

PCD Grade for Non-Ferrous Metals Turning

MD220 VCGW Type

New Item
Addition

It is suitable for cutting Aluminum Alloy and Non-Ferrous Metals components with automatic small lathe.

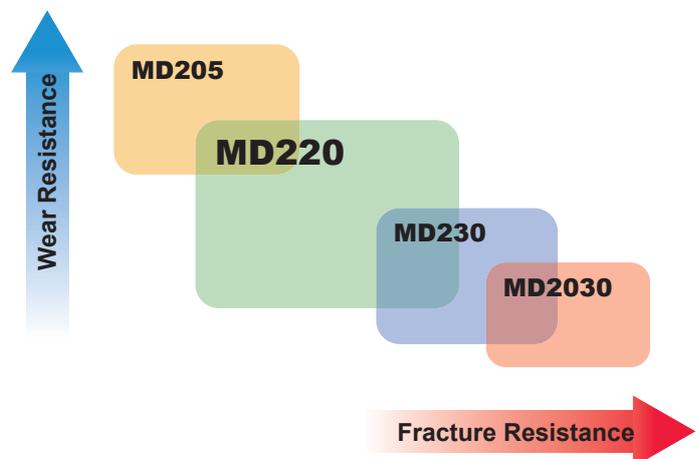
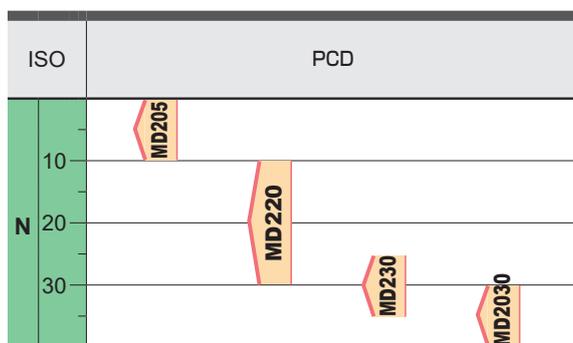
It is applicable for various cutting such as external turning, and internal boring, because of the high toughness edge and the availability for both edge hands.



For General Machining MD220

Sintered medium grain diamond particles. Wear resistance and fracture resistance are superbly balanced. Applicable to general finishing of non-ferrous metals, non-metal cutting, and similar machining.

● Aluminium Alloy



Suitable for cutting materials such as nonferrous metals and fiber reinforced plastics (FRP) including aluminium alloys. It supports ultra high speed finish cutting.

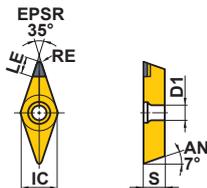
Positive Inserts (With Hole)

G Class

Flat Top



VCGW



(mm)

Order Number	MD220	Cutting Edges	IC	S	RE	D1	LE
VCGW110301	●	1	6.35	3.18	0.1	2.8	3.1
VCGW110302	●	1	6.35	3.18	0.2	2.8	3.0
VCGW110304	●	1	6.35	3.18	0.4	2.8	2.6

● : Inventory maintained in Japan. (1 insert in one case)

Recommended Cutting Conditions

(mm)

Work Material	Cutting Speed vc (m/min)	Feed f (mm/rev)	Depth of Cut ap
Aluminium Alloy (Si ≤ 12%)	800 (200–1200)	–0.2	–1.0
Aluminium Alloy (Si ≥ 13%)	600 (200–1000)	–0.2	–1.0
Copper Alloy	700 (200–1200)	–0.2	–1.0
Strengthened Plastic	600 (100–1000)	–0.4	–1.0
Glass Fibre Reinforced Plastic	500 (100–800)	–0.25	–1.0
Carbon	400 (100–600)	–0.3	–1.0
Ceramics	50 (30–80)	–0.1	–1.0
Hard Rubber	600 (300–800)	–0.15	–1.0
Wood Inorganic Board	1300 (300–4000)	–0.4	–
Cemented Carbide	15 (5–20)	–0.2	–0.5

For Your Safety

●Don't handle inserts and chips without gloves. ●Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ●Please use safety covers and wear safety glasses. ●When using compounded cutting oils, please take fire precautions. ●When attaching inserts or spare parts, please use only the correct wrench or driver. ●When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

MITSUBISHI MATERIALS CORPORATION

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(Tools specifications subject to change without notice.)