

CBN

- Suitable for high speed finishing of heat treated steel, sintered ferrous alloy and cast iron.
- Low affinity to iron, thus good surface finishes are possible.
- Grinding can be replaced by machining.



SELECTION STANDARD

● Heat Treated Steel

Work Material	Type	Cutting Mode	Recommended Grade	Recommended Cutting Conditions		
				Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
Structural Steel Esp. Carburized Steel High Alloy Steel	Coated	High speed finishing cutting	MBC010	250 (150—400)	—0.2	—0.2
		Continuous cutting for general purpose	MBC020	200 (80—250)	—0.2	—0.3
		Heavy interrupted cutting for general purpose	BC8020	200 (80—250)	—0.3	—0.8
		Interrupted cutting for general purpose		150 (60—200)	—0.2	—0.3
	Non-coated	Continuous cutting for general purpose	MB8025	180 (80—250)	—0.3	—0.5
		Interrupted cutting for general purpose		120 (60—150)	—0.2	—0.3
		Continuous to light interrupted cutting		120 (70—150)	—0.3	—0.5
		Heavy interrupted cutting	MB835	100 (50—120)	—0.3	—0.5

● Cast Iron

Work Material		Workpiece Structure	Cutting Speed (m/min)					Feed (mm/rev)	Depth of Cut (mm)	Coolant
			250	500	750	1000	1250			
Gray Cast Iron	GG25	Ferritic + Pearlitic	MB5140					—0.5	—1.0 MBS140 —5.0	Dry, Wet
	GG30	Pearlitic								
Alloy Cast Iron		Pearlitic	MB710 MB730					—0.4	—0.5	Dry, Wet
Ductile Cast Iron	GGG40	Ferritic	MB710 MB730					—0.4	—0.5	Dry, Wet
	GGG70	Ferritic + Pearlitic Pearlitic								

● Sintered Alloy

Work Material	Recommended Grade	Recommended Cutting Conditions		
		Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cut (mm)
General Sintered Alloy	MB4020	250 (80—300)	—0.2	—0.3
High Density Sintered Alloy	MB4020	150 (80—250)	—0.2	—0.3
Sintered Alloy	MB4020, MB835	100 (80—150)	—0.2	—0.3

● Valve Seat

Amount of Hard Particles	None or Small ← → Large			
Hardness of Workpiece (HV)	150	250	300	350
Plunge Cut	MB730 MB835			
Traverse Cut	MB730 MB710 MB835			