

HOW TO READ THE STANDARD OF SMALL TOOLS

● How this section page is organized

- ① Organized according to the cutting mode of small tools.
(Refer to the inside title on the next page.)
- ② Shown as Turning → External Grooving → External Cutting Off → Threading → Boring.

FIGURE SHOWING THE TOOLING APPLICATION uses illustrations and arrows to depict the available machining applications such as external turning, copying, facing, chamfering, threading, and grooving together with cutting edge lead angles.

GEOMETRY
CHIP BREAKER BY CUTTING APPLICATION

TYPE OF TOOL HOLDER indicates the first four letters of the order number, as well as cutting applications.

APPLICATION

PRODUCT SECTION

SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

SCAC-SM

Without off set

Finish SMGFS RL-F RL-SB LS
Medium (2, 3) (2, 3) (2, 3)
Light (2, 3) (2, 3) (2, 3)

Order Number Stock Insert Number Dimensions (inch) H B LF LH HBKW HF WF2 Clamp Screw Wrench
SCACRL-0625M ●● CC-B 21.5 .375 .375 4.921 — — .375 0 TS254 TKY08R
SCACRL-0635M ●● CC-H 32.5 .375 .375 4.921 .830 .156 .375 0 TS43 TKY15R
SCACRL-0835M ●● CC-T 32.5 .500 .500 5.906 .504 .031 .500 0 TS43 TKY15R
SCACRL-1035M ●● CC-W 32.5 .625 .625 5.906 — — .625 0 TS43 TKY15R

* Clamp Torque (bf-in): TS254=8.9, TS43=31

SCLC-SM

Without off set

Finish SMGFS RL-F RL-SB LS
Medium (2, 3) (2, 3) (2, 3)
Light (2, 3) (2, 3) (2, 3)

Order Number Stock Insert Number Dimensions (inch) H B LF LH HBKW HF WF2 Clamp Screw Wrench
SCLCRL-0625M ●● CC-B 21.5 .375 .375 4.921 — — .375 0 TS254 TKY08R
SCLCRL-0635M ●● CC-H 32.5 .375 .375 4.921 .807 .176 .375 0 TS43 TKY15R
SCLCRL-0835M ●● CC-T 32.5 .500 .500 5.906 .685 .051 .500 0 TS43 TKY15R
SCLCRL-1035M ●● CC-W 32.5 .625 .625 5.906 — — .625 0 TS43 TKY15R

* Clamp Torque (bf-in): TS254=8.9, TS43=31

SDJC-SM

Without off set

Finish SMGFS RL-F RL-SB LS
Medium (2, 3) (2, 3) (2, 3)
Light (2, 3) (2, 3) (2, 3)

Order Number Stock Insert Number Dimensions (inch) H B LF LH HBKW HF WF2 Clamp Screw Wrench
SDJCRL-0625M ●● DCMT 21.5 .375 .375 4.921 — — .375 0 TS254 TKY08R
SDJCRL-0635M ●● DCMW 32.5 .375 .375 4.921 .965 .176 .375 0 TS43 TKY15R
SDJCRL-0835M ●● DCGT 32.5 .500 .500 5.906 .843 .051 .500 0 TS43 TKY15R
SDJCRL-1035M ●● DGGW 32.5 .625 .625 5.906 — — .625 0 TS43 TKY15R

* Clamp Torque (bf-in): TS254=8.9, TS43=31

SDNC-SM

Neutral edge with handed holder Without off set

Finish SMGFS RL-F RL-SB LS
Medium (2, 3) (2, 3) (2, 3)
Light (2, 3) (2, 3) (2, 3)

Order Number Stock Insert Number Dimensions (inch) H B LF LH HBKW HF WF2 Clamp Screw Wrench
SDNCRL-0625M ●● DCMT 21.5 .375 .375 4.921 — — .375 118 TS254 TKY08R
SDNCRL-0635M ●● DCMW 32.5 .375 .375 4.921 .965 .097 .375 .197 TS43 TKY15R
SDNCRL-0835M ●● DCGT 32.5 .500 .500 5.906 — — .500 .197 TS43 TKY15R
SDNCRL-1035M ●● DGGW 32.5 .625 .625 5.906 — — .625 .197 TS43 TKY15R

* Clamp Torque (bf-in): TS254=8.9, TS43=31

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel - Alloy Steel	180H-280HB	M56015/VP15TF	165-450	.0004-.006
Free Cutting Steel	—	M56015	100-500	.0004-.006
		NX3025	165-620	.0004-.006
M Stainless Steel	<200HB	VP15TF/MP9005/MP9015	165-300	.0008-.004
N Non-Ferrous Metal	—	HT10/MT9005	230-755	.0012-.005
S Titanium Alloy	—	MT9005	130-260	.0016-.005
Heat Resistant Alloy	—	MP9015	65-245	.0016-.005

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.
Note 2) Dimensions shown for insert corner RE .008 inch.

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

PRODUCT STANDARDS indicates order numbers, stock status (per right/left hand), applicable inserts, dimensions, and spare parts.

REFERENCE PAGE FOR APPLICABLE INSERTS indicates reference pages giving details of inserts that are applicable to the product.

PAGE REFERENCE
· SPARE PARTS
· TECHNICAL DATA indicates reference pages, including the above, on the right hand page of each double-page spread.

RECOMMENDED CUTTING CONDITIONS for each work material classification, indicates recommended cutting conditions according to the ISO categories for cutting grades, P, M and N.

USA Stock

SCAC-SM type inserts > A147-A155
SCLC-SM type inserts > A147-A155
SDJC-SM type inserts > A158-A165
SDNC-SM type inserts > A158-A165
CBN & PCD Inserts > B044-B046, B063

SDJC-SM type inserts > A158-A165
SDNC-SM type inserts > A158-A165
CBN & PCD inserts > B044, B046, B063

SPARE PARTS > N001
TECHNICAL DATA > P001

D008

D009

● To Order : Please specify order number and hand of tool (right/left).

TURNING

SMALL TOOLS

*Arranged by Alphabetical order

D016 **BT**AH (INCH STANDARD)
D019 **BT**AH (METRIC STANDARD)
D016 **BT**AT INSERTS
D017 **BT**BT INSERTS
D018 **BT**VH (INCH STANDARD)
D021 **BT**VH (METRIC STANDARD)
D018 **BT**VT INSERTS
D041 **CS**VH (INCH STANDARD)
D044 **CS**VH (METRIC STANDARD)
D042 **CS**VTB INSERTS
D042 **CS**VTBXL INSERTS
D042 **CS**VTC INSERTS
D041 **CS**VTF INSERTS
D041 **CS**VTFXL INSERTS
D043 **CS**VTG INSERTS
D043 **CS**VTT INSERTS
D026 **CT**AH (INCH STANDARD)
D028 **CT**AH (METRIC STANDARD)
D026 **CT**AH-S (INCH STANDARD)
D028 **CT**AH-S (METRIC STANDARD)
D027 **CT**AT INSERTS
D017 **CT**BH (INCH STANDARD)
D030 **CT**BH (INCH STANDARD)
D020 **CT**BH (METRIC STANDARD)
D031 **CT**BH (METRIC STANDARD)
D030 **CT**BT INSERTS
D032 **CT**CH (METRIC STANDARD)
D032 **CT**CT INSERTS
D033 **CT**DH (METRIC STANDARD)
D033 **CT**DT INSERTS
D034 **CT**EH (METRIC STANDARD)
D034 **CT**ET INSERTS
D022 **GT**AH/GTBH/GTCH (INCH STANDARD)
D024 **GT**AH/GTBH/GTCH (METRIC STANDARD)
D022 **GT**AT/GTBT/GTCT INSERTS
D038 **MM**TE (INCH STANDARD)
D047 **SB**AH (METRIC STANDARD)
D047 **SB**AT INSERTS
D008 **SC**AC-SM (INCH STANDARD)
D012 **SC**AC-SM (METRIC STANDARD)
D008 **SC**LC-SM (INCH STANDARD)
D012 **SC**LC-SM (METRIC STANDARD)
D009 **SD**JC-SM (INCH STANDARD)
D013 **SD**JC-SM (METRIC STANDARD)
D009 **SD**NC-SM (INCH STANDARD)
D013 **SD**NC-SM (METRIC STANDARD)
D039 **SH** (INCH STANDARD)
D040 **SH** (METRIC STANDARD)
D010 **SV**JB-SM (INCH STANDARD)
D014 **SV**JB-SM (METRIC STANDARD)
D011 **SV**JC-SM (INCH STANDARD)
D015 **SV**JC-SM (METRIC STANDARD)
D010 **SV**LP-SM (INCH STANDARD)
D014 **SV**LP-SM (METRIC STANDARD)
D015 **SV**PP-SM (METRIC STANDARD)
D011 **SV**VB-SM (INCH STANDARD)
D015 **SV**VB-SM (METRIC STANDARD)
D035 **TT**AH (INCH STANDARD)
D036 **TT**AH (METRIC STANDARD)
D035 **TT**AT INSERTS

OUTLINE OF SMALL TOOLS D002

CLASSIFICATION..... D004

STANDARD

GANG TYPE TOOL POSTS

	INCH	METRIC
FRONT TURNING TOOLS		
SC AC-SM	D008	D012
SCL C-SM	D008	D012
SD JC-SM	D009	D013
SD NC-SM	D009	D013
SV LP-SM	D010	D014
SV JB-SM	D010	D014
SV JC-SM	D011	D015
SV VB-SM	D011	D015
SV PP-SM	—	D015

BACK TURNING TOOLS

BT AH	D016	D019
CT BH	D017	D020
BT VH	D018	D021

GROOVING TOOLS

GT AH / GT BH / GT CH	D022	D024
GYS (For Swiss style lathes) ..	F038	F062

CUTTING OFF TOOLS

CT AH / CT AH-S	D026	D028
CT BH	D030	D031
CT CH	—	D032
CT DH	—	D033
CT EH	—	D034

THREADING TOOLS

TT AH	D035	D036
MM TE	D038	—

BORING TOOLS

SB AH	—	D047
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OPPOSITE TOOL POSTS

DIMPLE SLEEVE HOLDER

SH	D039	D040
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RADIAL TYPE TOOL POSTS

CS VH	D041	D044
CS VTF	D041	D044
CS VTFXL	D041	D044
CS VTC	D042	D045
CS VTB	D042	D045
CS VTBXL	D042	D045
CS VTG	D043	D046
CS VTT	D043	D046

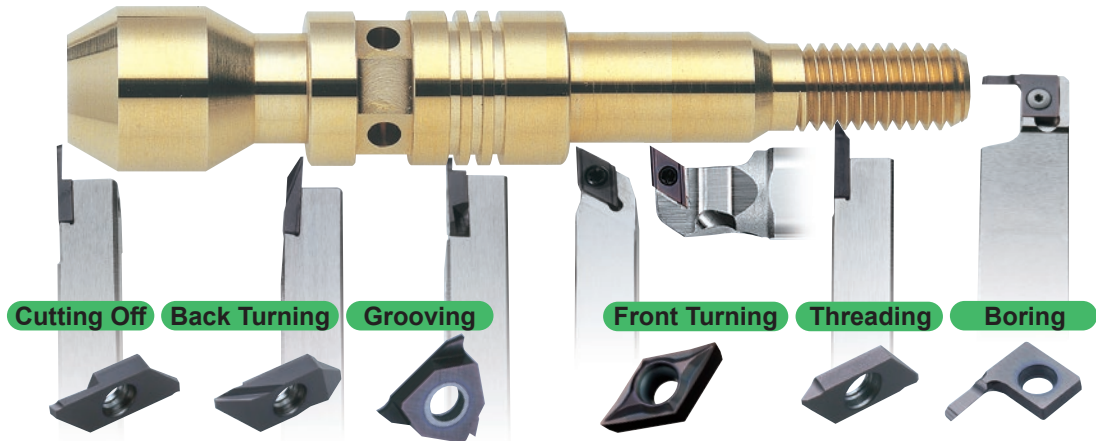


*For GY Swiss please refer to section F Grooving tools.

D001

OUTLINE OF SMALL TOOLS

TOOLS FOR GANG TYPE AUTOMATIC LATHES (FOR EXTERNAL TURNING AND BORING)



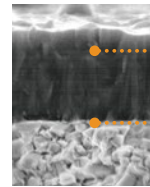
PVD Coated Cemented Carbide Grade for Carbon Steel

MS6015 NEW

Skilled at pure iron, carbon steel and free cutting steel turning and achieving implemented stable finished surfaces and excellent dimensional accuracy.

	MS6015	Conventional
Coating	TiCN multilayer	TiAlN
Hardness (HV)	3,000	2,800
Wear Coefficient (Carbon Steel)	Low	High
Base Material Hardness (HRA)	92.0	92.0
T.R.S (GPa)	2.0	2.0

Ti-C-N Multilayer Coating



Superior wear and welding resistance and demonstrating the best possible results for carbon steel.

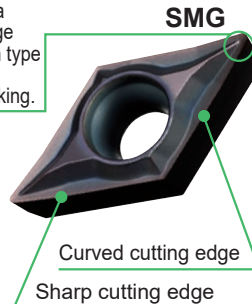
Minute multilayers remarkably improve welding.

● Molded breaker insert

Nose radii designed with minus tolerance

- Suitable for small parts applications that often require minus tolerance dimensions.
- The order number is shown with the letter "M" that indicates minus tolerance. ex) DCGT32.50.2MFS
- The radius value is printed on the side of the insert label for easy recognition.

A combination of a curved cutting edge and the protrusion type breaker promotes efficient chip breaking.



SMG

FS

FS-P

LS

LS-P

● Tolerance Corner R

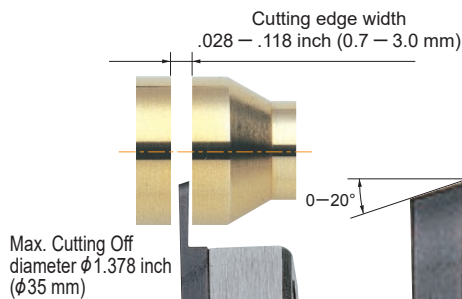


E class
RE⁰ - .0008 inch

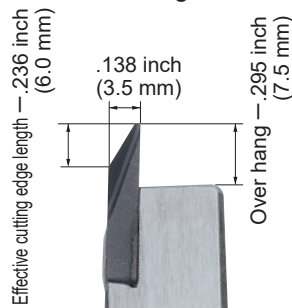
The letter "M" insert
RE⁰ - .002 inch

(Conventional G-class insert)
RE ± .004 inch

● Cutting Off



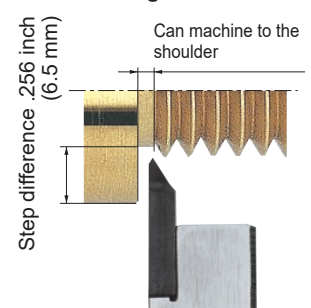
● Back Turning



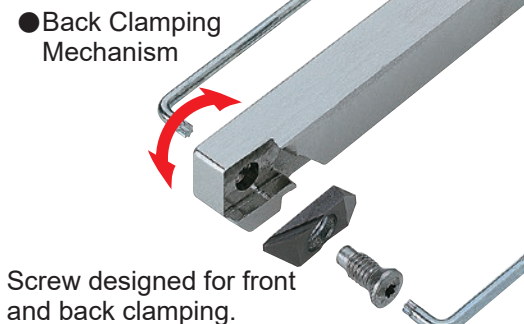
Inserts for
Molded Back Turning
SMB Breaker
NEW



● Threading



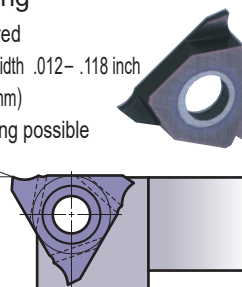
● Back Clamping Mechanism



● Grooving

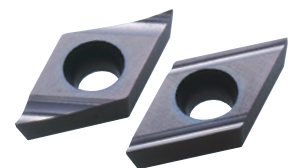
- 3-cornered
- Groove width .012 - .118 inch (0.3 - 3.0 mm)
- Traversing possible

20°



● Front Turning

- ISO E class accuracy inserts
- A wide variety of small corner R inserts
- Rake angle 30°



Tools for a very wide range of small parts machining

External Turning	Tools for front turning, back turning, grooving, threading, and cutting off
Internal Turning	Tools for boring, internal grooving and internal threading
Drilling	Drills
End Milling	End Mills

Tools for front turning, back turning, grooving, threading, and cutting off

Tool Post Type	Gang type, Turret type Radial type
Tool Size	Square holder : .375— .625 inch (8 — 16 mm) Round holder : $\leq \phi 1$ inch ($\phi 25.4$ mm)

Indexable inserts developed under the concept of "high quality, high efficiency and long tool life."

High Quality	E class tolerance, sharp cutting edge, high accuracy small corner R, smooth surface finish
Long Tool Life	PVD coating MS6015/VP15TF/MP9005/MP9015
High Efficiency	Regrinding not necessary due to the employment of indexable inserts. A wide variety of top cutting edge geometries

INTERNAL TURNING TOOLS

Solid type **MICRO-MINI TWIN Boring Bars**



MICRO-DEX Boring Bars



TOOLS FOR CAM TYPE AUTOMATIC LATHES

- The most suitable for the use with cam type automatic lathes (radial pattern tool posts)
- The most suitable for machining of small parts with work diameter 5mm or smaller
- Single holder for front turning, back turning, grooving, threading and cutting off operations



Front Turning Back Turning Grooving Threading Cutting Off

D
SMALL TOOLS

DRILLING TOOLS

Solid Carbide Drill
MVS/MVE



Micro Solid Carbide Center Drills
MSP



Solid Carbide Flat Bottom Drills

MFE NEW

Solid Carbide Drills for Centering and Chamfering

DLE NEW



Solid Gun Drill

Micro Solid Carbide Gun Drill with through coolant holes
MGS



END MILLING TOOLS

Solid Carbide End Mill
MSTAR End Mill Series



Vibration Control End Mills for Machining Difficult-to-Cut Materials

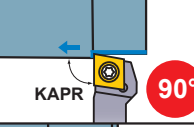
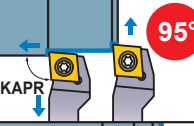
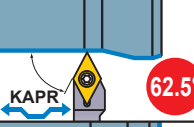
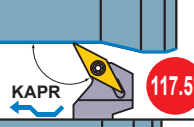
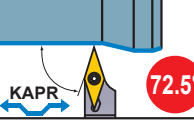
SMART MIRACLE End Mill Series



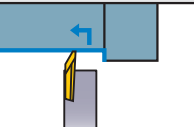
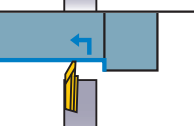
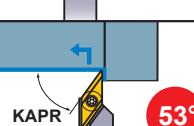
CLASSIFICATION (EXTERNAL TURNING)

GANG TYPE TOOL POSTS

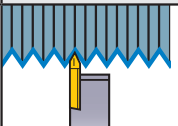
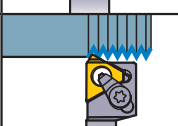
● FRONT TURNING

Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
SCAC-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	8 x 8 x 125 10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D008 Metric D012			
SCLC-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	8 x 8 x 125 10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D008 Metric D012			
SDJC-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	8 x 8 x 125 10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D009 Metric D013			
SDNC-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	8 x 8 x 125 10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D009 Metric D013			
SVLP-SM	.375 x .375 x 5.000 .500 x .500 x 6.000 .625 x .625 x 6.000	10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D010 Metric D014			
SVJB-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D010 Metric D014			
SVJC-SM	.375 x .375 x 4.500 .500 x .500 x 4.500 .625 x .625 x 4.500	10x10x120 12x12x120 16x16x120	
Inch D011 Metric D015			
SVPP-SM	—	10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Metric D015			
SVVB-SM	.375 x .375 x 4.921 .500 x .500 x 5.906 .625 x .625 x 5.906	10 x 10 x 125 12 x 12 x 150 16 x 16 x 150	
Inch D011 Metric D015			

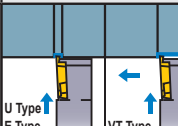
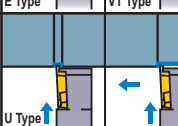
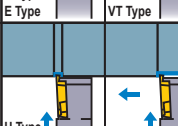
● BACK TURNING

Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
BTBH (Edge Length) .110, .138, .197 inch 2.8, 3.5, 5.0 mm	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	8 x 10 x 120 10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D016 Metric D019			
CTBH (Edge Length) .177, .236 inch 4.5, 6.0 mm	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D017 Metric D020			
BTBH (Edge Length) .295 inch 7.5 mm	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D018 Metric D021			

● THREADING

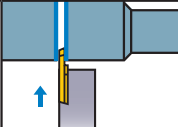
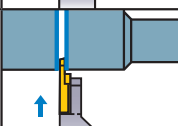
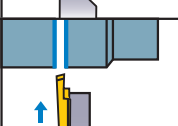
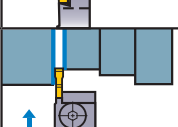
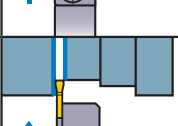
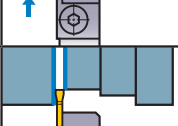
Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
TTAH	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	8 x 10 x 120 10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D035 Metric D036			
MMTE	.375 x .375 x 4.724 .500 x .500 x 4.724	—	
Inch D038			

● GROOVING

Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
GTAH (Grooving Width) .012-.055 inch 0.3-3.0 mm	.375 x .375 x 3.150 .500 x .500 x 3.150 .500 x .500 x 4.724 .625 x .625 x 4.724	8 x 8 x 80 8 x 8 x 120 10 x 10 x 80 10 x 10 x 120 12 x 12 x 80 12 x 12 x 120 16 x 16 x 120	
Inch D022 Metric D024			
GTBH (Grooving Width) .057-.089 inch 1.45-3.0 mm	.375 x .375 x 3.150 .375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	10 x 10 x 80 10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D022 Metric D024			
GTCH (Grooving Width) .098-.118 inch 2.5-3.0 mm	.375 x .375 x 3.150 .375 x .375 x 4.724	10 x 10 x 80 10 x 10 x 120	
Inch D022 Metric D024			

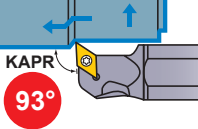
Note 1) For GY style lathes please refer page F018 or F042.

● CUTTING OFF

Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
CTAH (Max.Cut Off Diameter) .472 inch 12 mm	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	8 x 10 x 120 10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D026 Metric D028			
CTAH-S (Max.Cut Off Diameter) .472 inch 12 mm	.375 x .375 x 3.150 .500 x .500 x 3.150	10 x 10 x 80	
Inch D026 Metric D028			
CTBH (Max.Cut Off Diameter) .630 inch 16 mm	.375 x .375 x 4.724 .500 x .500 x 4.724 .625 x .625 x 4.724	10 x 10 x 120 12 x 12 x 120 16 x 16 x 120	
Inch D030 Metric D031			
CTCH (Max.Cut Off Diameter) .787 inch 20 mm	—	10 x 10 x 120 12 x 12 x 120	
Metric D032			
CTDH (Max.Cut Off Diameter) .906-1.378 inch 23-35 mm	—	16 x 16 x 120 16 x 16 x 125	
Metric D033			
CTEH (Max.Cut Off Diameter) .906-1.378 inch 23-35 mm	—	16 x 16 x 120 16 x 16 x 125	
Metric D034			

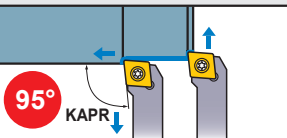
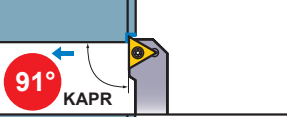
OPPOSITE TOOL POSTS

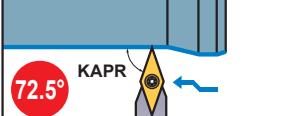
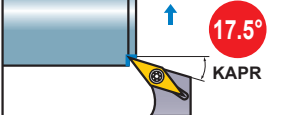
● DIMPLE SLEEVE HOLDER

Name of Tool Holder	Shank Size (DCON x LF)		Geometry
	Inch	Metric	
SH	.625 x 3.937	φ15.875 x 100	
	.750 x 4.921	φ19.05 x 125	
	.787 x 4.921	φ20 x 125	
	.866 x 4.921	φ22 x 125	
	1.000 x 5.906	φ25.4 x 150	
Inch → D039 Metric → D040			

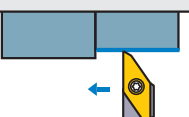
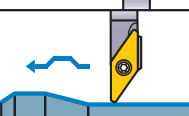
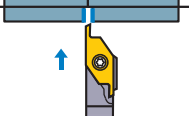
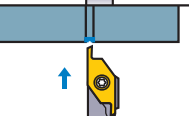
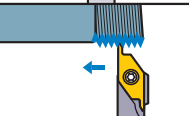
TURRET TYPE TOOL POSTS

● FRONT TURNING

Name of Tool Holder	Shank Size (inch) (H x B x LF)	Geometry
SCLC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C030		
SDJC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C031		
SDNC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C031		
SSSC	.500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C034		
STGC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C035		
STFC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C035		
SVJC	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C036		
SVPC	.500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C036		
SVJB	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C028		

Name of Tool Holder	Shank Size (inch) (H x B x LF)	Geometry
SVVB	.375 x .375 x 2.500 .500 x .500 x 3.000 .625 x .625 x 4.000	
Inch → C028		
SVHB	.375 x .375 x 2.500 .500 x .500 x 3.500 .625 x .625 x 4.000	
Inch → C029		

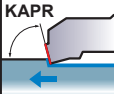
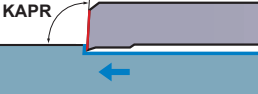
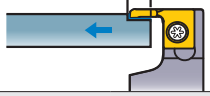
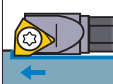
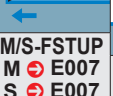
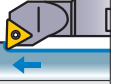
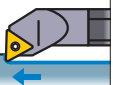
RADIAL TYPE TOOL POSTS

Name of Tool Holder	Tool Size (H x B x LF)		Geometry
	Inch	Metric	
CSVH (Front Turning)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D041 Metric → D044			
CSVH (Front Turning Copying)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D041 Metric → D044			
CSVH (Back Turning)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D042 Metric → D045			
CSVH (Back Turning Copying)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D042 Metric → D045			
CSVH (Cutting Off)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D042 Metric → D045			
CSVH (Grooving)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D043 Metric → D046			
CSVH (Threading)	.375 x .375 x 5.512 .500 x .500 x 5.512	7 x 7 x 140 8 x 8 x 140 9.5 x 9.5 x 140 10 x 10 x 140 12 x 12 x 140	
Inch → D043 Metric → D046			

D

SMALL TOOLS

CLASSIFICATION (INTERNAL TURNING)

Min. Cutting Dia.	Name of Tool Holder	Features	KAPR = 75°	KAPR = 93°	
$\phi 3.0$ mm $(\phi .118$ inch)	For Gang Type Tool Posts SBAH 	- The minimum cutting diameter is $\phi 3$ mm (.118 inch). - Tools for Gang type Swiss type lathes.			 SBAH ↻ E047
$\phi 2.2$ mm $\phi 7.2$ mm $(\phi .087$ inch) $(\phi .283$ inch)	MICRO-MINI TWIN Boring Bars (Solid Carbide) 	- The minimum cutting diameter is $\phi 2.2$ mm (.087 inch). - Two cutting edges type. - Continuous cutting from boring to facing. - With or without a chip breaker.			
$\phi 3.2$ mm $\phi 5.2$ mm $(\phi .126$ inch) $(\phi .205$ inch)	MICRO-MINI Boring Bars (Solid Carbide) 	- The minimum cutting diameter is from $\phi 3.2$ mm (.126 inch). - Single cutting edge type. - l/d is 5 times the diameter. - Cutting edge can be shaped according to the application. Thus, it covers a wide cutting range. (threading, grooving, copying, etc.)		 FR-BLS ↻ E031	
$\phi 5.0$ mm $\phi 8.0$ mm $(\phi .197$ inch) $(\phi .315$ inch)	MICRO-DEX Boring Bars 	- The minimum cutting diameter is from $\phi 5$ mm (.197 inch). 7° positive insert. - Carbide shank type. - Easy-to-use tool geometries. - Suitable for small workpiece. - l/d is 5 times the diameter.			 SWUB ↻ E029
$\phi .390$ inch $\phi .977$ inch	SCREW CLAMP DIMPLE BAR (Heavy Metal Shank) (Steel Shank) 	- The minimum cutting diameter is $\phi .390$ inch. 7°, 11° positive insert. - Excellent vibration resistance due to light dimple head. - Coolant thru type.		 M-FSDUC ↻ E008	 M/S-FSTUP M ↻ E007 S ↻ E007
$\phi .228$ inch $\phi .937$ inch	Screw Clamp Type Boring Bars (Steel Shank) 	- Two wall pocket. 7° positive insert, low cutting force. - Screw clamp type. - Steel, heavy metal and carbide shanks are available in various diameters.	 S-SSKC ↻ E015	 S-SDUC ↻ E014	 S-STUC ↻ E015
$\phi .200$ inch $\phi .750$ inch	Screw Clamp Type Boring Bars (Heavy Metal Shank) 				 M-FSVUB/C ↻ E009
$\phi .228$ inch $\phi .797$ inch	Screw Clamp Type Boring Bars (Carbide Shank) 				 M-FSWUB/P ↻ E009
$\phi .390$ inch $\phi .790$ inch	SL5 Type Boring Bars 	- Multi-functional bar for threading, grooving and boring. - Minimum bore $\phi .390$ inch. - Rigid insert retention.			 C-STUC ↻ E016
$\phi 10$ mm $\phi 20$ mm $(\phi .394$ inch) $(\phi .787$ inch)	F Type Boring Bars (FSL51,52) 	- The minimum cutting diameter is $\phi 10$ mm (.394 inch). - Single holder can be equipped with grooving inserts and threading inserts.			

Note 1) Products with blue color symbol have carbide shank.

	KAPR = 95°	KAPR = 107.5°~117.5°	KAPR = 142°	Grooving	Threading	Selection Standard					
						Economical	Low Cutting Resistance	Vibration Resistance	Coolant Thru	Specialized	Small Diameter Cutting
										◎	◎
	 CB RS(B) ➔ E032		 CR RS-01(B) ➔ E033	 CG RS(B) ➔ F241	 CT RSM(B) ➔ G034	◎	◎	◎			◎
							◎	◎			◎
	 SCLC ➔ E029						◎	◎			◎
	 M/S-FSCLC/P M ➔ E006 S ➔ E006	 M-FSDQC ➔ E008	 M-FSVPB/C ➔ E010	 M-FSVJC ➔ E010			◎	◎	◎		
	 S-SCLC ➔ E012	 S-SDQC ➔ E013	 S-SVQC ➔ E016			◎	○	○			
	 M-SCLC ➔ E012						○	○			
	 M-SWLO ➔ E020										
	 C-SCLC ➔ E013	 C-SWLO ➔ E019	 C-SDQC ➔ E014				○	◎			
					 S-SL5N ➔ F239	 S-SL5N ➔ G032		○	○		○
					 FSL51, FSL52 ➔ F238	 FSL51, FSL52 ➔ G031		○	○		○

Note 2) ◎: 1st recommendation. ○: 2nd recommendation.

D

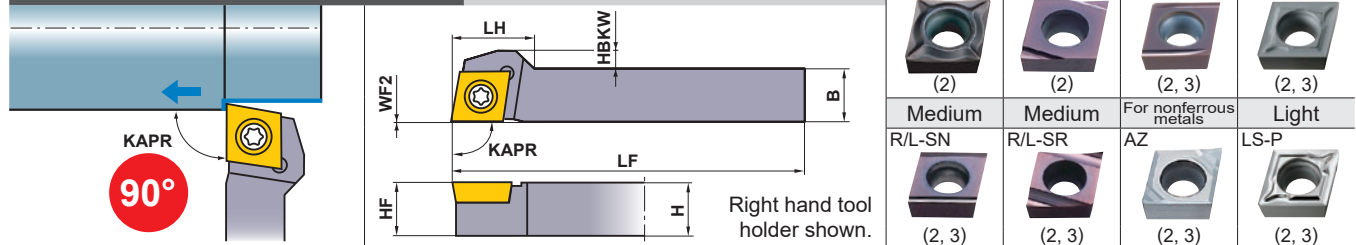
SMALL TOOLS

FRONT TURNING TOOLS (FOR GANG TYPE)

TOOL POSTS

INCH STANDARD

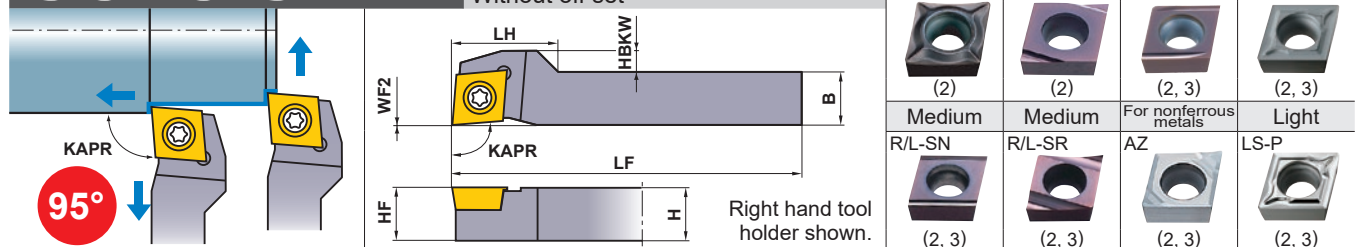
SCAC-SM



Order Number	Stock		Insert Number		Dimensions (inch)						 *		
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench
SCACR/L-062SM	●	●	CC○B CC○H CC○T CC○W	21.5○	.375	.375	4.921	—	—	.375	0	TS254	TKY08R
SCACR/L-063SM	●	●		32.5○	.375	.375	4.921	.630	.156	.375	0	TS43	TKY15R
SCACR/L-083SM	●	●		32.5○	.500	.500	5.906	.504	.031	.500	0	TS43	TKY15R
SCACR/L-103SM	●	●		32.5○	.625	.625	5.906	—	—	.625	0	TS43	TKY15R

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SCLC-SM



Order Number	Stock		Insert Number		Dimensions (inch)								
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench
SCLCR/L-062SM	●	●	CC○B CC○H CC○T CC○W	21.5	.375	.375	4.921	—	—	.375	0	TS254	TKY08R
SCLCR/L-063SM	●	●		32.5	.375	.375	4.921	.807	.176	.375	0	TS43	TKY15R
SCLCR/L-083SM	●	●		32.5	.500	.500	5.906	.685	.051	.500	0	TS43	TKY15R
SCLCR/L-103SM	●	●		32.5	.625	.625	5.906	—	—	.625	0	TS43	TKY15R

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

Note 2) Dimensions shown for insert corner RE .008 inch.

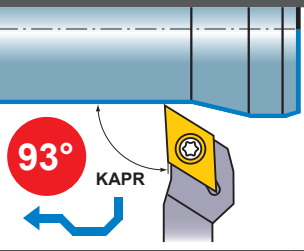
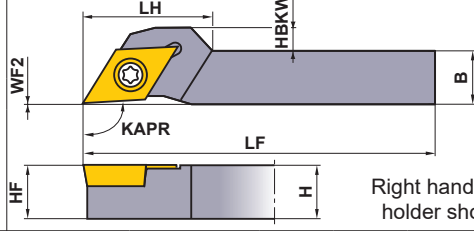
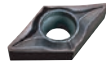
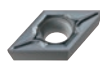
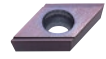
● : USA Stock

SCAC-SM type inserts > A147—A155

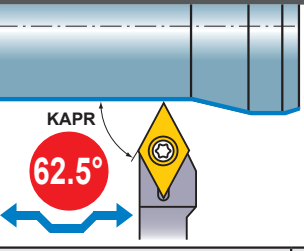
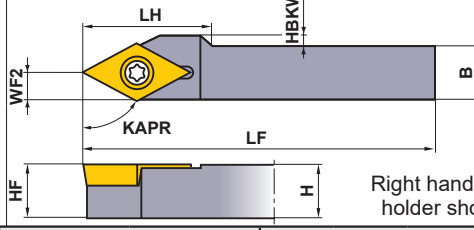
SCLC-SM type inserts > A147—A155

CBN & PCD inserts > B044—B046, B063

INCH STANDARD

SDJC-SM				Without off set							Finish		Finish		Light		Light	
											SMG/FS		R/L-F		R/L-SS		LS	
																		
											(2, 3)		(2, 3)		(2, 3)		(2, 3)	
											Medium		Medium		For nonferrous metals		Light	
				Right hand tool holder shown.							R/L-SN		R/L-SR		AZ		LS-P	
																		
											(2, 3)		(2, 3)		(2, 3)		(2, 3)	
Order Number		Stock		Insert Number		Dimensions (inch)						 *						
		R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench				
SDJCR/L-062SM		●	●	DCMT	21.5	.375	.375	4.921	—	—	.375	0	TS254	TKY08R				
SDJCR/L-063SM		●	●	DCMW	32.5	.375	.375	4.921	.965	.176	.375	0	TS43	TKY15R				
SDJCR/L-083SM		●	●	DCET	32.5	.500	.500	5.906	.843	.051	.500	0	TS43	TKY15R				
SDJCR/L-103SM		●	●	DCGT	32.5	.625	.625	5.906	—	—	.625	0	TS43	TKY15R				
		●	●	DCGW	32.5	.625	.625	5.906	—	—	.625	0	TS43	TKY15R				

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SDNC-SM				Neutral edge with handed holder Without off set						Finish		Finish		Light		Light	
										SMG/FS	R/L-F	R/L-SS	LS				
										(2, 3)	(2, 3)	(2, 3)	(2, 3)				
										Medium	Medium	For nonferrous metals	Light				
										R/L-SN	R/L-SR	AZ	LS-P				
										(2, 3)	(2, 3)	(2, 3)	(2, 3)				
Order Number	Stock		Insert Number		Dimensions (inch)						 *						
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench				
SDNCR/L-062SM	●	●	DCMT	21.5	.375	.375	4.921	—	—	.375	.118	TS254	TKY08R				
SDNCR/L-063SM	●	●	DCMW	32.5	.375	.375	4.921	.965	.097	.375	.197	TS43	TKY15R				
SDNCR/L-083SM	●	●	DCET	32.5	.500	.500	5.906	—	—	.500	.197	TS43	TKY15R				
SDNCR/L-103SM	●	●	DCGT	32.5	.625	.625	5.906	—	—	.625	.197	TS43	TKY15R				
			DCGW	32.5	.625	.625	5.906	—	—	.625	.197	TS43	TKY15R				

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB~280HB	MS6015/VP15TF	165—490	.0004— .006
	Free Cutting Steel	—	MS6015	100—590	.0004— .006
			NX2525	165—820	.0004— .006
M	Stainless Steel	≤200HB	VP15TF/MP9005/MP9015	165—390	.0008— .004
N	Non-Ferrous Metal	—	HTi10/MT9005	230—755	.0012— .006
S	Titanium Alloy	—	MT9005	130—260	.0016— .005
	Heat Resistant Alloy	—	MP9015	65—245	.0016— .005

SDJC-SM type inserts > A158—A165

SDNC-SM type inserts > A158—A165

CBN & PCD inserts > B048, B049, B064

SPARE PARTS > N001

TECHNICAL DATA > P001

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

SVLP-SM

Without off set

Finish

R/L-SRF



(1.5, 2)

Finish

SMG



(1.5, 2)

Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (inch)					 *	
	R	L			H	B	LF	HF	WF2	Clamp Screw	Wrench
SVLPR-061.5SM	●		VPET VPGT	1.51.5	.375	.375	5.000	.375	0	TS202	TKY06R
SVLPR-081.5SM	●			1.51.5	.500	.500	6.000	.500	0	TS202	TKY06R
SVLPR/L-062SM	●	●		22	.375	.375	5.000	.375	0	TS255	TKY08R
SVLPR/L-082SM	●	●		22	.500	.500	6.000	.500	0	TS255	TKY08R
SVLPR/L-102SM	●	●		22	.625	.625	6.000	.625	0	TS255	TKY08R

* Clamp Torque (lbf-in) : TS202=5.3, TS255=8.9

SVJB-SM

Without off set

Finish

R/L-F



(2)

Medium

R/L-SR



(2)

Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (inch)						
	R	L			H	B	LF	HF	WF2	Clamp Screw	Wrench
SVJBR/L-062SM	●	●	VBMT VBET VBGT VBGW	22	.375	.375	4.921	.375	0	TS255	TKY08R
SVJBR/L-082SM	●	●		22	.500	.500	5.906	.500	0	TS255	TKY08R
SVJBR/L-102SM	●	●		22	.625	.625	5.906	.625	0	TS255	TKY08R

* Clamp Torque (lbf-in) : TS255=8.9

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

Note 2) Dimensions shown for insert corner RE .008 inch.

● : USA Stock

SVLP-SM type inserts ➤ A188

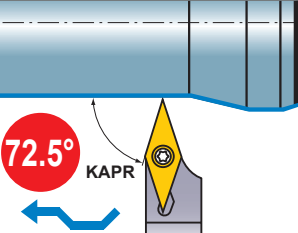
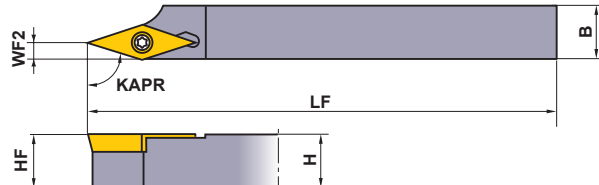
SVJB-SM type inserts ➤ A179-A183

CBN & PCD inserts ➤ B053, B068

INCH STANDARD

SVJC-SM				Without off set						Finish		Finish		Light		Light	
93° KAPR Right hand tool holder shown.				FP		FM		LS		LS-P							
																	
				(2)		(2)		(2)		(2)							
				Light		Light		Light									
LP		LM		LS													
																	
(2)		(2)		(2)													
Order Number		Stock		Insert Number		Dimensions (inch)						 *					
		R	L			H	B	LF	HBKW	HF	WF2	Clamp Screw	Wrench				
SVJCR/L-062B-SM		●	●	VCMW VCMT VCGT	22°	.375	.375	4.500	—	.375	0	TS255	TKY08R				
SVJCR/L-062.5B-SM		●	●		2.52°	.375	.375	4.500	.079	.375	0	TS255	TKY08R				
SVJCR/L-082B-SM		●	●		22°	.500	.500	4.500	—	.500	0	TS255	TKY08R				
SVJCR/L-082.5B-SM		●	●		2.52°	.500	.500	4.500	—	.500	0	TS32	TKY08R				
SVJCR/L-102B-SM		●	●		22°	.625	.625	4.500	—	.625	0	TS32	TKY08R				
SVJCR/L-102.5B-SM		●	●		2.52°	.625	.625	4.500	—	.625	0	TS32	TKY08R				

* Clamp Torque (lbf-in) : TS255=8.9, TS32=8.9

SVVB-SM				Neutral edge with handed holder						Finish		Medium	
										R/L-F	R/L-SN		
													
										(2)	(2)		
										Medium			
										R/L-SR			
													
										(2)			
Order Number		Stock		Insert Number		Dimensions (inch)					 *		
R	L	H	B			LF	HF	WF2	Clamp Screw	Wrench			
SVVBR/L-062SM		●	●	VBET 22°		.375	.375	4.921	.375	.118	TS255	TKY08R	
SVVBR/L-082SM		●	●	VBGT 22°		.500	.500	5.906	.500	.118	TS255	TKY08R	
SVVBR/L-102SM		●	●	VBMT 22°		.625	.625	5.906	.625	.118	TS255	TKY08R	
SVVBR/L-102SM		●	●	VBGW 22°		.625	.625	5.906	.625	.118	TS255	TKY08R	

* Clamp Torque (lbf-in) : TS255=8.9

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB~280HB	MS6015/VP15TF	165—490	.0004 — .006
	Free Cutting Steel	—	MS6015	100—590	.0004 — .006
			NX2525	165—820	.0004 — .006
M	Stainless Steel	≤200HB	VP15TF/MP9005/MP9015	165—390	.0008 — .004
N	Non-Ferrous Metal	—	HTI10/MT9005	230—755	.0012 — .006
S	Titanium Alloy	—	MT9005	130—260	.0016 — .005
	Heat Resistant Alloy	—	MP9015	65—245	.0016 — .005

SVJC-SM type inserts ➤ A184—A186

SVVB-SM type inserts ➤ A179—A183

CBN & PCD inserts ➤ B053, B068

SPARE PARTS ➤ N001

TECHNICAL DATA ➤ P001

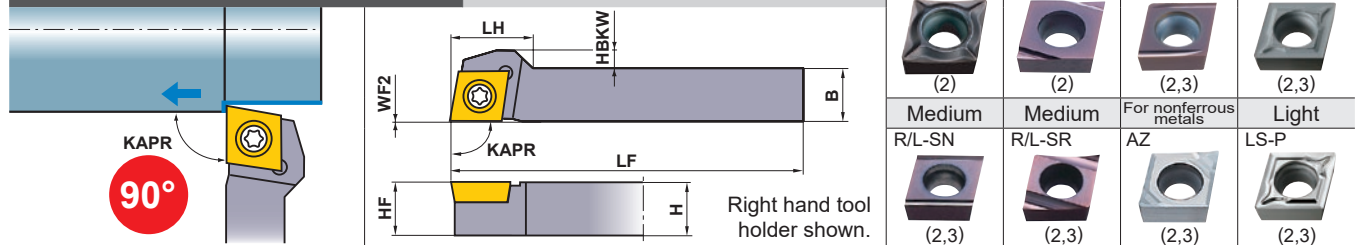
D
SMALL TOOLS

D011

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

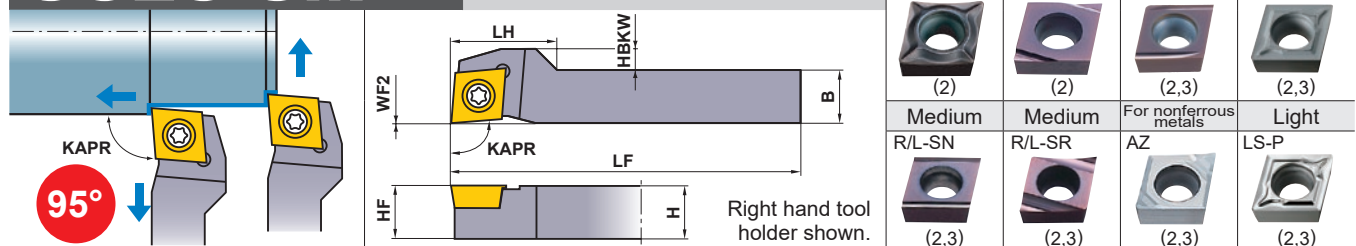
SCAC-SM



Order Number	Stock		Insert Number		Dimensions (mm)						 *		
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench
SCACR/L0808K06-SM	●	●	CC○B CC○H CC○T CC○W	21.5○	8	8	125	11	1.6	8	0	TS254	TKY08R
SCACR/L1010K06-SM	●	●		21.5○	10	10	125	—	—	10	0	TS254	TKY08R
SCACR/L1010K09-SM	●	●		32.5○	10	10	125	16	3.5	10	0	TS43	TKY15R
SCACR/L1212M09-SM	●	●		32.5○	12	12	150	14	1.5	12	0	TS43	TKY15R
SCACR/L1616M09-SM	●	●		32.5○	16	16	150	—	—	16	0	TS43	TKY15R

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SCLC-SM



Order Number	Stock		Insert Number		Dimensions (mm)								
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench
SCLCR/L0808K06-SM	●	●	CC○B CC○H CC○T CC○W	21.5○	8	8	125	11	2.1	8	0	TS254	TKY08R
SCLCR/L1010K06-SM	●	●		21.5○	10	10	125	—	—	10	0	TS254	TKY08R
SCLCR/L1010K09-SM	●	●		32.5○	10	10	125	20	4	10	0	TS43	TKY15R
SCLCR/L1212M09-SM	●	●		32.5○	12	12	150	18	2	12	0	TS43	TKY15R
SCLCR/L1616M09-SM	●	●		32.5○	16	16	150	—	—	16	0	TS43	TKY15R

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

Note 2) Dimensions shown for insert corner RE .008 inch.

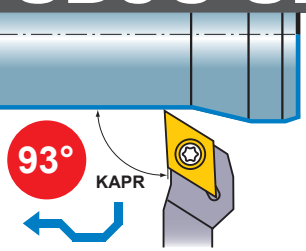
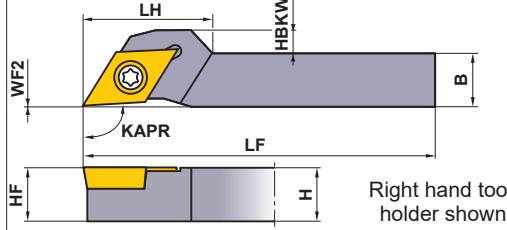
● : USA Stock

SCAC-SM type inserts > A147—A155

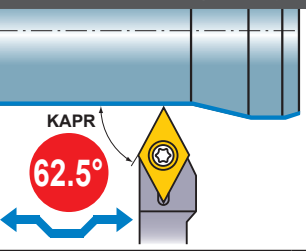
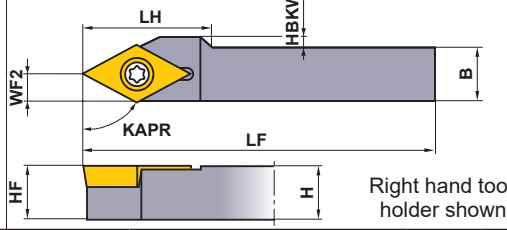
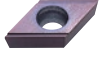
SCLC-SM type inserts > A147—A155

CBN & PCD inserts > B044—B046, B063

METRIC STANDARD

SDJC-SM				Without off set							Finish		Finish		Light		Light	
											SMG/FS		R/L-F		R/L-SS		LS	
											(2,3)		(2,3)		(2,3)		(2,3)	
											Medium		Medium		For nonferrous metals		Light	
											R/L-SN		R/L-SR		AZ		LS-P	
										(2,3)		(2,3)		(2,3)		(2,3)		
Order Number		Stock		Insert Number		Dimensions (mm)								 *				
		R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench				
SDJCR/L0808K07-SM		●	●	DCMT DCMW DCET DCGT DCGW	21.5	8	8	125	15	2	8	0	TS254	TKY08R				
SDJCR/L1010K07-SM		●	●		21.5	10	10	125	—	—	10	0	TS254	TKY08R				
SDJCR/L1010K11-SM		●	●		32.5	10	10	125	24	4	10	0	TS43	TKY15R				
SDJCR/L1212M11-SM		●	●		32.5	12	12	150	22	2	12	0	TS43	TKY15R				
SDJCR/L1616M11-SM		●	●		32.5	16	16	150	—	—	16	0	TS43	TKY15R				

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

SDNC-SM				Neutral edge with handed holder Without off set						Finish		Finish		Light		Light	
																	
										(2,3)	(2,3)	(2,3)	(2,3)				
										Medium	Medium	For nonferrous metals	Light				
										R/L-SN	R/L-SR	AZ	LS-P				
																	
Order Number	Stock		Insert Number		Dimensions (mm)												
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench				
SDNCR/L0808K07-SM	●	●	DCMT DCMW DCET DCGT DCGW	21.5	8	8	125	—	—	8	3	TS254	TKY08R				
SDNCR/L1010K07-SM	●	●		21.5	10	10	125	—	—	10	3	TS254	TKY08R				
SDNCR/L1010K11-SM	●	●		32.5	10	10	125	24	2	10	5	TS43	TKY15R				
SDNCR/L1212M11-SM	●	●		32.5	12	12	150	—	—	12	5	TS43	TKY15R				
SDNCR/L1616M11-SM	●	●		32.5	16	16	150	—	—	16	5	TS43	TKY15R				

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB~280HB	MS6015/VP15TF	165~490	.0004~.006
	Free Cutting Steel	—	MS6015	100~590	.0004~.006
			NX2525	165~820	.0004~.006
M	Stainless Steel	≤200HB	VP15TF/MP9005/MP9015	165~390	.0008~.004
N	Non-Ferrous Metal	—	HTi10/MT9005	230~755	.0012~.006
S	Titanium Alloy	—	MT9005	130~260	.0016~.005
	Heat Resistant Alloy	—	MP9015	65~245	.0016~.005

SDJC-SM type inserts > A158~A165

SDNC-SM type inserts > A158~A165

CBN & PCD inserts > B048, B049, B064

SPARE PARTS > N001

TECHNICAL DATA > P001

FRONT TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

SVLP-SM

Without off set

Finish

R/L-SRF



(1.5,2)

Finish

SMG



(1.5,2)

Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)					 *	
	R	L			H	B	LF	HF	WF2	Clamp Screw	Wrench
SVLPR/L1010K08-SM	●	●	VPET VPGT	1.51.5	10	10	125	10	0	TS202	TKY06R
SVLPR/L1212M08-SM	●	●		1.51.5	12	12	150	12	0	TS202	TKY06R
SVLPR/L1010K11-SM	●	●		22	10	10	125	10	0	TS255	TKY08R
SVLPR/L1212M11-SM	●	●		22	12	12	150	12	0	TS255	TKY08R
SVLPR/L1616M11-SM	●	●		22	16	16	150	16	0	TS255	TKY08R

* Clamp Torque (lbf-in) : TS202=5.3, TS255=8.9

SVJB-SM

Without off set

Finish

R/L-F



(2)

Medium

R/L-SR



(2)

Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)					 *	
	R	L			H	B	LF	HF	WF2	Clamp Screw	Wrench
SVJBR/L1010K11-SM	●	●	VBMT VBET VBGT VBGW	22 ¹	10	10	125	10	0	TS255	TKY08R
SVJBR/L1212M11-SM	●	●		22 ¹	12	12	150	12	0	TS255	TKY08R
SVJBR/L1616M11-SM	●	●		22 ¹	16	16	150	16	0	TS255	TKY08R

* Clamp Torque (lbf-in) : TS255=8.9

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0004 —.006
		MS6015	100—590	.0004 —.006
		NX2525	165—820	.0004 —.006
M Stainless Steel	≤200HB	VP15TF/MP9005/MP9015	165—390	.0008 —.004
N Non-Ferrous Metal	—	HTi10/MT9005	230—755	.0012 —.006
S Titanium Alloy	—	MT9005	130—260	.0016 —.005
		MP9015	65—245	.0016 —.005

Note 1) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

Note 2) Dimensions shown for insert corner RE .008 inch.

● : USA Stock

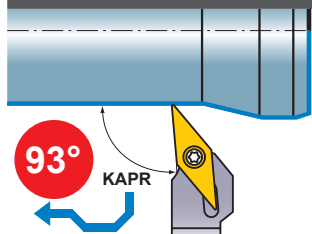
SVLP-SM type inserts ➤ A188

SVJB-SM type inserts ➤ A179—A183

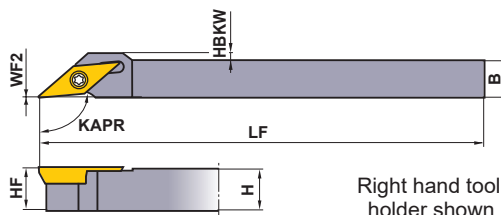
CBN & PCD inserts ➤ B053, B068

METRIC STANDARD

SVJC-SM



Without off set

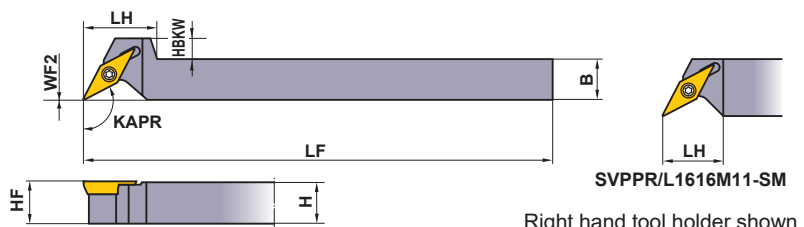
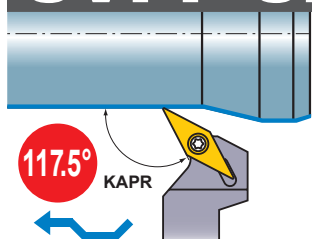


Finish	Finish	Light	Light
FP	FM	LS	LS-P
			
(2)	(2)	(2)	(2)
Light	Light	Light	
LP	LM	LS	
			
(2)	(2)	(2)	

Order Number	Stock		Insert Number	Dimensions (mm)						 *		
	R	L		H	B	LF	HBKW	HF	WF2	Clamp Screw	Wrench	
SVJCR/L1010JX11-SM	●	●	VCMW VCMT VCGT	22 [⌀]	10	10	120	—	10	0	TS255	TKY08R
SVJCR/L1010JX13-SM	●	●		2.52 [⌀]	10	10	120	2	10	0	TS32	TKY08R
SVJCR/L1212JX11-SM	●	●		22 [⌀]	12	12	120	—	12	0	TS255	TKY08R
SVJCR/L1212JX13-SM	●	●		2.52 [⌀]	12	12	120	—	12	0	TS32	TKY08R
SVJCR/L1616JX11-SM	●	●		22 [⌀]	16	16	120	—	16	0	TS255	TKY08R
SVJCR/L1616JX13-SM	●	●		2.52 [⌀]	16	16	120	—	16	0	TS32	TKY08R

* Clamp Torque (lbf-in) : TS255=8.9, TS32=8.9

SVPP-SM



Finish
R/L-SRF

(2)
Finish
SMG

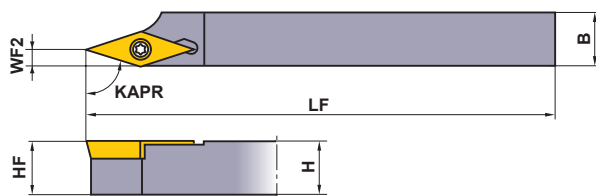
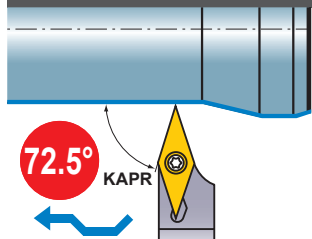
(2)

Order Number	Stock		Insert Number		Dimensions (mm)							*	
	R	L			H	B	LF	LH	HBKW	HF	WF2	Clamp Screw	Wrench
SVPPR/L1010K11-SM	●	●	VPET VPGT	22 [⌀]	10	10	125	20	8	10	0	TS255	TKY08R
SVPPR/L1212M11-SM	●	●		22 [⌀]	12	12	150	20	6	12	0	TS255	TKY08R
SVPPR/L1616M11-SM	●	●		22 [⌀]	16	16	150	17	—	16	0	TS255	TKY08R

* Clamp Torque (lbf-in) : TS255=8.9

SVVB-SM

Neutral edge with handed holder



Finish	Medium
R/L-F	R/L-SN
	
(2)	(2)
Medium	
R/L-SR	
	
(2)	

Order Number	Stock		Insert Number		Dimensions (mm)					 *	
	R	L			H	B	LF	HF	WF2	Clamp Screw	Wrench
SVVBR/L1010K11-SM	●	●	VBET VBGT VBMT VBGW	22 $\varnothing$	10	10	125	10	3	TS255	TKY08R
SVVBR/L1212M11-SM	●	●		22 $\varnothing$	12	12	150	12	3	TS255	TKY08R
SVVBR/L1616M11-SM	●	●		22 $\varnothing$	16	16	150	16	3	TS255	TKY08R

* Clamp Torque (lbf-in) : TS255=8.9

SVJC-SM type inserts > A184-A186
SVVB-SM type inserts > A179-A183
SVPP-SM type inserts > A188

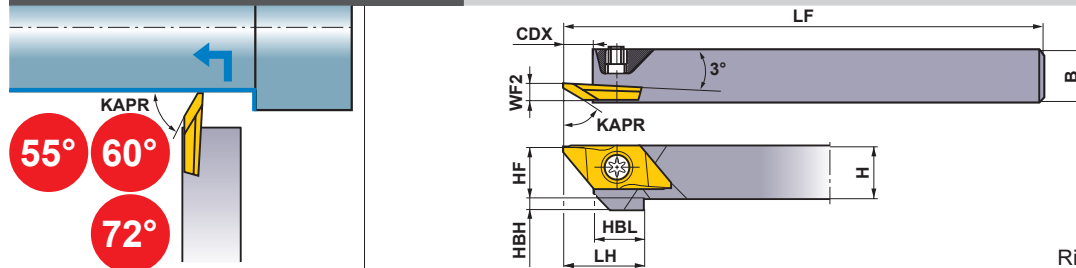
CBN & PCD inserts > B053, B068
SPARE PARTS > N001
TECHNICAL DATA > P001

D
SMALL TOOLS

BACK TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

BTAH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (inch)									 *	
	R	L			H	B	LF	LH	HF	WF2	HBH	HBL	CDX	Clamp Screw	Wrench
BTAHR/L-062	●	●	BTAT	5528○○R/L-B	.375	.375	4.724	.591	.375	.138	.125	.374	.217	NS402W	NKY15S
BTAHR/L-082	●	●		6035○○R/L-B	.500	.500	4.724	.591	.500	.138	—	.374	.217	NS403W	NKY15S
BTAHR/L-102	●			605000RX	.625	.625	4.724	.591	.625	.138	—	.374	.217	NS403W	NKY15S
				7235○○R-SMB	.625	.625	4.724	.591	.625	.138	—	.374	.217	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length (LE).

INSERTS

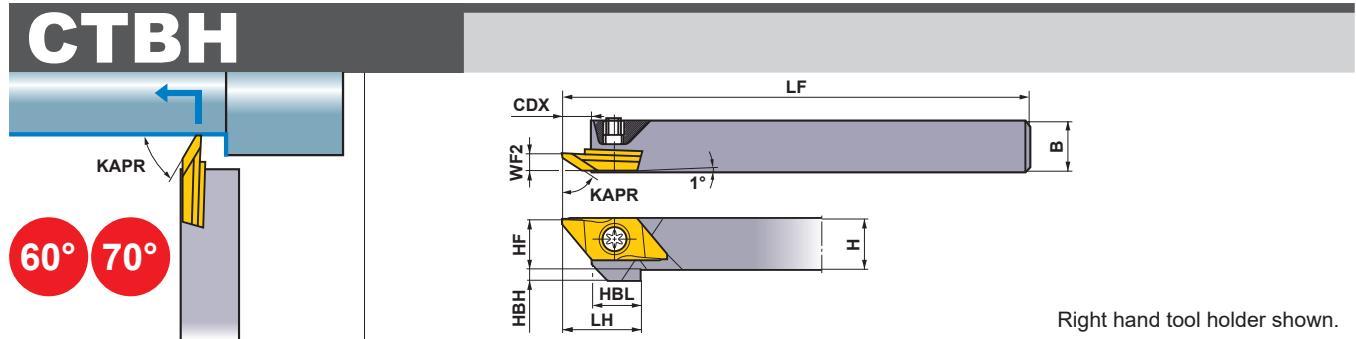
Order Number	Hand	Coated		Dimensions (inch)							LE* (inch)	Geometry
		VP15TF	NEW MS6015	PSIRRL*	REL	CF	L	W1	CW	S		
NEW BTAT7235V5R-SMB	R	●		72°	.002	.012	.787	.315	.055	.098	.138	With Breaker
NEW BTAT723501MR-SMB	R	●		72°	.003	.012	.787	.315	.055	.098	.138	
NEW BTAT723502MR-SMB	R	●		72°	.007	.012	.787	.315	.055	.098	.138	
BTAT552800R-B	R	●	●	55°	.000	.000	.787	.315	.020	.098	.110	SMB Type (Pressed Type) B Type (Ground Type)
BTAT552800L-B	L	●		55°	.000	.000	.787	.315	.020	.098	.110	
BTAT552801R-B	R	●	●	55°	.004	.000	.787	.315	.020	.098	.110	
BTAT552801L-B	L	●		55°	.004	.000	.787	.315	.020	.098	.110	SMB Type (Pressed Type) B Type (Ground Type)
BTAT603500R-B	R	●	●	60°	.000	.000	.787	.315	.020	.098	.138	
BTAT603500L-B	L	●		60°	.000	.000	.787	.315	.020	.098	.138	
NEW BTAT603501MR-B	R		●	60°	.003	.000	.787	.315	.020	.098	.138	Without Breaker
BTAT603501R-B	R	●	●	60°	.004	.000	.787	.315	.020	.098	.138	
BTAT603501L-B	L	●		60°	.004	.000	.787	.315	.020	.098	.138	
BTAT605000RX	R	●		60°	.000	.000	.787	.315	.049	.098	.197	Without Breaker

* Numeric value set insert on holder.

Note 1) REL, PSIRL dimensions for Right Hand Tool and RER, PSIRL dimensions for Left Hand Tool.

● = NEW

INCH STANDARD



Order Number	Stock		Insert Number		Dimensions (inch)								 *		
	R	L			H	B	LF	LH	HF	WF2	HBH	HBL	CDX	Clamp Screw	Wrench
CTBHR/L-062	●	●	BTBT	60450○R/L-B	.375	.375	4.724	.768	.375	.133	.125	.472	.295	NS402W	NKY15S
CTBHR/L-082	●	●		606000R/L	.500	.500	4.724	.768	.500	.133	—	.472	.295	NS403W	NKY15S
CTBHR/L-102	●	●		70550○R-SMB	.625	.625	4.724	.768	.625	.133	—	.472	.295	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length (LE).

INSERTS

Order Number	Hand	Coated		Dimensions (inch)								LE*	Geometry
		VP15TF	NEW MS6015	PSIRRL*	REL	CF	L	W1	CW	S	CDX		
NEW BTBT7055V5R-SMB	R	●		70°	.002	.012	.984	.370	.053	.138	.256	.217	
NEW BTBT705501MR-SMB	R	●		70°	.003	.012	.984	.370	.053	.138	.256	.217	
NEW BTBT705502MR-SMB	R	●		70°	.007	.012	.984	.370	.053	.138	.256	.217	
BTBT604500R-B	R	●	●	60°	.000	.008	.984	.370	.028	.138	.217	.177	
BTBT604500L-B	L	●		60°	.000	.008	.984	.370	.028	.138	.217	.177	
NEW BTBT604501MR-B	R		●	60°	.003	.012	.984	.370	.028	.138	.217	.177	
BTBT604501R-B	R	●	●	60°	.004	.012	.984	.370	.028	.138	.217	.177	
BTBT604501L-B	L	●		60°	.004	.012	.984	.370	.028	.138	.217	.177	
BTBT606000R	R	●		60°	.000	.008	.984	.370	.028	.138	.276	.236	
BTBT606000L	L	●		60°	.000	.008	.984	.370	.028	.138	.276	.236	

* Numeric value set insert on holder.

Note 1) REL, PSIRR dimensions for Right Hand Tool and RER, PSIRL dimensions for Left Hand Tool.

● = NEW

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0004—.006
	Free Cutting Steel	MS6015	100—590	.0004—.006
M Stainless Steel	≤200HB	VP15TF	165—395	.0008—.004
N Non-Ferrous Metal	—	MS6015	230—755	.0012—.006

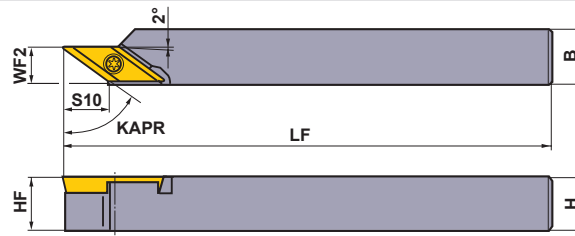
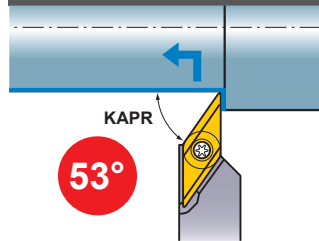
SPARE PARTS > N001
TECHNICAL DATA > P001

D017

BACK TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

BTVH



Right hand tool holder only.

Order Number	Stock	Insert Number		Dimensions (inch)						 *	
	R			H	B	LF	HF	WF2	S10	Clamp Screw	Wrench
BTVHR-062	●	BTVT	5375○○○R-B	.375	.375	4.724	.375	.295	.335	NS251	NKY15R
BTVHR-082	●			.500	.500	4.724	.500	.295	.335	NS251	NKY15R
BTVHR-102	●			.625	.625	4.724	.625	.295	.335	NS251	NKY15R

* Clamp Torque (lbf-in) : NS251=6.2

Note 1) Set the maximum depth of cut at under 30% of the effective cutting edge length (LE).

INSERTS

Order Number	Hand	Coated	Dimensions (inch)				LE (inch) *	Geometry
		VP15TF	IC	S	REL	CW		
BTVT5375V5R-B	R	●	.250	.125	.002	.020	.295	With Breaker
BTVT537501R-B	R	●	.250	.125	.004	.020	.295	

* Numeric value set insert on holder.

RECOMMENDED CUTTING CONDITIONS

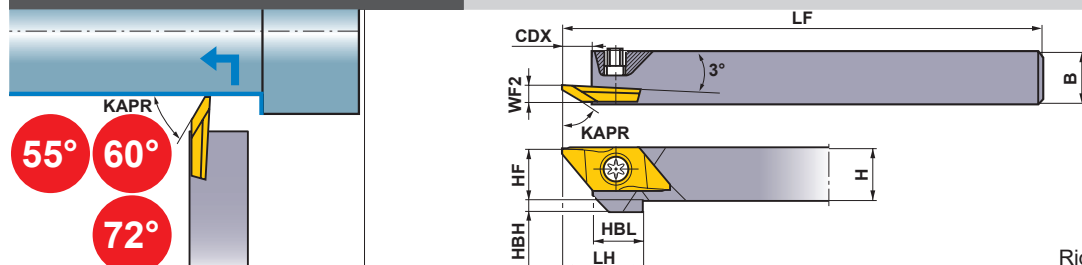
Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel · Alloy Steel	180HB—280HB	VP15TF	165—490	.0004 —.006
	Free Cutting Steel	VP15TF	100—590	.0004 —.006
M Stainless Steel	≤200HB	VP15TF	165—395	.0008 —.004
N Non-Ferrous Metal	—	VP15TF	230—755	.0012 —.006

● : USA Stock

<5 inserts in one case>

METRIC STANDARD

BTAH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)									 *	
	R	L			H	B	LF	LH	HF	WF2	HBH	HBL	CDX	Clamp Screw	Wrench
BTAHR/L0810-50	●	●	BTAT	5528○○R/L-B	8	10	120	15	8	3.5	4	9.5	5.5	NS402W	NKY15S
BTAHR/L1010-50	●	●		6035○○R/L-B	10	10	120	15	10	3.5	2	9.5	5.5	NS402W	NKY15S
BTAHR/L1212-50	●	●		605000RX	12	12	120	15	12	3.5	—	9.5	5.5	NS403W	NKY15S
BTAHR/L1616-50	●	●		7235○○R-SMB	16	16	120	15	16	3.5	—	9.5	5.5	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length (LE).

INSERTS

Order Number	Hand	Coated		Dimensions (mm)							LE *	Geometry
		VP15TF	NEW MS6015	PSIRR/L *	RER/L	CF	L	W1	CW	S		
NEW BTAT7235V5R-SMB	R	●		72°	0.05	0.3	20	8	1.4	2.5	3.5	With Breaker
NEW BTAT723501MR-SMB	R	●		72°	0.08	0.3	20	8	1.4	2.5	3.5	
NEW BTAT723502MR-SMB	R	●		72°	0.18	0.3	20	8	1.4	2.5	3.5	
BTAT552800R-B	R	●	●	55°	0	0	20	8	0.5	2.5	2.8	
BTAT552800L-B	L	●		55°	0	0	20	8	0.5	2.5	2.8	SMB Type (Pressed Type) B Type (Ground Type) REL CW CF 16° PSIRR REL CW 15° PSIRR Right hand insert shown.
BTAT552801R-B	R	●	●	55°	0.1	0	20	8	0.5	2.5	2.8	
BTAT552801L-B	L	●		55°	0.1	0	20	8	0.5	2.5	2.8	
BTAT603500R-B	R	●	●	60°	0	0	20	8	0.5	2.5	3.5	
BTAT603500L-B	L	●		60°	0	0	20	8	0.5	2.5	3.5	
NEW BTAT603501MR-B	R		●	60°	0.08	0	20	8	0.5	2.5	3.5	
BTAT603501R-B	R	●	●	60°	0.1	0	20	8	0.5	2.5	3.5	
BTAT603501L-B	L	●		60°	0.1	0	20	8	0.5	2.5	3.5	
BTAT605000RX	R	●		60°	0	0	20	8	1.25	2.5	5.0	Without Breaker

* Numeric value set insert on holder.

Note 1) REL, PSIRR dimensions for Right Hand Tool and RER, PSIRL dimensions for Left Hand Tool.

● = NEW

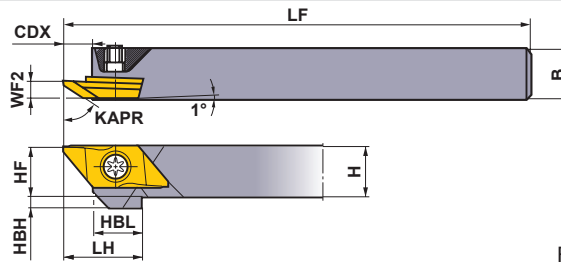
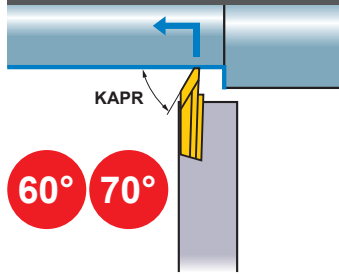
RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0004—.006
Free Cutting Steel	—	MS6015	100—590	.0004—.006
M Stainless Steel	≤200HB	VP15TF	165—395	.0008—.004
N Non-Ferrous Metal	—	MS6015	230—755	.0012—.006

BACK TURNING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

CTBH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)								 *				
	R	L			H	B	LF	LH	HF	WF2	HBH	HBL	CDX	Clamp Screw	Wrench		
CTBHR/L1010-160	●	●	BTBT	60450	○	R/L-B	10	10	120	19.5	10	3.4	2	12	7.5	NS402W	NKY15S
CTBHR/L1212-160	●	●		606000	R/L	12	12	120	19.5	12	3.4	—	12	7.5	NS403W	NKY15S	
CTBHR/L1616-160	●	●		7055	○	R-SMB	16	16	120	19.5	16	3.4	—	12	7.5	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Set the maximum depth of cut at under 60% of the effective cutting edge length (LE).

INSERTS

Order Number	Hand	Coated		Dimensions (mm)								LE* (mm)	Geometry
		VP15TF	NEW MS6015	PSIRRL*	RER/L	CF	L	W1	CW	S	CDX		
NEW BTBT7055V5R-SMB	R	●		70°	0.05	0.3	25	9.4	1.35	3.5	6.5	5.5	With Breaker
NEW BTBT705501MR-SMB	R	●		70°	0.08	0.3	25	9.4	1.35	3.5	6.5	5.5	
NEW BTBT705502MR-SMB	R	●		70°	0.18	0.3	25	9.4	1.35	3.5	6.5	5.5	
BTBT604500R-B	R	●	●	60°	0	0.2	25	9.4	0.7	3.5	5.5	4.5	SMB Type (Pressed Type) B Type (Ground Type)
BTBT604500L-B	L	●		60°	0	0.2	25	9.4	0.7	3.5	5.5	4.5	
NEW BTBT604501MR-B	R		●	60°	0.08	0.3	25	9.4	0.7	3.5	5.5	4.5	
BTBT604501R-B	R	●	●	60°	0.1	0.3	25	9.4	0.7	3.5	5.5	4.5	Without Breaker
BTBT604501L-B	L	●		60°	0.1	0.3	25	9.4	0.7	3.5	5.5	4.5	
BTBT606000R	R	●		60°	0	0.2	25	9.4	0.7	3.5	7	6.0	
BTBT606000L	L	●		60°	0	0.2	25	9.4	0.7	3.5	7	6.0	Right hand insert shown.

* Numeric value set insert on holder.

Note 1) REL, PSIRR dimensions for Right Hand Tool and RER,PSIRL dimensions for Left Hand Tool.

● = NEW

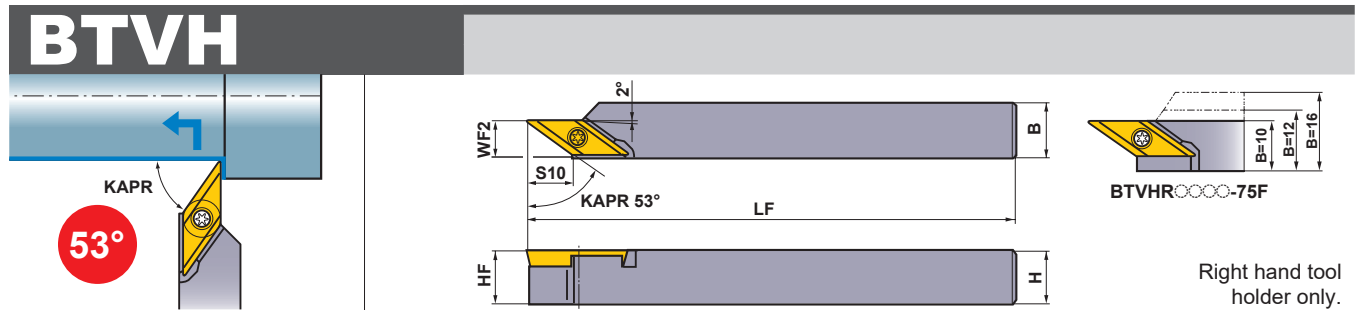
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0004 —.006
	Free Cutting Steel	—	MS6015	100—590	.0004 —.006
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008 —.004
N	Non-Ferrous Metal	—	MS6015	230—755	.0012 —.006

● : USA Stock

<5 inserts in one case>

METRIC STANDARD



Order Number	Stock	Insert Number		Dimensions (mm)						 *	
	R			H	B	LF	HF	WF2	S10	Clamp Screw	Wrench
BTVHR1010-75	●	BTVT	5375○○R-B	10	10	120	10	7.5	8.5	NS251	NKY15S
BTVHR1212-75	●			12	12	120	12	7.5	8.5	NS251	NKY15S
BTVHR1616-75	●			16	16	120	16	7.5	8.5	NS251	NKY15S
BTVHR1010-75F	●			10	10	120	10	10.0	8.5	NS251	NKY15S
BTVHR1212-75F	●			12	12	120	12	10.0	8.5	NS251	NKY15S
BTVHR1616-75F	●			16	16	120	16	10.0	8.5	NS251	NKY15S

* Clamp Torque (lbf-in) : NS251=6.2

Note 1) Set the maximum depth of cut at under 30% of the effective cutting edge length (LE).

Note 2) For high load machining, F type is recommended.

INSERTS

Order Number	Hand	Coated	Dimensions (mm)				LE (mm)	* Geometry
		VP15TF	IC	S	REL	CW		
BTVT5375V5R-B	R	●	6.35	3.18	0.05	0.5	7.5	With Breaker
BTVT537501R-B	R	●	6.35	3.18	0.1	0.5	7.5	

* Numeric value set insert on holder.

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	VP15TF	165—490	.0004 —.006
	Free Cutting Steel	—	VP15TF	100—590	.0004 —.006
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008 —.004
N	Non-Ferrous Metal	—	VP15TF	230—755	.0012 —.006

SPARE PARTS > N001
TECHNICAL DATA > P001

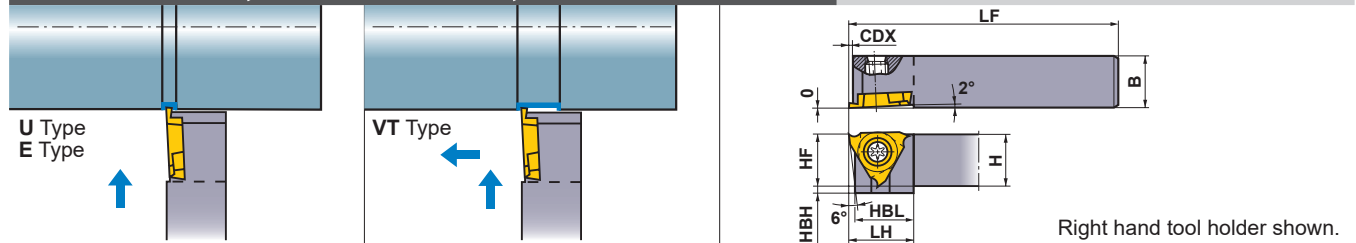
D021

D
SMALL TOOLS

GROOVING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

GTAH, GTBH, GTCH



Order Number		Stock		Insert Number		Dimensions (inch)							Cutting Width (inch)	*2 		
		R	L			H	B	HF	LF	CDX*1	LH	HBH		HBL	Clamp Screw	Wrench
Long Shank	GTBHR/L-063	●	●	GTAT	○○○○	.375	.375	.375	4.724	.118	.591	.156	.528	.057— .118	NS404W	NKY158
	GTBHR/L-083	●	●	GTBT	○○○○	.500	.500	.500	4.724	.118	.591	.020	.528	.057— .118	NS404W	NKY158
	GTBHR/L-103	●	●	GTCT	○○○○	.625	.625	.625	4.724	.118	.591	—	.528	.057— .118	NS404W	NKY158

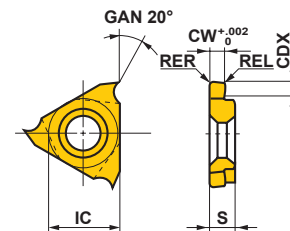
*1 It is not possible to machine depths over CDX dimensions(Max. Groove Depth).

*2 Clamp Torque (lbf-in) : NS404W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

INSERTS

Order Number	Hand	Coated	Dimensions (inch)					Geometry
		VP15TF	CW	CDX ^{*1}	RER/L	IC	S	
GTAT03006V3R-U	R	●	.012	.024	.001	.375	.125	U Type Breaker (Grooving) For general use
GTAT03006V3L-U	L	●	.012	.024	.001	.375	.125	
GTAT05012V5R-U	R	●	.020	.047	.002	.375	.125	
GTAT05012V5L-U	L	●	.020	.047	.002	.375	.125	
GTAT07520V5R-U	R	●	.030	.079	.002	.375	.125	
GTAT07520V5L-U	L	●	.030	.079	.002	.375	.125	
GTAT09520V5R-U	R	●	.037	.079	.002	.375	.125	
GTAT09520V5L-U	L	●	.037	.079	.002	.375	.125	
GTAT10020V5R-U	R	●	.039	.079	.002	.375	.125	
GTAT10020V5L-U	L	●	.039	.079	.002	.375	.125	
GTAT10320V5R-U	R	●	.041	.079	.002	.375	.125	
GTAT12520V5R-U	R	●	.049	.079	.002	.375	.125	
GTAT12520V5L-U	L	●	.049	.079	.002	.375	.125	
GTBT14530V5R-U	R	●	.057	.118	.002	.375	.125	
GTBT14530V5L-U	L	●	.057	.118	.002	.375	.125	
GTBT15030V5R-U	R	●	.059	.118	.002	.375	.125	
GTBT15030V5L-U	L	●	.059	.118	.002	.375	.125	
GTBT17530V5R-U	R	●	.069	.118	.002	.375	.125	
GTBT17530V5L-U	L	●	.069	.118	.002	.375	.125	
GTBT20030V5R-U	R	●	.079	.118	.002	.375	.125	
GTBT20030V5L-U	L	●	.079	.118	.002	.375	.125	
GTCT25030V5R-U	R	●	.098	.118	.002	.375	.125	
GTCT25030V5L-U	L	●	.098	.118	.002	.375	.125	



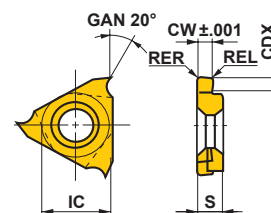
Right hand insert shown.

● : USA Stock

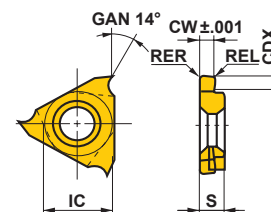
<5 inserts in one case>

INSERTS

Order Number	Hand	Coated		Dimensions (inch)					Geometry
		VP15TF	VP15KZ	CW	CDX	RER/L	IC	S	
GTAT03306V3R-E	R	●		.013	.024	.001	.375	.125	E Type Breaker (Grooving) For precision cutting
GTAT03306V3L-E	L	●		.013	.024	.001	.375	.125	
GTAT04312V3R-E	R	●		.017	.047	.001	.375	.125	
GTAT04312V3L-E	L	●		.017	.047	.001	.375	.125	
GTAT05312V5R-E	R	●		.021	.047	.002	.375	.125	
GTAT05312V5L-E	L	●		.021	.047	.002	.375	.125	
GTAT07520V5R-E	R	●		.030	.079	.002	.375	.125	
GTAT07520V5L-E	L	●		.030	.079	.002	.375	.125	
GTAT09520V5R-E	R	●		.037	.079	.002	.375	.125	
GTAT09520V5L-E	L	●		.037	.079	.002	.375	.125	
GTAT10020V5R-E	R	●		.039	.079	.002	.375	.125	
GTAT10020V5L-E	L	●		.039	.079	.002	.375	.125	
GTAT1002001R-E	R	●		.039	.079	.004	.375	.125	
GTAT1002001L-E	L	●		.039	.079	.004	.375	.125	
GTAT12020V5R-E	R	●		.047	.079	.002	.375	.125	
GTAT12020V5L-E	L	●		.047	.079	.002	.375	.125	
GTAT1202001R-E	R	●		.047	.079	.004	.375	.125	
GTAT1202001L-E	L	●		.047	.079	.004	.375	.125	
GTAT14020V5R-E	R	●		.055	.079	.002	.375	.125	
GTAT14020V5L-E	L	●		.055	.079	.002	.375	.125	
GTBT15030V5R-E	R	●		.059	.118	.002	.375	.125	
GTBT15030V5L-E	L	●		.059	.118	.002	.375	.125	
GTBT1503001R-E	R	●		.059	.118	.004	.375	.125	
GTBT1503001L-E	L	●		.059	.118	.004	.375	.125	
GTBT18030V5R-E	R	●		.071	.118	.002	.375	.125	
GTBT18030V5L-E	L	●		.071	.118	.002	.375	.125	
GTBT20030V5R-E	R	●		.079	.118	.002	.375	.125	
GTBT20030V5L-E	L	●		.079	.118	.002	.375	.125	
GTBT2003001R-E	R	●		.079	.118	.004	.375	.125	
GTBT2003001L-E	L	●		.079	.118	.004	.375	.125	
GTBT22530V5R-E	R	●		.089	.118	.002	.375	.125	
GTBT22530V5L-E	L	●		.089	.118	.002	.375	.125	
GTCT25030V5R-E	R	●		.098	.118	.002	.375	.125	
GTCT25030V5L-E	L	●		.098	.118	.002	.375	.125	
GTCT27530V5R-E	R	●		.108	.118	.002	.375	.125	
GTCT27530V5L-E	L	●		.108	.118	.002	.375	.125	
GTCT30030V5R-E	R	●		.118	.118	.002	.375	.125	
GTCT30030V5L-E	L	●		.118	.118	.002	.375	.125	
									Right hand insert shown.
GTAT0330600R-VT	R		●	.013	.024	0	.375	.125	VT Type Breaker (Grooving, Profiling)
GTAT0431200R-VT	R		●	.017	.047	0	.375	.125	
GTAT0532000R-VT	R		●	.021	.079	0	.375	.125	
GTAT0652000R-VT	R		●	.026	.079	0	.375	.125	
GTAT0752000R-VT	R		●	.030	.079	0	.375	.125	
GTAT0802000R-VT	R		●	.031	.079	0	.375	.125	
GTAT0852000R-VT	R		●	.033	.079	0	.375	.125	
GTAT0952000R-VT	R		●	.037	.079	0	.375	.125	
GTAT1002000R-VT	R		●	.039	.079	0	.375	.125	
GTAT1102000R-VT	R		●	.043	.079	0	.375	.125	
GTAT1202000R-VT	R		●	.047	.079	0	.375	.125	
GTAT1302000R-VT	R		●	.051	.079	0	.375	.125	
GTAT1402000R-VT	R		●	.055	.079	0	.375	.125	
GTBT1503000R-VT	R		●	.059	.118	0	.375	.125	
GTBT2003000R-VT	R		●	.079	.118	0	.375	.125	



Max. Depth of Cut (inch)



RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB–280HB	VP15TF/VP15KZ	165–490	.0004–.0035
	Free Cutting Steel	—	VP15TF/VP15KZ	100–590	.0004–.0035
M	Stainless Steel	≤200HB	VP15TF/VP15KZ	165–395	.0008–.002
N	Non-Ferrous Metal	—	VP15TF/VP15KZ	230–755	.0012–.004

SPARE PARTS > N001
TECHNICAL DATA > P001

D023

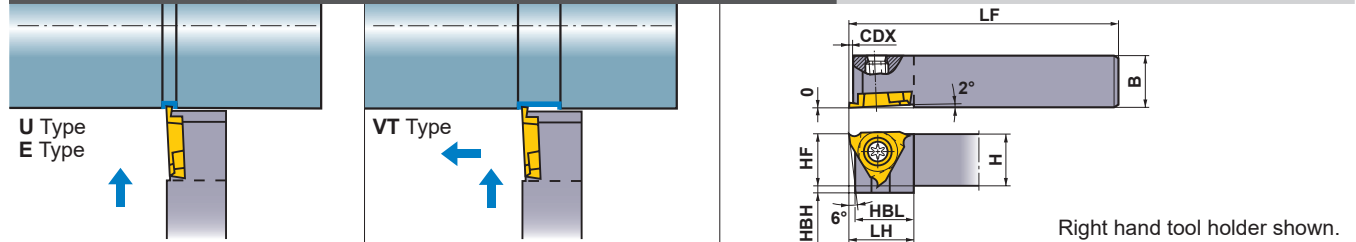
D

SMALL TOOLS

GROOVING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

GTAH, GTBH, GTCH



Order Number		Stock		Insert Number	Dimensions (mm)								Cutting Width (mm)	*2		
		R	L		H	B	HF	LF	CDX*1	LH	HBH	HBL				
Standard Shank	GTAHR/L0808-20S	★	★	GTAT	○○○○	8	8	8	80	2	15	5	12.9	0.3-3.0	NS404W	NKY15S
	GTAHR/L1010-20S	★	★	GTBT *1	○○○○	10	10	10	80	2	15	3	12.9	0.3-3.0	NS404W	NKY15S
	GTAHR/L1212-20S	★	★	GTCT *1	○○○○	12	12	12	80	2	15	1	12.9	0.3-3.0	NS404W	NKY15S
	GTBHR/L1010-30S	★	★	GTBT, GTCT	○○○○	10	10	10	80	3	15	3	13.4	1.45-3.0	NS404W	NKY15S
	GTCHR/L1010-30S	★	★	GTCT	○○○○	10	10	10	80	3	15	3	13.4	2.5-3.0	NS404W	NKY15S
Long Shank	GTAHR/L0808-20	★	★	GTAT	○○○○	8	8	8	120	2	15	5	12.9	0.3-3.0	NS404W	NKY15S
	GTAHR/L1010-20	★	★	GTBT *1	○○○○	10	10	10	120	2	15	3	12.9	0.3-3.0	NS404W	NKY15S
	GTAHR/L1212-20	★	★	GTCT *1	○○○○	12	12	12	120	2	15	1	12.9	0.3-3.0	NS404W	NKY15S
	GTAHR/L1616-20	★	★	GTCT	○○○○	16	16	16	120	2	15	—	12.9	0.3-3.0	NS404W	NKY15S
	GTBHR/L1010-30	●	●	GTBT, GTCT	○○○○	10	10	10	120	3	15	3	13.4	1.45-3.0	NS404W	NKY15S
	GTBHR/L1212-30	●	●	GTBT, GTCT	○○○○	12	12	12	120	3	15	1	13.4	1.45-3.0	NS404W	NKY15S
	GTBHR/L1616-30	●	●	GTCT	○○○○	16	16	16	120	3	15	—	13.4	1.45-3.0	NS404W	NKY15S
	GTCHR/L1010-30	★	★	GTCT	○○○○	10	10	10	120	3	15	3	13.4	2.5-3.0	NS404W	NKY15S

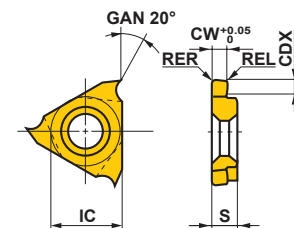
*1 It is not possible to machine depths over CDX dimensions(Max. Groove Depth).

*2 Clamp Torque (lbf-in) : NS404W=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

INSERTS

Order Number	Hand	Coated	Dimensions (mm)					Geometry
		VP15TF	CW	CDX*1	RER/L	IC	S	
GTAT03006V3R-U	R	●	0.3	0.6	0.03	9.525	3.18	U Type Breaker (Grooving) For general use
GTAT03006V3L-U	L	●	0.3	0.6	0.03	9.525	3.18	
GTAT05012V5R-U	R	●	0.5	1.2	0.05	9.525	3.18	
GTAT05012V5L-U	L	●	0.5	1.2	0.05	9.525	3.18	
GTAT07520V5R-U	R	●	0.75	2.0	0.05	9.525	3.18	
GTAT07520V5L-U	L	●	0.75	2.0	0.05	9.525	3.18	
GTAT09520V5R-U	R	●	0.95	2.0	0.05	9.525	3.18	
GTAT09520V5L-U	L	●	0.95	2.0	0.05	9.525	3.18	
GTAT10020V5R-U	R	●	1.0	2.0	0.05	9.525	3.18	
GTAT10020V5L-U	L	●	1.0	2.0	0.05	9.525	3.18	
GTAT10320V5R-U	R	●	1.03	2.0	0.05	9.525	3.18	
GTAT12520V5R-U	R	●	1.25	2.0	0.05	9.525	3.18	
GTAT12520V5L-U	L	●	1.25	2.0	0.05	9.525	3.18	
GTBT14530V5R-U	R	●	1.45	3.0	0.05	9.525	3.18	
GTBT14530V5L-U	L	●	1.45	3.0	0.05	9.525	3.18	
GTBT15030V5R-U	R	●	1.5	3.0	0.05	9.525	3.18	
GTBT15030V5L-U	L	●	1.5	3.0	0.05	9.525	3.18	
GTBT17530V5R-U	R	●	1.75	3.0	0.05	9.525	3.18	
GTBT17530V5L-U	L	●	1.75	3.0	0.05	9.525	3.18	
GTBT20030V5R-U	R	●	2.0	3.0	0.05	9.525	3.18	
GTBT20030V5L-U	L	●	2.0	3.0	0.05	9.525	3.18	
GTCT25030V5R-U	R	●	2.5	3.0	0.05	9.525	3.18	
GTCT25030V5L-U	L	●	2.5	3.0	0.05	9.525	3.18	

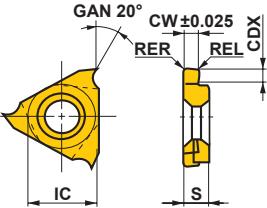
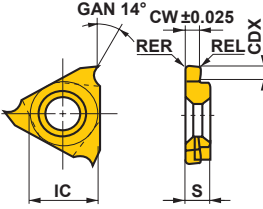


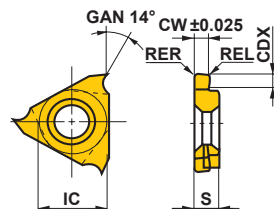
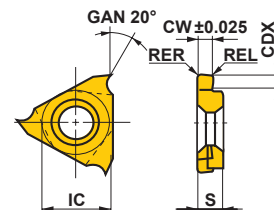
Right hand insert shown.

● : USA Stock ★ : Stocked in Japan

<5 inserts in one case>

INSERTS

Order Number	Hand	Coated		Dimensions (mm)					Geometry
		VP15TF	VP15KZ	CW	CDX	RER/L	IC	S	
GTAT03306V3R-E	R	●		0.33	0.6	0.03	9.525	3.18	E Type Breaker (Grooving) For precision cutting 
GTAT03306V3L-E	L	●		0.33	0.6	0.03	9.525	3.18	
GTAT04312V3R-E	R	●		0.43	1.2	0.03	9.525	3.18	
GTAT04312V3L-E	L	●		0.43	1.2	0.03	9.525	3.18	
GTAT05312V5R-E	R	●		0.53	1.2	0.05	9.525	3.18	
GTAT05312V5L-E	L	●		0.53	1.2	0.05	9.525	3.18	
GTAT07520V5R-E	R	●		0.75	2.0	0.05	9.525	3.18	
GTAT07520V5L-E	L	●		0.75	2.0	0.05	9.525	3.18	
GTAT09520V5R-E	R	●		0.95	2.0	0.05	9.525	3.18	
GTAT09520V5L-E	L	●		0.95	2.0	0.05	9.525	3.18	
GTAT10020V5R-E	R	●		1.0	2.0	0.05	9.525	3.18	
GTAT10020V5L-E	L	●		1.0	2.0	0.05	9.525	3.18	
GTAT1002001R-E	R	●		1.0	2.0	0.1	9.525	3.18	
GTAT1002001L-E	L	●		1.0	2.0	0.1	9.525	3.18	
GTAT12020V5R-E	R	●		1.2	2.0	0.05	9.525	3.18	
GTAT12020V5L-E	L	●		1.2	2.0	0.05	9.525	3.18	
GTAT1202001R-E	R	●		1.2	2.0	0.1	9.525	3.18	
GTAT1202001L-E	L	●		1.2	2.0	0.1	9.525	3.18	
GTAT14020V5R-E	R	●		1.4	2.0	0.05	9.525	3.18	
GTAT14020V5L-E	L	●		1.4	2.0	0.05	9.525	3.18	
GTBT15030V5R-E	R	●		1.5	3.0	0.05	9.525	3.18	
GTBT15030V5L-E	L	●		1.5	3.0	0.05	9.525	3.18	
GTBT1503001R-E	R	●		1.5	3.0	0.1	9.525	3.18	
GTBT1503001L-E	L	●		1.5	3.0	0.1	9.525	3.18	
GTBT18030V5R-E	R	●		1.8	3.0	0.05	9.525	3.18	
GTBT18030V5L-E	L	●		1.8	3.0	0.05	9.525	3.18	
GTBT20030V5R-E	R	●		2.0	3.0	0.05	9.525	3.18	
GTBT20030V5L-E	L	●		2.0	3.0	0.05	9.525	3.18	
GTBT2003001R-E	R	●		2.0	3.0	0.1	9.525	3.18	
GTBT2003001L-E	L	●		2.0	3.0	0.1	9.525	3.18	
GTBT22530V5R-E	R	●		2.25	3.0	0.05	9.525	3.18	
GTBT22530V5L-E	L	●		2.25	3.0	0.05	9.525	3.18	
GTCT25030V5R-E	R	●		2.5	3.0	0.05	9.525	3.18	
GTCT25030V5L-E	L	●		2.5	3.0	0.05	9.525	3.18	
GTCT27530V5R-E	R	●		2.75	3.0	0.05	9.525	3.18	
GTCT27530V5L-E	L	●		2.75	3.0	0.05	9.525	3.18	
GTCT30030V5R-E	R	●		3.0	3.0	0.05	9.525	3.18	
GTCT30030V5L-E	L	●		3.0	3.0	0.05	9.525	3.18	
									Right hand insert shown.
GTAT0330600R-VT	R		●	0.33	0.6	0	9.525	3.18	Max. Depth of Cut (mm) 0.25 0.9 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 2.7 2.7 VT Type Breaker (Grooving, Profiling) 
GTAT0431200R-VT	R		●	0.43	1.2	0	9.525	3.18	
GTAT0532000R-VT	R		●	0.53	2.0	0	9.525	3.18	
GTAT0652000R-VT	R		●	0.65	2.0	0	9.525	3.18	
GTAT0752000R-VT	R		●	0.75	2.0	0	9.525	3.18	
GTAT0802000R-VT	R		●	0.8	2.0	0	9.525	3.18	
GTAT0852000R-VT	R		●	0.85	2.0	0	9.525	3.18	
GTAT0952000R-VT	R		●	0.95	2.0	0	9.525	3.18	
GTAT1002000R-VT	R		●	1.0	2.0	0	9.525	3.18	
GTAT1102000R-VT	R		●	1.1	2.0	0	9.525	3.18	
GTAT1202000R-VT	R		●	1.2	2.0	0	9.525	3.18	
GTAT1302000R-VT	R		●	1.3	2.0	0	9.525	3.18	
GTAT1402000R-VT	R		●	1.4	2.0	0	9.525	3.18	
GTBT1503000R-VT	R		●	1.5	3.0	0	9.525	3.18	
GTBT2003000R-VT	R		●	2.0	3.0	0	9.525	3.18	



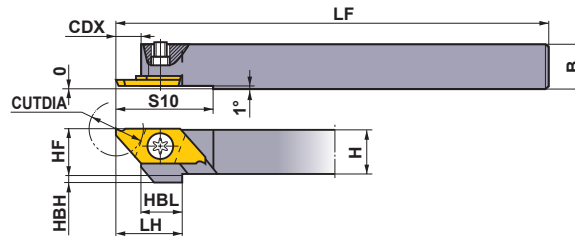
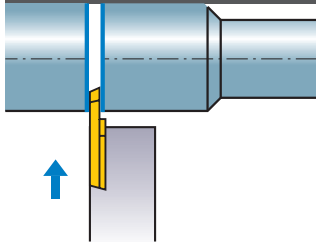
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB–280HB	VP15TF/VP15KZ	165–490	.0004–.0035
	Free Cutting Steel	—	VP15TF/VP15KZ	100–590	.0004–.0035
M	Stainless Steel	≤200HB	VP15TF/VP15KZ	165–395	.0008–.002
N	Non-Ferrous Metal	—	VP15TF/VP15KZ	230–755	.0012–.004

CUTTING OFF TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

CTAH



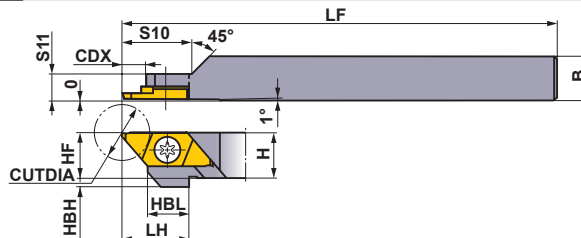
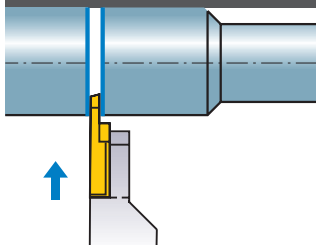
Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (inch)										CUTDIA (inch)	 *2	
	R	L		H	B	HF	LF	LH	CDX	HBH	HBL	S10	Clamp Screw		Wrench	
CTAHR/L-062	●	●	CTAT	○○○○	.375	.375	.375	4.724	.591	.217	.125	.374	.866	.472 (.315)*1	NS402W	NKY15S
CTAHR/L-082	●	●		○○○○	.500	.500	.500	4.724	.591	.217	—	.374	.866		NS402W	NKY15S
CTAHR/L-102	●	●		○○○○	.625	.625	.625	4.724	.591	.217	—	.374	.866		NS403W	NKY15S

*1 When the width of cutting off (CW) is .028 inch.

*2 Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

CTAH-S



Right hand tool holder only.

Order Number	Stock	Insert Number		Dimensions (inch)										CUTDIA (inch)	 *2	
	R			H	B	HF	LF	LH	CDX	HBH	HBL	S10	S11		Clamp Screw	Wrench
CTAHR-062S	●	CTAT	○○○○	.375	.375	.375	3.150	.591	.217	.125	.374	.630	.217	.472	NS401	NKY25R
CTAHR-082S	●		○○○○	.500	.500	.500	3.150	.591	.217	—	.374	.630	.217	(.315)*1	NS401	NKY25R

*1 When the width of cutting off (CW) is .028 inch.

*2 Clamp Torque (lbf-in) : NS401=31

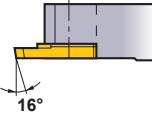
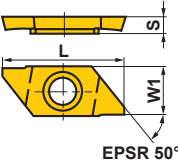
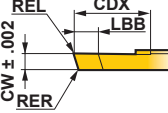
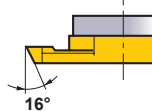
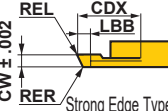
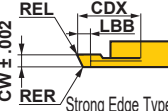
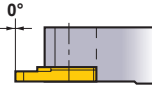
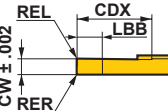
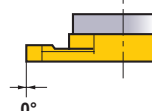
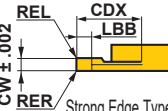
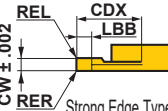
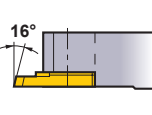
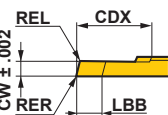
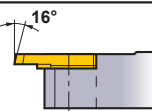
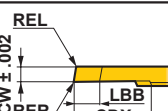
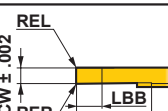
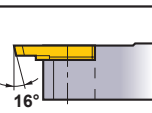
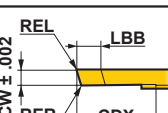
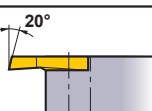
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0008—.0035
	Free Cutting Steel	—	MS6015	100—590	.0004—.0035
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008—.0019
N	Non-Ferrous Metal	—	MS6015	230—755	.0012—.0043

● : USA Stock

<5 inserts in one case>

INSERTS

Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated		Dimensions (inch)								CUTDIA (inch)
							VP15TF	NEW MS6015	CW	CDX	RER/L	L	W1	S	LBB		
Right Hand (R)		With Breaker			CTAT07080V5RR-B	R	●	●	.028	.177	.002	.787	.315	.098	.059	.315	
				CTAT10120V5RR-B	R	●	●	.039	.264	.002	.787	.315	.098	.059	.472		
				CTAT15120V5RR-B	R	●	●	.059	.264	.002	.787	.315	.098	.059	.472		
				CTAT20120V5RR-B	R	●	●	.079	.264	.002	.787	.315	.098	.059	.472		
					CTAT15120V5RR-BX	R	●	●	.059	.264	.002	.787	.315	.098	.059	.472	
					CTAT20120V5RR-BX	R	●	●	.079	.264	.002	.787	.315	.098	.059	.472	
					CTAT10120V5RN-B	N	●	●	.039	.264	.002	.787	.315	.098	.059	.472	
					CTAT15120V5RN-B	N	●	●	.059	.264	.002	.787	.315	.098	.059	.472	
					CTAT20120V5RN-B	N	●	●	.079	.264	.002	.787	.315	.098	.059	.472	
					CTAT15120V5RN-BX	N	●	●	.059	.264	.002	.787	.315	.098	.059	.472	
					CTAT20120V5RN-BX	N	●	●	.079	.264	.002	.787	.315	.098	.059	.472	
					CTAT10110V5RL-B	L	●	●	.039	.264	.002	.787	.315	.098	.059	.433	
Left Hand (L)		Without Breaker			CTAT15110V5RL-B	L	●	●	.059	.264	.002	.787	.315	.098	.059	.433	
					CTAT20110V5RL-B	L	●	●	.079	.264	.002	.787	.315	.098	.059	.433	
					CTAT1012000RR	R	●	●	.039	.264	.000	.787	.315	.098	.138	.472	
					CTAT1512000RR	R	●	●	.059	.264	.000	.787	.315	.098	.138	.472	
					CTAT2012000RR	R	●	●	.079	.264	.000	.787	.315	.098	.138	.472	
					CTAT07080V5LL-B	L	●	●	.028	.177	.002	.787	.315	.098	.059	.315	
					CTAT10120V5LL-B	L	●	●	.039	.264	.002	.787	.315	.098	.059	.472	
					CTAT15120V5LL-B	L	●	●	.059	.264	.002	.787	.315	.098	.059	.472	
					CTAT20120V5LL-B	L	●	●	.079	.264	.002	.787	.315	.098	.059	.472	
					CTAT10120V5LN-B	N	●	●	.039	.264	.002	.787	.315	.098	.059	.472	
					CTAT15120V5LN-B	N	●	●	.059	.264	.002	.787	.315	.098	.059	.472	
					CTAT20120V5LN-B	N	●	●	.079	.264	.002	.787	.315	.098	.059	.472	
					CTAT10110V5LR-B	R	●	●	.039	.264	.002	.787	.315	.098	.059	.433	
					CTAT15110V5LR-B	R	●	●	.059	.264	.002	.787	.315	.098	.059	.433	
					CTAT20110V5LR-B	R	●	●	.079	.264	.002	.787	.315	.098	.059	.433	
					CTAT1012000LL	L	●	●	.039	.264	.000	.787	.315	.098	.138	.472	
					CTAT1512000LL	L	●	●	.059	.264	.000	.787	.315	.098	.138	.472	
					CTAT2012000LL	L	●	●	.079	.264	.000	.787	.315	.098	.138	.472	

● = NEW

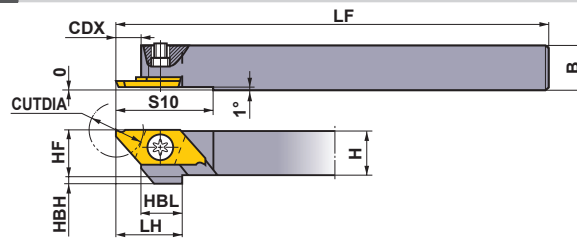
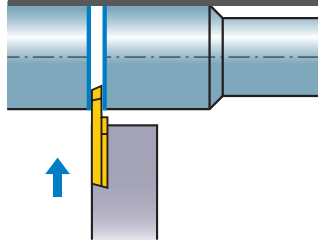
D

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

CTAH



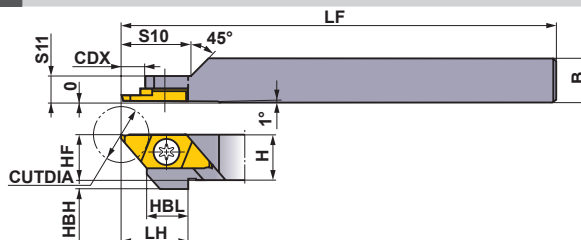
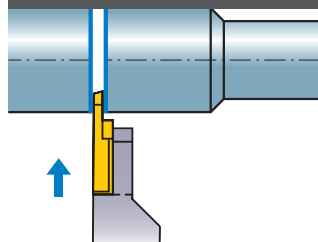
Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)									CUTDIA (mm)	*2 		
	R	L		H	B	HF	LF	LH	CDX	HBH	HBL	S10		Clamp Screw	Wrench	
CTAHR/L0810-120	●	●	CTAT	○○○○	8	10	8	120	15	5.5	4	9.5	22	12 (8)*1	NS402W	NKY15S
CTAHR/L1010-120	●	●		○○○○	10	10	10	120	15	5.5	2	9.5	22		NS402W	NKY15S
CTAHR/L1212-120	●	●		○○○○	12	12	12	120	15	5.5	—	9.5	22		NS403W	NKY15S
CTAHR/L1616-120	●	●		○○○○	16	16	16	120	15	5.5	—	9.5	22		NS403W	NKY15S

*1 When the width of cutting off (CW) is 0.7 mm.

*2 Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

CTAH-S



Right hand tool holder only.

Order Number	Stock	Insert Number		Dimensions (mm)										CUTDIA (mm)	 *2	
	R			H	B	HF	LF	LH	CDX	HBH	HBL	S10	S11		Clamp Screw	Wrench
CTAHR1010-120S	●	CTAT	○○○○	10	10	10	80	15	16	2	9.5	16	5.5	12 (8)*1	NS401	NKY25R

*1 When the width of cutting off (CW) is 0.7 mm.

*2 Clamp Torque (lbf-in) : NS401=31

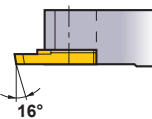
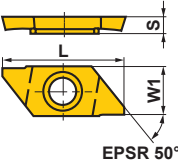
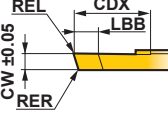
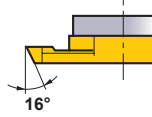
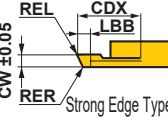
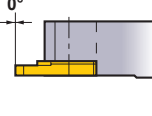
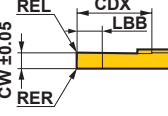
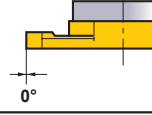
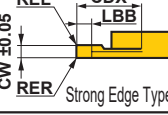
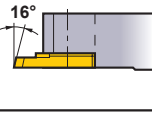
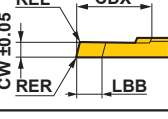
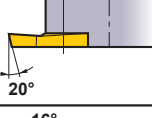
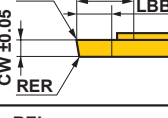
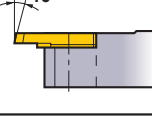
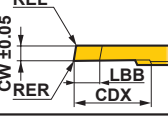
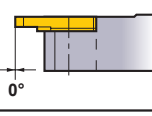
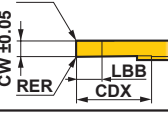
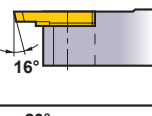
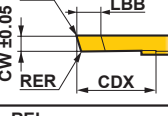
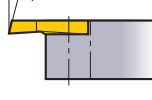
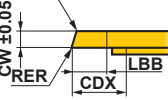
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0008 —.0035
	Free Cutting Steel	—	MS6015	100—590	.0004 —.0035
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008 —.0019
N	Non-Ferrous Metal	—	MS6015	230—755	.0012 —.0043

● : USA Stock

<5 inserts in one case>

INSERTS

Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated		Dimensions (mm)								CUTDIA (mm)
							VP15TF	NEW MS6015	CW	CDX	RER/L	L	W1	S	LBB		
Right Hand (R)		With Breaker			CTAT07080V5RR-B	R	●		0.7	4.5	0.05	20	8	2.5	1.5	8	
				CTAT10120V5RR-B	R	●	●	1.0	6.7	0.05	20	8	2.5	1.5	12		
				CTAT15120V5RR-B	R	●	●	1.5	6.7	0.05	20	8	2.5	1.5	12		
				CTAT20120V5RR-B	R	●	●	2.0	6.7	0.05	20	8	2.5	1.5	12		
					CTAT15120V5RR-BX	R	●		1.5	6.7	0.05	20	8	2.5	1.5	12	
				CTAT20120V5RR-BX	R	●		2.0	6.7	0.05	20	8	2.5	1.5	12		
					CTAT10120V5RN-B	N	●	●	1.0	6.7	0.05	20	8	2.5	1.5	12	
				CTAT15120V5RN-B	N	●	●	1.5	6.7	0.05	20	8	2.5	1.5	12		
				CTAT20120V5RN-B	N	●	●	2.0	6.7	0.05	20	8	2.5	1.5	12		
					CTAT15120V5RN-BX	N	●		1.5	6.7	0.05	20	8	2.5	1.5	12	
				CTAT20120V5RN-BX	N	●		2.0	6.7	0.05	20	8	2.5	1.5	12		
					CTAT10110V5RL-B	L	●		1.0	6.7	0.05	20	8	2.5	1.5	11	
	CTAT15110V5RL-B	L		●		1.5	6.7	0.05	20	8	2.5	1.5	11				
	CTAT20110V5RL-B	L		●		2.0	6.7	0.05	20	8	2.5	1.5	11				
		CTAT1012000RR		R	●	●	1.0	6.7	0	20	8	2.5	3.5	12			
	CTAT1512000RR	R		●	●	1.5	6.7	0	20	8	2.5	3.5	12				
	CTAT2012000RR	R		●	●	2.0	6.7	0	20	8	2.5	3.5	12				
Left Hand (L)		With Breaker			CTAT07080V5LL-B	L	●		0.7	4.5	0.05	20	8	2.5	1.5	8	
				CTAT10120V5LL-B	L	●		1.0	6.7	0	20	8	2.5	1.5	12		
				CTAT15120V5LL-B	L	●		1.5	6.7	0	20	8	2.5	1.5	12		
				CTAT20120V5LL-B	L	●		2.0	6.7	0	20	8	2.5	1.5	12		
					CTAT10120V5LN-B	N	●	●	1.0	6.7	0.05	20	8	2.5	1.5	12	
				CTAT15120V5LN-B	N	●	●	1.5	6.7	0.05	20	8	2.5	1.5	12		
				CTAT20120V5LN-B	N	●	●	2.0	6.7	0.05	20	8	2.5	1.5	12		
					CTAT10110V5LR-B	R	●	●	1.0	6.7	0.05	20	8	2.5	1.5	11	
				CTAT15110V5LR-B	R	●	●	1.5	6.7	0.05	20	8	2.5	1.5	11		
				CTAT20110V5LR-B	R	●	●	2.0	6.7	0.05	20	8	2.5	1.5	11		
					CTAT1012000LL	L	●		1.0	6.7	0	20	8	2.5	3.5	12	
				CTAT1512000LL	L	●		1.5	6.7	0	20	8	2.5	3.5	12		
	CTAT2012000LL	L		●		2.0	6.7	0	20	8	2.5	3.5	12				

● = NEW

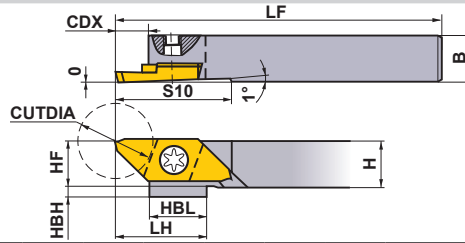
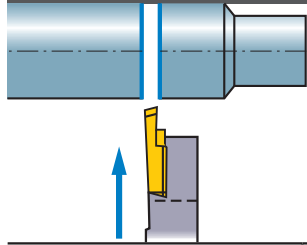
D

SMALL TOOLS

CUTTING OFF TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

CTBH



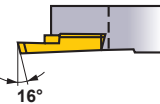
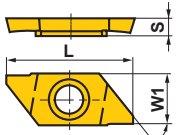
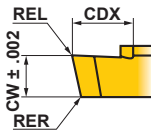
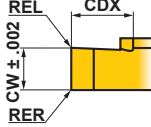
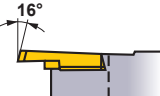
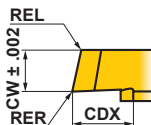
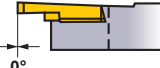
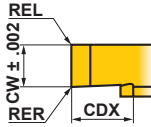
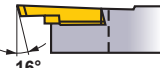
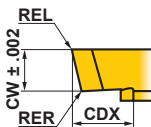
Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (inch)									CUTDIA (inch)	 *	
	R	L			H	B	HF	LF	LH	CDX	HBH	HBL	S10		Clamp Screw	Wrench
CTBHR/L-062	●	●	CTBT	○○○○	.375	.375	.375	4.724	.768	.295	.125	.374	.984	.630	NS402W	NKY15S
CTBHR/L-082	●	●		○○○○	.500	.500	.500	4.724	.768	.295	—	.374	.984	.630	NS403W	NKY15S
CTBHR/L-102	●	●		○○○○	.625	.625	.625	4.724	.768	.295	—	.374	.984	.630	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

SMALL TOOLS

INSERTS

Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated		Dimensions (inch)							CUTDIA (inch)
							VP15TF	NEW MS6015	CW	CDX	RER/L	L	W1	S		
Right Hand (R)		With Breaker	 EPSR 45°		CTBT15160V5RR-B	R	●	●	.059	.362	.002	.984	.370	.138	.630	
				CTBT20160V5RR-B	R	●	●	.079	.362	.002	.984	.370	.138	.630		
				CTBT20160V5RN-B	N	●	●	.079	.362	.002	.984	.370	.138	.630		
Left Hand (L)					CTBT20160V5LL-B	L	●		.079	.362	.002	.984	.370	.138	.630	
					CTBT20160V5LN-B	N	●	●	.079	.362	.002	.984	.370	.138	.630	
					CTBT20145V5LR-B	R	●	●	.079	.362	.002	.984	.370	.138	.571	
			Right hand insert shown.													

Right hand
insert shown.

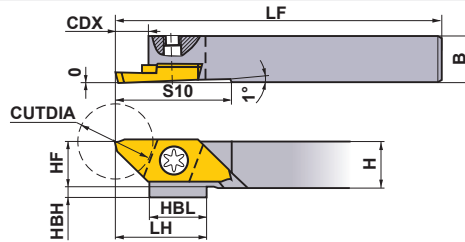
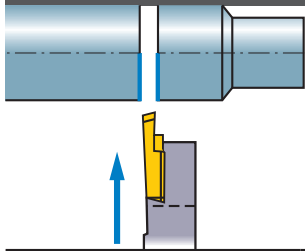
● = NEW

● : USA Stock

<5 inserts in one case>

METRIC STANDARD

CTBH

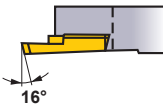
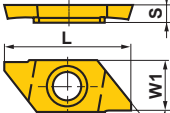
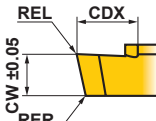
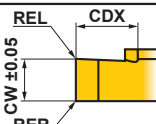
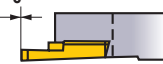
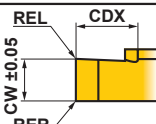
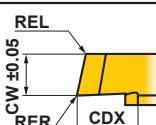
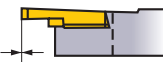
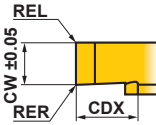
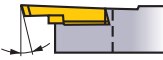
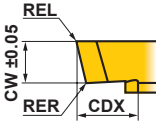


Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)									CUTDIA (mm)		
	R	L			H	B	HF	LF	LH	CDX	HBH	HBL	S10		Clamp Screw	Wrench
CTBHR/L1010-160	●	●	CTBT	○○○○	10	10	10	120	19.5	7.5	2	9.5	25	16	NS402W	NKY15S
CTBHR/L1212-160	●	●		○○○○	12	12	12	120	19.5	7.5	—	9.5	25	16	NS403W	NKY15S
CTBHR/L1616-160	●	●		○○○○	16	16	16	120	19.5	7.5	—	9.5	25	16	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated		Dimensions (mm)							CUTDIA (mm)
							VP15TF	NEW MS6015	CW	CDX	RER/L	L	W1	S		
Right Hand (R)		With Breaker			CTBT15160V5RR-B	R	●	●	1.5	9.2	0.05	25	9.4	3.5	16	
				CTBT20160V5RR-B	R	●	●	2.0	9.2	0.05	25	9.4	3.5	16		
				CTBT20160V5RN-B	N	●	●	2.0	9.2	0.05	25	9.4	3.5	16		
Left Hand (L)					CTBT20160V5LL-B	L	●			2.0	9.2	0.05	25	9.4	3.5	16
					CTBT20160V5LN-B	N	●	●		2.0	9.2	0.05	25	9.4	3.5	16
					CTBT20145V5LR-B	R	●	●		2.0	9.2	0.05	25	9.4	3.5	14.5

Right hand insert shown.

● = NEW

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0008 —.0035
	Free Cutting Steel	—	MS6015	100—590	.0004 —.0035
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008 —.0019
N	Non-Ferrous Metal	—	MS6015	230—755	.0012 —.0043

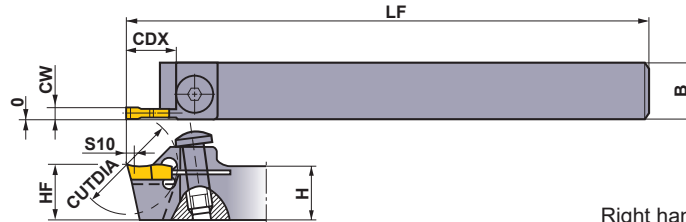
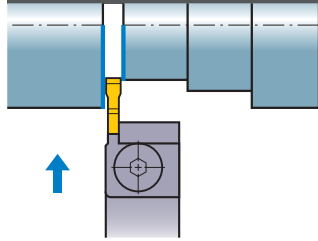
SPARE PARTS > N001
TECHNICAL DATA > P001

D031

CUTTING OFF TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

CTCH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)						CUTDIA (mm)		
	R	L			H	B	HF	LF	CDX	S10		* Clamp Screw	Wrench
CTCHR/L1010-200	●	●	CTCT	20000	10	10	10	120	11	0.5	20	NS501W	HKY25RS
CTCHR/L1212-200	●	●		20000	12	12	12	120	11	0.5	20	NS501W	HKY25RS

* Clamp Torque (lbf-in) : NS501W=19

SMALL TOOLS

INSERTS

Breaker	Order Number	Hand	Coated	Dimensions (mm)					CUTDIA (mm)	Geometry
			VP15TF	CW	PSIRR/L	RER/L	L	S		
With Breaker	CTCT22200V5N-B	N	●	2.2	0°	0.05	10	4.0	20	
	CTCT2220001N-B	N	●	2.2	0°	0.1	10	4.0	20	
	CTCT25200V5N-B	N	●	2.5	0°	0.05	10	4.0	20	
	CTCT2520001N-B	N	●	2.5	0°	0.1	10	4.0	20	
	CTCT22200V5R-B	R	●	2.2	17°	0.05	10	4.0	20	
	CTCT2220001R-B	R	●	2.2	17°	0.1	10	4.0	20	
	CTCT25200V5R-B	R	●	2.5	17°	0.05	10	4.0	20	
	CTCT2520001R-B	R	●	2.5	17°	0.1	10	4.0	20	
	CTCT22200V5L-B	L	●	2.2	17°	0.05	10	4.0	20	
	CTCT2220001L-B	L	●	2.2	17°	0.1	10	4.0	20	
	CTCT25200V5L-B	L	●	2.5	17°	0.05	10	4.0	20	
	CTCT2520001L-B	L	●	2.5	17°	0.1	10	4.0	20	

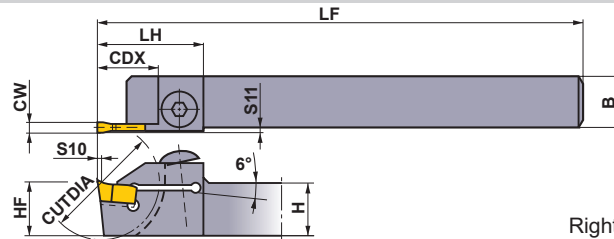
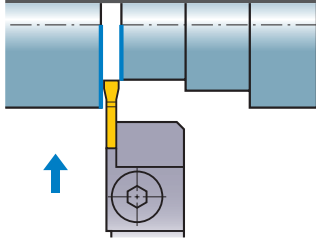
Neutral (N) Right Hand (R) Left Hand (L)

● : USA Stock

<10 inserts in one case>

METRIC STANDARD

CTDH



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)								CUTDIA (mm)	* Clamp Screw	Wrench
	R	L		H	B	HF	LF	LH	CDX	S10	S11			
CTDHR/L1616-230	●		CTDT	2535	16	16	125	24	12.2	0.5	0.5	23	HBH06020	HKY40R
CTDHR/L1616-280	●			2535	16	16	120	25	15	0.5	0.5	28	NS502W	HKY25R
CTDHR/L1616-350	●	●		2535	16	16	125	32	18.5	0.5	0.5	35	HBH06020	HKY40R

* Clamp Torque (lbf-in) : HBH06020=62, NS502W=19

INSERTS

Breaker	Order Number	Hand	Coated	Dimensions (mm)					CUTDIA (mm)	Geometry
			VP15TF	CW	PSIRR	RE	L	S		
With Breaker	CTDT2535002N-B	N	●	2.5	0°	0.2	12	6.39	23—35	
	CTDT25350V5R-B	R	●	2.5	8°	≤0.05	12	6.39	23—35	
	CTDT25350V5R-BS	R	●	2.5	17°	≤0.05	12	6.39	23—35	
	CTDT2535002R-B	R	●	2.5	8°	0.2	12	6.39	23—35	

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	VP15TF	165—490	.0008—.0035
	Free Cutting Steel	—	VP15TF	100—590	.0004—.0035
M	Stainless Steel	≤200HB	VP15TF	165—395	.0008—.0019
N	Non-Ferrous Metal	—	VP15TF	230—755	.0012—.0043

SPARE PARTS > N001
TECHNICAL DATA > P001

D033

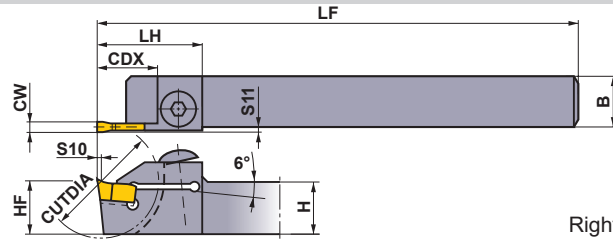
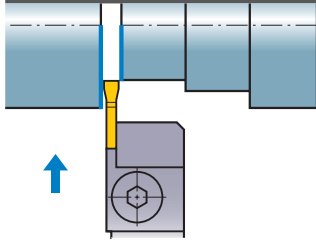
SMALL TOOLS

D

CUTTING OFF TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

CTEH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (mm)								CUTDIA (mm)		
	R	L			H	B	HF	LF	LH	CDX	S10	S11		* Clamp Screw	Wrench
CTEHR/L1616-230	●		CTET	3035	16	16	16	125	24	12.2	0.5	0.5	23	HBH06020	HKY40R
CTEHR/L1616-280	●			3035	16	16	16	120	25	15	0.5	0.5	28	NS502W	HKY25R
CTEHR/L1616-350	●	●		3035	16	16	16	125	32	18.5	0.5	0.5	35	HBH06020	HKY40R

* Clamp Torque (lbf-in) : HBH06020=62, NS502W=19

INSERTS

Breaker	Order Number	Hand	Coated	Dimensions (mm)					CUTDIA (mm)	Geometry
			VP15TF	CW	PSIRR/L	RER/L	L	S		
With Breaker	CTET30350V5R-B	R	●	3	8°	≤0.05	12	6.39	23-35	
	CTET30350V5R-BS	R	●	3	17°	≤0.05	12	6.39	23-35	
	CTET3035002N-B	N	●	3	0°	0.2	12	6.39	23-35	
	CTET3035002R-B	R	●	3	8°	0.2	12	6.39	23-35	
	CTET3035002L-B	L	●	3	8°	0.2	12	6.39	23-35	

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB-280HB	VP15TF	165-490	.0008-.0035
	Free Cutting Steel	—	VP15TF	100-590	.0004-.0035
M	Stainless Steel	≤200HB	VP15TF	165-395	.0008-.0019
N	Non-Ferrous Metal	—	VP15TF	230-755	.0012-.0043

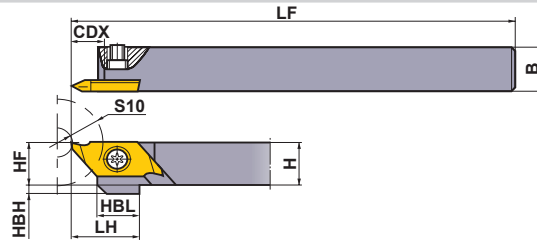
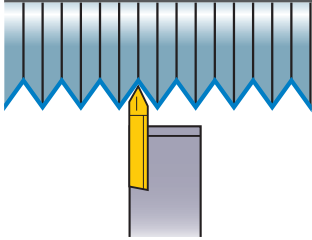
● : USA Stock

<10 inserts in one case>

THREADING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

TTAH



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (inch)										 *	
	R	L		H	B	HF	LF	LH	HBH	HBL	CDX	S10	Clamp Screw	Wrench	
TTAHR/L-062	●	●	TTAT		.375	.375	.375	4.724	.591	.125	.374	.276	.256	NS402W	NKY15S
TTAHR/L-082	●	●			.500	.500	.500	4.724	.591	—	.374	.276	.256	NS402W	NKY15S
TTAHR/L-102	●	●			.625	.625	.625	4.724	.591	—	.374	.276	.256	NS402W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2

INSERTS

Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated	Dimensions (inch)					Pitch of Thread (inch) (thread/inch)
							VP15TF	PDX	RE	L	W1	S	
Right Hand (R)			General Purpose (60°)		TTAT60075F5RR-B	R	●	.016	.002 Flat	.787	.315	.098	.008—.030 (80—36)
					TTAT60125V5RR-B	R	●	.031	.002	.787	.315	.098	.020—.049 (40—16)
					TTAT60075F5RL-B	L	●	.016	.002 Flat	.787	.315	.098	.008—.030 (80—36)
					TTAT60125V5RL-B	L	●	.031	.002	.787	.315	.098	.020—.049 (40—16)
					TTAT6015001RN-B	N	●	.049	.004	.787	.315	.098	.039—.059 (24—18)
					TTAT60075F5LR-B	R	●	.016	.002 Flat	.787	.315	.098	.008—.030 (80—36)
Left Hand (L)			General Purpose (60°)		TTAT60125V5LR-B	R	●	.031	.002	.787	.315	.098	.020—.049 (40—16)
					TTAT60075F5LL-B	L	●	.016	.002 Flat	.787	.315	.098	.008—.030 (80—36)
					TTAT60125V5LL-B	L	●	.031	.002	.787	.315	.098	.020—.049 (40—16)
					TTAT6015001LN-B	N	●	.049	.004	.787	.315	.098	.039—.059 (24—18)
					TTAT55158V5RR-B	R	●	.031	.002	.787	.315	.098	(40—16)
					TTAT55158V5RL-B	L	●	.031	.002	.787	.315	.098	(40—16)
Right Hand (R)			General Purpose (55°)		TTAT55158V5LR-B	R	●	.031	.002	.787	.315	.098	(40—16)
					TTAT55158V5LL-B	L	●	.031	.002	.787	.315	.098	(40—16)
					TTAT55158V5RR-B	R	●	.031	.002	.787	.315	.098	(40—16)
					TTAT55158V5RL-B	L	●	.031	.002	.787	.315	.098	(40—16)

Refer to page D037 for the thread diameter range.

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Cutting Speed (SFM)
P	Carbon Steel · Alloy Steel	180HB—280HB	165—490
	Free Cutting Steel	—	100—590

● : USA Stock
<5 inserts in one case>

	Work Material	Hardness	Cutting Speed (SFM)
M	Stainless Steel	≤200HB	165—395
N	Non-Ferrous Metal	—	230—755

SPARE PARTS > N001
TECHNICAL DATA > P001

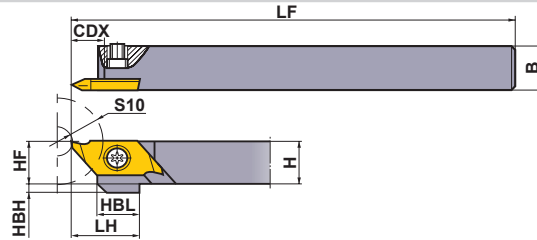
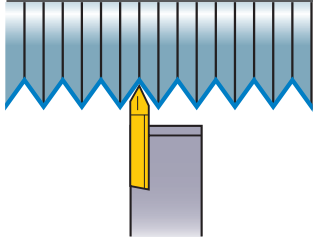
D
SMALL TOOLS

D035

THREADING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

TTAH



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)											
	R	L		H	B	HF	LF	LH	HBH	HBL	CDX	S10	Clamp Screw	Wrench	
TTAHR/L0810	●	●	TTAT		8	10	8	120	15	4	9.5	7	6.5	NS402W	NKY15S
TTAHR/L1010	●	●			10	10	10	120	15	2	9.5	7	6.5	NS402W	NKY15S
TTAHR/L1212	●	●			12	12	12	120	15	—	9.5	7	6.5	NS403W	NKY15S
TTAHR/L1616	●	●			16	16	16	120	15	—	9.5	7	6.5	NS403W	NKY15S

* Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

INSERTS

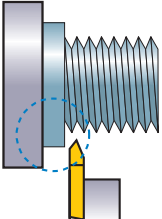
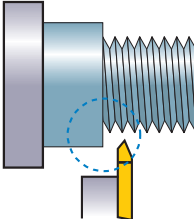
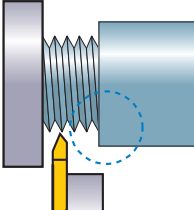
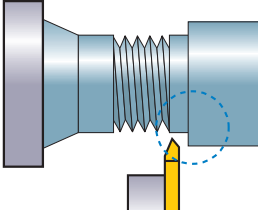
Holder	Setting Geometry	Breaker	Geometry	Insert Geometry	Order Number	Hand	Coated	Dimensions (mm)						Pitch of Thread (mm) (thread/inch)
							VP15TF	PDX	RE	L	W1	S		
Right Hand (R)		With Breaker	General Purpose (60°)		TTAT60075F5RR-B	R	●	0.4	0.05 Flat	20.0	8.0	2.5	0.2—0.75 (80—36)	
					TTAT60125V5RR-B	R	●	0.8	0.05	20.0	8.0	2.5	0.5—1.25 (40—16)	
					TTAT60075F5RL-B	L	●	0.4	0.05 Flat	20.0	8.0	2.5	0.2—0.75 (80—36)	
					TTAT60125V5RL-B	L	●	0.8	0.05	20.0	8.0	2.5	0.5—1.25 (40—16)	
Left Hand (L)			General Purpose (60°)		TTAT6015001RN-B	N	●	1.25	0.1	20.0	8.0	2.5	1.0—1.5 (24—18)	
					TTAT60075F5LR-B	R	●	0.4	0.05 Flat	20.0	8.0	2.5	0.2—0.75 (80—36)	
					TTAT60125V5LR-B	R	●	0.8	0.05	20.0	8.0	2.5	0.5—1.25 (40—16)	
					TTAT60075F5LL-B	L	●	0.4	0.05 Flat	20.0	8.0	2.5	0.2—0.75 (80—36)	
					TTAT60125V5LL-B	L	●	0.8	0.05	20.0	8.0	2.5	0.5—1.25 (40—16)	
			General Purpose (55°)		TTAT6015001LN-B	N	●	1.25	0.1	20.0	8.0	2.5	1.0—1.5 (24—18)	
					TTAT55158V5RR-B	R	●	0.8	0.05	20.0	8.0	2.5	(40—16)	
					TTAT55158V5RL-B	L	●	0.8	0.05	20.0	8.0	2.5	(40—16)	
					TTAT55158V5LR-B	R	●	0.8	0.05	20.0	8.0	2.5	(40—16)	
Left Hand (L)			General Purpose (55°)		TTAT55158V5LL-B	L	●	0.8	0.05	20.0	8.0	2.5	(40—16)	

Refer to page D037 for the thread diameter range.

● : USA Stock

<5 inserts in one case>

HOLDER APPLICATION

	Right Hand Holder + Right Hand Insert	Left Hand Holder + Left Hand Insert
A Type Insert		
B Type Insert		

* Above 4 combinations enable machining at the areas shown by ○.

THREAD DIAMETER RANGE

Application Range

Pitch (mm)	Thread Diameter (mm)										Number of Passes
	≥φ1.0	≥φ1.2	≥φ1.6	≥φ2.0	≥φ2.5	≥φ3.0	≥φ4.0	≥φ5.0	≥φ6.0	≥φ7.0	
0.2											2 – 4
0.25											
0.3											3 – 5
0.35											
0.4											4 – 6
0.45											
0.5											
0.6											
0.7											
0.75		Machining Impossible									5 – 7
0.8											
1											
1.25											6 – 8
1.5											

*Metric Thread (60°)

Pitch(thread/inch)	Thread Diameter									Number of Passes
Inch	≥φ0.060	≥φ0.073	≥φ0.086	≥φ0.099	≥φ0.112	≥φ0.164	≥φ0.190	≥φ0.250	≥φ0.313	
mm	≥φ1.524	≥φ1.854	≥φ2.184	≥φ2.515	≥φ2.845	≥φ4.166	≥φ4.826	≥φ6.350	≥φ7.938	
80										3 – 5
72										
64										4 – 6
56										
48										
44										
40										
32										5 – 7
28										
26		Machining Impossible								
24										
20										
18										6 – 8
16										

*American UN, Whitworth Thread

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Cutting Speed (SFM)
P	Carbon Steel · Alloy Steel	180HB–280HB	165–490
	Free Cutting Steel	—	100–590

	Work Material	Hardness	Cutting Speed (SFM)
M	Stainless Steel	≤200HB	165–395
N	Non-Ferrous Metal	—	230–755

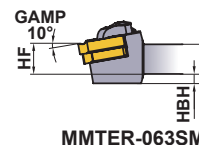
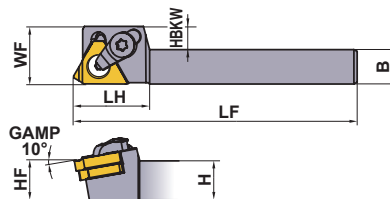
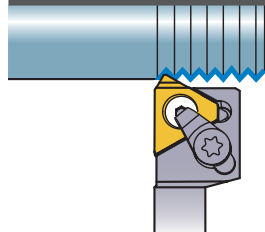
SPARE PARTS > N001
TECHNICAL DATA > P001

D037

THREADING TOOLS (FOR GANG TYPE) TOOL POSTS

INCH STANDARD

MMTE



MMTER-063SM

Order Number	Stock	Insert Number		Dimensions (inch)													
	R			H	B	LF	LH	HBH	HF	HBKW	WF	Clamp Bridge	Clamp Screw	Stop Ring	Shim Screw	Shim	Wrench
MMTER-063SM	●	TTAT	MMT16ER 	.375	.375	4.724	.875	.118	.375	.250	.625	SETK51	SETS51	CR4	HFC03008	CTE32TP15	①TKY15F ②HKY20R
MMTER-083SM	●			.500	.500	4.724	.875	—	.500	.125	.625	SETK51	SETS51	CR4	HFC03008	CTE32TP15	①TKY15F ②HKY20R

* Clamp Torque (lbf-in) : SETS51=31, HFC03008=18

SMALL TOOLS

D

● : USA Stock

D038

MMTE type inserts > G021—G025
HOW TO SELECT A SHIM > G012, G013

DIMPLE SLEEVE HOLDER (FOR OPPOSITE TOOL POSTS)

INCH STANDARD

SH											Finish		Finish		Light		Light	
 93°											SMG/FS		R-F		R-SS		LS	
											(2, 3)		(2, 3)		(2, 3)		(2, 3)	
											Medium		Medium		Non-Ferrous Metal		Light	
											R-SN		R-SR		AZ		LS-P	
											(2, 3)		(2, 3)		(2, 3)		(2, 3)	
				Left hand tool holder only.														
Order Number	Stock	Insert Number		Dimensions (inch)									★					
	L			DCON	LF	LH	H	WF	WF2	CDX	Clamp Screw				Wrench			
SH16H-FSDUCL07	●	DCMT	21.5	.625	3.937	.787	.551	.305	.030	.165	TS254	TKY08R						
SH19K-FSDUCL07	●	DCMW		.750	4.921	.787	.669	.364	.030	.165	TS254	TKY08R						
SH25M-FSDUCL07	●	DCGT		1.000	5.906	.787	.906	.482	.030	.165	TS254	TKY08R						
		DCGW																
SH16H-FSDUCL11	●	DCMT	32.5	.625	3.937	.787	.551	.305	.030	.252	TS43	TKY15R						
SH19K-FSDUCL11	●	DCMW		.750	4.921	.787	.669	.364	.030	.252	TS43	TKY15R						
SH25M-FSDUCL11	●	DCGT		1.000	5.906	.787	.906	.482	.030	.252	TS43	TKY15R						
		DCGW																

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

Note 1) When using insert with right and left hand chip breaker, please use right hand insert.

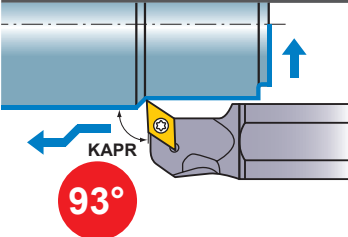
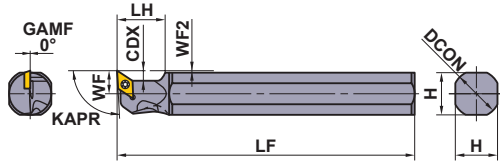
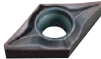
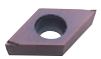
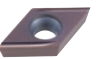
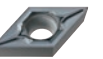
Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

D

SMALL TOOLS

DIMPLE SLEEVE HOLDER (FOR OPPOSITE TOOL POSTS)

METRIC STANDARD

SH												Finish		Finish		Light		Light	
		SMG/FS		R-F		R-SS		LS											
																			
												(2, 3)		(2, 3)		(2, 3)		(2, 3)	
												Medium		Medium		Non-Ferrous Metal		Light	
												R-SN		R-SR		AZ		LS-P	
		Left hand tool holder only.										(2, 3)		(2, 3)		(2, 3)		(2, 3)	
Order Number	Stock	Insert Number		Dimensions (mm)															
	DCON			LF	LH	H	WF	WF2	CDX	Clamp Screw	Wrench								
SH20K-FSDUCL07	●	DCMT DCMW DCET	21.5	20	125	20	18	9.75	0.75	4.2	TS254	TKY08R							
SH22K-FSDUCL07	●	DCGT DCGW		22	125	20	20	10.75	0.75	4.2	TS254	TKY08R							
SH20K-FSDUCL11	●	DCMT DCMW DCET	32.5	20	125	20	18	9.75	0.75	6.4	TS43	TKY15R							
SH22K-FSDUCL11	●	DCGT DCGW		22	125	20	20	10.75	0.75	6.4	TS43	TKY15R							

* Clamp Torque (lbf-in) : TS254=8.9, TS43=31

Note 1) When using insert with right and left hand chip breaker, please use right hand insert.

Note 2) Insert photo is an example. Letters show chip breaker style, figures show inscribed circle.

RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (SFM)	Feed (IPR)
P	Carbon Steel · Alloy Steel	180HB—280HB	MS6015/VP15TF	165—490	.0004—.006
	Free Cutting Steel	—	MS6015	100—590	.0004—.006
			NX2525	165—820	.0004—.006
M	Stainless Steel	≤200HB	VP15TF/MP9005/MP9015	165—395	.0008—.004
N	Non-Ferrous Metal	—	HTi10/MT9005	230—755	.0012—.006
S	Titanium Alloy	—	MT9005	130—260	.0016—.005
	Heat Resistant Alloy	—	MP9015	65—245	.0016—.005

● : USA Stock

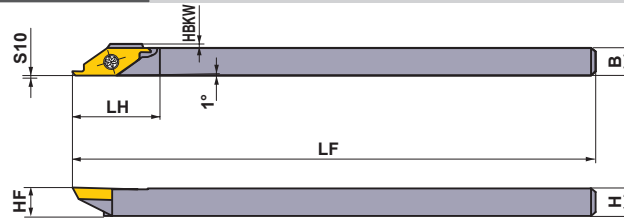
SH type inserts > A158—A165

CBN & PCD inserts > B048, B049, B064

FOR RADIAL TYPE TOOL POSTS

INCH STANDARD

CSVH



Right hand tool holder shown.

Order Number	Stock		Insert Number		Dimensions (inch)							*1 APMX (inch)	*2 	
	R	L			H	B	HF	LF	HBKW	LH	S10		Clamp Screw	Wrench
CSVHR/L-062	●	●	CSVT	○○○○	.375	.375	.375	5.512	0	.787	.004	.118	NS251	NKY15S
CSVHR/L-082	●			○○○○	.500	.500	.500	5.512	0	.787	.004	.118	NS251	NKY15S

*1 APMX : Max. Depth of Cut

*2 Clamp Torque (lbf-in) : NS251=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Each insert has own depth of cut.

D

SMALL TOOLS

INSERTS

CSVTF

Front turning

Order Number	Hand	Coated	Dimensions (inch)				APMX (inch)	* Geometry
		VP15KZ	IC	S	RER/L	CF		
CSVTF30AR	R	●	.250	.094	0	.012	.118	Without Breaker
CSVTF30AL	L	●	.250	.094	0	.012	.118	
CSVTF30BR	R	●	.250	.094	0	.012	.118	
CSVTF30CR	R	●	.250	.094	0	.006	.118	
CSVTF30DR	R	●	.250	.094	0	.006	.118	
CSVTF30AR-B	R	●	.250	.094	0	.012	.118	With Breaker
CSVTF30AL-B	L	●	.250	.094	0	.012	.118	
CSVTF30BR-B	R	●	.250	.094	0	.012	.118	
CSVTF30CR-B	R	●	.250	.094	0	.006	.118	
CSVTF30DR-B	R	●	.250	.094	0	.006	.118	

* APMX : Max. Depth of Cut

CSVTFXL

Front turning, Copying

Order Number	Hand	Coated	Dimensions (inch)			APMX (inch)	* Geometry
		VP15KZ	IC	S	CFD		
CSVTFXL	L	●	.250	.094	.028	.118	Without Breaker

* APMX : Max. Depth of Cut

● : USA Stock
<5 inserts in one case>

SPARE PARTS > N001
TECHNICAL DATA > P001

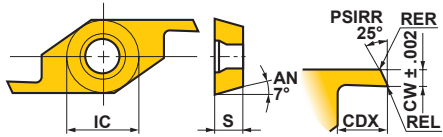
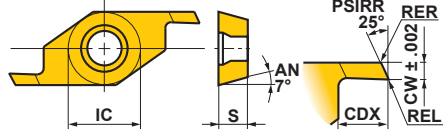
D041

FOR RADIAL TYPE TOOL POSTS

INSERTS

CSVTC

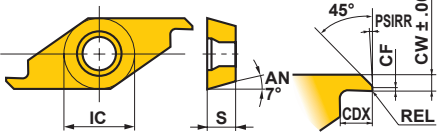
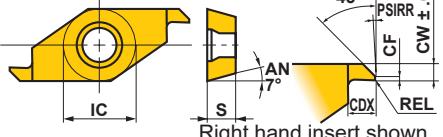
Cutting off

Order Number	Hand	Coated	Dimensions (inch)					APMX [*] (inch)	Geometry
		VP15KZ	IC	S	RER/L	CDX	CW		
CSVTC0640R	R	●	.250	.094	0	.079	.024	.059	 Without Breaker
CSVTC0750R	R	●	.250	.094	0	.098	.028	.079	
CSVTC0750L	L	●	.250	.094	0	.098	.028	.079	
CSVTC0850R	R	●	.250	.094	0	.098	.031	.079	
CSVTC0850L	L	●	.250	.094	0	.098	.031	.079	
CSVTC0950R	R	●	.250	.094	0	.098	.035	.079	
CSVTC1060R	R	●	.250	.094	0	.118	.039	.098	
CSVTC1060L	L	●	.250	.094	0	.118	.039	.098	
CSVTC1360R	R	●	.250	.094	0	.118	.051	.098	
CSVTC1360L	L	●	.250	.094	0	.118	.051	.098	
CSVTC1560R	R	●	.250	.094	0	.118	.059	.098	 Right hand insert shown.
CSVTC1560L	L	●	.250	.094	0	.118	.059	.098	
CSVTC0640R-B	R	●	.250	.094	0	.079	.024	.059	
CSVTC0750R-B	R	●	.250	.094	0	.098	.028	.079	
CSVTC0850R-B	R	●	.250	.094	0	.098	.031	.079	
CSVTC0950R-B	R	●	.250	.094	0	.098	.035	.035	
CSVTC1060R-B	R	●	.250	.094	0	.118	.039	.098	
CSVTC1360R-B	R	●	.250	.094	0	.118	.051	.098	
CSVTC1560R-B	R	●	.250	.094	0	.118	.059	.098	

* APMX : Max. Depth of Cut

CSVTB

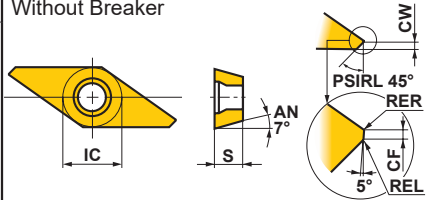
Back turning

Order Number	Hand	Coated	Dimensions (inch)							APMX [*] (inch)	Geometry
		VP15KZ	IC	S	REL/L	CDX	CW	CF	PSIRR/L		
CSVTB10AR	R	●	.250	.094	0	.098	.039	.012	5°	.079	 Without Breaker
CSVTB10AL	L	●	.250	.094	0	.098	.039	.012	5°	.079	
CSVTB10BR	R	●	.250	.094	0	.098	.039	.012	2°	.079	
CSVTB10CR	R	●	.250	.094	0	.098	.039	.006	2°	.079	
CSVTB10DR	R	●	.250	.094	0	.098	.039	.006	5°	.079	
CSVTB12AR	R	●	.250	.094	0	.098	.047	.012	5°	.079	
CSVTB14AR	R	●	.250	.094	0	.098	.055	.012	5°	.079	
CSVTB10AR-B	R	●	.250	.094	0	.098	.039	.012	5°	.079	 With Breaker
CSVTB10BR-B	R	●	.250	.094	0	.098	.039	.012	2°	.079	
CSVTB10CR-B	R	●	.250	.094	0	.098	.039	.006	2°	.079	
CSVTB10DR-B	R	●	.250	.094	0	.098	.039	.006	5°	.079	
CSVTB12AR-B	R	●	.250	.094	0	.098	.047	.012	5°	.079	
CSVTB14AR-B	R	●	.250	.094	0	.098	.055	.012	5°	.079	
CSVTB10AR-B	R	●	.250	.094	0	.098	.039	.012	5°	.079	

* APMX : Max. Depth of Cut

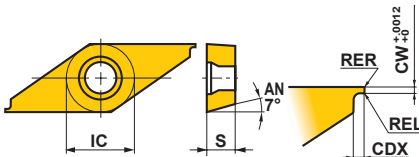
CSVTBXL

Back turning, Copying

Order Number	Hand	Coated	Dimensions (inch)					APMX [*] (inch)	Geometry
		VP15KZ	IC	S	RER/L	CW	CF		
CSVTBXL	L	●	.250	.094	0	.028	.0014	.118	 Without Breaker

* APMX : Max. Depth of Cut

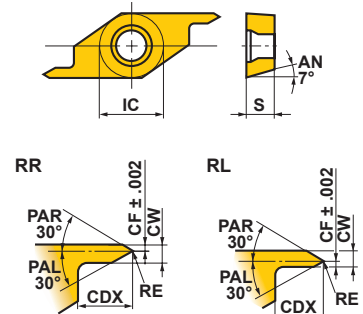
INSERTS

CSVTG			Grooving						
Order Number	Hand	Coated	Dimensions (inch)					APMX [*] (inch)	Geometry
		VP15KZ	IC	S	RER/L	CDX	CW		
CSVTG02505R	R	●	.250	.094	0	.020	.010	.006	
CSVTG03005R	R	●	.250	.094	0	.020	.012	.006	
CSVTG03505R	R	●	.250	.094	0	.020	.014	.006	
CSVTG04005R	R	●	.250	.094	0	.020	.016	.006	
CSVTG04510R	R	●	.250	.094	0	.039	.018	.018	
CSVTG05010R	R	●	.250	.094	0	.039	.020	.018	
CSVTG05510R	R	●	.250	.094	0	.039	.022	.018	
CSVTG06010R	R	●	.250	.094	0	.039	.024	.018	
CSVTG06510R	R	●	.250	.094	0	.039	.026	.018	
CSVTG07010R	R	●	.250	.094	0	.039	.028	.018	
CSVTG07520R	R	●	.250	.094	0	.079	.030	.055	
CSVTG07520L	L	●	.250	.094	0	.079	.030	.055	
CSVTG08020R	R	●	.250	.094	0	.079	.031	.055	
CSVTG08520R	R	●	.250	.094	0	.079	.033	.055	
CSVTG09020R	R	●	.250	.094	0	.079	.035	.055	
CSVTG09520R	R	●	.250	.094	0	.079	.037	.055	
CSVTG09520L	L	●	.250	.094	0	.079	.037	.055	
CSVTG10020R	R	●	.250	.094	0	.079	.039	.055	
CSVTG11030R	R	●	.250	.094	0	.118	.043	.102	
CSVTG12030R	R	●	.250	.094	0	.118	.047	.102	
CSVTG12030L	L	●	.250	.094	0	.118	.047	.102	
CSVTG13030R	R	●	.250	.094	0	.118	.051	.102	
CSVTG14030R	R	●	.250	.094	0	.118	.055	.102	
CSVTG15030R	R	●	.250	.094	0	.118	.059	.102	

Right hand insert shown.

Right hand insert shown.

★ APMX : Max. Depth of Cut

CSVTT			Threading							
Order Number	Hand	Coated	Pitch (inch)	Dimensions (inch)						Geometry
		VP15KZ		IC	S	RE	CDX	CW	CF	
CSVTT60050RR	R	●	.008—.020	.250	.094	.001	.118	.039	.014	Without Breaker General Purpose (60°) 
CSVTT60050RL	R	●	.008—.020	.250	.094	.001	.118	.039	.014	

Right hand insert shown.

Right hand insert shown.

SPARE PARTS > N001
TECHNICAL DATA > P001

D043

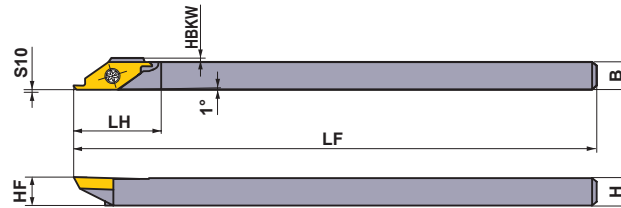
D

SMALL TOOLS

FOR RADIAL TYPE TOOL POSTS

METRIC STANDARD

CSVH



Right hand tool holder shown.

Order Number	Stock		Insert Number	Dimensions (mm)							*1 APMX (mm)	*2		
	R	L		H	B	HF	LF	HBKW	LH	S10				
CSVHR/L0707	●	●	CSVT	○○○○	7	7	7	140	0.5	20	0.1	3.0	NS251	NKY15S
CSVHR/L0808	●	●		○○○○	8	8	8	140	0	20	0.1	3.0	NS251	NKY15S
CSVHR/L0909	●			○○○○	9.5	9.5	9.5	140	0	20	0.1	3.0	NS251	NKY15S
CSVHR/L1010	●	●		○○○○	10	10	10	140	0	20	0.1	3.0	NS251	NKY15S
CSVHR/L1212	●			○○○○	12	12	12	140	0	20	0.1	3.0	NS251	NKY15S

*1 APMX : Max. Depth of Cut

*2 Clamp Torque (lbf-in) : NS251=6.2

Note 1) Please use right hand insert for right hand holder and left hand insert for left hand holder.

Note 2) Each insert has own depth of cut.

INSERTS

CSVTF

Front turning

Order Number	Hand	Coated	Dimensions (mm)				APMX (mm)	* Geometry
		VP15KZ	IC	S	RER/L	CF		
CSVTF30AR	R	●	6.35	2.38	0	0.3	3.0	Without Breaker Right hand insert shown.
CSVTF30AL	L	●	6.35	2.38	0	0.3	3.0	
CSVTF30BR	R	●	6.35	2.38	0	0.3	3.0	
CSVTF30CR	R	●	6.35	2.38	0	0.15	3.0	
CSVTF30DR	R	●	6.35	2.38	0	0.15	3.0	
CSVTF30AR-B	R	●	6.35	2.38	0	0.3	3.0	With Breaker Right hand insert shown.
CSVTF30AL-B	L	●	6.35	2.38	0	0.3	3.0	
CSVTF30BR-B	R	●	6.35	2.38	0	0.3	3.0	
CSVTF30CR-B	R	●	6.35	2.38	0	0.15	3.0	
CSVTF30DR-B	R	●	6.35	2.38	0	0.15	3.0	

* APMX : Max. Depth of Cut

CSVTFXL

Front turning, Copying

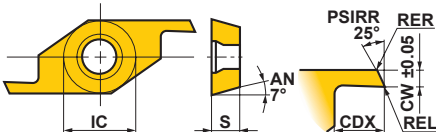
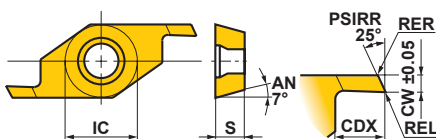
Order Number	Hand	Coated	Dimensions (mm)			APMX (mm)	* Geometry
		VP15KZ	IC	S	CFD		
CSVTFXL	L	●	6.35	2.38	0.7	3.0	Without Breaker Right hand insert shown.

* APMX : Max. Depth of Cut

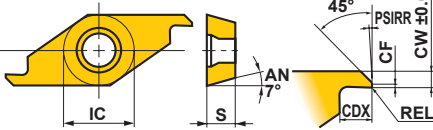
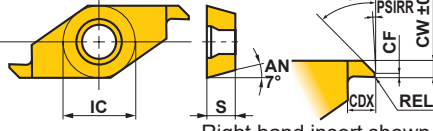
● : USA Stock

<5 inserts in one case>

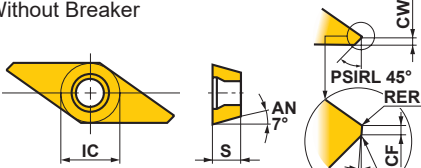
INSERTS

CSVTC			Cutting off						
Order Number	Hand	Coated	Dimensions (mm)					APMX [*] (mm)	Geometry
		VP15KZ	IC	S	RER/L	CDX	CW		
CSVTC0640R	R	●	6.35	2.38	0	2.0	0.6	1.5	Without Breaker 
CSVTC0750R	R	●	6.35	2.38	0	2.5	0.7	2.0	
CSVTC0750L	L	●	6.35	2.38	0	2.5	0.7	2.0	
CSVTC0850R	R	●	6.35	2.38	0	2.5	0.8	2.0	
CSVTC0850L	L	●	6.35	2.38	0	2.5	0.8	2.0	
CSVTC0950R	R	●	6.35	2.38	0	2.5	0.9	2.0	
CSVTC1060R	R	●	6.35	2.38	0	3.0	1.0	2.5	
CSVTC1060L	L	●	6.35	2.38	0	3.0	1.0	2.5	
CSVTC1360R	R	●	6.35	2.38	0	3.0	1.3	2.5	
CSVTC1360L	L	●	6.35	2.38	0	3.0	1.3	2.5	
CSVTC1560R	R	●	6.35	2.38	0	3.0	1.5	2.5	Right hand insert shown.
CSVTC1560L	L	●	6.35	2.38	0	3.0	1.5	2.5	
CSVTC0640R-B	R	●	6.35	2.38	0	2.0	0.6	1.5	With Breaker 
CSVTC0750R-B	R	●	6.35	2.38	0	2.5	0.7	2.0	
CSVTC0850R-B	R	●	6.35	2.38	0	2.5	0.8	2.0	
CSVTC0950R-B	R	●	6.35	2.38	0	2.5	0.9	2.0	
CSVTC1060R-B	R	●	6.35	2.38	0	3.0	1.0	2.5	
CSVTC1360R-B	R	●	6.35	2.38	0	3.0	1.3	2.5	
CSVTC1560R-B	R	●	6.35	2.38	0	3.0	1.5	2.5	
CSVTC1560L-B	L	●	6.35	2.38	0	3.0	1.5	2.5	

* APMX : Max. Depth of Cut

CSVTB											Back turning
Order Number	Hand	Coated	Dimensions (mm)							APMX [*] (mm)	Geometry
		VP15KZ	IC	S	RER/L	CDX	CW	CF	PSIRR/L		
CSVTB10AR	R	●	6.35	2.38	0	2.5	1	0.3	5°	2.0	Without Breaker 
CSVTB10AL	L	●	6.35	2.38	0	2.5	1	0.3	5°	2.0	
CSVTB10BR	R	●	6.35	2.38	0	2.5	1	0.3	2°	2.0	
CSVTB10CR	R	●	6.35	2.38	0	2.5	1	0.15	2°	2.0	
CSVTB10DR	R	●	6.35	2.38	0	2.5	1	0.15	5°	2.0	
CSVTB12AR	R	●	6.35	2.38	0	2.5	1.2	0.3	5°	2.0	
CSVTB14AR	R	●	6.35	2.38	0	2.5	1.4	0.3	5°	2.0	
CSVTB10AR-B	R	●	6.35	2.38	0	2.5	1	0.3	5°	2.0	With Breaker 
CSVTB10BR-B	R	●	6.35	2.38	0	2.5	1	0.3	2°	2.0	
CSVTB10CR-B	R	●	6.35	2.38	0	2.5	1	0.15	2°	2.0	
CSVTB10DR-B	R	●	6.35	2.38	0	2.5	1	0.15	5°	2.0	
CSVTB12AR-B	R	●	6.35	2.38	0	2.5	1.2	0.3	5°	2.0	
CSVTB14AR-B	R	●	6.35	2.38	0	2.5	1.4	0.3	5°	2.0	

* APMX : Max. Depth of Cut

CSVTBXL			Back turning, Copying						
Order Number	Hand	Coated	Dimensions (mm)					APMX [*] (mm)	Geometry
		VP15KZ	IC	S	RER/L	CW	CF		
CSVTBXL	L	●	6.35	2.38	0	0.7	0.035	3.0	Without Breaker
									

* APMX : Max. Depth of Cut

SPARE PARTS > N001
TECHNICAL DATA > P001

D045

D
SMALL TOOLS

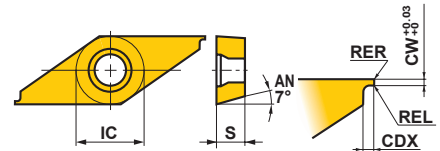
FOR RADIAL TYPE TOOL POSTS

INSERTS

CSVTG

Grooving

Order Number	Hand	Coated	Dimensions (mm)					APMX* (mm)	Geometry
		VP15KZ	IC	S	RER/L	CDX	CW		
CSVTG02505R	R	●	6.35	2.38	0	0.5	0.25	0.15	Without Breaker
CSVTG03005R	R	●	6.35	2.38	0	0.5	0.3	0.15	
CSVTG03505R	R	●	6.35	2.38	0	0.5	0.35	0.15	
CSVTG04005R	R	●	6.35	2.38	0	0.5	0.4	0.15	
CSVTG04510R	R	●	6.35	2.38	0	1.0	0.45	0.45	
CSVTG05010R	R	●	6.35	2.38	0	1.0	0.5	0.45	
CSVTG05510R	R	●	6.35	2.38	0	1.0	0.55	0.45	
CSVTG06010R	R	●	6.35	2.38	0	1.0	0.6	0.45	
CSVTG06510R	R	●	6.35	2.38	0	1.0	0.65	0.45	
CSVTG07010R	R	●	6.35	2.38	0	1.0	0.7	0.45	
CSVTG07520R	R	●	6.35	2.38	0	2.0	0.75	1.4	
CSVTG07520L	L	●	6.35	2.38	0	2.0	0.75	1.4	
CSVTG08020R	R	●	6.35	2.38	0	2.0	0.8	1.4	
CSVTG08520R	R	●	6.35	2.38	0	2.0	0.85	1.4	
CSVTG09020R	R	●	6.35	2.38	0	2.0	0.9	1.4	
CSVTG09520R	R	●	6.35	2.38	0	2.0	0.95	1.4	
CSVTG09520L	L	●	6.35	2.38	0	2.0	0.95	1.4	
CSVTG10020R	R	●	6.35	2.38	0	2.0	1.0	1.4	
CSVTG11030R	R	●	6.35	2.38	0	3.0	1.1	2.6	
CSVTG12030R	R	●	6.35	2.38	0	3.0	1.2	2.6	
CSVTG12030L	L	●	6.35	2.38	0	3.0	1.2	2.6	
CSVTG13030R	R	●	6.35	2.38	0	3.0	1.3	2.6	
CSVTG14030R	R	●	6.35	2.38	0	3.0	1.4	2.6	
CSVTG15030R	R	●	6.35	2.38	0	3.0	1.5	2.6	



Right hand insert shown.

* APMX : Max. Depth of Cut

CSVTT

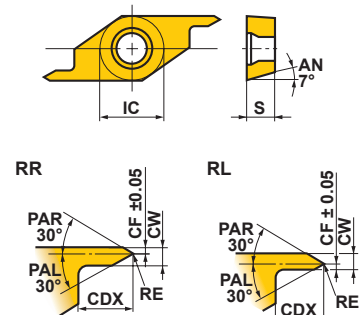
Threading

Order Number	Hand	Coated	Pitch (mm)	Dimensions (mm)						Geometry
		VP15KZ		IC	S	RE	CDX	CW	CF	
CSVTT60050RR	R	●	0.2—0.5	6.35	2.38	0.03	3.0	1.0	0.35	Without Breaker General Purpose (60°)
CSVTT60050RL	R	●	0.2—0.5	6.35	2.38	0.03	3.0	1.0	0.35	

RR

RL

Right hand insert shown.



Right hand insert shown.

● : USA Stock

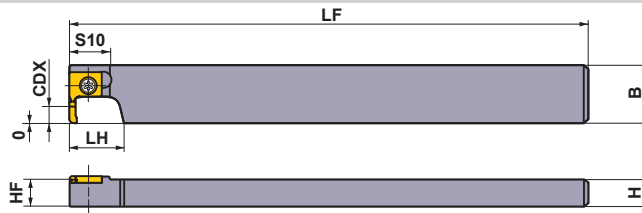
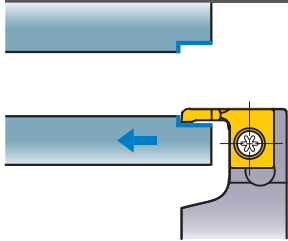
<5 inserts in one case>

BORING TOOLS (FOR GANG TYPE) TOOL POSTS

METRIC STANDARD

SBAH

Without off set



Right hand tool holder only.

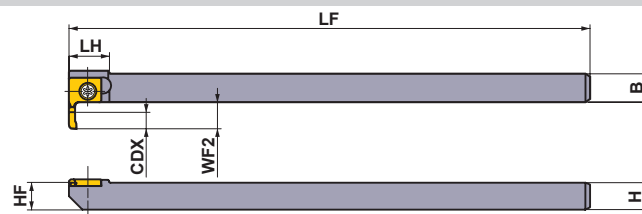
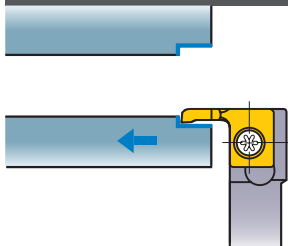
Order Number	Stock	Insert Number		Dimensions (mm)						CDX (mm)	*1 DMIN (mm)	*2 	
	R			H	B	LF	HF	LH	S10		Clamp Screw	Wrench	
SBAHR1022	●	SBAT	3080  L/L-B	10	21.5	120	10	17.5	15	8	3	NS402W	NKY15S
SBAHR1222	●		3080  L/L-B	12	21.5	120	12	17.5	15	8	3	NS403W	NKY15S

*1 DMIN : Min. Cutting Diameter

*2 Clamp Torque (lbf-in) : NS402W=6.2, NS403W=6.2

SBAH

With off set



Right hand tool holder only.

Order Number	Stock	Insert Number		Dimensions (mm)						CDX (mm)	*1 DMIN (mm)	*2			
	R			H	B	LF	HF	WF2	LH						
SBAHR1010	●	SBAT	3080	○	L/L-B	10	10	120	10	10	15	8	3	NS402W	NKY15S

*1 DMIN : Min. Cutting Diameter

*2 Clamp Torque (lbf-in) : NS402W=0.7

INSERTS

Breaker	Order Number	Coated	Dimensions (mm)								* DMIN (mm)	Geometry
		VP15KZ	PSIRL	RER	CDX	L	W1	S	CW	S10		
Without Breaker	SBAT308000L	●	5°	0	8.0	18.5	12.0	2.50	1.25	9.0	3	
	SBAT3080V5L	●	5°	0.05	8.0	18.5	12.0	2.50	1.25	9.0	3	
With Breaker	SBAT308000L-B	●	5°	0	8.0	18.5	12.0	2.50	1.25	9.0	3	
	SBAT3080V5L-B	●	5°	0.05	8.0	18.5	12.0	2.50	1.25	9.0	3	

* DMIN : Min. Cutting Diameter

SPARE PARTS > N001
TECHNICAL DATA > P001

SMALL TOOLS

D047