |                | For Grooving/Cutting off |             |                |                        |                          | > F011, F012 |  |
|-----------|----------------|--------------------------|-------------|----------------|------------------------|--------------------------|--------------|--|
| Seat Size | Breaker        | GU<br>(Gummy Steel)      | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |              |  |
|           |                | Neutral                  |             |                | Hand                   | Neutral                  |              |  |
| G         | .157", 4.00 mm | ●                        | ●           | ●              | ●                      | ●                        |              |  |

|           |                | For Multifunctional Grooving |             |                |                            | > F013, F014 |  |
|-----------|----------------|------------------------------|-------------|----------------|----------------------------|--------------|--|
| Seat Size | Breaker        | MF<br>(Finish)               | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |              |  |
|           |                |                              |             |                | Ball nose                  |              |  |
| G         | .157", 4.00 mm | ●                            | ●           | ●              | ●                          |              |  |
|           | RE .008"       | ●                            | ●           | ●              | ●                          |              |  |
|           | RE .016"       | ●                            | ●           | ●              | ●                          |              |  |
|           | RE .031"       | ●                            | ●           | ●              | ●                          |              |  |
|           | .167", 4.24 mm | ●                            |             |                |                            |              |  |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

7-1

00° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

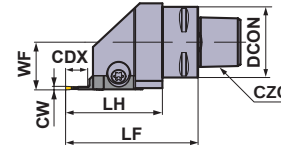
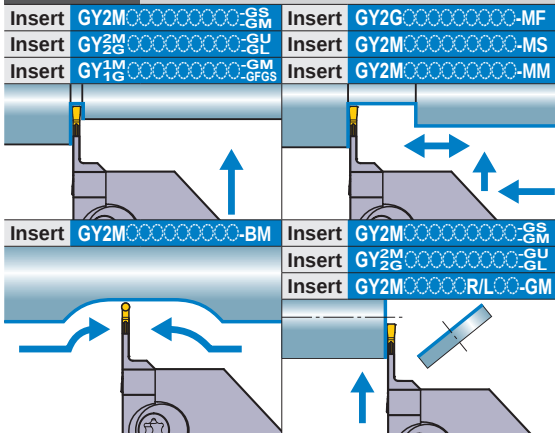


Fig. 1

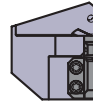
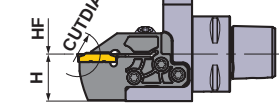


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |
| H         | .187<br>.197<br>.206 | .315       | .630          | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-H08   | ●     | 1    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-H08   | ●     | 1    |     |
|           |                      |            |               | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-H08   | ●     | 1    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-H08   | ●     | 1    |     |
|           |                      | .472       | .945          | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-H08   | ●     | 1    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-H08   | ●     | 1    |     |
|           |                      |            |               | Modular | R          | C3-GYHRDX00-M20R | ●     | GYM20RA-H12   | ●     | 1    | C3  |
|           |                      |            |               | Modular | L          | C3-GYHLDX00-M20L | ●     | GYM20LA-H12   | ●     | 1    |     |
|           |                      | .551       | 1.102         | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-H14   | ●     | 1    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-H14   | ●     | 1    |     |
|           |                      |            |               | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-H14   | ●     | 1    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-H14   | ●     | 1    |     |
| J         | .236<br>.248<br>.250 | .315       | .630          | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-H14   | ●     | 1    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-H14   | ●     | 1    |     |
|           |                      | .551       | 1.102         | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-H25   | ●     | 2    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-H25   | ●     | 2    |     |
|           |                      | .984*1     | 1.969*2       | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-H25   | ●     | 2    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-H25   | ●     | 2    |     |
|           |                      |            |               | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-H25   | ●     | 2    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-H25   | ●     | 2    |     |
|           |                      | .236       | .630          | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-J08   | ●     | 1    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-J08   | ●     | 1    |     |
|           |                      | .248       | 1.102         | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-J08   | ●     | 1    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-J08   | ●     | 1    |     |
|           |                      | .250       | 1.102         | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-J08   | ●     | 1    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-J08   | ●     | 1    |     |
|           |                      | .236       | .630          | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-J14   | ●     | 1    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-J14   | ●     | 1    |     |
|           |                      | .248       | 1.102         | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-J14   | ●     | 1    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-J14   | ●     | 1    |     |
|           |                      | .250       | 1.102         | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-J14   | ●     | 1    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-J14   | ●     | 1    |     |
|           |                      | .984*1     | 1.969*2       | Modular | R          | C4-GYHREX00-M25R | ●     | GYM25RA-J25   | ●     | 2    | C4  |
|           |                      |            |               | Modular | L          | C4-GYHLEX00-M25L | ●     | GYM25LA-J25   | ●     | 2    |     |
|           |                      | .236       | .630          | Modular | R          | C5-GYHREX00-M25R | ●     | GYM25RA-J25   | ●     | 2    | C5  |
|           |                      |            |               | Modular | L          | C5-GYHLEX00-M25L | ●     | GYM25LA-J25   | ●     | 2    |     |
|           |                      | .248       | 1.102         | Modular | R          | C6-GYHREX00-M25R | ●     | GYM25RA-J25   | ●     | 2    | C6  |
|           |                      |            |               | Modular | L          | C6-GYHLEX00-M25L | ●     | GYM25LA-J25   | ●     | 2    |     |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

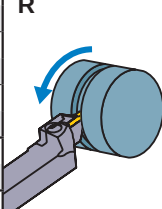
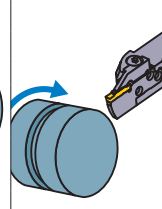
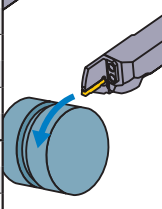
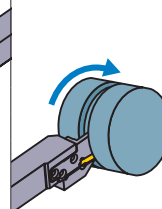
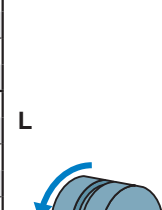
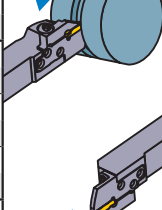
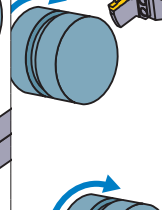
\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LDX00-M20R/L</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LEX00-M25R/L</b> |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LEX00-M25R/L</b> |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LF00-M25R/L</b>  |                                                                                     |                                                                                            |                                                                                     |

|          | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|----------|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|          | DCON                 | LF    | LH    | WF    | HF | H     | Clockwise                                                                           | Anticlockwise                                                                       |
| <b>R</b> | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |   |   |
|          | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|          | 1.260                | 2.559 | 1.961 | .866  | 0  | .787  |                                                                                     |                                                                                     |
|          | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
| <b>L</b> | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |  |  |
|          | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
| <b>L</b> | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |  |  |
|          | 1.575                | 2.717 | 1.921 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 1.969                | 2.717 | 1.921 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 2.913 | 2.039 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.953 | 2.157 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 1.969                | 2.953 | 2.157 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
| <b>L</b> | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |  |  |
|          | 2.480                | 3.150 | 2.276 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 3.386 | 2.591 | 1.063 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 1.969                | 3.386 | 2.591 | 1.378 | 0  | 1.063 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |
|          | 2.480                | 3.583 | 2.709 | 1.772 | 0  | 1.378 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number              |
|-----------|----------------------------|
| <b>H</b>  | GY00475/0500/0524H-Breaker |
| <b>J</b>  | GY00600/0631/0635J-Breaker |

| For Grooving/Cutting off > F011, F012 |                |               |       |          |               |                  |
|---------------------------------------|----------------|---------------|-------|----------|---------------|------------------|
| Seat Size                             | Breaker        | GU            | GS    | GM       | 05-GM         | GFGS             |
|                                       |                | (Gummy Steel) | (Low) | (Medium) | (Cutting off) | (Hardened steel) |
| <b>H</b>                              | .187", 4.75 mm | ●             | ●     | ●        | ●             | ●                |
|                                       | .197", 5.00 mm | ●             | ●     | ●        | ●             | ●                |
| <b>J</b>                              | .236", 6.00 mm | ●             | ●     | ●        | ●             | ●                |
|                                       | .250", 6.35 mm | ●             | ●     | ●        | ●             | ●                |

| For Multifunctional Grooving > F013, F014 |                |          |       |          |                      |
|-------------------------------------------|----------------|----------|-------|----------|----------------------|
| Seat Size                                 | Breaker        | MF       | MS    | MM       | BM                   |
|                                           |                | (Finish) | (Low) | (Medium) | (Copying, Recessing) |
| <b>H</b>                                  | .187", 4.75 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |
|                                           | RE .031"       | ●        | ●     | ●        | ●                    |
|                                           | .197", 5.00 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
| <b>J</b>                                  | .206", 5.24 mm | ●        | ●     | ●        | ●                    |
|                                           | .236", 6.00 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |
|                                           | RE .031"       | ●        | ●     | ●        | ●                    |
|                                           | .248", 6.31 mm | ●        | ●     | ●        | ●                    |
| <b>J</b>                                  | .250", 6.35 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

8-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

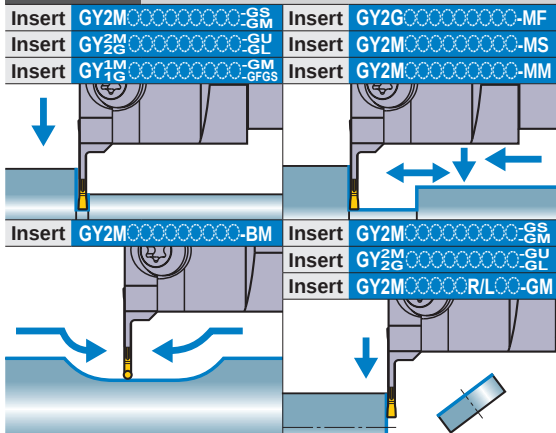


Fig. 1

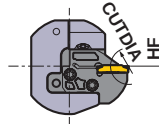
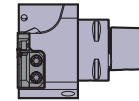
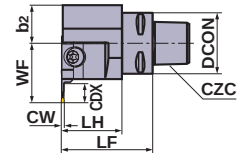
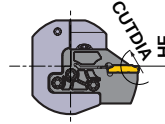


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|--------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |              |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| D         | .079<br>.088 | .236       | .472          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-D06   | ●     | 1    | C3  |  |
|           |              |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-D06   | ●     | 1    |     |  |
|           |              |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-D06   | ●     | 1    | C4  |  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-D06   | ●     | 1    |     |  |
|           |              | .394       | .787          | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-D06   | ●     | 1    | C5  |  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-D06   | ●     | 1    |     |  |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-D06   | ●     | 1    | C6  |  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-D06   | ●     | 1    |     |  |
|           |              | .472       | .945          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-D10   | ●     | 1    | C3  |  |
|           |              |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-D10   | ●     | 1    |     |  |
|           |              |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-D12   | ●     | 1    | C4  |  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-D12   | ●     | 1    |     |  |
|           |              | .709*4     | 1.417         | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-D12   | ●     | 1    | C5  |  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-D12   | ●     | 1    |     |  |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-D12   | ●     | 1    | C6  |  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-D12   | ●     | 1    |     |  |
|           |              | .787*1     | 1.575*2       | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LB-D18   | ●     | 2    | C3  |  |
|           |              |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RB-D18   | ●     | 2    |     |  |
|           |              |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-D20   | ●     | 2    | C4  |  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-D20   | ●     | 2    |     |  |
|           |              |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-D20   | ●     | 2    | C5  |  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-D20   | ●     | 2    |     |  |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-D20   | ●     | 2    | C6  |  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-D20   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

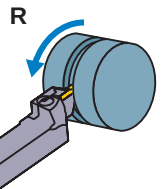
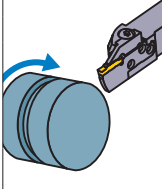
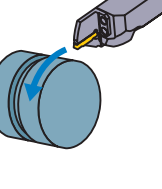
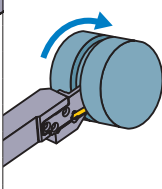
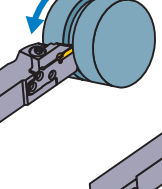
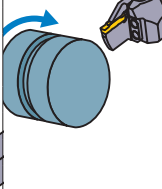
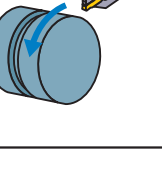
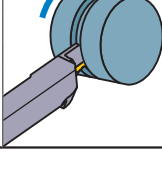
\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LCX90-M20L/R</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LD90-M25L/R</b>  |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LD90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LE90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | b2    | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |   |   |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |  |  |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |  |  |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |  |  |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number        |
|-----------|----------------------|
| D         | GY0200/0224D-Breaker |

|           |                | For Grooving/Cutting off |             |                |                        |                          | F011, F012 |  |
|-----------|----------------|--------------------------|-------------|----------------|------------------------|--------------------------|------------|--|
| Seat Size | Breaker        | GU<br>(Gummy Steel)      | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(hardened steel) |            |  |
| CW        |                | Neutral                  |             |                | Hand                   | Neutral                  |            |  |
| D         | .079", 2.00 mm | ●                        | ●           | ●              | ●                      | ●                        |            |  |

|           |                | For Multifunctional Grooving |             |                |                            | F013, F014 |  |
|-----------|----------------|------------------------------|-------------|----------------|----------------------------|------------|--|
| Seat Size | Breaker        | MF<br>(Finish)               | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |            |  |
| CW        |                |                              |             |                | Ball nose                  |            |  |
| D         | .079", 2.00 mm | ●                            | ●           | ●              | ●                          |            |  |
|           | .088", 2.24 mm | ●                            |             |                |                            |            |  |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

8-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

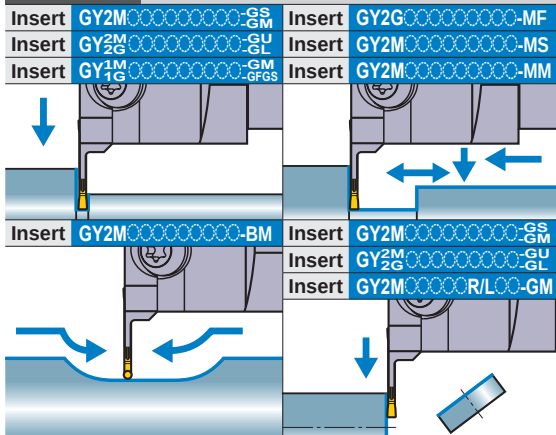


Fig. 1

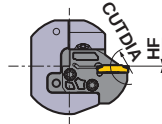
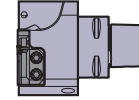
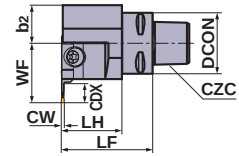
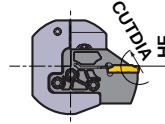


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| E         | .094<br>.098<br>.108 | .236       | .472          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-E06   | ●     | 1    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-E06   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-E06   | ●     | 1    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-E06   | ●     | 1    |     |  |
|           |                      | .394       | .787          | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-E06   | ●     | 1    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-E06   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-E06   | ●     | 1    | C6  |  |
|           |                      |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-E06   | ●     | 1    |     |  |
|           |                      | .472       | .945          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-E10   | ●     | 1    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-E10   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-E12   | ●     | 1    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-E12   | ●     | 1    |     |  |
|           |                      | .709*4     | 1.417         | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-E12   | ●     | 1    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-E12   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-E12   | ●     | 1    | C6  |  |
|           |                      |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-E12   | ●     | 1    |     |  |
|           |                      | .787*1     | 1.575*2       | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LB-E18   | ●     | 2    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RB-E18   | ●     | 2    |     |  |
|           |                      |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-E20   | ●     | 2    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-E20   | ●     | 2    |     |  |
|           |                      |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-E20   | ●     | 2    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-E20   | ●     | 2    |     |  |
|           |                      |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-E20   | ●     | 2    | C6  |  |
|           |                      |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-E20   | ●     | 2    |     |  |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

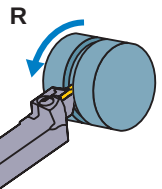
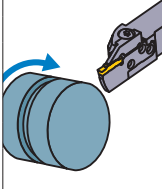
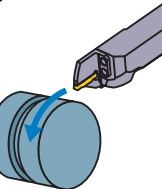
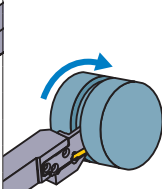
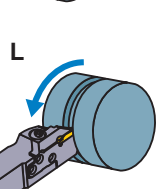
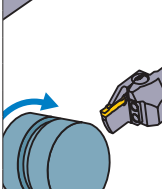
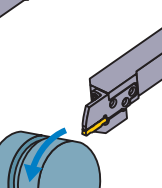
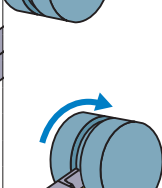
\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LCX90-M20L/R</b> |                                                                                     | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LD90-M25L/R</b>  | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LD90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LE90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | b2    | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |   |   |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |  |  |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |  |  |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |  |  |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                  |
|-----------|--------------------------------|
| E         | GY00239/0250/0274E0000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                | Hand                   | Neutral                  |
| E         | .094", 2.39 mm | ●                                     | ●           | ●              | ●                      | ●                        |
|           | .098", 2.50 mm | ●                                     | ●           | ●              | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| E         | .094", 2.39 mm | ●                                         |             |                |                            |
|           | .098", 2.50 mm | ●                                         | ●           | ●              | ●                          |
|           | .108", 2.74 mm | ●                                         |             |                |                            |

● : Gauge insert shown dimensions

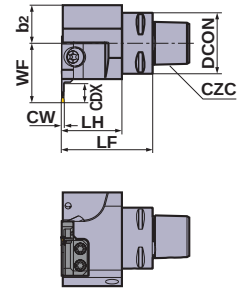
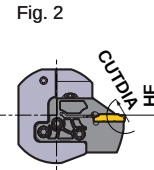
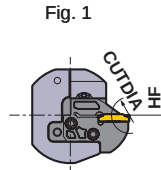
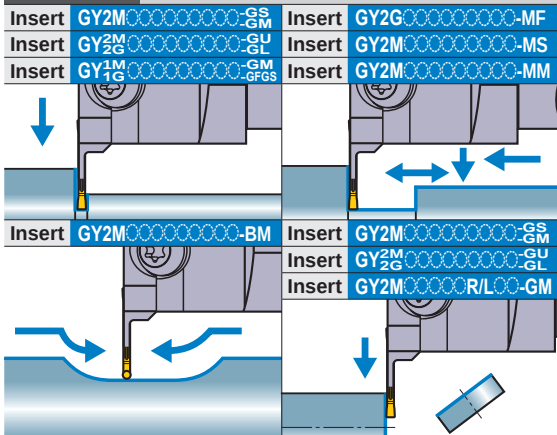
# GY SERIES (EXTERNAL GROOVING PSC TYPE)

8-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|----------------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |                      |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| F         | .118<br>.125<br>.128 | .236       | .472          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-F06   | ●     | 1    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-F06   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-F06   | ●     | 1    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-F06   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-F06   | ●     | 1    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-F06   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-F06   | ●     | 1    | C6  |  |
|           |                      |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-F06   | ●     | 1    |     |  |
|           |                      | .394       | .787          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-F10   | ●     | 1    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-F10   | ●     | 1    |     |  |
|           |                      | .472       | .945          | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-F12   | ●     | 1    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-F12   | ●     | 1    |     |  |
|           |                      |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-F12   | ●     | 1    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-F12   | ●     | 1    |     |  |
|           |                      | .709*4     | 1.417         | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LB-F18   | ●     | 2    | C3  |  |
|           |                      |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RB-F18   | ●     | 2    |     |  |
|           |                      | .787*1     | 1.575*2       | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-F20   | ●     | 2    | C4  |  |
|           |                      |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-F20   | ●     | 2    |     |  |
|           |                      |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-F20   | ●     | 2    | C5  |  |
|           |                      |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-F20   | ●     | 2    |     |  |
|           |                      |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-F20   | ●     | 2    | C6  |  |
|           |                      |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-F20   | ●     | 2    |     |  |
|           |                      |            |               |         |            |                  |       |               |       |      |     |  |
|           |                      |            |               |         |            |                  |       |               |       |      |     |  |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

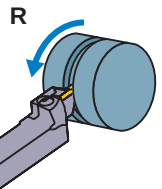
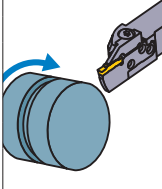
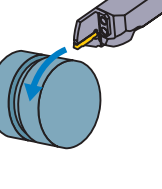
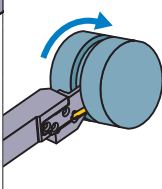
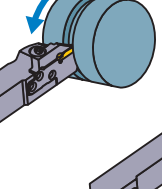
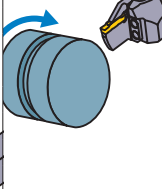
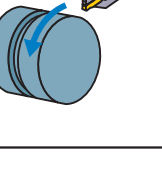
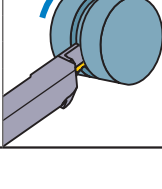
\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number        |  |  5 pcs. |  |
|----------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Clamp Screw          | Blade Screw                                                                         | Wrench ★                                                                                   |                                                                                     |
| C3-GYHR/LCX90-M20L/R | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| C4-GYHR/LD90-M25L/R  |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| C5-GYHR/LD90-M25L/R  |                                                                                     |                                                                                            |                                                                                     |
| C6-GYHR/LE90-M25L/R  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | b2    | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |   |   |
|  | 1.260                | 2.165 | 1.567 | 1.024 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.220 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.299 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |  |  |
|  | 2.480                | 2.756 | 1.882 | 1.575 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |  |  |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.496 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |  |  |
|  | 1.575                | 2.362 | 1.567 | 1.772 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.850 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.126 | 0  | 1.319 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number                 |
|-----------|-------------------------------|
| F         | GY0300/0318/0324F0000-Breaker |

|           |                | For Grooving/Cutting off > F011, F012 |             |                |                        |                          |
|-----------|----------------|---------------------------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size | Breaker        | GU<br>(Gummy Steel)                   | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|           |                | Neutral                               |             |                | Hand                   | Neutral                  |
| F         | .118", 3.00 mm | ●                                     | ●           | ●              | ●                      | ●                        |
|           | .125", 3.18 mm | ●                                     | ●           | ●              | ●                      | ●                        |

|           |                | For Multifunctional Grooving > F013, F014 |             |                |                            |
|-----------|----------------|-------------------------------------------|-------------|----------------|----------------------------|
| Seat Size | Breaker        | MF<br>(Finish)                            | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|           |                | Ball nose                                 |             |                |                            |
| F         | .118", 3.00 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
|           | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | RE .031"       | ●                                         | ●           | ●              | ●                          |
|           | .125", 3.18 mm | ●                                         | ●           | ●              | ●                          |
|           | RE .008"       | ●                                         | ●           | ●              | ●                          |
|           | RE .016"       | ●                                         | ●           | ●              | ●                          |
|           | .128", 3.24 mm | ●                                         | ●           | ●              | ●                          |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F010  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F201

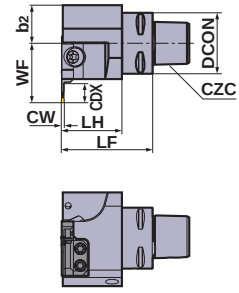
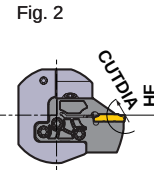
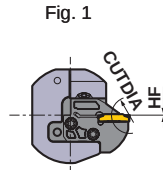
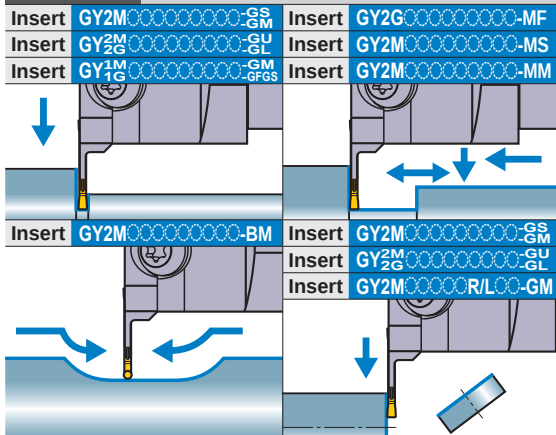
# GY SERIES (EXTERNAL GROOVING PSC TYPE)

8-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.

| Seat Size | CW (inch)    | CDX (inch) | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |
|-----------|--------------|------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|
|           |              |            |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |
| G         | .157<br>.167 | .315       | .630          | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-G08   | ●     | 1    | C4  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-G08   | ●     | 1    |     |
|           |              |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-G08   | ●     | 1    | C5  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-G08   | ●     | 1    |     |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-G08   | ●     | 1    | C6  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-G08   | ●     | 1    |     |
|           |              | .472       | .945          | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-G12   | ●     | 1    | C3  |
|           |              |            |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-G12   | ●     | 1    |     |
|           |              | .551       | 1.102         | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-G14   | ●     | 1    | C4  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-G14   | ●     | 1    |     |
|           |              |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-G14   | ●     | 1    | C5  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-G14   | ●     | 1    |     |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-G14   | ●     | 1    | C6  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-G14   | ●     | 1    |     |
|           |              | .984*1     | 1.969*2       | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-G25   | ●     | 2    | C4  |
|           |              |            |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-G25   | ●     | 2    |     |
|           |              |            |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-G25   | ●     | 2    | C5  |
|           |              |            |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-G25   | ●     | 2    |     |
|           |              |            |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-G25   | ●     | 2    | C6  |
|           |              |            |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-G25   | ●     | 2    |     |

CW = Cutting Width    CDX = Max. Groove Depth    CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

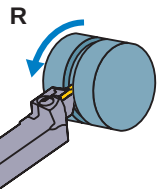
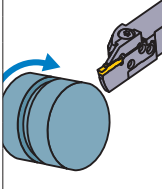
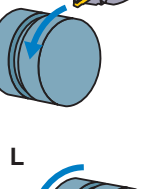
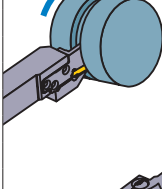
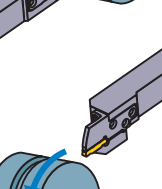
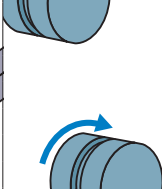
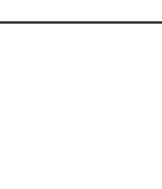
\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LCX90-M20L/R</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LD90-M25L/R</b>  |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LD90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LE90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |

|  | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|--|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | DCON                 | LF    | LH    | WF    | HF | b2    | Clockwise                                                                           | Anticlockwise                                                                       |
|  | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |   |   |
|  | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |  |  |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |  |  |
|  | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |                                                                                     |                                                                                     |
|  | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |  |  |
|  | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |
|  | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number          |
|-----------|------------------------|
| G         | GY 0400/0424G -Breaker |

| For Grooving/Cutting off |                   |                     |             |                |                        | > F011, F012             |
|--------------------------|-------------------|---------------------|-------------|----------------|------------------------|--------------------------|
| Seat Size                | Breaker<br><br>CW | GU<br>(Gummy Steel) | GS<br>(Low) | GM<br>(Medium) | 05-GM<br>(Cutting off) | GFGS<br>(Hardened steel) |
|                          |                   | Neutral             |             |                | Hand                   | Neutral                  |
| G                        | .157", 4.00 mm    | ●                   | ●           | ●              | ●                      | ●                        |

| For Multifunctional Grooving |                |                |             |                | > F013, F014               |
|------------------------------|----------------|----------------|-------------|----------------|----------------------------|
| Seat Size                    | Breaker        | MF<br>(Finish) | MS<br>(Low) | MM<br>(Medium) | BM<br>(Copying, Recessing) |
|                              | CW             |                |             |                | Ball nose                  |
| G                            | .157", 4.00 mm |                |             |                | ●                          |
|                              | RE .008"       | ●              | ●           | ●              |                            |
|                              | RE .016"       | ●              | ●           | ●              |                            |
|                              | RE .031"       | ●              |             | ●              |                            |
|                              | .167", 4.24 mm | ●              |             |                |                            |

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING PSC TYPE)

8-1

90° type holder (Inch)

Note 1) For modular blades and holders, please order separately.

Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.

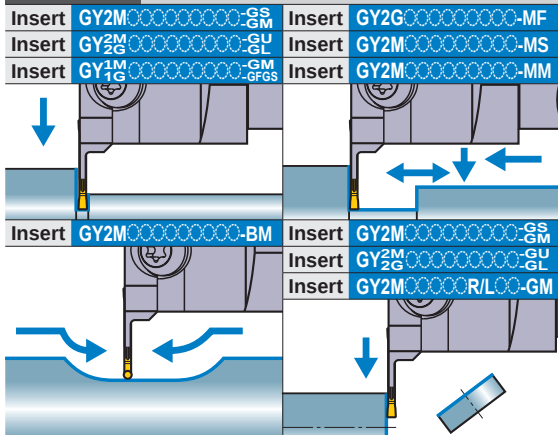


Fig. 1

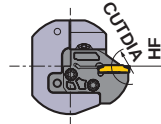
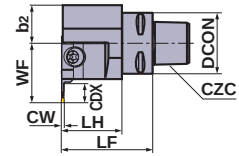
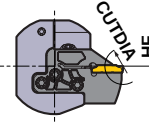


Fig. 2



Right hand tool holder shown.

| Seat Size | CW (inch)            | CDX (inch)           | CUTDIA (inch) | Type    | Hand (R/L) | Order Number     |       |               |       | Fig. | CZC |  |
|-----------|----------------------|----------------------|---------------|---------|------------|------------------|-------|---------------|-------|------|-----|--|
|           |                      |                      |               |         |            | Holder           | Stock | Modular Blade | Stock |      |     |  |
| H         | .187<br>.197<br>.206 | .315                 | .630          | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-H08   | ●     | 1    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-H08   | ●     | 1    |     |  |
|           |                      |                      |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-H08   | ●     | 1    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-H08   | ●     | 1    |     |  |
|           |                      | .472                 | .945          | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-H08   | ●     | 1    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-H08   | ●     | 1    |     |  |
|           |                      |                      |               | Modular | R          | C3-GYHRCX90-M20L | ●     | GYM20LA-H12   | ●     | 1    | C3  |  |
|           |                      |                      |               | Modular | L          | C3-GYHLCX90-M20R | ●     | GYM20RA-H12   | ●     | 1    |     |  |
|           |                      | .551                 | 1.102         | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-H14   | ●     | 1    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-H14   | ●     | 1    |     |  |
|           |                      |                      |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-H14   | ●     | 1    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-H14   | ●     | 1    |     |  |
| J         | .236<br>.248<br>.250 | .315                 | .630          | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-H14   | ●     | 1    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-H14   | ●     | 1    |     |  |
|           |                      | .551                 | 1.102         | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-H25   | ●     | 2    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-H25   | ●     | 2    |     |  |
|           |                      |                      |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-H25   | ●     | 2    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-H25   | ●     | 2    |     |  |
|           |                      | .984*1               | 1.969*2       | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-H25   | ●     | 2    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-H25   | ●     | 2    |     |  |
|           |                      |                      |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-J08   | ●     | 1    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-J08   | ●     | 1    |     |  |
|           |                      | .236<br>.248<br>.250 | .551          | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-J08   | ●     | 1    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-J08   | ●     | 1    |     |  |
|           |                      | .315                 | .630          | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-J08   | ●     | 1    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-J08   | ●     | 1    |     |  |
|           |                      | .551                 | 1.102         | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-J14   | ●     | 1    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-J14   | ●     | 1    |     |  |
|           |                      |                      |               | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-J14   | ●     | 1    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-J14   | ●     | 1    |     |  |
|           |                      | .984*1               | 1.969*2       | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-J14   | ●     | 1    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-J14   | ●     | 1    |     |  |
|           |                      |                      |               | Modular | R          | C4-GYHRD90-M25L  | ●     | GYM25LA-J25   | ●     | 2    | C4  |  |
|           |                      |                      |               | Modular | L          | C4-GYHLD90-M25R  | ●     | GYM25RA-J25   | ●     | 2    |     |  |
|           |                      | .236<br>.248<br>.250 | .551          | Modular | R          | C5-GYHRD90-M25L  | ●     | GYM25LA-J25   | ●     | 2    | C5  |  |
|           |                      |                      |               | Modular | L          | C5-GYHLD90-M25R  | ●     | GYM25RA-J25   | ●     | 2    |     |  |
|           |                      |                      |               | Modular | R          | C6-GYHRE90-M25L  | ●     | GYM25LA-J25   | ●     | 2    | C6  |  |
|           |                      |                      |               | Modular | L          | C6-GYHLE90-M25R  | ●     | GYM25RA-J25   | ●     | 2    |     |  |

CW = Cutting Width CDX = Max. Groove Depth CUTDIA = Max. Cut Off Diameter

\*1 The maximum groove depth (CDX) varies according to the insert used. Please refer to the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages F011 to F015.

\*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.

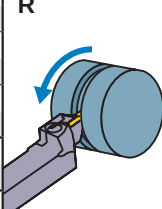
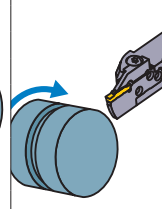
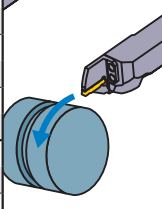
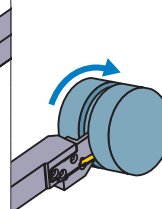
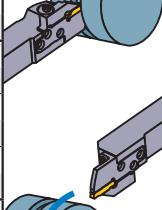
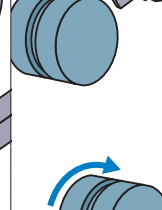
\*4 The maximum groove depth (CDX) is limited by the workpiece diameter. For details, please refer to page F208.

● : USA Stock

★ Wrench : ① : Clamp Screw, ② : Blade Screw

## SPARE PARTS

| Holder Number               |  |  5 pcs. |  |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | Clamp Screw                                                                         | Blade Screw                                                                                | Wrench ★                                                                            |
| <b>C3-GYHR/LCX90-M20L/R</b> | GY06013M<br>(Clamp Torque : 53 lbf-in)                                              | TS407<br>(Clamp Torque : 31 lbf-in)                                                        | ①TKY30R<br>②TKY15D                                                                  |
| <b>C4-GYHR/LD90-M25L/R</b>  |                                                                                     | TS55<br>(Clamp Torque : 44 lbf-in)                                                         | ①TKY30R<br>②TKY25D                                                                  |
| <b>C5-GYHR/LD90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |
| <b>C6-GYHR/LE90-M25L/R</b>  |                                                                                     |                                                                                            |                                                                                     |

|          | Dimensions (inch) ★3 |       |       |       |    |       | Cutting Mode                                                                        |                                                                                     |
|----------|----------------------|-------|-------|-------|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|          | DCON                 | LF    | LH    | WF    | HF | b2    | Clockwise                                                                           | Anticlockwise                                                                       |
| <b>R</b> | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |   |   |
|          | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|          | 1.260                | 2.165 | 1.567 | 1.260 | 0  | .787  |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
| <b>L</b> | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |  |  |
|          | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |
| <b>L</b> | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |  |  |
|          | 1.575                | 2.362 | 1.567 | 1.299 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.378 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 1.654 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.535 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 1.614 | 0  | 1.024 |                                                                                     |                                                                                     |
| <b>L</b> | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |  |  |
|          | 2.480                | 2.756 | 1.882 | 1.890 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 1.969 | 0  | .984  |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 1.969                | 2.362 | 1.567 | 2.047 | 0  | 1.024 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 2.480                | 2.756 | 1.882 | 2.323 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 2.480 | 0  | 1.319 |                                                                                     |                                                                                     |
|          | 1.575                | 2.362 | 1.567 | 2.480 | 0  | 1.319 |                                                                                     |                                                                                     |

### Select an Insert

| Seat Size | Insert Number              |
|-----------|----------------------------|
| <b>H</b>  | GY00475/0500/0524H-Breaker |
| <b>J</b>  | GY00600/0631/0635J-Breaker |

| For Grooving/Cutting off > F011, F012 |                |               |       |          |               |                  |
|---------------------------------------|----------------|---------------|-------|----------|---------------|------------------|
| Seat Size                             | Breaker        | GU            | GS    | GM       | 05-GM         | GFGS             |
|                                       |                | (Gummy Steel) | (Low) | (Medium) | (Cutting off) | (Hardened steel) |
| <b>H</b>                              | .187", 4.75 mm | ●             | ●     | ●        | ●             | ●                |
|                                       | .197", 5.00 mm | ●             | ●     | ●        | ●             | ●                |
| <b>J</b>                              | .236", 6.00 mm | ●             | ●     | ●        | ●             | ●                |
|                                       | .250", 6.35 mm | ●             | ●     | ●        | ●             | ●                |

| For Multifunctional Grooving > F013, F014 |                |          |       |          |                      |
|-------------------------------------------|----------------|----------|-------|----------|----------------------|
| Seat Size                                 | Breaker        | MF       | MS    | MM       | BM                   |
|                                           |                | (Finish) | (Low) | (Medium) | (Copying, Recessing) |
| <b>H</b>                                  | .187", 4.75 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |
|                                           | RE .031"       | ●        | ●     | ●        | ●                    |
|                                           | .197", 5.00 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
| <b>J</b>                                  | .206", 5.24 mm | ●        | ●     | ●        | ●                    |
|                                           | .236", 6.00 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |
|                                           | RE .031"       | ●        | ●     | ●        | ●                    |
|                                           | .248", 6.31 mm | ●        | ●     | ●        | ●                    |
| <b>J</b>                                  | .250", 6.35 mm | ●        | ●     | ●        | ●                    |
|                                           | RE .008"       | ●        | ●     | ●        | ●                    |
|                                           | RE .016"       | ●        | ●     | ●        | ●                    |

● : Gauge insert shown dimensions

GROOVING / CUTTING OFF

IDENTIFICATION > F010  
CUTTING CONDITIONS > F206  
INSTRUCTION MANUAL > F211

F205

# GROOVING / CUTTING OFF

## RECOMMENDED CUTTING SPEED (SFM) [For External Grooving / Cutting Off]

|   | Work Material                          | Hardness                    | Grade  | Cutting Speed (SFM) |     |     |     |     |     |      |
|---|----------------------------------------|-----------------------------|--------|---------------------|-----|-----|-----|-----|-----|------|
|   |                                        |                             |        | 165                 | 330 | 490 | 655 | 820 | 985 | 1640 |
| P | Mild Steel                             | ≤160HB                      | VP20RT |                     | 330 |     | 720 |     |     |      |
|   |                                        |                             | VP10RT |                     | 360 |     | 755 |     |     |      |
|   |                                        |                             | NX2525 |                     | 295 |     | 690 |     |     |      |
|   | Carbon Steel Alloy Steel               | 160—280HB                   | VP20RT |                     | 260 |     | 590 |     |     |      |
|   |                                        |                             | VP10RT |                     | 295 |     | 620 |     |     |      |
|   |                                        |                             | MY5015 |                     | 360 |     | 820 |     |     |      |
|   |                                        |                             | NX2525 |                     | 230 |     | 560 |     |     |      |
|   |                                        | 280HB≤                      | VP20RT |                     | 195 |     | 460 |     |     |      |
|   |                                        |                             | VP10RT |                     | 230 |     | 490 |     |     |      |
|   |                                        |                             | MY5015 |                     | 295 |     | 690 |     |     |      |
|   |                                        |                             | NX2525 |                     | 180 |     | 440 |     |     |      |
| M | Stainless Steel                        | ≤270HB                      | VP20RT |                     | 195 |     | 460 |     |     |      |
|   |                                        |                             | VP10RT |                     | 230 |     | 490 |     |     |      |
| K | Gray Cast Iron                         | Tensile Strength<br>≤300MPa | VP20RT |                     | 260 |     | 590 |     |     |      |
|   |                                        |                             | VP10RT |                     | 295 |     | 620 |     |     |      |
|   |                                        |                             | MY5015 |                     |     |     | 460 |     | 985 |      |
|   | Ductile Cast Iron                      | Tensile Strength<br>≤800MPa | VP20RT |                     | 195 |     | 460 |     |     |      |
|   |                                        |                             | VP10RT |                     | 230 |     | 490 |     |     |      |
|   |                                        |                             | MY5015 |                     |     |     | 295 |     | 690 |      |
| S | Heat Resistant Alloy<br>Titanium Alloy | —                           | VP20RT | 100                 | 195 |     |     |     |     |      |
|   |                                        |                             | VP10RT | 130                 | 230 |     |     |     |     |      |
|   |                                        |                             | RT9010 | 130                 | 230 |     |     |     |     |      |
| H | Hardened steel                         | 50HRC≤                      | BC8110 |                     | 260 |     | 395 |     |     |      |
|   |                                        |                             | MB8025 |                     | 260 |     | 395 |     |     |      |
| N | Aluminum Alloy                         | Content<br>Si<5%            | RT9010 |                     |     |     | 655 |     |     | 1640 |
|   | Aluminum Alloy                         | Content<br>5%≤Si≤10%        | RT9010 |                     |     |     | 655 |     |     | 1640 |
|   | Aluminum Alloy                         | Content<br>Si>10%           | RT9010 |                     | 330 |     | 655 |     |     |      |

Note 1) VP20RT is the first recommended grade for materials other than hardened steels.

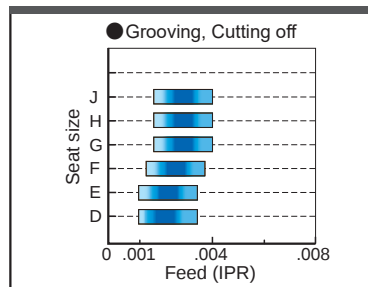
Note 2) For RT9010, VP10RT, VP20RT and MY5015, wet cutting is recommended.

# RECOMMENDED CUTTING CONDITIONS [For External Grooving / Cutting Off]

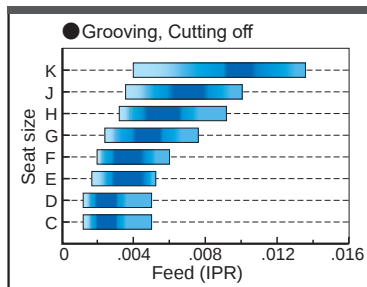
★Below are the recommended cutting conditions when using the modular type holder GYHR/L2525M00/90-M25R/L with the modular blade GYM25R/LA-○○○○.

## ■ Recommended feed rate and depth of cut

### GU BREAKER



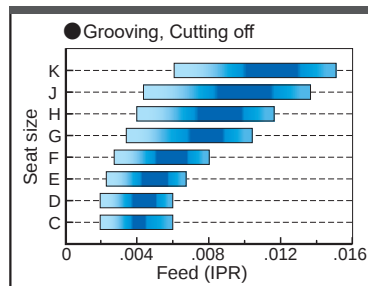
### GS BREAKER



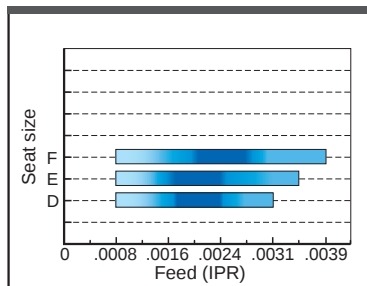
■ : 1st recommended area

| Seat Size |                |   |                |
|-----------|----------------|---|----------------|
|           | Insert Width   |   | Insert Width   |
| C         | .059", 1.50 mm | G | .157", 4.00 mm |
|           |                |   | .167", 4.24 mm |
| D         | .079", 2.00 mm | H | .187", 4.75 mm |
|           | .088", 2.24 mm |   | .197", 5.00 mm |
| E         | .094", 2.39 mm | J | .236", 6.00 mm |
|           | .098", 2.50 mm |   | .248", 6.31 mm |
| F         | .108", 2.74 mm | K | .250", 6.35 mm |
|           | .118", 3.00 mm |   | .315", 8.00 mm |
|           | .125", 3.18 mm |   |                |
|           | .128", 3.24 mm |   |                |

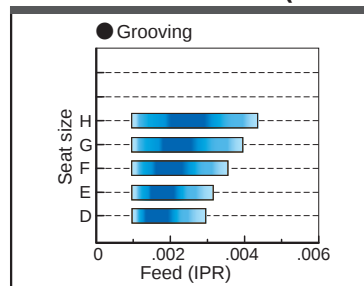
### GM BREAKER



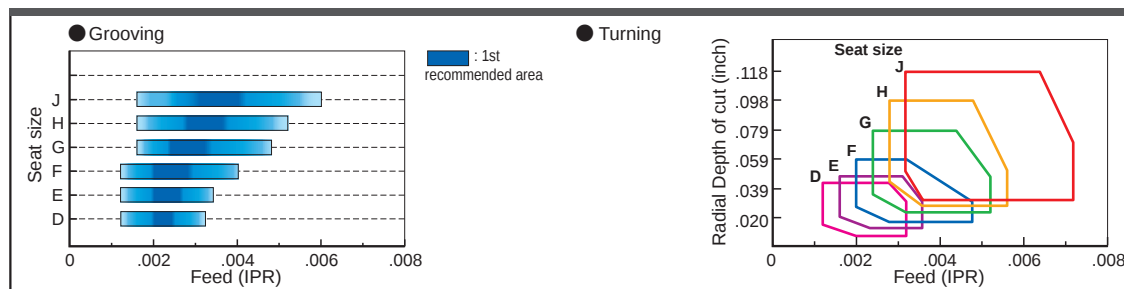
### GL BREAKER



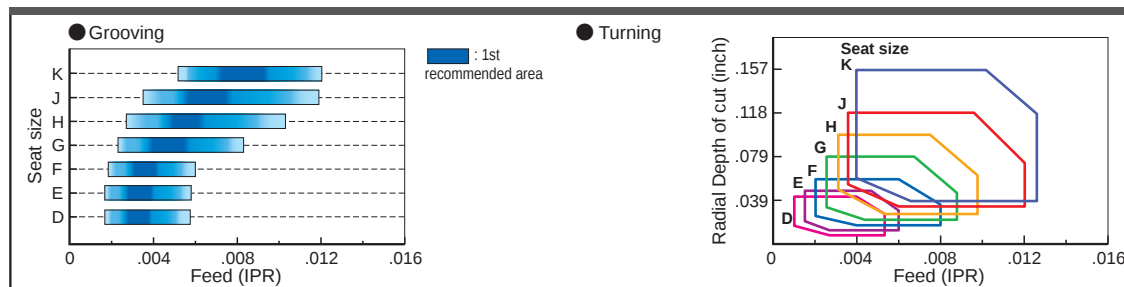
### FLAT TOP GFGS (CBN)



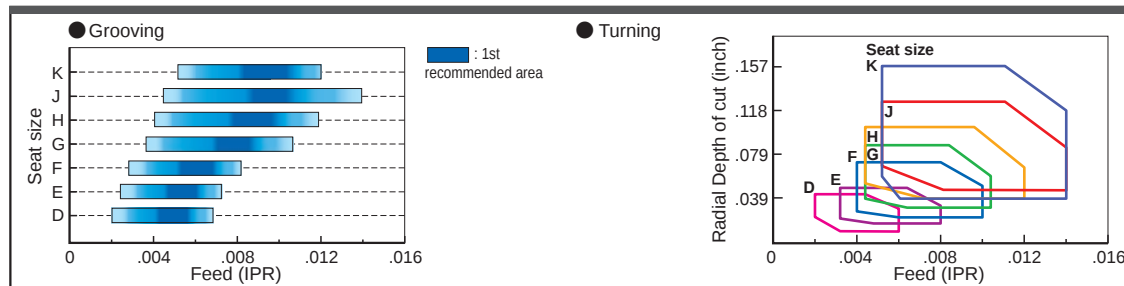
### MF BREAKER



### MS BREAKER



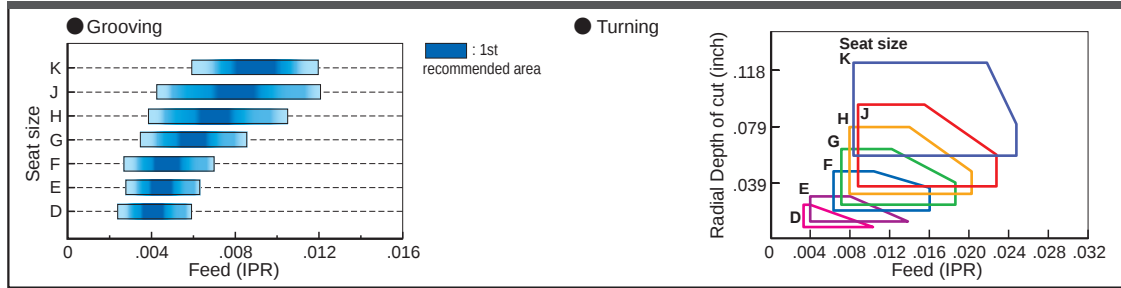
### MM BREAKER



# GROOVING / CUTTING OFF

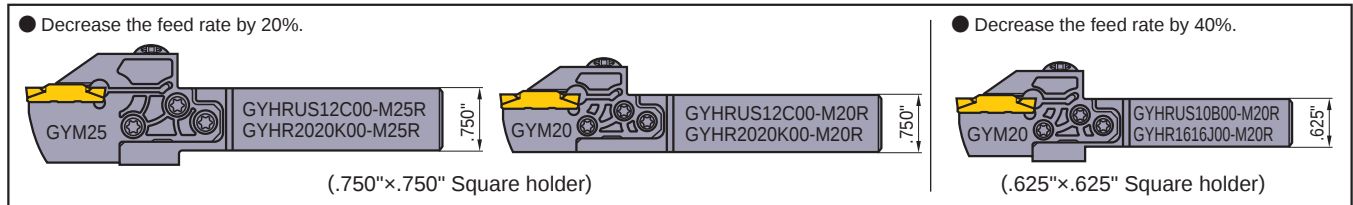
## Recommended feed rate and depth of cut

### BM BREAKER



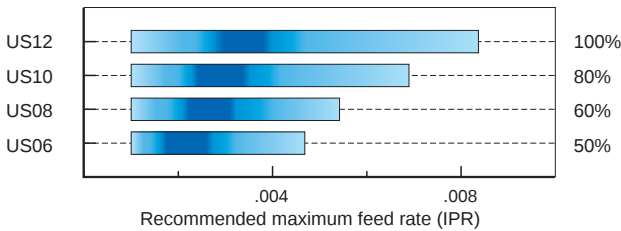
| Seat Size    |                |
|--------------|----------------|
| Insert Width |                |
| C            | .059", 1.50 mm |
| D            | .079", 2.00 mm |
| E            | .094", 2.39 mm |
| F            | .108", 2.74 mm |
| G            | .118", 3.00 mm |
| H            | .125", 3.18 mm |
| J            | .128", 3.24 mm |
| K            | .157", 4.00 mm |
| L            | .167", 4.24 mm |
| M            | .187", 4.75 mm |
| N            | .197", 5.00 mm |
| O            | .206", 5.24 mm |
| P            | .236", 6.00 mm |
| Q            | .248", 6.31 mm |
| R            | .250", 6.35 mm |
| S            | .315", 8.00 mm |

Note 1) When using a combination as shown below, decrease the recommended feed rate by 20% and 40% respectively.



F

### For Swiss style lathes mono block holder

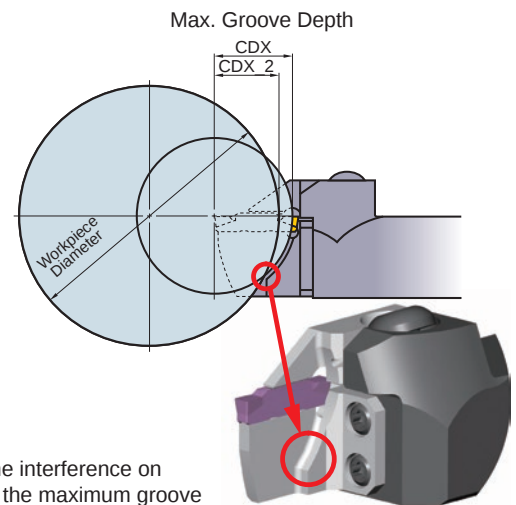
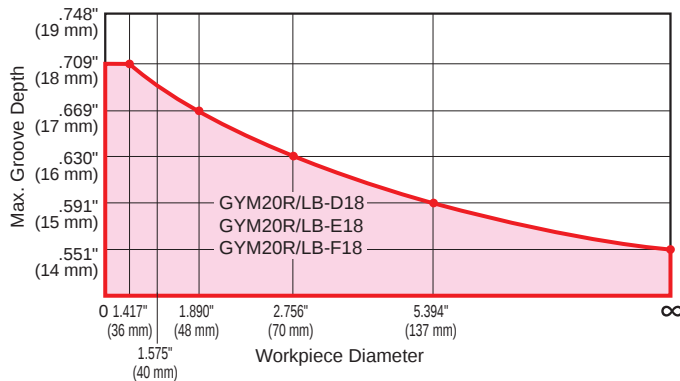


Please refer to the tables of recommended cutting conditions for external grooving. Apply the percentage ratio shown of each shank size to the values in those tables.

GROOVING / CUTTING OFF

## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For External Grooving]

- When using the modular blade GYM $\odot$ R/LA- $\odot\odot\odot$   
The maximum groove depth is not limited by the workpiece diameter.
- When using the modular blade GYM $\odot$ R/LB- $\odot\odot\odot$   
The maximum groove depth is limited by the workpiece diameter.

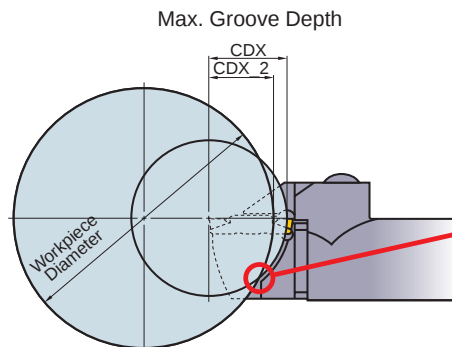


Due to the interference on this part, the maximum groove depth is limited by the workpiece diameter.

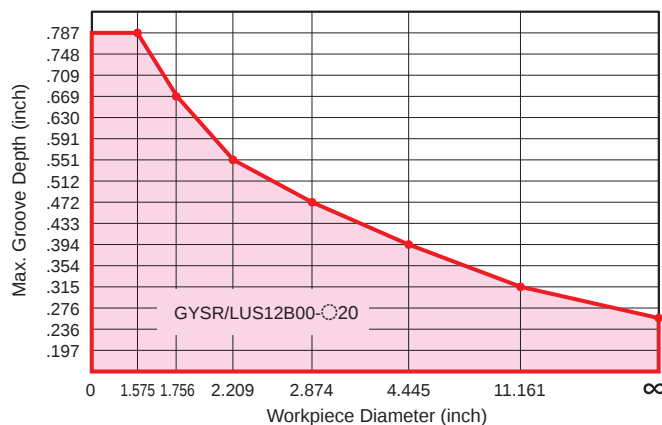
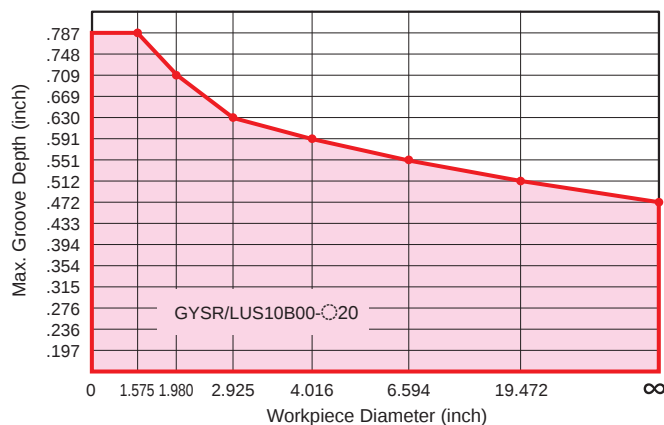
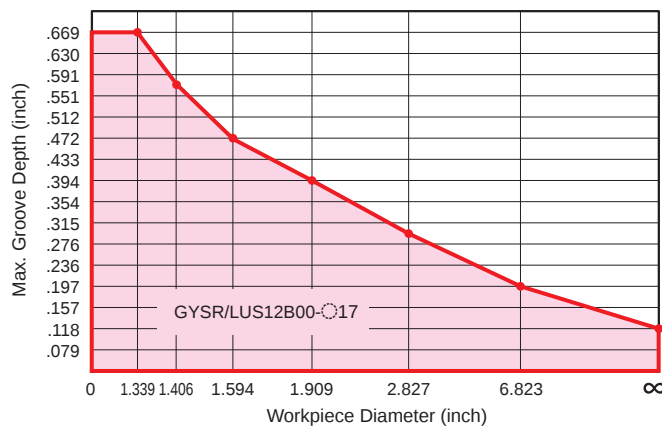
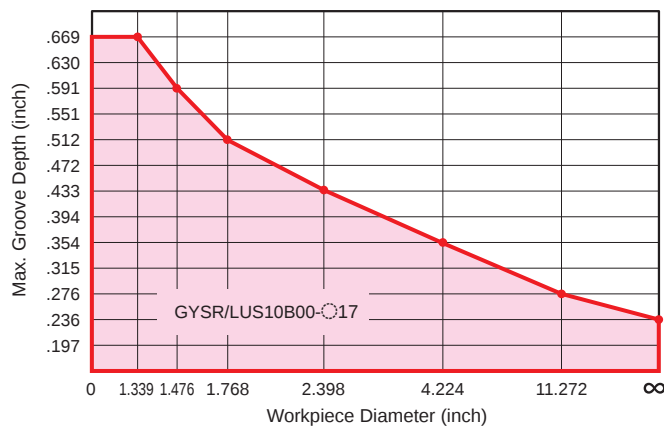
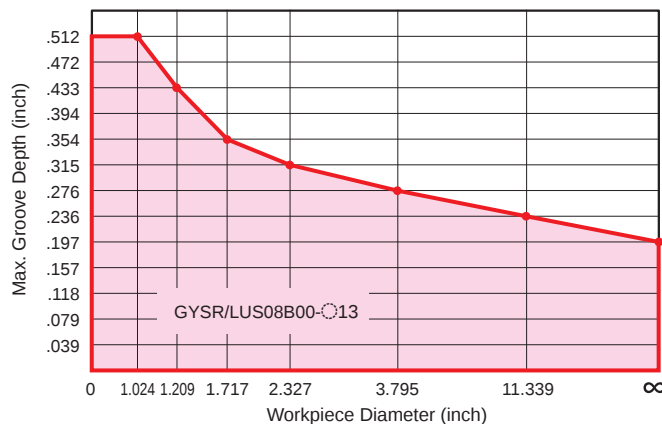
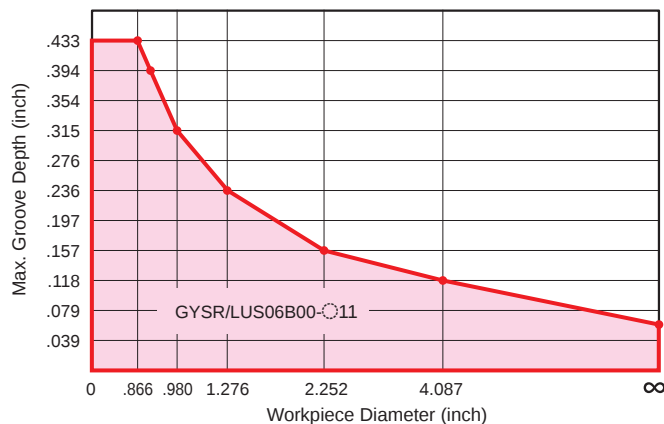
## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For External Grooving]

### •For Swiss style lathes mono block holder

The maximum groove depth is limited by the workpiece diameter.



Due to the interference on this part, the maximum groove depth is limited by the workpiece diameter.



# GROOVING / CUTTING OFF

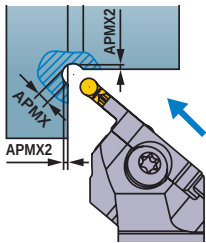
## RECOMMENDED CUTTING SPEED (SFM) [For External Recessing]

|   | Work Material               | Hardness                    | Grade  | Cutting Speed (SFM) |     |     |     |     |
|---|-----------------------------|-----------------------------|--------|---------------------|-----|-----|-----|-----|
|   |                             |                             |        | 165                 | 330 | 490 | 655 | 820 |
| P | Mild Steel                  | ≤180HB                      | VP20RT |                     | 260 | 590 |     |     |
|   |                             |                             | VP10RT |                     | 295 | 620 |     |     |
|   | Carbon Steel<br>Alloy Steel | 180—280HB                   | VP20RT | 195                 | 460 |     |     |     |
|   |                             |                             | VP10RT | 230                 | 490 |     |     |     |
|   |                             |                             | MY5015 |                     | 295 | 690 |     |     |
|   |                             | 280—350HB                   | NX2525 | 180                 | 440 |     |     |     |
|   |                             |                             | VP20RT | 165                 | 360 |     |     |     |
|   |                             |                             | VP10RT | 195                 | 395 |     |     |     |
|   |                             |                             | MY5015 |                     | 260 | 525 |     |     |
|   |                             |                             | NX2525 | 150                 | 345 |     |     |     |
| M | Stainless Steel             | ≤350HB                      | VP20RT | 165                 | 360 |     |     |     |
|   |                             |                             | VP10RT | 195                 | 395 |     |     |     |
| K | Gray Cast Iron              | Tensile Strength<br>≤350MPa | VP20RT | 195                 | 460 |     |     |     |
|   |                             |                             | VP10RT | 230                 | 490 |     |     |     |
|   |                             |                             | MY5015 |                     | 295 | 690 |     |     |
|   | Ductile Cast Iron           | Tensile Strength<br>≤800MPa | VP20RT | 165                 | 360 |     |     |     |
|   |                             |                             | VP10RT | 195                 | 395 |     |     |     |
|   |                             |                             | MY5015 |                     | 260 | 525 |     |     |
| S | Titanium Alloy              | —                           | VP20RT | 100                 | 195 |     |     |     |
|   |                             |                             | VP10RT | 130                 | 230 |     |     |     |
|   | Heat Resistant Alloy        | —                           | VP20RT | 100                 | 195 |     |     |     |
|   |                             |                             | VP10RT | 130                 | 230 |     |     |     |

Note 1) VP20RT is the first recommended grade for materials other than hardened steels.

Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

## DISTANCE FROM THE WORKPIECE TO THE RECESS DEPTH

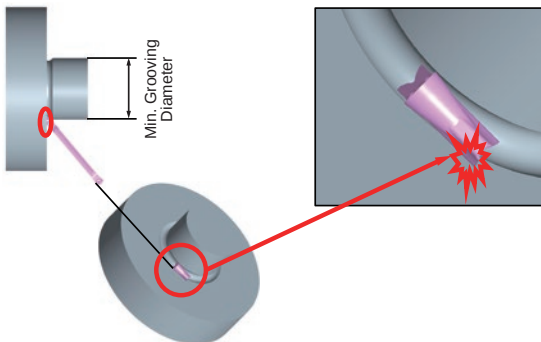


| Grooving Width<br>CW | Recessing Depth<br>APMX | Distance workpiece to the recess depth<br>APMX2 |
|----------------------|-------------------------|-------------------------------------------------|
| .079", 2.00 mm       | .059", 1.50 mm          | .025", 0.646 mm                                 |
| .098", 2.50 mm       | .069", 1.75 mm          | .028", 0.720 mm                                 |
| .118", 3.00 mm       | .079", 2.00 mm          | .031", 0.793 mm                                 |
| .125", 3.18 mm       | .082", 2.09 mm          | .032", 0.819 mm                                 |
| .157", 4.00 mm       | .098", 2.50 mm          | .037", 0.939 mm                                 |
| .187", 4.75 mm       | .113", 2.88 mm          | .041", 1.049 mm                                 |
| .197", 5.00 mm       | .118", 3.00 mm          | .043", 1.086 mm                                 |
| .236", 6.00 mm       | .138", 3.50 mm          | .049", 1.232 mm                                 |
| .250", 6.35 mm       | .145", 3.68 mm          | .051", 1.283 mm                                 |

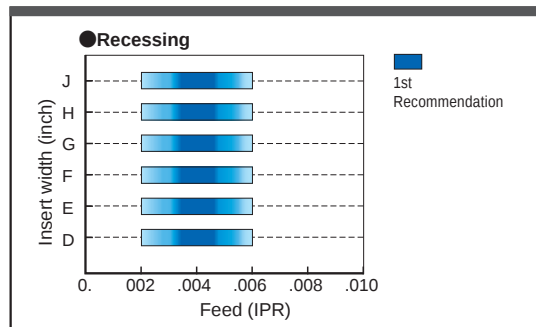
## BM BREAKER

### Minimum grooving diameter

Ensure the tool is suitable for the diameter being machined. Refer to the Min. Grooving Diameter as shown in the table on the first page to avoid a collision with the workpiece as shown below.



### Recommended feed rate and depth of cut



## TOOL SELECTION

### Notes when selecting the tool body

**Modular holder**

GYM25 GYHRUS16D00-M25R 1.000" ☒

Modular holder

GYM25 GYHRUS12C00-M25R .750" ☐

● To ensure sufficient clamping rigidity, select a modular holder with the largest possible shank size.

**Modular blade (1)**

GYM25 GYHRUS12C00-M25R .750" ☒

Modular holder

GYM20 GYHRUS12C00-M20R .750" ☐

● If there is no restriction for use, select the largest modular blade for the same shank size.

**Modular blade (2)**

☒ ☐

● Select the shortest possible blade suitable for the application.

**Modular blade (3)**

☒ ☐

● Select the shortest possible blade suitable for the application.

☒ : Recommended.

### Notes when setting the tool

**Setting of cutting edge height**

<Grooving/Cross-feed machining>  
Set the cutting edge height to  $\pm 0.004$ " parallel to the central axis.

<Cutting off>  
Set the cutting edge height to  $0 + 0.008$ " parallel to the central axis.

**Tool body setting angle**

90° 90°

● Set the insert perpendicular to the central axis.

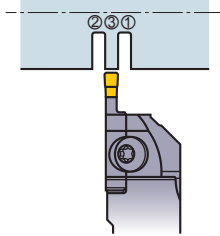
**Overhang**

● When setting the tool, ensure that the overhang is as short as possible and avoid the step difference part as above figure shows.

## MACHINING RECOMMENDATIONS

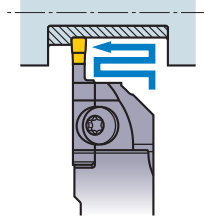
### Notes on multi-functional machining (MF·MS and MM breakers)

#### Machining narrow grooves



- It is recommended to carry out plunging in several passes. Following the steps above makes it difficult for chips to elongate. This also improves the accuracy of workpiece wall surface.

#### Machining wide grooves



- It is recommended that cross-feed machining is used.

#### Machining wide grooves

##### Roughing

① Carry out grooving.  
② Retract the tool approx .004".

③ Carry out cross feed machining.  
④ Retract the tool approx .004".

⑤ Carry out grooving.  
⑥ Retract the tool approx .004".  
\* Repeat the steps ①-⑥.

##### Finishing

⑦ Carry out grooving to the end point of the corner radius.

⑧ Machining of the wall surface, corner radius and bottom face should be carried out in one process.

##### Finishing

⑨ Stop at the bottom of the corner radius.

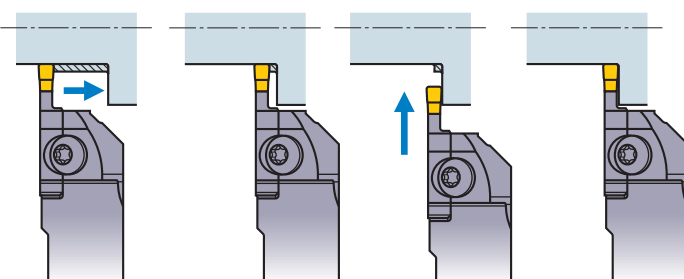
⑩ Machine the counter wall to the corner radius in one process.

⑪ Finish machining.

##### Precautions when finishing walls

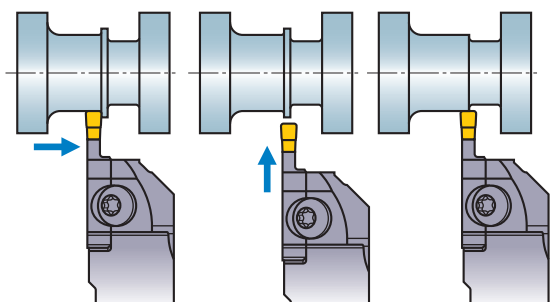
● To produce high accuracy walls using MS or MM breaker insert, do not carry out back turning. Plunging is recommended.

#### Wall machining



- When machining a wall, chip jamming can occur. In this case, stop cross feed machining just before the wall (at a point less than the insert width) then remove the remaining material by plunging.

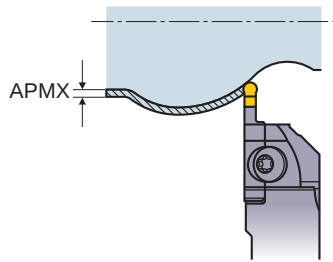
#### Machining of a ring section



- When a ring remains in a cross feed end process, finish cross feed machining .040"-.059" short of the end point, then remove the ring by plunging.

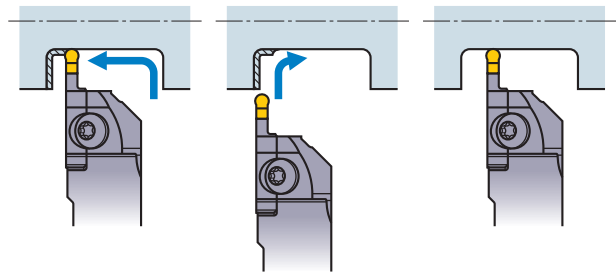
## Notes on multi-functional machining (BM breaker)

### Copying



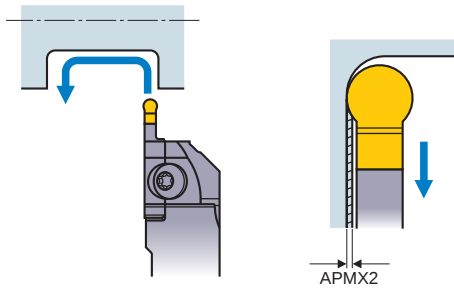
- With the BM breaker insert, 3 dimensional copying is possible. Set the depth of cut (APMX) to 40% less than the insert width.

### Roughing



- Use plunging and cross-feed machining. When machining the corner, vibration is likely to occur. To avoid this, reduce the feed by 50%.

### Finishing



- Carry out finishing in one process. For the depth of cut (APMX2) when back turning, refer to the table on the right.

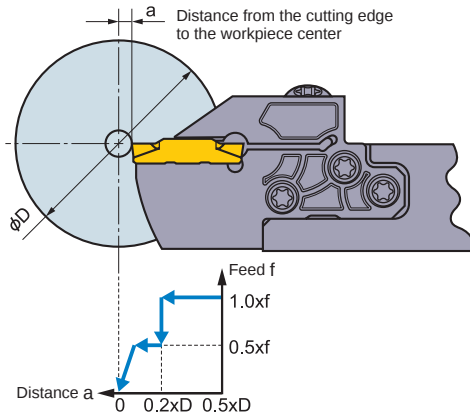
| Insert           | APMX2 (inch) |
|------------------|--------------|
| GY2M0200D100N-BM | .002         |
| GY2M0250E125N-BM | .004         |
| GY2M0300F150N-BM | .006         |
| GY2M0318F159N-BM | .006         |
| GY2M0400G200N-BM | .008         |
| GY2M0475H238N-BM | .009         |
| GY2M0500H250N-BM | .009         |
| GY2M0600J150N-BM | .012         |
| GY2M0635J318N-BM | .012         |
| GY2M0800K400N-BM | .016         |

## MACHINING RECOMMENDATIONS

### Notes for cutting off

#### feed

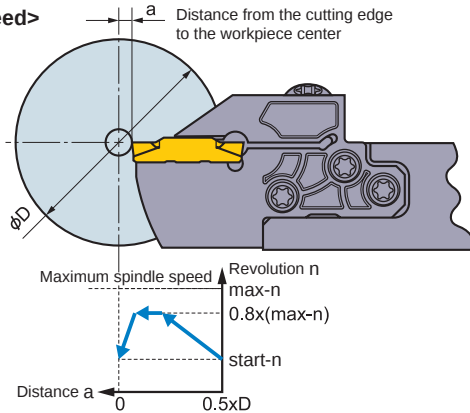
<Feed>



- When the cutting edge approaches the center, reduce the feed by 50%.
- If necessary, stop the feed prior to reaching the center of the workpiece. The part will fall off because of its own weight.

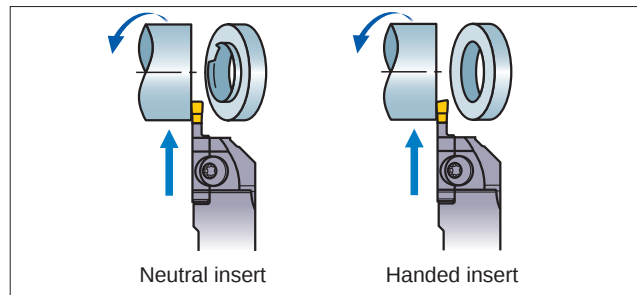
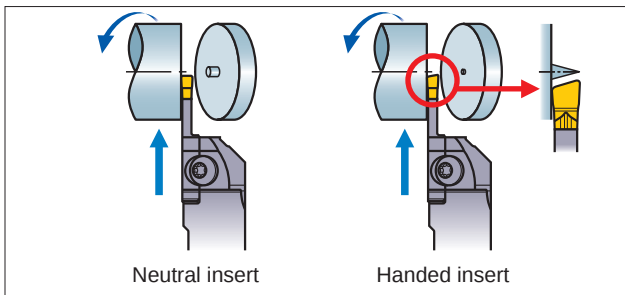
#### Revolution

<Spindle speed>



- When using constant cutting speed during a cutting off cycle, it is recommended to limit the spindle speed to 80% of maximum to ensure stability.
- To prevent the workpiece from being expelled, lower the spindle speed before finishing the grooving operation.

#### insert

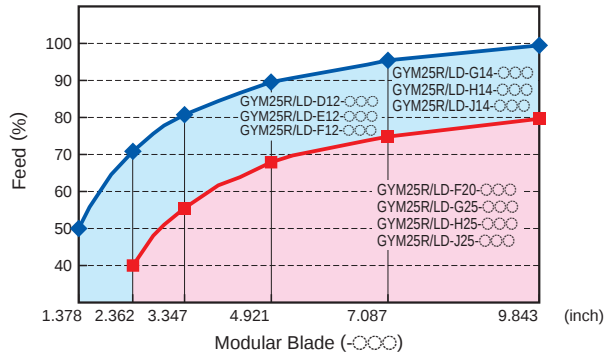


- When there is a center stub on solid bar work or burrs are formed on pipe material, it is possible to decrease them by using a handed insert. With a handed insert, machining tends to be less stable when compared to using a neutral insert. Pay special attention to avoid fracturing of the cutting edge and decrease the feed when necessary.



# GROOVING / CUTTING OFF

## RELATIONSHIP BETWEEN THE MODULAR BLADE AND FEED PER ROTATION [For Face Grooving]



Note 1) Adjust the feed per rotation in the cutting conditions to the percentage shown in the table above.

## RECOMMENDED CUTTING SPEED (SFM) [For Face Grooving]

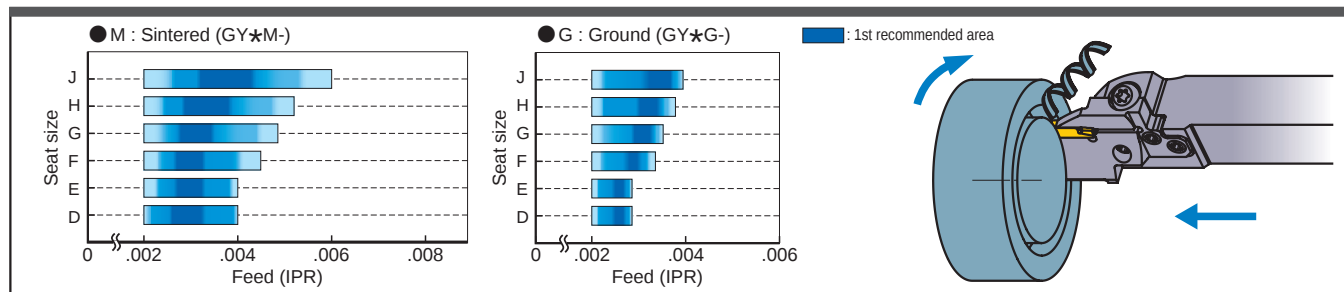
|   | Work Material                          | Hardness                    | Grade  | Cutting Speed (SFM) |     |     |     |     |     |
|---|----------------------------------------|-----------------------------|--------|---------------------|-----|-----|-----|-----|-----|
|   |                                        |                             |        | 165                 | 330 | 490 | 655 | 820 | 985 |
| F | Mild Steel                             | ≤160HB                      | VP20RT |                     | 260 | 590 |     |     |     |
|   |                                        |                             | VP10RT |                     | 295 | 620 |     |     |     |
|   |                                        |                             | NX2525 |                     | 230 | 560 |     |     |     |
|   | Carbon Steel<br>Alloy Steel            | 160—280HB                   | VP20RT | 195                 | 460 |     |     |     |     |
|   |                                        |                             | VP10RT | 230                 | 490 |     |     |     |     |
|   |                                        |                             | MY5015 | 295                 | 690 |     |     |     |     |
|   |                                        |                             | NX2525 | 180                 | 440 |     |     |     |     |
|   |                                        | 280HB≤                      | VP20RT | 165                 | 360 |     |     |     |     |
|   |                                        |                             | VP10RT | 195                 | 395 |     |     |     |     |
|   |                                        |                             | MY5015 | 260                 | 525 |     |     |     |     |
|   |                                        |                             | NX2525 | 150                 | 345 |     |     |     |     |
| M | Stainless Steel                        | ≤270HB                      | VP20RT | 165                 | 360 |     |     |     |     |
|   |                                        |                             | VP10RT | 195                 | 395 |     |     |     |     |
| K | Gray Cast Iron                         | Tensile Strength<br>≤300MPa | VP20RT | 195                 | 460 |     |     |     |     |
|   |                                        |                             | VP10RT | 230                 | 490 |     |     |     |     |
|   |                                        |                             | MY5015 | 295                 | 690 |     |     |     |     |
|   | Ductile Cast Iron                      | Tensile Strength<br>≤800MPa | VP20RT | 165                 | 360 |     |     |     |     |
|   |                                        |                             | VP10RT | 195                 | 395 |     |     |     |     |
|   |                                        |                             | MY5015 | 260                 | 525 |     |     |     |     |
| S | Heat Resistant Alloy<br>Titanium Alloy | —                           | VP20RT | 100 195             |     |     |     |     |     |
|   |                                        |                             | VP10RT | 130 230             |     |     |     |     |     |
|   |                                        |                             | RT9010 | 130 230             |     |     |     |     |     |
| H | Hardened steel                         | 50HRC≤                      | BC8110 | 195 330             |     |     |     |     |     |
|   |                                        |                             | MB8025 | 195 330             |     |     |     |     |     |

Note 1) VP20RT is the first recommended grade for materials other than hardened steels.

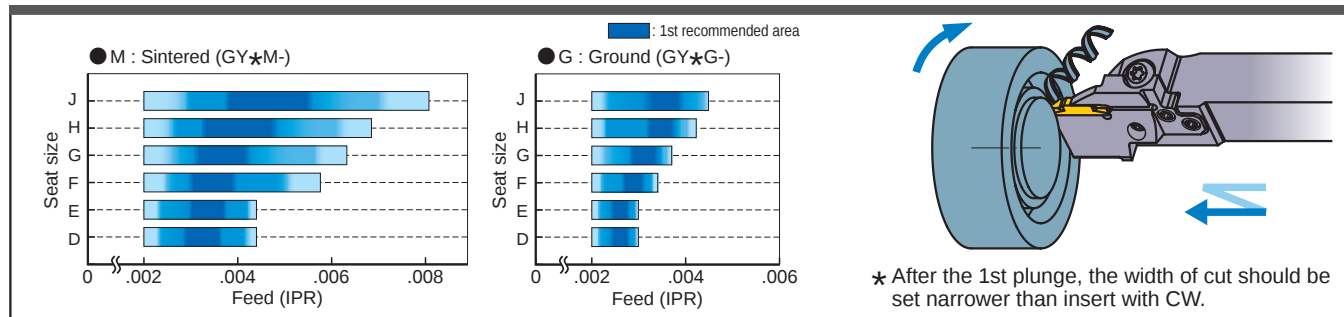
Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

# RECOMMENDED CUTTING CONDITIONS [For Face Grooving]

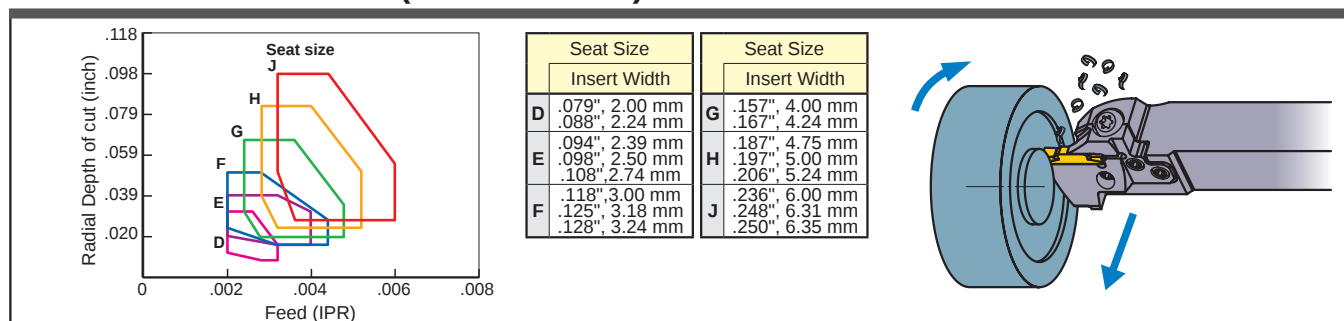
## GROOVING



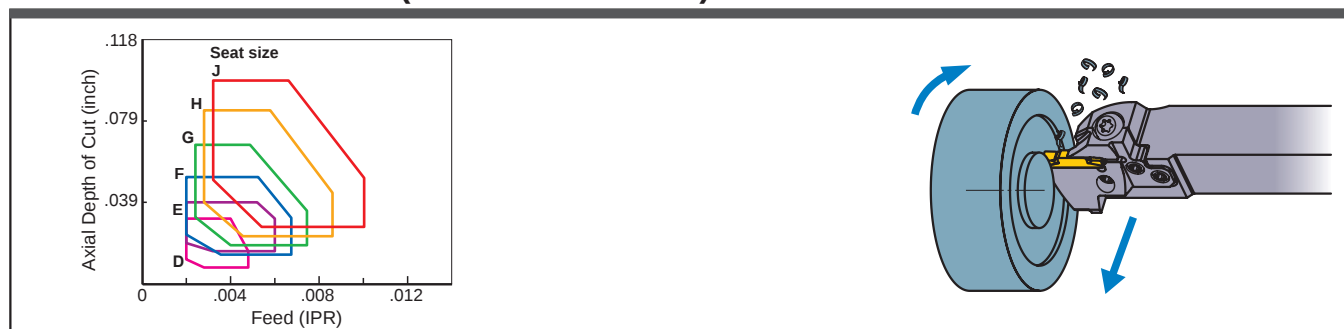
## PLUNGING



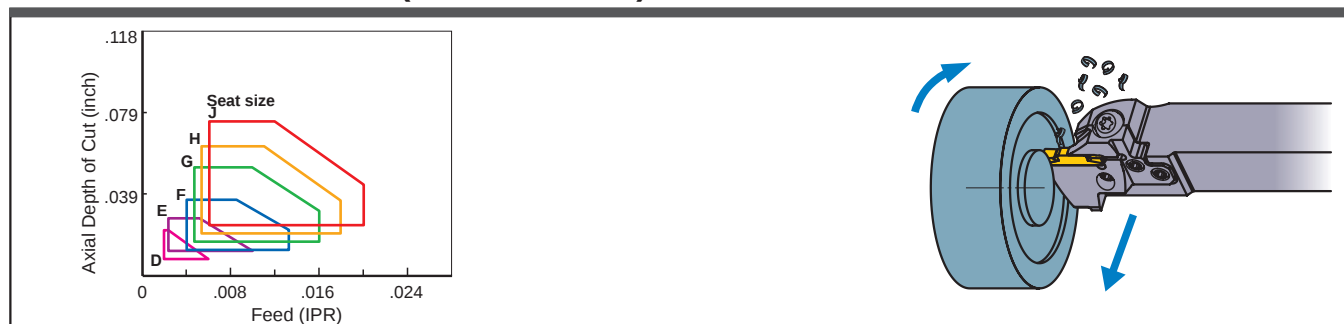
## TRAVERSE MACHINING (MF BREAKER)



## TRAVERSE MACHINING (MM/MS BREAKER)



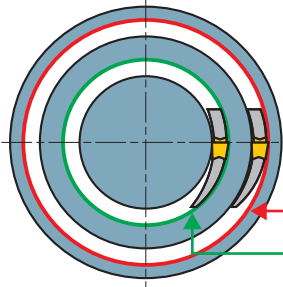
## TRAVERSE MACHINING (BM BREAKER)



## TOOL SELECTION

### Notes when selecting the tool body

#### Modular blade (1)

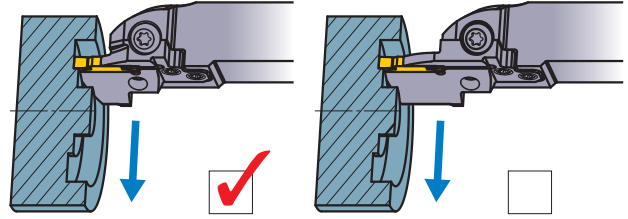


- Select a modular blade for face grooving, so that the cutting diameter at the first pass is within the range of DAXN and DAXX that are described in the table of dimensions.

DAXX (Max.)

DAXN (Min.)

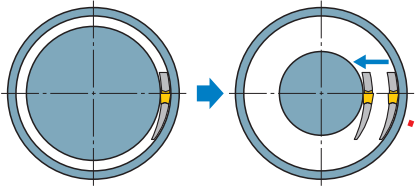
#### Modular blade (2)



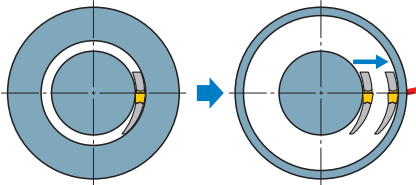
- Select the shortest possible blade suitable for the application.

#### Modular blade (3)

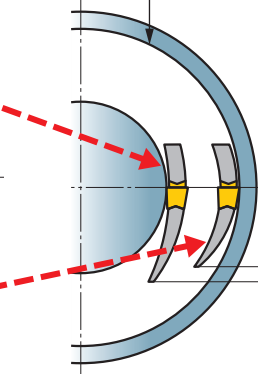
Good



NG



The maximum cutting diameter



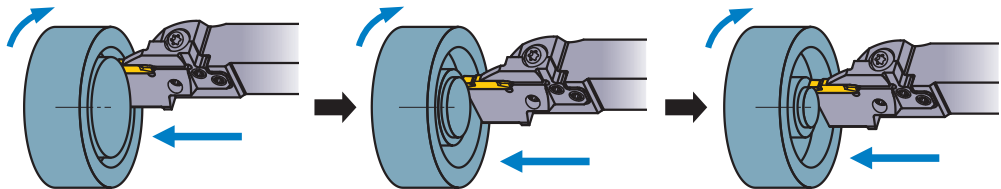
- Select the largest size blade within the maximum cutting diameter of the workpiece.

- Machine from the outer diameter towards the center.

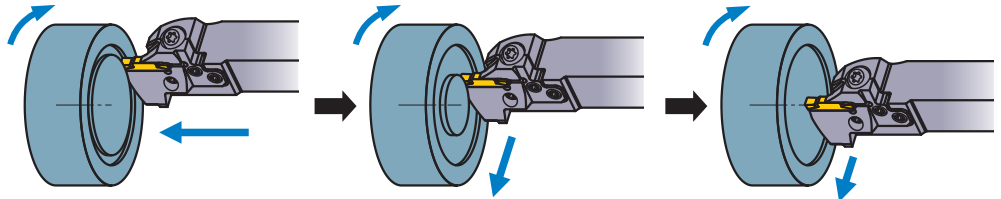
- Increased machining stability and rigidity is possible if a modular blade with the largest possible back metal is used.

- At first, machine the maximum cutting diameter, there is no restriction in the cutting diameter on the remaining process.

- When plunging in several passes.



- When combining plunging and infeed machining.



#### Modular holder



Modular holder

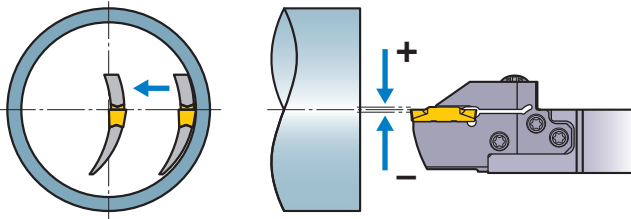


Modular holder

- To ensure sufficient clamping rigidity, select a modular holder with the largest possible shank size.

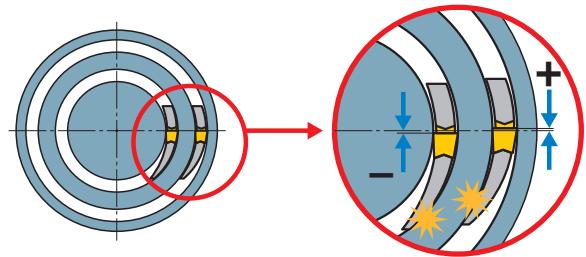
## Notes when setting the tool

### Setting the cutting edge height



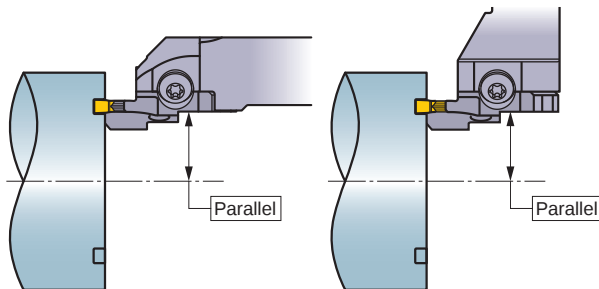
- Set the cutting edge height to  $\pm 0.004$ " parallel to the central axis.
- Cutting edge center height check should be done by traverse machining towards the center with a very small depth of cut and ensure that an even surface and no material remains at the center point afterwards.

### When interfering the wall of groove and the Modular blade



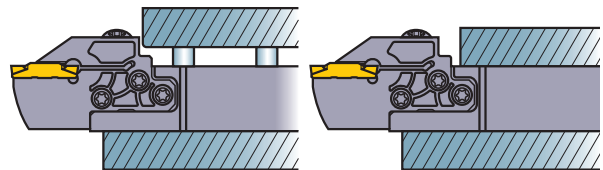
- If interference occurs even when the correct blade is used, the cutting edge height could be incorrect.
  - When interference occurs on the inner side of the blade, the cutting edge height is set too high.
  - When interference occurs on the outer side of the blade, the cutting edge height is set too low.

### Setting the tool



- Set the insert parallel to the central axis.

### Tool overhang



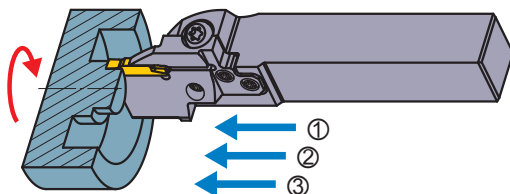
- When setting the tool, ensure that the overhang is as short as possible and avoid the step difference part as above figure shows.

## MACHINING RECOMMENDATIONS

### Notes when face grooving

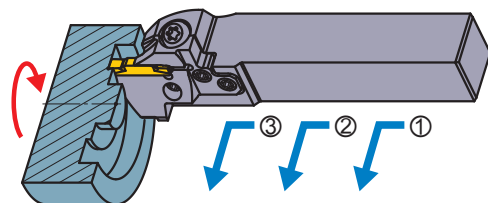
- Always machine from the outer diameter towards the center.

#### Machining narrow grooves



- Plunging in several passes is recommended.

#### Machining wide grooves

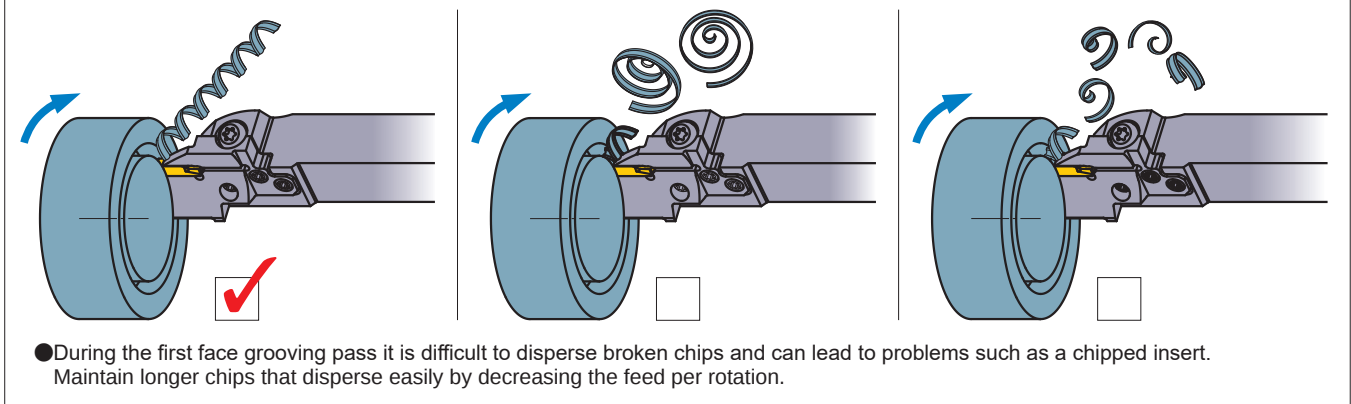


- Cross feed machining is recommended.

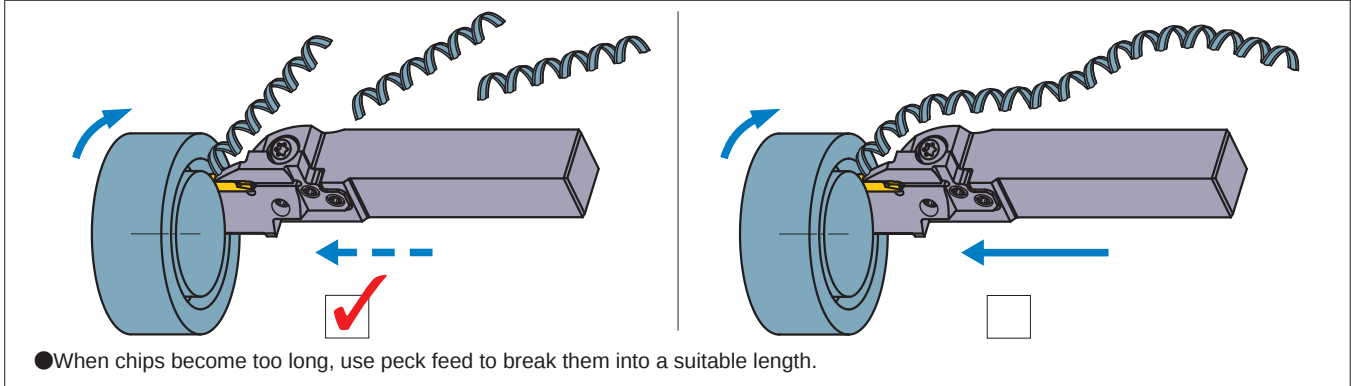
## MACHINING RECOMMENDATIONS

### Notes when face grooving

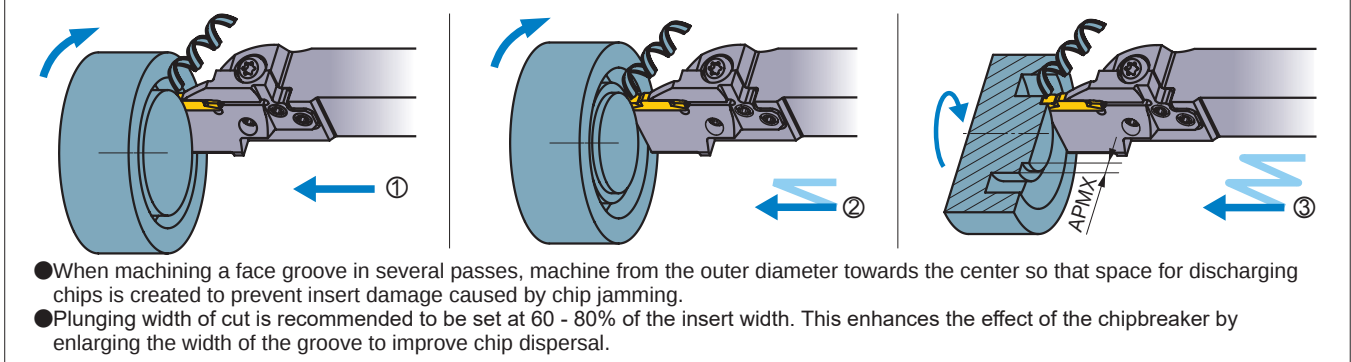
#### Notes on the first pass (1)



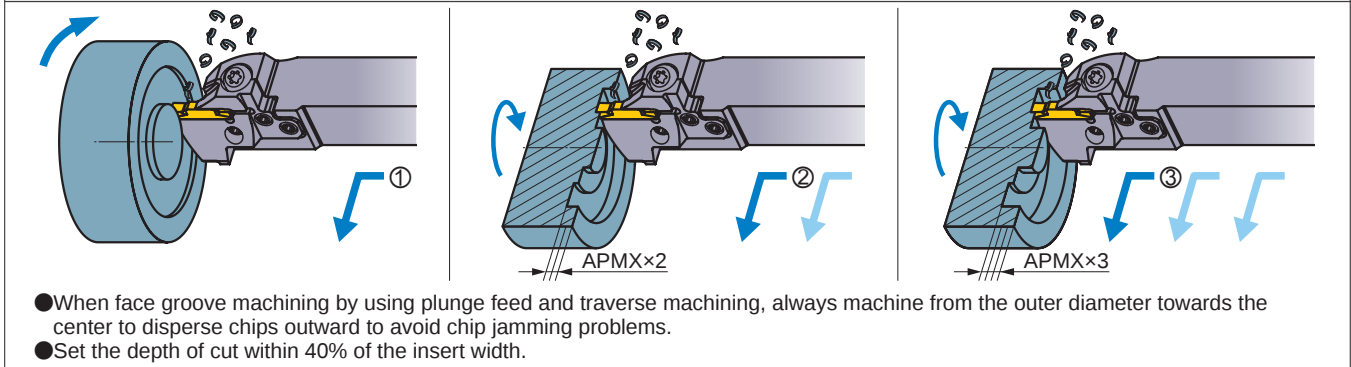
#### Notes on the first pass (2)



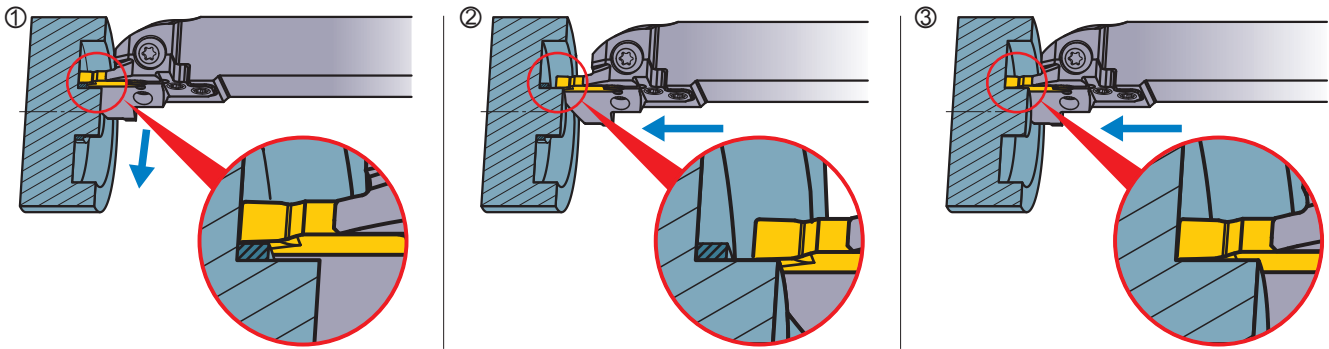
#### Notes when wide face grooving by plunging in several passes.



#### Notes when wide face grooving by combination of plunging and traverse machining (1)

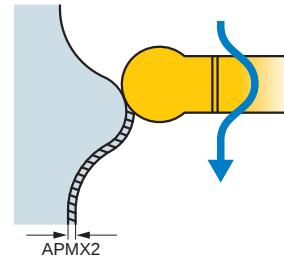
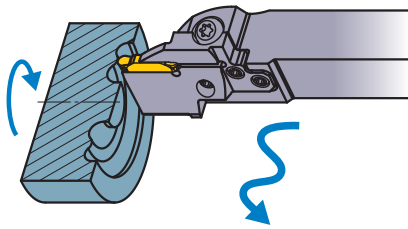


## Notes when wide face grooving by combination of plunging and traverse machining (2)



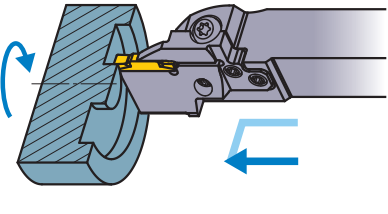
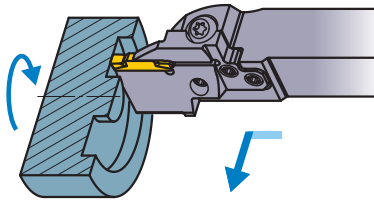
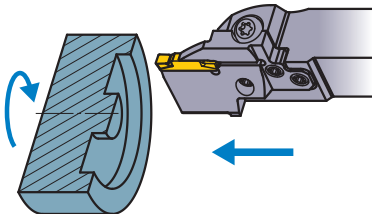
- When infeed machining at the bottom of deep groove, chips may interfere on the cutting edge near the center wall. In such cases, stop infeed machining just before the center wall (at a point less than the insert width) then remove the remaining material by plunging.

## Notes when copying (BM Breaker)



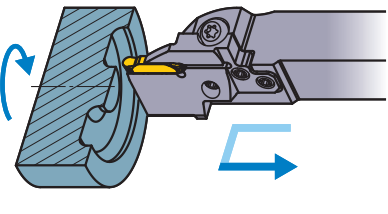
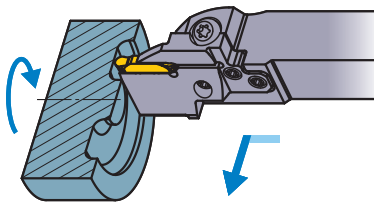
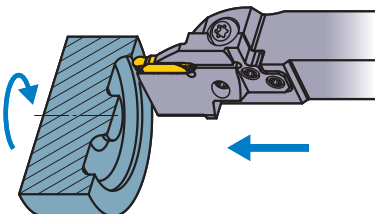
- With the BM breaker insert, 3 dimensional copying is possible. Set the depth of cut (APMX2) to 30% of the insert width.

## Finishing (1)

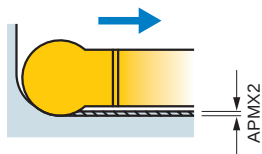


- When finish cutting, machine continuously from the outer wall to the bottom of the groove, then finally plunge cut the center wall.

## Finishing (2) (BM Breaker)



- Carry out finishing in one process.  
For the depth of cut (APMX2) when back turning, refer to the table on the right.



| Insert           | APMX2 (inch) |
|------------------|--------------|
| GY2M0200D100N-BM | .004         |
| GY2M0250E125N-BM |              |
| GY2M0300F150N-BM |              |
| GY2M0318F159N-BM | .006         |
| GY2M0400G200N-BM |              |
| GY2M0475H238N-BM |              |
| GY2M0500H250N-BM | .008         |
| GY2M0600J150N-BM |              |
| GY2M0635J318N-BM |              |
|                  | .010         |

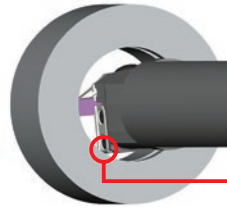
## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For Internal Grooving]

### •When using the mono block type

The maximum groove depth is not limited by the cutting diameter.

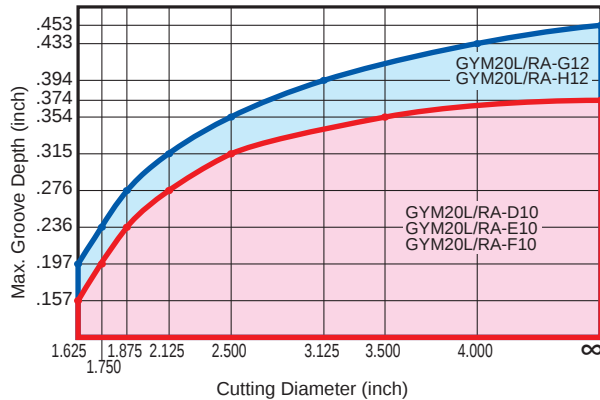
### •When using the modular blade type

The maximum groove depth is limited by the cutting diameter.

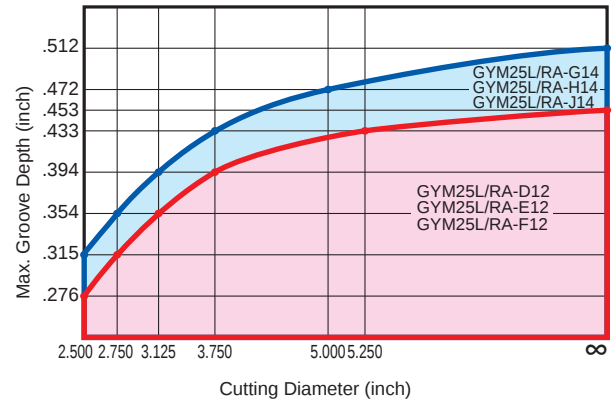


Due to interference of this part, the maximum groove depth is limited by the cutting diameter.

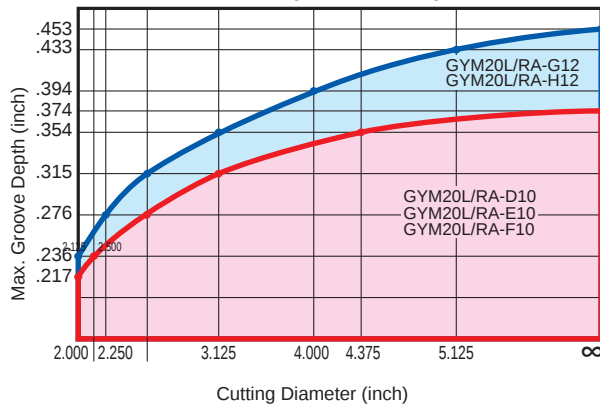
Shank Diameter=1.250 inch (GYM20 Blade)



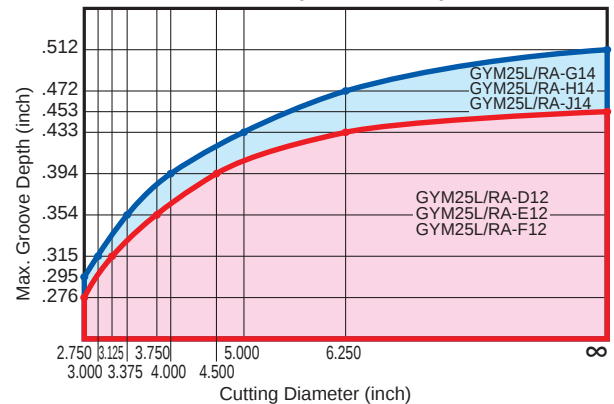
Shank Diameter=1.500 inch (GYM25 Blade)



Shank Diameter=1.500 inch (GYM20 Blade)



Shank Diameter=2.000 inch (GYM25 Blade)



## RECOMMENDED CUTTING SPEED (SFM) [For Internal Grooving]

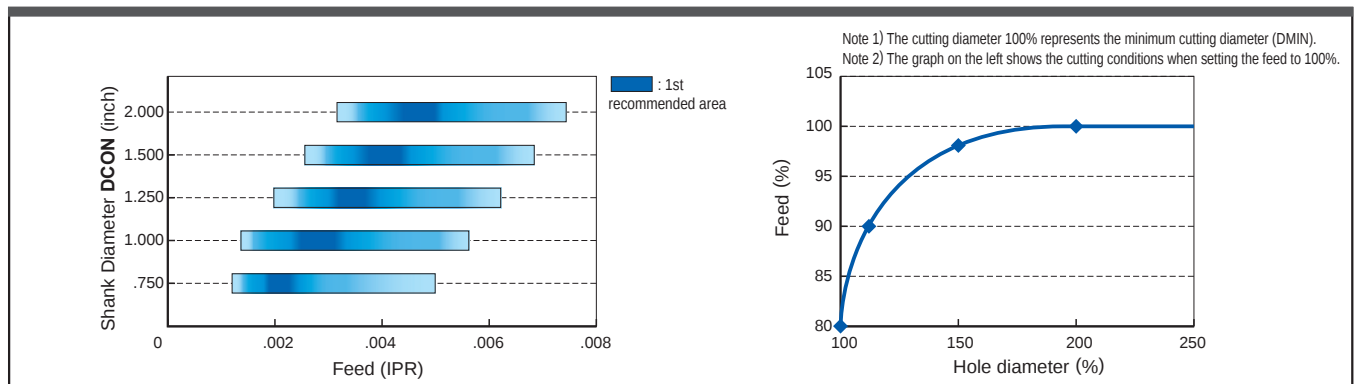
|   | Work Material                          | Hardness                    | Grade  | Cutting Speed (SFM) |     |     |     |     |      |      |
|---|----------------------------------------|-----------------------------|--------|---------------------|-----|-----|-----|-----|------|------|
|   |                                        |                             |        | 165                 | 330 | 490 | 655 | 820 | 985  | 1310 |
| P | Mild Steel                             | ≤160HB                      | VP20RT |                     | 260 | 590 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 295 | 620 |     |     |      |      |
|   |                                        |                             | NX2525 |                     | 230 | 560 |     |     |      |      |
|   | Carbon Steel<br>Alloy Steel            | 160—280HB                   | VP20RT |                     | 195 | 460 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 230 | 490 |     |     |      |      |
|   |                                        |                             | MY5015 |                     | 295 | 690 |     |     |      |      |
|   |                                        |                             | NX2525 |                     | 180 | 440 |     |     |      |      |
|   |                                        | 280HB≤                      | VP20RT |                     | 165 | 360 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 195 | 395 |     |     |      |      |
|   |                                        |                             | MY5015 |                     | 260 | 525 |     |     |      |      |
|   |                                        |                             | NX2525 |                     | 150 | 345 |     |     |      |      |
| M | Stainless Steel                        | ≤270HB                      | VP20RT |                     | 165 | 360 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 195 | 395 |     |     |      |      |
| K | Gray Cast Iron                         | Tensile Strength<br>≤300MPa | VP20RT |                     | 195 | 460 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 230 | 490 |     |     |      |      |
|   |                                        |                             | MY5015 |                     | 295 | 690 |     |     |      |      |
|   | Ductile Cast Iron                      | Tensile Strength<br>≤800MPa | VP20RT |                     | 165 | 360 |     |     |      |      |
|   |                                        |                             | VP10RT |                     | 195 | 395 |     |     |      |      |
| S | Heat Resistant Alloy<br>Titanium Alloy | —                           | RT9010 | 100                 | 195 |     |     |     |      |      |
|   |                                        |                             | VP10RT | 130                 | 230 |     |     |     |      |      |
|   |                                        |                             | RT9010 | 130                 | 230 |     |     |     |      |      |
| H | Hardened steel                         | 50HRC≤                      | BC8110 |                     | 195 | 330 |     |     |      |      |
|   |                                        |                             | MB8025 |                     | 195 | 330 |     |     |      |      |
| N | Aluminum Alloy                         | Content<br>Si<5%            | RT9010 |                     |     | 490 |     |     | 1310 |      |
|   | Aluminum Alloy                         | Content<br>5%≤Si≤10%        | RT9010 |                     |     | 490 |     |     | 1310 |      |
|   | Aluminum Alloy                         | Content<br>Si>10%           | RT9010 |                     | 260 | 525 |     |     |      |      |

Note 1) VP20RT is the first recommended grade for materials other than hardened steels.

Note 2) For RT9010, VP10RT, VP20RT and MY5015, wet cutting is recommended.

GROOVING / CUTTING OFF

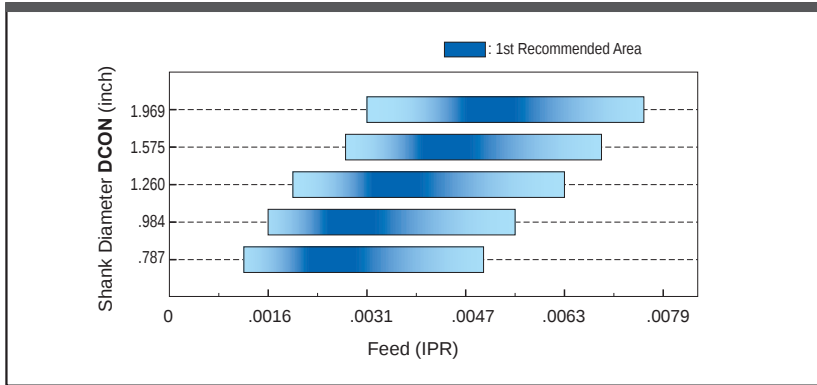
## GROOVING



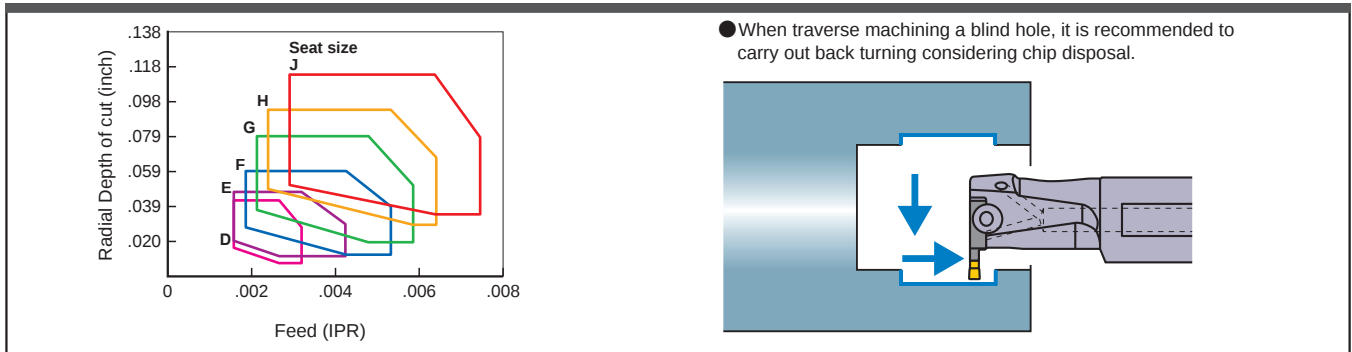
# GROOVING / CUTTING OFF

## RECOMMENDED CUTTING CONDITIONS [For Internal Grooving]

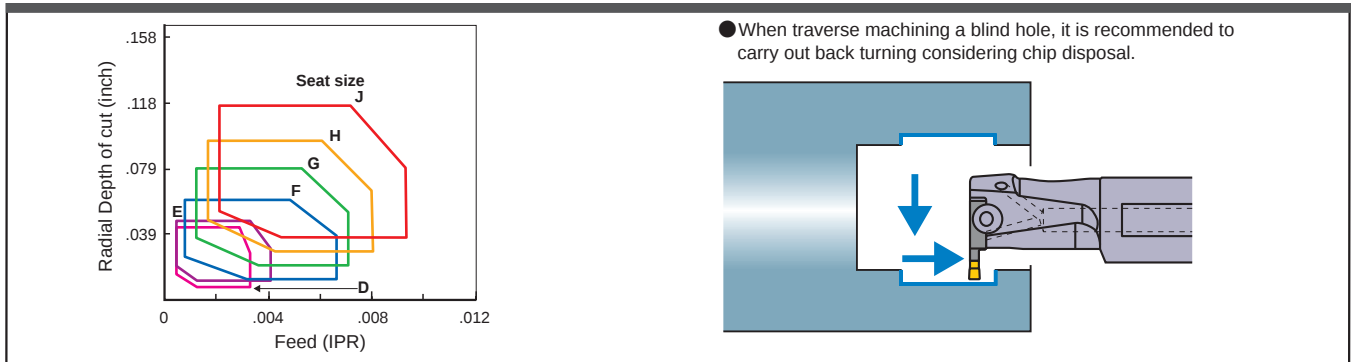
### GROOVING (GL BREAKER)



### TRAVERSE MACHINING (MF BREAKER)

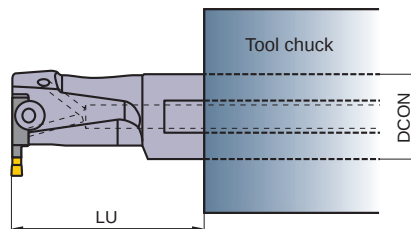


### TRAVERSE MACHINING (MM/MS BREAKER)



Note 1) The above cutting conditions are for when using the tool overhang (LU) 1.6-2.0 times larger than the shank diameter (DCON). (L/D=1.6-2.0)  
When using L/D larger than 2.0, reduce the cutting conditions.

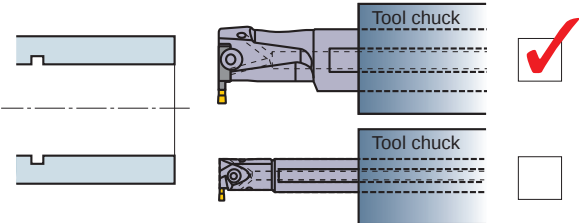
| Seat Size    |                |
|--------------|----------------|
| Insert Width |                |
| D            | .079", 2.00 mm |
|              | .088", 2.24 mm |
| E            | .094", 2.39 mm |
|              | .098", 2.50 mm |
| F            | .118", 3.00 mm |
|              | .125", 3.18 mm |
| G            | .157", 4.00 mm |
|              | .167", 4.24 mm |
| H            | .187", 4.75 mm |
|              | .197", 5.00 mm |
| J            | .236", 6.00 mm |
|              | .248", 6.31 mm |
|              | .250", 6.35 mm |



## TOOL SELECTION

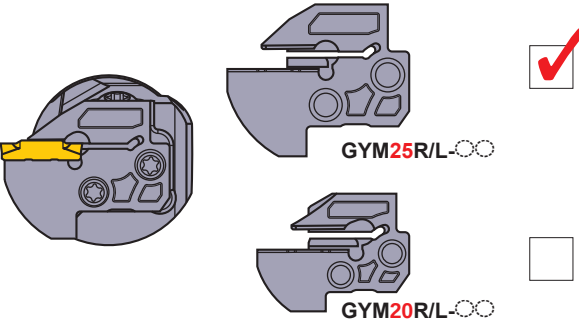
### Notes when selecting the tool body

**Holder**



● When the overhang is the same, select a holder with the largest possible shank size to ensure sufficient clamping rigidity.

**Modular blade (1)**



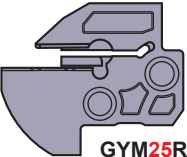
● For a  $\phi 1.5"$  &  $\phi 40$  mm shank holder, if there is no restriction for use, select a holder suitable for GYM25 blade.

**Modular blade (2)**



**GYM20R/LA-000**

GYM20R/LA-D10  
GYM20R/LA-E10  
GYM20R/LA-F10  
GYM20R/LA-G12  
GYM20R/LA-H12



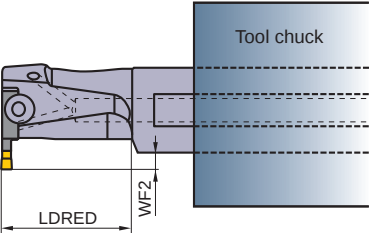
**GYM25R/LA-000**

GYM25R/LA-D12  
GYM25R/LA-E12  
GYM25R/LA-F12  
GYM25R/LA-G14  
GYM25R/LA-H14  
GYM25R/LA-J14

● For an internal holder, select a modular blade listed above.

### Notes when setting the tool

**Over hang**



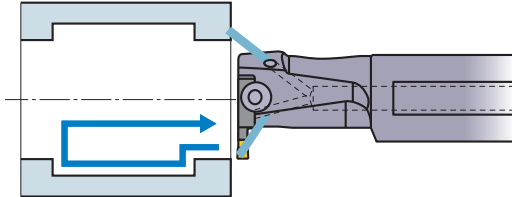
● The maximum groove depth is limited to the dimension LDRED. When machining with longer overhangs, refer to the dimension WF2 of the tool used.

## MACHINING RECOMMENDATIONS

### Notes on multi-function machining (MF, MS and MM breakers)

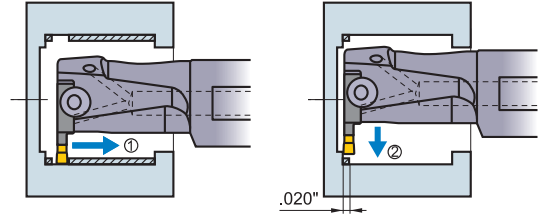
For internal grooving, the machining methods for external grooving (F212 – F213) can be used, but please note the following precautions.

#### Coolant



- Supply large amounts of coolant for effective chip disposal during cutting. Maintain supply until the tool has been retracted completely for improved chip disposal.

#### Machining blind holes



- As continuous chips tend to elongate at the back of the bore, the above operation is recommended. The recommended width of cut for ② is .020 inch.

### Machining Wide Grooves

#### Grooving

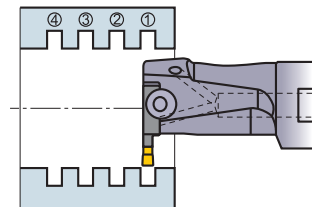
- When the insert width is  $x \geq$  groove width
- When the depth of cut is shallower than the insert width, continuous chips are usually produced. When plunging in several passes, it is recommended to carry out machining in the steps above. This ensures that coolant reaches the cutting edge and chips are easily discharged.

- When the insert width is  $x < 2 \times$  groove width
- When the groove depth is larger than the insert width, carry out plunging in the steps above to break up chips efficiently.

#### Turning

- When chip breaking and disposal are especially important, cross-feed machining is recommended.
- Wide face grooving when the corner R of the workpiece is equal to the corner R of the insert, machine as shown above. (When corner R of the workpiece is larger than corner R of the insert, refer to the description of external wide grooving.)
- If the groove depth exceeds a given level, chips may elongate at the wall. In such a case, increase the feed and carry out machining as shown above.

#### Machining instruction



- It is recommended to carry out grooving from the front end of the workpiece. This reduces workpiece deflection.



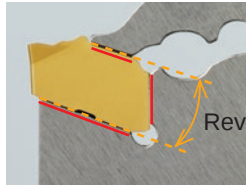
# GW Series NEW

## Easy to Utilize Configuration that Improves Tool Handling

### Clamp

#### Simple insert clamping method offering high rigidity.

To prevent the insert from being pulled out during machining a reverse taper angle has been designed from the front of the insert. Additionally the design also includes 3 large locating faces between the insert and the blade offering increased cutting edge reliability. The blade itself is made from a special alloy steel to suit this application.



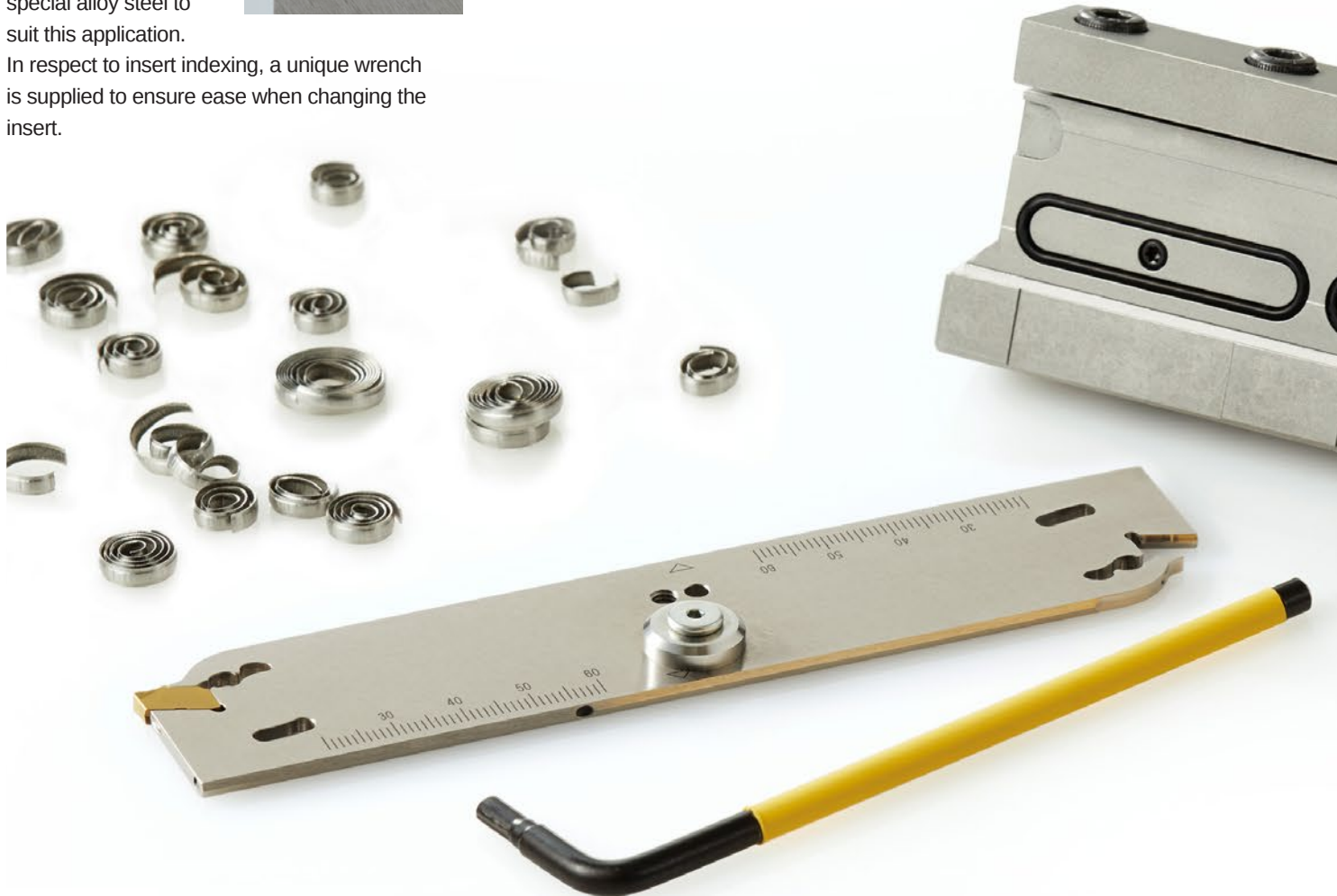
Reverse Taper Angle

In respect to insert indexing, a unique wrench is supplied to ensure ease when changing the insert.

### Voice of Developer

#### Just how easy is it to set an insert?

With the use of a unique wrench, it is possible to locate and remove the insert with one simple action making it easier for use in the workplace.



## Through Coolant Blade

### Increased wear resistance due to the use of 2 through coolant ejection holes.

2 through coolant holes supply the coolant to both the rake and flank face, leading to effective cutting edge cooling and increased wear resistance.

Additionally this blade can also be used for both low pressure and high pressure coolant (1000 PSI).



#### Voice of Developer

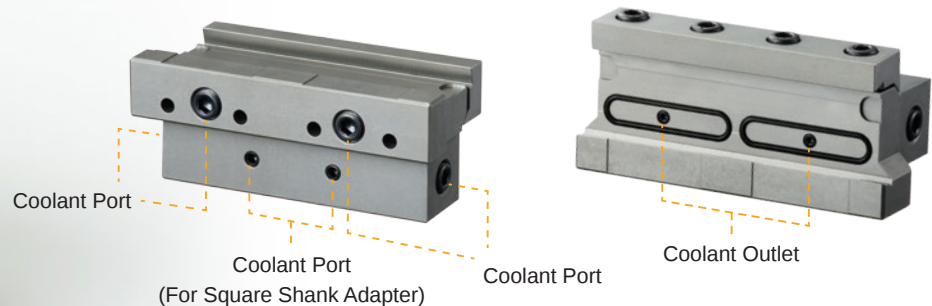
##### How is it possible to reduce heat generation?

The 2 coolant holes used in the blade are capable of using high coolant pressures of up to (1000 PSI). This is achieved by using as large as possible through coolant hole diameter. The ejection holes are located close to the cutting edge to improve the cutting edge cooling effect and increasing wear resistance.

## Coolant Ports

### Flexible set up possible with the use of 6 coolant ports.

There are 6 coolant ports designed into the tool block. This makes it easier for the end user to set up the tool block and blade to a configuration that suits their needs. If necessary it is also possible to use coolant hose. The ejection type coolant also improves cutting edge cooling and chip evacuation.



#### Voice of Developer

##### Possible set up to suit the requirements of the workplace environment.

One of the objectives of this product is to respond to the customers complaints that "the product did not fit and could not be used". Starting with the coolant outlet that prevents leaks even when oil quantity or overhangs change. Everything from the material and the shape of the O-ring, to the length of the hose has been tailored to the effective use in the workplace.

# Chip Breaker

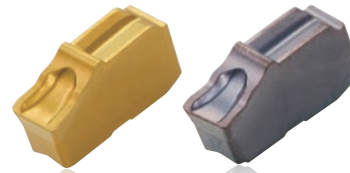
Breaker System Offering Excellent Chip Disposal Properties

## Low Feeds



**GS Breaker**

## Medium Feeds



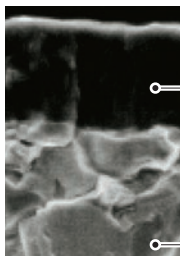
Neutral Right Hand / Left Hand

**GM Breaker**

## Insert Grades

| Work Material<br>Machining Condition                | P<br>Steel                                                       | M<br>Stainless Steel                            | K<br>Cast Iron                                  | S<br>Heat Resistant Alloy / Titanium Alloy |
|-----------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------------|
| Stable<br>↑<br>Machining Condition<br>↓<br>Unstable | <b>MY5015</b><br><b>VP10RT</b><br><b>VP20RT</b><br><b>VP30RT</b> | <b>VP10RT</b><br><b>VP20RT</b><br><b>VP30RT</b> | <b>MY5015</b><br><b>VP10RT</b><br><b>VP20RT</b> | <b>VP10RT</b><br><b>VP20RT</b>             |

### VP20RT (1st Recommendation)

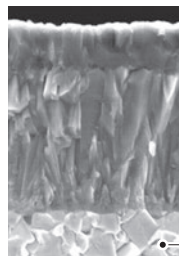


- PVD coated grade suitable for a wide range of applications. The combination of a special tough cemented carbide substrate with MIRACLE coating provides an excellent balance of wear and fracture resistance.

MIRACLE Coating

Carbide Substrate (90.5HRA)

### MY5015

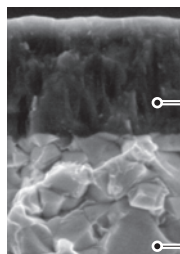


- MY5015 is a CVD coated grade with excellent wear resistance even at high temperatures. It provides longer tool life when machining cast and ductile cast irons. Also suitable for high speed continuous cutting of steels.

CVD Coated Carbide

Carbide Substrate

### VP10RT

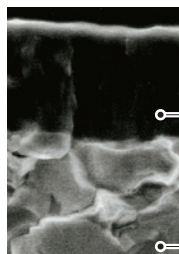


- PVD coated grade with a cemented carbide substrate harder than VP20RT. For use on difficult-to-cut materials and for extending tool life.

MIRACLE Coating

Carbide Substrate (92.0HRA)

### VP30RT



- A combination of a tough, special cemented carbide substrate and MIRACLE coating. Ideal for heavy interrupted cutting of stainless and general steels.

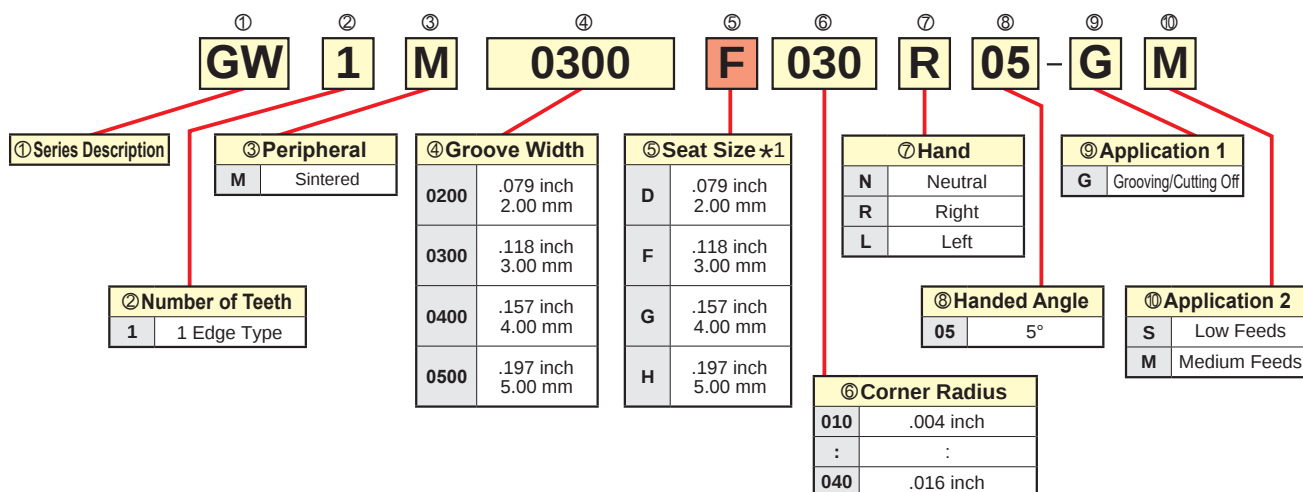
MIRACLE Coating (Al,Ti)N

Carbide Substrate (88.8HRA)

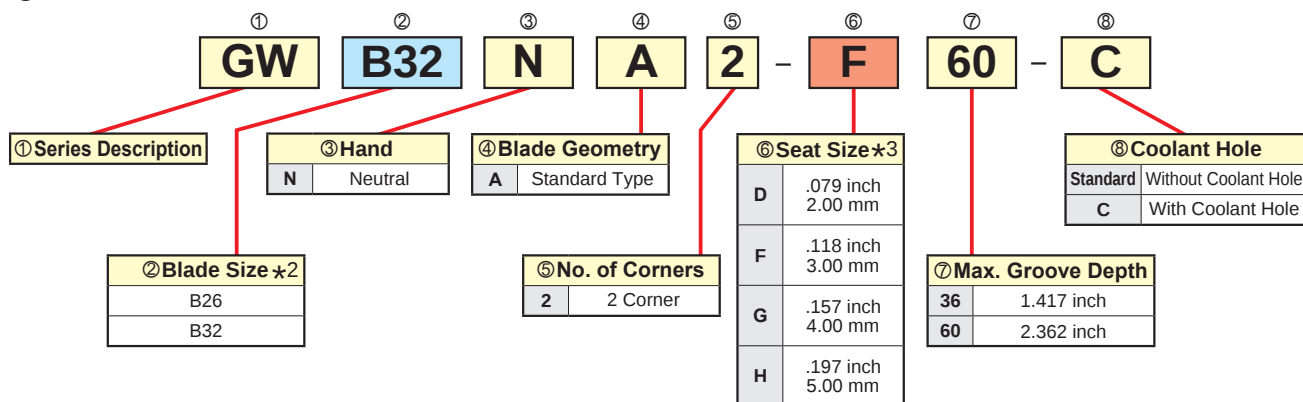
# IDENTIFICATION OF GW SERIES

## ■ Insert / Blade / Tool Block

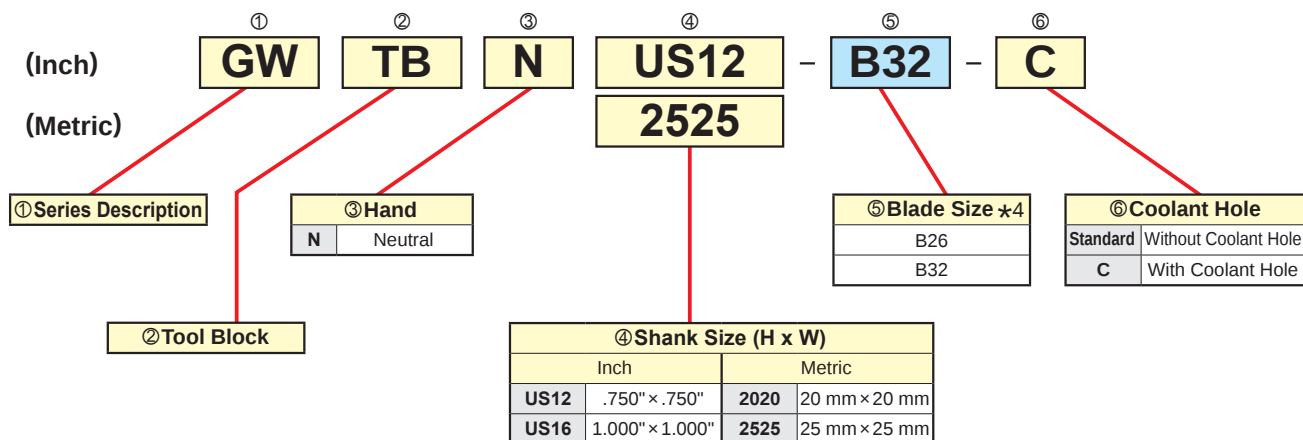
### ● Insert



### ● Blade



### ● Tool Block



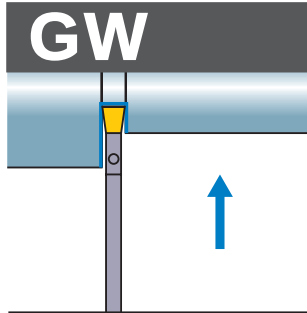
- \*1 Select seat size with the same symbol as that of blade.  
 \*2 Select blade size with the same symbol as that of tool block.  
 \*3 Select seat size with the same symbol of the insert.  
 \*4 Select blade size with the same symbol as that of blade.

# GROOVING / CUTTING OFF

## GW BLADE

**NEW**

- Simple insert clamping method offering high rigidity.
- The blade is possible to use with both external or through coolant.
- Groove Depth CW .079— .197 inch



### For External Cutting Off / Grooving

Fig.1

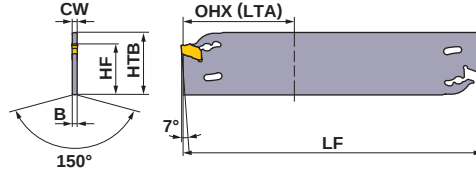
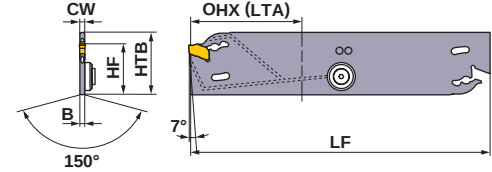


Fig.2



Without Coolant Hole

(inch)

| Seat Size | CW   | ★1 CUTDIA      | Order Number                 | Stock | ★2 OHN | ★3 OHX (LTA) | B    | LF    | HTB   | HF   | Fig. | Insert Type | Wrench | Tool Block Type        |
|-----------|------|----------------|------------------------------|-------|--------|--------------|------|-------|-------|------|------|-------------|--------|------------------------|
| D         | .079 | 2.835<br>4.724 | GWB26NA2-D36<br>GWB32NA2-D60 | ●     | .630   | 1.417        | .061 | 4.331 | 1.024 | .843 | 1    | GW1M0200D   | GWY39L | GWTBN-B26<br>GWTBN-B32 |
| F         | .118 | 2.835<br>4.724 | GWB26NA2-F36<br>GWB32NA2-F60 | ●     | .630   | 1.417        | .096 | 4.331 | 1.024 | .843 | 1    | GW1M0300F   | GWY39L | GWTBN-B26<br>GWTBN-B32 |
| G         | .157 | 2.835<br>4.724 | GWB26NA2-G36<br>GWB32NA2-G60 | ●     | .748   | 1.417        | .132 | 4.331 | 1.024 | .843 | 1    | GW1M0400G   | GWY39L | GWTBN-B26<br>GWTBN-B32 |
| H         | .197 | 2.835<br>4.724 | GWB26NA2-H36<br>GWB32NA2-H60 | ●     | .748   | 1.417        | .167 | 4.331 | 1.024 | .843 | 1    | GW1M0500H   | GWY39L | GWTBN-B26<br>GWTBN-B32 |

With Coolant Hole

(inch)

| Seat Size | CW   | ★1 CUTDIA      | Order Number                     | Stock | ★2 OHN | ★3 OHX (LTA) | B    | LF    | HTB   | HF   | Fig. | Insert Type | Wrench | Tool Block Type            |
|-----------|------|----------------|----------------------------------|-------|--------|--------------|------|-------|-------|------|------|-------------|--------|----------------------------|
| D         | .079 | 2.835<br>4.724 | GWB26NA2-D36-C<br>GWB32NA2-D60-C | ●     | .630   | 1.417        | .061 | 4.331 | 1.024 | .843 | 2    | GW1M0200D   | GWY39L | GWTBN-B26-C<br>GWTBN-B32-C |
| F         | .118 | 2.835<br>4.724 | GWB26NA2-F36-C<br>GWB32NA2-F60-C | ●     | .630   | 1.417        | .096 | 4.331 | 1.024 | .843 | 2    | GW1M0300F   | GWY39L | GWTBN-B26-C<br>GWTBN-B32-C |
| G         | .157 | 2.835<br>4.724 | GWB26NA2-G36-C<br>GWB32NA2-G60-C | ●     | .748   | 1.417        | .132 | 4.331 | 1.024 | .843 | 2    | GW1M0400G   | GWY39L | GWTBN-B26-C<br>GWTBN-B32-C |
| H         | .197 | 2.835<br>4.724 | GWB26NA2-H36-C<br>GWB32NA2-H60-C | ●     | .748   | 1.417        | .167 | 4.331 | 1.024 | .843 | 2    | GW1M0500H   | GWY39L | GWTBN-B26-C<br>GWTBN-B32-C |

★1 CUTDIA : Maximum Cut Off Diameter   ★2 OHN : Minimum Overhang Length   ★3 OHX(LTA) : Maximum Overhang Length

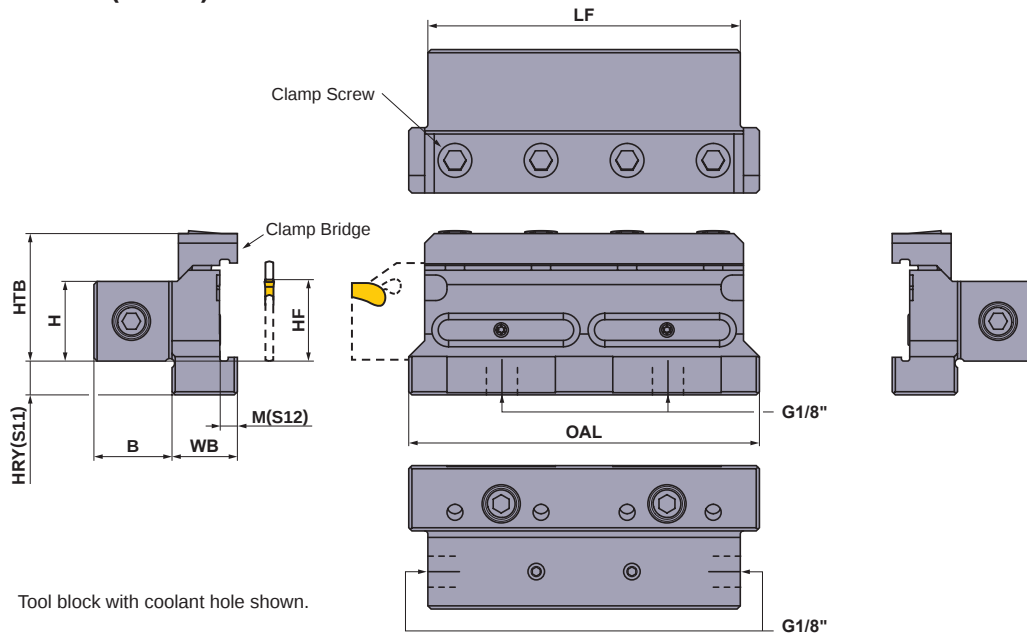
Note 1) Recommended Maximum Coolant Pressure 1000PSI

### Spare Parts for Blades with Coolant Hole

(inch)

| Order Number   | CW   | ① Washer  | ② Clamp Screw | ③ Plug Wrench |
|----------------|------|-----------|---------------|---------------|
| GWB26NA2-D36-C | .079 | ①GWW04038 | GW04005F      | HKY20R        |
| GWB32NA2-D60-C | .079 | ①GWW04038 | GW04005F      | HKY20R        |
| GWB26NA2-F36-C | .118 | ①GWW04038 | GW04005F      | HKY20R        |
| GWB32NA2-F60-C | .118 | ①GWW04038 | GW04005F      | HKY20R        |
| GWB26NA2-G36-C | .157 | ②GWW04026 | GW04005F      | HKY20R        |
| GWB32NA2-G60-C | .157 | ②GWW04026 | GW04005F      | HKY20R        |
| GWB26NA2-H36-C | .197 | ②GWW04026 | GW04005F      | HKY20R        |
| GWB32NA2-H60-C | .197 | ②GWW04026 | GW04005F      | HKY20R        |

## ■ TOOL BLOCK (INCH)



Without Coolant Hole

| Order Number         | Stock | H     | HF    | HTB  | HRY (S11) | B    | WB   | M (S12) | LF    | OAL   |  |  |  |
|----------------------|-------|-------|-------|------|-----------|------|------|---------|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      |       |       |       |      |           |      |      |         |       |       | Clamp Bridge                                                                        | Clamp Screw                                                                         | Wrench                                                                              |
| <b>GWTBNUS12-B26</b> | ●     | .750  | .750  | 1.28 | .470      | .730 | .790 | .200    | 2.950 | 3.350 | ①GWCW1                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBNUS12-B32</b> | ●     | .750  | .750  | 1.34 | .650      | .730 | .810 | .220    | 3.940 | 4.330 | ②GWCW2                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBNUS16-B26</b> | ●     | 1.000 | 1.000 | 1.53 | .220      | .980 | .790 | .200    | 2.950 | 3.350 | ①GWCW1                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBNUS16-B32</b> | ●     | 1.000 | 1.000 | 1.59 | .400      | .980 | .810 | .220    | 3.940 | 4.330 | ②GWCW2                                                                              | HSC06020                                                                            | HKY50R                                                                              |

With Coolant Hole

| Order Number           | Stock | H     | HF    | HTB  | HRY (S11) | B    | WB   | M (S12) | LF    | OAL   |  |  |  |
|------------------------|-------|-------|-------|------|-----------|------|------|---------|-------|-------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                        |       |       |       |      |           |      |      |         |       |       | Clamp Bridge                                                                          | Clamp Screw                                                                           | Wrench                                                                                |
| <b>GWTBNUS12-B26-C</b> | ●     | .750  | .750  | 1.28 | .470      | .730 | .790 | .200    | 2.950 | 3.350 | ①GWCW1                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBNUS12-B32-C</b> | ●     | .750  | .750  | 1.34 | .650      | .730 | .810 | .220    | 3.940 | 4.330 | ②GWCW2                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBNUS16-B26-C</b> | ●     | 1.000 | 1.000 | 1.53 | .220      | .980 | .790 | .200    | 2.950 | 3.350 | ①GWCW1                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBNUS16-B32-C</b> | ●     | 1.000 | 1.000 | 1.59 | .400      | .980 | .810 | .220    | 3.940 | 4.330 | ②GWCW2                                                                                | HSC06020                                                                              | HKY50R                                                                                |

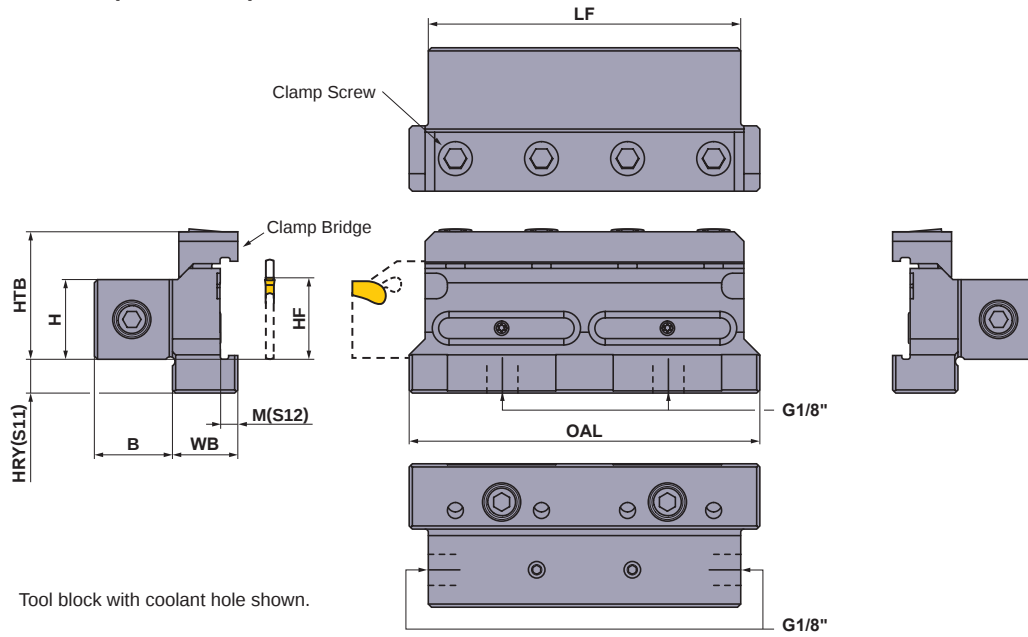
★ Clamp Torque (lbf-in) : HSC06020=62

Note 1) Recommended Maximum Coolant Pressure 1000 PSI

## Spare Parts for Tool Block with Coolant Hole

| Order Number           |  |  |  |  |  |  |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                        | O-ring                                                                              | Plug                                                                                | Plug                                                                                | Wrench                                                                              | Plug                                                                                  | Wrench                                                                                |
| <b>GWTBNUS12-B26-C</b> | ①ORGW332N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBNUS12-B32-C</b> | ②ORGW457N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBNUS16-B26-C</b> | ①ORGW332N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBNUS16-B32-C</b> | ②ORGW457N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |

## ■ TOOL BLOCK (METRIC)



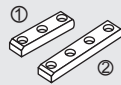
Tool block with coolant hole shown.

F

GROOVING / CUTTING OFF

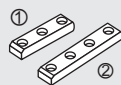
Without Coolant Hole

(mm)

| Order Number         | Stock | H  | HF | HTB  | HRY (S11) | B    | WB   | M (S12) | LF  | OAL |  |  |  |
|----------------------|-------|----|----|------|-----------|------|------|---------|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      |       |    |    |      |           |      |      |         |     |     | Clamp Bridge                                                                        | Clamp Screw                                                                         | Wrench                                                                              |
| <b>GWTBN2020-B26</b> | ★     | 20 | 20 | 33.5 | 11        | 19.5 | 20.0 | 5.0     | 75  | 85  | ①GWCW1                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBN2020-B32</b> | ★     | 20 | 20 | 35.0 | 15.6      | 19.5 | 20.5 | 5.5     | 100 | 110 | ②GWCW2                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBN2525-B26</b> | ★     | 25 | 25 | 38.5 | 6         | 24.5 | 20.0 | 5.0     | 75  | 85  | ①GWCW1                                                                              | HSC06020                                                                            | HKY50R                                                                              |
| <b>GWTBN2525-B32</b> | ★     | 25 | 25 | 40.0 | 10.6      | 24.5 | 20.5 | 5.5     | 100 | 110 | ②GWCW2                                                                              | HSC06020                                                                            | HKY50R                                                                              |

With Coolant Hole

(mm)

| Order Number           | Stock | H  | HF | HTB  | HRY (S11) | B    | WB   | M (S12) | LF  | OAL |  |  |  |
|------------------------|-------|----|----|------|-----------|------|------|---------|-----|-----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                        |       |    |    |      |           |      |      |         |     |     | Clamp Bridge                                                                          | Clamp Screw                                                                           | Wrench                                                                                |
| <b>GWTBN2020-B26-C</b> | ★     | 20 | 20 | 33.5 | 11        | 19.5 | 20.0 | 5.0     | 75  | 85  | ①GWCW1                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBN2020-B32-C</b> | ★     | 20 | 20 | 35.0 | 15.6      | 19.5 | 20.5 | 5.5     | 100 | 110 | ②GWCW2                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBN2525-B26-C</b> | ★     | 25 | 25 | 38.5 | 6         | 24.5 | 20.0 | 5.0     | 75  | 85  | ①GWCW1                                                                                | HSC06020                                                                              | HKY50R                                                                                |
| <b>GWTBN2525-B32-C</b> | ★     | 25 | 25 | 40.0 | 10.6      | 24.5 | 20.5 | 5.5     | 100 | 110 | ②GWCW2                                                                                | HSC06020                                                                              | HKY50R                                                                                |

★ Clamp Torque (N • m) : HSC06020=7.0

Note 1) Recommended Maximum Coolant Pressure 7MPa

## Spare Parts for Tool Block with Coolant Hole

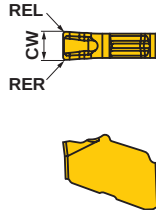
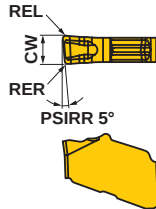
| Order Number           |  |  |  |  |  |  |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                        | O-ring                                                                              | Plug                                                                                | Plug                                                                                | Wrench                                                                              | Plug                                                                                  | Wrench                                                                                |
| <b>GWTBN2020-B26-C</b> | ①ORGW332N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBN2020-B32-C</b> | ②ORGW457N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBN2525-B26-C</b> | ①ORGW332N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |
| <b>GWTBN2525-B32-C</b> | ②ORGW457N9                                                                          | HGJ-PT1/8                                                                           | HSD05004S                                                                           | HKY25R                                                                              | CS300590T                                                                             | TKY08R                                                                                |

● : USA Stock ★ : Stocked in Japan

<10 inserts in one case>

# INSERTS

(inch)

| Application           | Geometry                                                                           | Order Number       | Stock  |        |        |         |        |        | CW            |      |           | Seat Size | REL/R | PSIRR |
|-----------------------|------------------------------------------------------------------------------------|--------------------|--------|--------|--------|---------|--------|--------|---------------|------|-----------|-----------|-------|-------|
|                       |                                                                                    |                    | Coated |        |        | Carbide |        |        | Cutting Width |      | Tolerance |           |       |       |
|                       |                                                                                    |                    | MY5015 | VP10RT | VP20RT | VP30RT  | RT9010 | RT9020 |               |      |           |           |       |       |
|                       |                                                                                    |                    | inch   | mm     |        |         |        |        |               |      |           |           |       |       |
| Grooving, Cutting Off |   | GW1M0200D020N-GS   |        | ●      | ●      | ●       |        |        | .079          | 2.00 | ± .0012   | D         | .008  | —     |
|                       |                                                                                    | GW1M0300F020N-GS   |        | ●      | ●      | ●       |        |        | .118          | 3.00 | ± .0012   | F         | .008  | —     |
|                       |                                                                                    | GW1M0400G020N-GS   |        | ●      | ●      | ●       |        |        | .157          | 4.00 | ± .0016   | G         | .008  | —     |
|                       |                                                                                    | GW1M0500H030N-GS   |        | ●      | ●      | ●       |        |        | .197          | 5.00 | ± .0016   | H         | .012  | —     |
|                       |                                                                                    | GW1M0200D020N-GM   | ●      | ●      | ●      | ●       |        |        | .079          | 2.00 | ± .0012   | D         | .008  | —     |
|                       |                                                                                    | GW1M0300F030N-GM   | ●      | ●      | ●      | ●       |        |        | .118          | 3.00 | ± .0012   | F         | .012  | —     |
|                       |                                                                                    | GW1M0400G030N-GM   | ●      | ●      | ●      | ●       |        |        | .157          | 4.00 | ± .0016   | G         | .012  | —     |
|                       |                                                                                    | GW1M0500H040N-GM   | ●      | ●      | ●      | ●       |        |        | .197          | 5.00 | ± .0016   | H         | .016  | —     |
| Cutting Off           |   | GW1M0200D020R05-GM |        | ●      | ●      | ●       |        |        | .079          | 2.00 | ± .0012   | D         | .008  | .197  |
|                       |                                                                                    | GW1M0200D020L05-GM |        | ●      | ●      | ●       |        |        | .079          | 2.00 | ± .0012   | D         | .008  | .197  |
|                       |                                                                                    | GW1M0300F030R05-GM |        | ●      | ●      | ●       |        |        | .118          | 3.00 | ± .0012   | F         | .012  | .197  |
|                       |                                                                                    | GW1M0300F030L05-GM |        | ●      | ●      | ●       |        |        | .118          | 3.00 | ± .0012   | F         | .012  | .197  |
|                       |                                                                                    | GW1M0400G030R05-GM |        | ●      | ●      | ●       |        |        | .157          | 4.00 | ± .0016   | G         | .012  | .197  |
|                       |                                                                                    | GW1M0400G030L05-GM |        | ●      | ●      | ●       |        |        | .157          | 4.00 | ± .0016   | G         | .012  | .197  |
|                       |                                                                                    | GW1M0500H040R05-GM |        | ●      | ●      | ●       |        |        | .197          | 5.00 | ± .0016   | H         | .016  | .197  |
|                       |                                                                                    | GW1M0500H040L05-GM |        | ●      | ●      | ●       |        |        | .197          | 5.00 | ± .0016   | H         | .016  | .197  |
| ★1<br>NEW<br>Blank    |  | GW1B0320D020N      |        |        |        |         | ★      | ★      | .128          | 3.24 | ± .0039   | D         | .008  | —     |
|                       |                                                                                    | GW1B0440F020N      |        |        |        |         | ★      | ★      | .175          | 4.44 | ± .0039   | F         | .008  | —     |
|                       |                                                                                    | GW1B0540G020N      |        |        |        |         | ★      | ★      | .214          | 5.44 | ± .0039   | G         | .008  | —     |
|                       |                                                                                    | GW1B0640H020N      |        |        |        |         | ★      | ★      | .254          | 6.44 | ± .0039   | H         | .008  | —     |

★1 Insert blank is not suitable for machining without grinding.

Right hand insert shown.

GROOVING / CUTTING OFF

## ■ Coolant Hose Kit

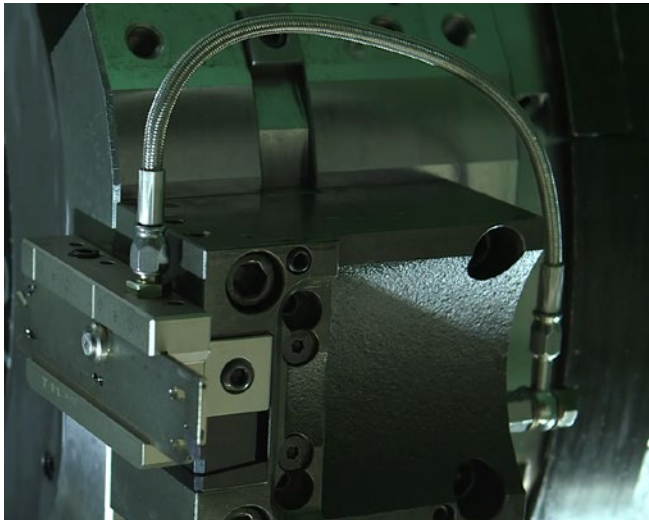
(inch)

| Connector Type | Order Number | Stock | Hose Length | Kit Details                                                                       |                                                                                   |                                                                                     |                                                                                     |                                                                                     |          |      |          |      |
|----------------|--------------|-------|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------|------|----------|------|
|                |              |       |             |  |  |  |  |  |          |      |          |      |
|                |              |       |             | Hose                                                                              | Banjo Adapter                                                                     |                                                                                     | Banjo Bolt                                                                          |                                                                                     | Adapter  |      | Washer   |      |
|                |              |       |             | Code No.                                                                          | Code No.                                                                          | QTY.                                                                                | Code No.                                                                            | QTY.                                                                                | Code No. | QTY. | Code No. | QTY. |
| Straight       | CS-1/8-150SS | ●     | 5.91        | HOSE-1/8-150                                                                      | —                                                                                 | —                                                                                   | —                                                                                   | —                                                                                   | AD-G1/8  | 2    | WA-M10   | 2    |
| Straight       | CS-1/8-200SS | ●     | 7.87        | HOSE-1/8-200                                                                      | —                                                                                 | —                                                                                   | —                                                                                   | —                                                                                   | AD-G1/8  | 2    | WA-M10   | 2    |
| Straight       | CS-1/8-250SS | ●     | 9.84        | HOSE-1/8-250                                                                      | —                                                                                 | —                                                                                   | —                                                                                   | —                                                                                   | AD-G1/8  | 2    | WA-M10   | 2    |
| Straight       | CS-1/8-300SS | ●     | 11.81       | HOSE-1/8-300                                                                      | —                                                                                 | —                                                                                   | —                                                                                   | —                                                                                   | AD-G1/8  | 2    | WA-M10   | 2    |
| Elbow Straight | CS-1/8-150BS | ●     | 5.91        | HOSE-1/8-150                                                                      | AD-BM10                                                                           | 1                                                                                   | BB-G1/8                                                                             | 1                                                                                   | AD-G1/8  | 1    | WA-M10   | 3    |
| Elbow Straight | CS-1/8-200BS | ●     | 7.87        | HOSE-1/8-200                                                                      | AD-BM10                                                                           | 1                                                                                   | BB-G1/8                                                                             | 1                                                                                   | AD-G1/8  | 1    | WA-M10   | 3    |
| Elbow Straight | CS-1/8-250BS | ●     | 9.84        | HOSE-1/8-250                                                                      | AD-BM10                                                                           | 1                                                                                   | BB-G1/8                                                                             | 1                                                                                   | AD-G1/8  | 1    | WA-M10   | 3    |
| Elbow Straight | CS-1/8-300BS | ●     | 11.81       | HOSE-1/8-300                                                                      | AD-BM10                                                                           | 1                                                                                   | BB-G1/8                                                                             | 1                                                                                   | AD-G1/8  | 1    | WA-M10   | 3    |
| Elbow          | CS-1/8-150BB | ●     | 5.91        | HOSE-1/8-150                                                                      | AD-BM10                                                                           | 2                                                                                   | BB-G1/8                                                                             | 2                                                                                   | —        | —    | WA-M10   | 4    |
| Elbow          | CS-1/8-200BB | ●     | 7.87        | HOSE-1/8-200                                                                      | AD-BM10                                                                           | 2                                                                                   | BB-G1/8                                                                             | 2                                                                                   | —        | —    | WA-M10   | 4    |
| Elbow          | CS-1/8-250BB | ●     | 9.84        | HOSE-1/8-250                                                                      | AD-BM10                                                                           | 2                                                                                   | BB-G1/8                                                                             | 2                                                                                   | —        | —    | WA-M10   | 4    |
| Elbow          | CS-1/8-300BB | ●     | 11.81       | HOSE-1/8-300                                                                      | AD-BM10                                                                           | 2                                                                                   | BB-G1/8                                                                             | 2                                                                                   | —        | —    | WA-M10   | 4    |

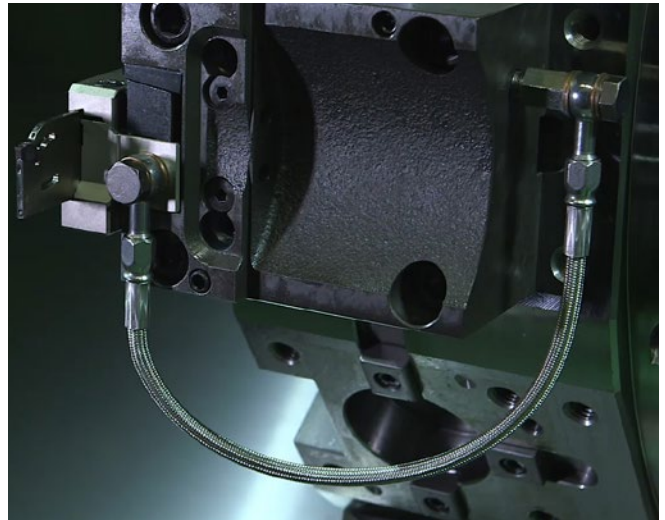
Connection Screw Size = G1/8"

## Mounting Example

Elbow Straight Type



Elbow Type



● : USA Stock

## RECOMMENDED CUTTING CONDITIONS

### CUTTING SPEED

|   | Work Material                          | Properties                               | Grade  | Cutting Speed $v_c$ (SFM) |     |     |     |     |     |
|---|----------------------------------------|------------------------------------------|--------|---------------------------|-----|-----|-----|-----|-----|
|   |                                        |                                          |        | 165                       | 330 | 490 | 655 | 820 | 985 |
| P | Mild Steel                             | $\leq 160\text{HB}$                      | VP20RT |                           | 330 |     | 785 |     |     |
|   |                                        |                                          | VP10RT |                           | 360 |     | 820 |     |     |
|   | Carbon Steel<br>Alloy Steel            | 160–280HB                                | VP20RT |                           | 260 |     | 655 |     |     |
|   |                                        |                                          | VP10RT |                           | 295 |     | 690 |     |     |
|   |                                        |                                          | VP30RT | 195                       |     | 590 |     |     |     |
|   |                                        |                                          | MY5015 |                           | 360 |     | 820 |     |     |
|   |                                        | $\geq 280\text{HB}$                      | VP20RT | 195                       |     | 525 |     |     |     |
|   |                                        |                                          | VP10RT |                           | 230 |     | 560 |     |     |
|   |                                        |                                          | VP30RT | 130                       |     | 460 |     |     |     |
|   |                                        |                                          | MY5015 |                           | 295 |     | 690 |     |     |
| M | Stainless Steel                        | $\leq 270\text{HB}$                      | VP20RT |                           | 195 |     | 590 |     |     |
|   |                                        |                                          | VP10RT |                           | 230 |     | 620 |     |     |
|   |                                        |                                          | VP30RT | 130                       |     | 525 |     |     |     |
| K | Gray Cast Iron                         | Tensile Strength<br>$\leq 300\text{MPa}$ | VP20RT |                           | 260 |     | 655 |     |     |
|   |                                        |                                          | VP10RT |                           | 295 |     | 690 |     |     |
|   |                                        |                                          | MY5015 |                           |     | 460 |     | 985 |     |
|   | Ductile Cast Iron                      | Tensile Strength<br>$\leq 800\text{MPa}$ | VP20RT |                           | 195 |     | 525 |     |     |
|   |                                        |                                          | VP10RT |                           | 230 |     | 560 |     |     |
|   |                                        |                                          | MY5015 |                           |     | 295 |     | 690 |     |
| S | Heat Resistant Alloy<br>Titanium Alloy | —                                        | VP20RT | 100 195                   |     |     |     |     |     |
|   |                                        |                                          | VP10RT | 130 230                   |     |     |     |     |     |

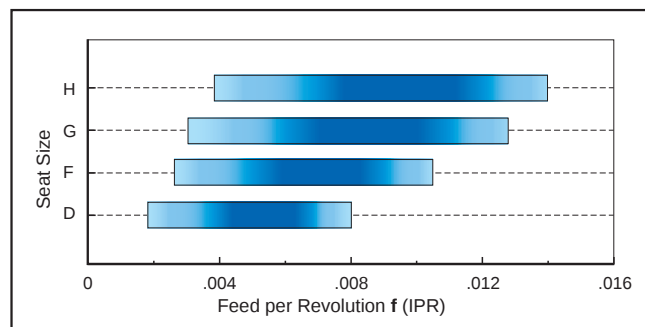
Note 1) VP20RT is the first recommended grade for materials.

Note 2) For VP10RT, VP20RT, VP30RT and MY5015, wet cutting is recommended.

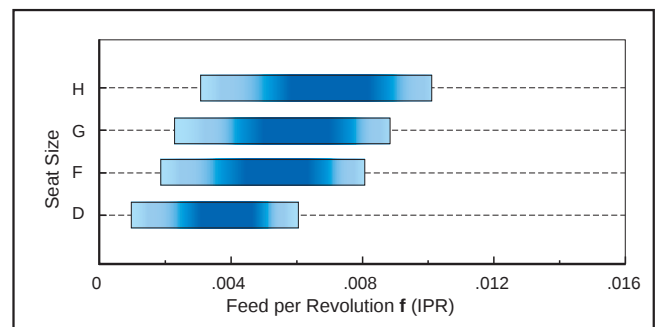
GROOVING / CUTTING OFF

### FEED PER REVOLUTION

#### GM Breaker



#### GS Breaker



| Chip Breaker | Feed per Revolution $f$ (IPR) |             |             |             |
|--------------|-------------------------------|-------------|-------------|-------------|
|              | Seat Size D                   | Seat Size F | Seat Size G | Seat Size H |
| GM Breaker   | .002–.008                     | .003–.010   | .003–.013   | .004–.014   |
| GS Breaker   | .001–.006                     | .002–.008   | .002–.009   | .003–.010   |

# GROOVING / CUTTING OFF

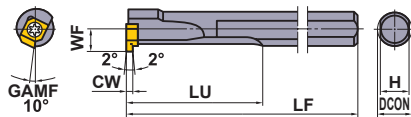
## F TYPE BORING BAR

- Min. cutting diameter 10 mm.
- Screw-on type.
- Usable for various applications.
- Max. groove depth: 3 mm.

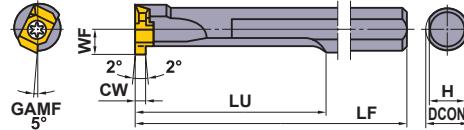
### FSL51

#### Internal grooving, Threading

##### 1 Corner type (FSL5108R,5110R)



##### 2 Corner type (FSL5112R,5114R,5116R)



Metric Standard

Right hand tool holder only.

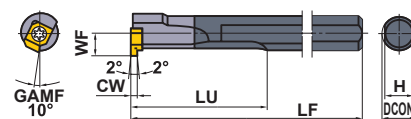
| Order Number | Stock | Insert Number |              |           |       | Dimensions (mm) |      |     |    |     |     |                   | Max. Groove Depth (mm) |  |  |
|--------------|-------|---------------|--------------|-----------|-------|-----------------|------|-----|----|-----|-----|-------------------|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|              | R     | Grooving      |              | Threading |       | DCON            | H    | LF  | LU | WF  | CW  | DMIN <sup>*</sup> |                        |                                                                                     |                                                                                     |
| FSL5108R     | ★     | MLG           | 10 $\odot$ L | MLT       | 1001L | 8               | 7    | 125 | 30 | 4.8 | 1.2 | 10                | 1.0                    | TS25                                                                                | TKY08R                                                                              |
| FSL5110R     | ★     |               | 10 $\odot$ L |           | 1001L | 10              | 9    | 150 | 40 | 5.8 | 1.5 | 2.0               | 12                     | 1.0                                                                                 | TS25                                                                                |
| FSL5112R     | ★     | MLG           | 14 $\odot$ L | MLT       | 1401L | 12              | 10.8 | 180 | 50 | 6.8 | 1.5 | 14                | 2.0                    | TS32                                                                                | TKY08R                                                                              |
| FSL5114R     | ★     |               | 14 $\odot$ L |           | 1401L | 14              | 12.4 | 180 | 60 | 7.8 | 2.0 | 3.0               | 16                     | 2.0                                                                                 | TS32                                                                                |
| FSL5116R     | ★     | MLG           | 20 $\odot$ L | MLT       | 2001L | 16              | 14   | 200 | 70 | 9.7 | 2.0 | 20                | 3.0                    | TS43                                                                                | TKY15R                                                                              |
|              |       |               |              |           |       |                 |      |     |    |     | 4.0 |                   |                        |                                                                                     |                                                                                     |

★DMIN : Min. Cutting Diameter

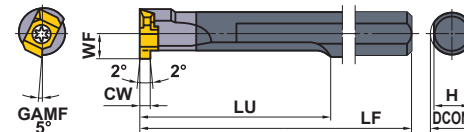
### FSL52

#### (Carbide shank) Internal grooving, Threading

##### 1 Corner type (FSL5208R,5210R)



##### 2 Corner type (FSL5212R,5214R,5216R)



Metric Standard

Right hand tool holder only.

| Order Number | Stock | Insert Number |              |           |       | Dimensions (mm) |      |     |     |     |     |                   | Max. Groove Depth (mm) |  |  |
|--------------|-------|---------------|--------------|-----------|-------|-----------------|------|-----|-----|-----|-----|-------------------|------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|              | R     | Grooving      |              | Threading |       | DCON            | H    | LF  | LU  | WF  | CW  | DMIN <sup>*</sup> |                        | Clamp Screw                                                                           | Wrench                                                                                |
| FSL5208R     | ★     | MLG           | 10 $\odot$ L | MLT       | 1001L | 8               | 7    | 125 | 60  | 4.8 | 1.2 | 10                | 1.0                    | TS25                                                                                  | TKY08R                                                                                |
| FSL5210R     | ★     |               | 10 $\odot$ L |           | 1001L | 10              | 9    | 150 | 70  | 5.8 | 1.5 | 2.0               | 12                     | 1.0                                                                                   | TS25                                                                                  |
| FSL5212R     | ★     | MLG           | 14 $\odot$ L | MLT       | 1401L | 12              | 10.8 | 180 | 80  | 6.8 | 1.5 | 14                | 2.0                    | TS32                                                                                  | TKY08R                                                                                |
| FSL5214R     | ★     |               | 14 $\odot$ L |           | 1401L | 14              | 12.4 | 180 | 85  | 7.8 | 2.0 | 3.0               | 16                     | 2.0                                                                                   | TS32                                                                                  |
| FSL5216R     | ★     | MLG           | 20 $\odot$ L | MLT       | 2001L | 16              | 14   | 200 | 115 | 9.7 | 2.0 | 20                | 3.0                    | TS43                                                                                  | TKY15R                                                                                |
|              |       |               |              |           |       |                 |      |     |     |     | 4.0 |                   |                        |                                                                                       |                                                                                       |

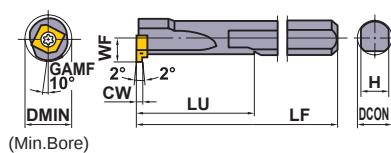
★DMIN : Min. Cutting Diameter

● : USA Stock ★ : Stocked in Japan

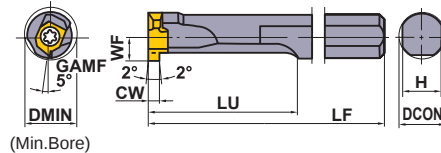
# S-SL5N

## Internal grooving, Threading, Boring

1 Corner type (S-SL5NR05 / 06)



2 Corner type (S-SL5NR08 / 10 / 12)



Right hand tool holder only.

| Order Number | Stock | Insert Number |           | Dimensions (inch) |      |        |       |      |                                     |      |             |        |
|--------------|-------|---------------|-----------|-------------------|------|--------|-------|------|-------------------------------------|------|-------------|--------|
|              | R     | Grooving      | Threading | DCON              | H    | LF     | LU    | WF   | CW                                  | DMIN | Clamp Screw | Wrench |
| S-SL5NR05    | ●     | MLG10W○○○L    | MLT1001L  | .313              | .283 | 5.000  | 1.250 | .188 | .062"<br>1.2 mm                     | .390 | TS25        | TKY08F |
| S-SL5NR06    | ●     | MLG10W○○○L    | MLT1001L  | .375              | .340 | 6.000  | 1.500 | .219 | 1.5 mm<br>2.0 mm                    | .449 | TS25        | TKY08F |
| S-SL5NR08    | ●     | MLG14W○○○L    | MLT1401L  | .500              | .460 | 7.000  | 2.000 | .281 | .062"<br>1.5 mm<br>2.0 mm<br>3.0 mm | .579 | TS32        | TKY08F |
| S-SL5NR10    | ●     | MLG20W○○○L    | MLT2001L  | .625              | .560 | 8.000  | 3.000 | .375 | 2.0 mm<br>3.0 mm                    | .791 | TS43        | TKY15F |
| S-SL5NR12    | ●     | MLG20W○○○L    | MLT2001L  | .750              | .700 | 10.000 | 4.000 | .438 | 4.0 mm                              | .902 | TS43        | TKY15F |

GROOVING / CUTTING OFF

## RECOMMENDED CUTTING CONDITIONS

| Work Material                 | Hardness  | Grade          | Cutting Speed (SFM) | Feed (IPR)         |
|-------------------------------|-----------|----------------|---------------------|--------------------|
| P Carbon Steel<br>Alloy Steel | 180—280HB | UP20M • UTi20T | 295 (195—390)       | .002 (.0008—.003)  |
|                               | 280—350HB | UP20M • UTi20T | 260 (165—330)       | .001 (.0008—.0015) |

INSERTS ➤ F240  
 SPARE PARTS ➤ N001  
 TECHNICAL DATA ➤ P001

## F TYPE

## INSERTS

| Application | CW<br>(inch) | Order Number  | Carbide           |       | Dimensions (inch) |      |      |      |      | Geometry                           |
|-------------|--------------|---------------|-------------------|-------|-------------------|------|------|------|------|------------------------------------|
|             |              |               | UTi20T            | HTi10 | L                 | W1   | CDX  | S    | BCH  |                                    |
| Grooving    | Inch         | .062          | <b>MLG10W062L</b> | ●     | .276              | .197 | .039 | .094 | .004 | <b>MLG...L (1 Corner type)</b><br> |
|             | Metric       | .047 (1.2 mm) | <b>MLG1012L</b>   | ●     | .276              | .197 | .039 | .094 | .004 |                                    |
|             |              | .059 (1.5 mm) | <b>MLG1015L</b>   | ●     | .276              | .197 | .039 | .094 | .004 |                                    |
|             |              | .079 (2.0 mm) | <b>MLG1020L</b>   | ●     | .276              | .197 | .039 | .094 | .004 |                                    |
|             | Metric       | .059 (1.5 mm) | <b>MLG1415L</b>   | ●     | .465              | .256 | .079 | .187 | .004 | <b>MLG...L (2 Corner type)</b><br> |
|             |              | .079 (2.0 mm) | <b>MLG1420L</b>   | ●     | .465              | .256 | .079 | .187 | .004 |                                    |
|             |              | .118 (3.0 mm) | <b>MLG1430L</b>   | ●     | .465              | .256 | .079 | .187 | .004 |                                    |
|             |              | .079 (2.0 mm) | <b>MLG2020L</b>   | ●     | .661              | .356 | .118 | .250 | .004 |                                    |
|             |              | .118 (3.0 mm) | <b>MLG2030L</b>   | ●     | .661              | .356 | .118 | .250 | .004 |                                    |
|             |              | .157 (4.0 mm) | <b>MLG2040L</b>   | ●     | .661              | .356 | .118 | .250 | .004 |                                    |

GROOVING / CUTTING OFF

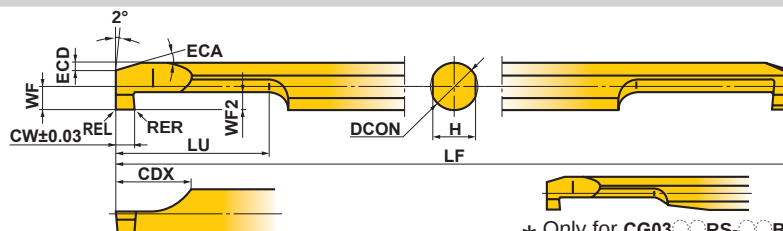
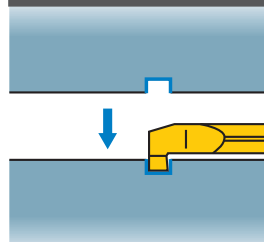
| Application | Pitch   | Order Number    | Coated | Carbide | Dimensions (inch) |      |      |      | Geometry                                   |
|-------------|---------|-----------------|--------|---------|-------------------|------|------|------|--------------------------------------------|
|             |         |                 | UP20M  | UTi20T  | L                 | W1   | S    | RE   |                                            |
| Threading   | 13T.P.I | <b>MLT1001L</b> | ●      | ●       | .276              | .197 | .094 | .004 | <b>MLT1001L (1 Corner type)</b><br>        |
|             | 11T.P.I | <b>MLT1401L</b> | ●      | ●       | .465              | .256 | .187 | .004 |                                            |
|             | 8T.P.I  | <b>MLT2001L</b> | ●      | ●       | .661              | .356 | .250 | .004 |                                            |
|             |         |                 |        |         |                   |      |      |      | <b>MLT1401L /2001L (2 Corner type)</b><br> |

● : USA Stock

# MICRO-MINI TWIN

CG

Internal grooving



★ Only for CG03RS-B

| Order Number | Stock               |        | Breaker | Dimensions (mm) |    |     |       |      |    |    |     |     |     |     |     |
|--------------|---------------------|--------|---------|-----------------|----|-----|-------|------|----|----|-----|-----|-----|-----|-----|
|              | Micro Grain Carbide | Coated |         | DMIN            | CW | WF2 | RER/L | DCON | LF | LU | CDX | WF  | H   | ECA | ECD |
|              | TF15                | VP15TF |         |                 |    |     |       |      |    |    |     |     |     |     |     |
| CG0305RS-10  | ●                   | ●      | Without | 3               | 1  | 1   | 0.05  | 3    | 50 | 5  | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG0305RS-10B | ●                   | ●      | With    | 3               | 1  | 1   | 0.05  | 3    | 50 | 5  | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG0306RS-20  | ●                   | ●      | Without | 3               | 2  | 1   | 0.1   | 3    | 50 | 6  | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG0306RS-20B | ●                   | ●      | With    | 3               | 2  | 1   | 0.1   | 3    | 50 | 6  | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG03RS-10    | ●                   | ●      | Without | 3               | 1  | 1   | 0.05  | 3    | 50 | 10 | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG03RS-10B   | ●                   | ●      | With    | 3               | 1  | 1   | 0.05  | 3    | 50 | 10 | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG03RS-20    | ●                   | ●      | Without | 3               | 2  | 1   | 0.1   | 3    | 50 | 11 | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG03RS-20B   | ●                   | ●      | With    | 3               | 2  | 1   | 0.1   | 3    | 50 | 11 | 6   | 1.3 | 2.7 | 15° | 0.3 |
| CG0407RS-10  | ●                   | ●      | Without | 4               | 1  | 1.5 | 0.05  | 4    | 60 | 7  | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG0407RS-10B | ●                   | ●      | With    | 4               | 1  | 1.5 | 0.05  | 4    | 60 | 7  | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG0408RS-20  | ●                   | ●      | Without | 4               | 2  | 1.5 | 0.1   | 4    | 60 | 8  | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG0408RS-20B | ●                   | ●      | With    | 4               | 2  | 1.5 | 0.1   | 4    | 60 | 8  | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG04RS-10    | ●                   | ●      | Without | 4               | 1  | 1.5 | 0.05  | 4    | 60 | 15 | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG04RS-10B   | ●                   | ●      | With    | 4               | 1  | 1.5 | 0.05  | 4    | 60 | 15 | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG04RS-20    | ●                   | ●      | Without | 4               | 2  | 1.5 | 0.1   | 4    | 60 | 16 | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG04RS-20B   | ●                   | ●      | With    | 4               | 2  | 1.5 | 0.1   | 4    | 60 | 16 | 7   | 1.8 | 3.6 | 15° | 0.5 |
| CG0510RS-10  | ●                   | ●      | Without | 5               | 1  | 2   | 0.05  | 5    | 70 | 10 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG0510RS-10B | ●                   | ●      | With    | 5               | 1  | 2   | 0.05  | 5    | 70 | 10 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG0511RS-20  | ●                   | ●      | Without | 5               | 2  | 2   | 0.1   | 5    | 70 | 11 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG0511RS-20B | ●                   | ●      | With    | 5               | 2  | 2   | 0.1   | 5    | 70 | 11 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG05RS-10    | ●                   | ●      | Without | 5               | 1  | 2   | 0.05  | 5    | 70 | 20 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG05RS-10B   | ●                   | ●      | With    | 5               | 1  | 2   | 0.05  | 5    | 70 | 20 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG05RS-20    | ●                   | ●      | Without | 5               | 2  | 2   | 0.1   | 5    | 70 | 21 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG05RS-20B   | ●                   | ●      | With    | 5               | 2  | 2   | 0.1   | 5    | 70 | 21 | 8   | 2.3 | 4.5 | 15° | 0.7 |
| CG0610RS-10  | ●                   | ●      | Without | 6               | 1  | 2   | 0.05  | 6    | 75 | 10 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG0610RS-10B | ●                   | ●      | With    | 6               | 1  | 2   | 0.05  | 6    | 75 | 10 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG0611RS-20  | ●                   | ●      | Without | 6               | 2  | 2   | 0.1   | 6    | 75 | 11 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG0611RS-20B | ●                   | ●      | With    | 6               | 2  | 2   | 0.1   | 6    | 75 | 11 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG06RS-10    | ●                   | ●      | Without | 6               | 1  | 2   | 0.05  | 6    | 75 | 20 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG06RS-10B   | ●                   | ●      | With    | 6               | 1  | 2   | 0.05  | 6    | 75 | 20 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG06RS-20    | ●                   | ●      | Without | 6               | 2  | 2   | 0.1   | 6    | 75 | 21 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG06RS-20B   | ●                   | ●      | With    | 6               | 2  | 2   | 0.1   | 6    | 75 | 21 | 8   | 2.8 | 5.4 | 15° | 0.7 |
| CG0712RS-10  | ●                   | ●      | Without | 7               | 1  | 2   | 0.05  | 7    | 85 | 12 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG0712RS-10B | ●                   | ●      | With    | 7               | 1  | 2   | 0.05  | 7    | 85 | 12 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG0713RS-20  | ●                   | ●      | Without | 7               | 2  | 2   | 0.1   | 7    | 85 | 13 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG0713RS-20B | ●                   | ●      | With    | 7               | 2  | 2   | 0.1   | 7    | 85 | 13 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG07RS-10    | ●                   | ●      | Without | 7               | 1  | 2   | 0.05  | 7    | 85 | 25 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG07RS-10B   | ●                   | ●      | With    | 7               | 1  | 2   | 0.05  | 7    | 85 | 25 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG07RS-20    | ●                   | ●      | Without | 7               | 2  | 2   | 0.1   | 7    | 85 | 26 | 8   | 3.3 | 6.4 | 15° | 0.7 |
| CG07RS-20B   | ●                   | ●      | With    | 7               | 2  | 2   | 0.1   | 7    | 85 | 26 | 8   | 3.3 | 6.4 | 15° | 0.7 |

GROOVING / CUTTING OFF

HOLDER

➤ E034, E036, E037

SPARE PARTS

➤ N001

TECHNICAL DATA

➤ P001

F241

# HOLDER

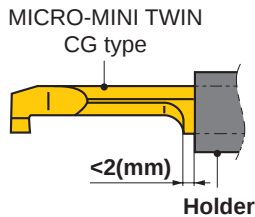
## HOLDER CROSS REFERENCE LIST OF INCH SHANK STANDARD

| Holder                           |                  | Stock | MICRO-MINI TWIN        | Machine Makers                                     |
|----------------------------------|------------------|-------|------------------------|----------------------------------------------------|
| Type                             | Order Number *1  |       | CG                     |                                                    |
| Round Type Holder<br>φ.625 inch  | ID : Metric Type |       |                        |                                                    |
|                                  | RBH10189A        | ●     | 030 RS- (B), 03RS- (B) | Citizen Precision Machinery Co., Ltd.<br>NC lathes |
|                                  | RBH10252A        | ●     | 040 RS- (B), 04RS- (B) |                                                    |
|                                  | RBH10315A        | ●     | 051 RS- (B), 05RS- (B) |                                                    |
|                                  | RBH10378A        | ●     | 061 RS- (B), 06RS- (B) |                                                    |
|                                  | RBH10441A        | ●     | 071 RS- (B), 07RS- (B) |                                                    |
| Round Type Holder<br>φ.750 inch  | ID : Metric Type |       |                        |                                                    |
|                                  | RBH19030N        | ●     | 030 RS- (B), 03RS- (B) | Citizen Precision Machinery Co., Ltd.              |
|                                  | RBH19040N        | ●     | 040 RS- (B), 04RS- (B) |                                                    |
|                                  | RBH19050N        | ●     | 051 RS- (B), 05RS- (B) |                                                    |
|                                  | RBH19060N        | ●     | 061 RS- (B), 06RS- (B) |                                                    |
|                                  | RBH19070N        | ●     | 071 RS- (B), 07RS- (B) |                                                    |
| Round Type Holder<br>φ1.000 inch | ID : Metric Type |       |                        |                                                    |
|                                  | RBH16189A        | ●     | 030 RS- (B), 03RS- (B) | Citizen Precision Machinery Co., Ltd.<br>NC lathes |
|                                  | RBH16252A        | ●     | 040 RS- (B), 04RS- (B) |                                                    |
|                                  | RBH16315A        | ●     | 051 RS- (B), 05RS- (B) |                                                    |
|                                  | RBH16378A        | ●     | 061 RS- (B), 06RS- (B) |                                                    |
|                                  | RBH16441A        | ●     | 071 RS- (B), 07RS- (B) |                                                    |

★ Mitsubishi Materials obtained the makers' approval before entering their names in the list.

★1 For holder details, refer to Boring Bar Section, page E034—E038.

### RECOMMENDED TOOL OVERHANG



Note 1) For LU, refer to page F241.

### RECOMMENDED CUTTING CONDITIONS

| Work Material                       | Hardness                    | Cutting Speed (SFM) | Feed (IPR) |                |
|-------------------------------------|-----------------------------|---------------------|------------|----------------|
|                                     |                             |                     | 03RS/04RS  | 05RS/06RS/07RS |
| <b>P</b> Carbon Steel · Alloy Steel | 180—280HB                   | 130—395             | .0004—.001 | .0004—.002     |
| <b>M</b> Stainless Steel            | ≤200HB                      | 130—395             | .0004—.001 | .0004—.002     |
| <b>K</b> Gray Cast Iron             | Tensile Strength<br>≤350MPa | 130—395             | .0004—.002 | .0004—.002     |
| <b>N</b> Non-Ferrous Metal          | —                           | 260—525             | .0004—.002 | .0004—.003     |

Note 1) Recommend wet machining.

● : USA Stock ★ : Stocked in Japan

## HOLDER CROSS REFERENCE LIST OF METRIC SHANK STANDARD

| Holder                       |                 | Stock | MICRO-MINI TWIN        | Machine Makers                                                                                           |
|------------------------------|-----------------|-------|------------------------|----------------------------------------------------------------------------------------------------------|
| Type                         | Order Number*1  |       | CG                     |                                                                                                          |
| Round Type Holder<br>φ16 mm  | <b>RBH1630N</b> | ●     | 030 RS- (B), 03RS- (B) | MIYANO MACHINERY JAPAN INC.<br>NC lathes                                                                 |
|                              | <b>RBH1640N</b> | ●     | 040 RS- (B), 04RS- (B) |                                                                                                          |
|                              | <b>RBH1650N</b> | ●     | 051 RS- (B), 05RS- (B) |                                                                                                          |
|                              | <b>RBH1660N</b> | ●     | 061 RS- (B), 06RS- (B) |                                                                                                          |
|                              | <b>RBH1670N</b> | ●     | 071 RS- (B), 07RS- (B) |                                                                                                          |
| Round Type Holder<br>φ20 mm  | <b>RBH2030N</b> | ●     | 030 RS- (B), 03RS- (B) | Citizen Precision Machinery Co., Ltd.<br>Tsumagi Corporation<br>MIYANO MACHINERY JAPAN INC.<br>NC lathes |
|                              | <b>RBH2040N</b> | ●     | 040 RS- (B), 04RS- (B) |                                                                                                          |
|                              | <b>RBH2050N</b> | ●     | 051 RS- (B), 05RS- (B) |                                                                                                          |
|                              | <b>RBH2060N</b> | ●     | 061 RS- (B), 06RS- (B) |                                                                                                          |
|                              | <b>RBH2070N</b> | ●     | 071 RS- (B), 07RS- (B) |                                                                                                          |
| Round Type Holder<br>φ22 mm  | <b>RBH2230N</b> | ●     | 030 RS- (B), 03RS- (B) | STAR MICRONICS CO., LTD.                                                                                 |
|                              | <b>RBH2240N</b> | ●     | 040 RS- (B), 04RS- (B) |                                                                                                          |
|                              | <b>RBH2250N</b> | ●     | 051 RS- (B), 05RS- (B) |                                                                                                          |
|                              | <b>RBH2260N</b> | ●     | 061 RS- (B), 06RS- (B) |                                                                                                          |
|                              | <b>RBH2270N</b> | ●     | 071 RS- (B), 07RS- (B) |                                                                                                          |
| Round Type Holder<br>φ25 mm  | <b>RBH2530N</b> | ●     | 030 RS- (B), 03RS- (B) | Tsumagi Corporation<br>MIYANO MACHINERY JAPAN INC.<br>NC lathes                                          |
|                              | <b>RBH2540N</b> | ●     | 040 RS- (B), 04RS- (B) |                                                                                                          |
|                              | <b>RBH2550N</b> | ●     | 051 RS- (B), 05RS- (B) |                                                                                                          |
|                              | <b>RBH2560N</b> | ●     | 061 RS- (B), 06RS- (B) |                                                                                                          |
|                              | <b>RBH2570N</b> | ●     | 071 RS- (B), 07RS- (B) |                                                                                                          |
| Square Type Holder<br>□10 mm | <b>SBH1030R</b> | ★     | 030 RS- (B), 03RS- (B) | NC lathes                                                                                                |
|                              | <b>SBH1040R</b> | ★     | 040 RS- (B), 04RS- (B) |                                                                                                          |
|                              | <b>SBH1050R</b> | ★     | 051 RS- (B), 05RS- (B) |                                                                                                          |
|                              | <b>SBH1060R</b> | ★     | 061 RS- (B), 06RS- (B) |                                                                                                          |
|                              | <b>SBH1070R</b> | ★     | 071 RS- (B), 07RS- (B) |                                                                                                          |

★ Mitsubishi Materials obtained the makers' approval before entering their names in the list.

★1 For holder details, refer to Boring Bar Section, page E034—E038.