

PCD Turning Application Guide

PCD (polycrystalline diamond) is dedicated for ultra high speed turning of aluminium, copper, bronze, plastic, graphite and wood and is the most cost effective solution available.

Stable and long tool life is achieved due to the ultra high wear resistant PCD tip technology. Surface speeds of up to 3,000m/min can be achieved.



PCD Grade Guide

Grade	Applications	Features
DP150	High Si aluminium alloy, copper, bronze, rubber, plastic, wood & carbon.	Fine diamond grain with strong bonding properties. Suitable for all non-ferrous materials and graphite.

Recommended cutting conditions

Workpiece	Cutting Speed (m/min)	Feed (mm/rev)	Depth of cut (mm)
Aluminium alloy (4%~8% Si)	1000~3000	0.1~0.6	~3
Aluminium alloy (9%~14% Si)	600~2500	0.1~0.5	~3
Aluminium alloy (15%~18% Si)	300~700	0.1~0.4	~3
Copper, Bronze alloy	~1000	0.05~0.2	~3
Reinforced plastic	~1000	0.1~0.3	~2
Wood	~4000	0.1~0.4	~3

PCD Turning Inserts

	Figure	Designation	Price £	Grades	Dimensions (mm)				Available Toolholders	Page
				DP150	Inscribed Circle	Thickness	Nose R	Hole Size		
CNMA 80° Nega 		CNMA 120404	£25.00	●	12.7	4.76	0.4	5.16	MCLNR/L PCLNR/L PCBNR/L	D30 D32 D46
		CNMA 120408	£25.00	●	12.7	4.76	0.8	5.16		
DNMA 55° Nega 		DNMA 150604	£25.00	●	12.7	6.35	0.4	5.16	MDJNR/L PDJNR/L PDUNR/L PDNNR/L PDSNR/L	D30 D33 D46
		DNMA 150608	£25.00	●	12.7	6.35	0.8	5.16		
CCMT 80° Posi 		CCMT 060202	£25.00	●	6.35	2.38	0.2	2.8	SCACL/L SCLCR/L	D37 D48
		CCMT 060204	£25.00	●	6.36	2.38	0.4	2.8		
		CCMT 09T304	£30.00	●	9.525	3.97	0.4	4.4		
		CCMT 09T308	£30.00	●	9.525	3.97	0.8	4.4		
DCMT 55° Posi 		DCMT 070202	£25.00	●	6.35	2.38	0.2	2.8	SSDCN SDJCR/L SDQCR/L SDZCR/L	D38 D39 D49 D50
		DCMT 070204	£25.00	●	6.35	2.38	0.4	2.8		
		DCMT 11T304	£30.00	●	9.525	3.97	0.4	4.4		
		DCMT 11T308	£30.00	●	9.525	3.97	0.8	4.4		
VBMW 35° Posi 		VBMW 160404	£39.00	●	9.525	4.76	0.4	4.4	SVHBR/L SVJBR/L SVQBR/L SVUBR/L SVVBN	D40 D41 D42 D51
		VBMW 160408	£39.00	●	9.525	4.76	0.8	4.4		
VCMT 35° Posi 		VCMT 160404	£39.00	●	9.525	4.76	0.4	4.4	SVJCR/L SVQCR/L SVUCR/L SVVCN	D41 D42 D51 D52
		VCMT 160408	£39.00	●	9.525	4.76	0.8	4.4		

