RECOMMENDED CUTTING CONDITIONS

Dry cutting condition

	Work Material	Hardness	Grade	vc (SFM)	Finish—Light Cutting		Light—Rough Cutting		Medium—Heavy Cutting	
					fz (IPT)	ap (inch)	fz (IPT)	ap (inch)	fz (IPT)	ap (inch)
P	Mild Steel	≤180HB	MP6120 VP15TF	820 (655—985)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT	785 (620—950)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010(.008—.012)	.197
	Carbon Steel Alloy Steel	180—350HB	MP6120 VP15TF	720 (560—885)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT	655 (490—820)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
	Alloy Steel Pre-Hardened Steel	35—45HRC	MP6120 VP15TF	460 (330—590)	.006 (.004—.008)	.079	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT	395 (295—490)	.006 (.004—.008)	.079	.008 (.006—.010)	.158	.010 (.008—.012)	.197
M	Austenitic Stainless Steel Ferritic and Martensitic Stainless Steel	—	MP7130 VP15TF VP20RT	655 (490—820)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
	Austenitic Stainless Steel	>200HB	MP7130 VP15TF VP20RT	560 (395—720)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
	Two-phase Stainless Steel	≤280MPa	MP7130 VP15TF VP20RT	525 (360—690)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
	Hardened Stainless Steel	<450HB	MP7130 VP15TF VP20RT	490 (330—655)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
K	Gray Cast Iron	Tensile Strength ≤350MPa	MC5020	720 (655—885)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			VP15TF VP20RT	590 (425—820)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
	Ductile Cast Iron	Tensile Strength ≤800MPa	MC5020	655 (590—820)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			VP15TF VP20RT	525 (360—785)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
H	Hardened Steel	40—55HRC	VP15TF	165 (100—230)	.002 (.002—.004)	.059	.004 (.002—.006)	.079	—	—

SPARE PARTS ➤ M001
TECHNICAL DATA ➤ N001

Wet cutting condition

	Work Material	Hardness	Grade	vc (SFM)	Finish—Light Cutting		Light—Rough Cutting		Medium—Heavy Cutting	
					fz (IPT)	ap (inch)	fz (IPT)	ap (inch)	fz (IPT)	ap (inch)
P	Mild Steel	≤180HB	MP6120 VP15TF	490 (330—655)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT							
	Carbon Steel Alloy Steel	180—350HB	MP6120 VP15TF	395 (260—525)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT							
	Alloy Steel Pre-Hardened Steel	35—45HRC	MP6120 VP15TF	330 (260—395)	.006 (.004—.008)	.079	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			MP6130 VP20RT							
M	Austenitic Stainless Steel Ferritic and Martensitic Stainless Steel	—	MP7130 VP15TF VP20RT	425 (260—590)	.006 (.004—.008)	.079	.008 (.006—.010)	.079	—	—
	Austenitic Stainless Steel	>200HB	MP7130 VP15TF VP20RT	330 (260—490)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
	Two-phase Stainless Steel	≤280MPa	MP7130 VP15TF VP20RT	330 (260—490)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
	Hardened Stainless Steel	<450HB	MP7130 VP15TF VP20RT	295 (165—460)	.006 (.004—.008)	.079	.008 (.006—.010)	.118	—	—
K	Gray Cast Iron	Tensile Strength ≤350MPa	MC5020	590 (525—655)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			VP15TF VP20RT	425 (330—525)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
	Ductile Cast Iron	Tensile Strength ≤800MPa	MC5020	590 (525—655)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
			VP15TF VP20RT	360 (260—460)	.006 (.004—.008)	.118	.008 (.006—.010)	.158	.010 (.008—.012)	.197
N	Aluminum Alloy	—	TF15	1640 (655-3280)	.008 (.004—.012)	.197	—	—	—	—
S	Titanium Alloy	—	MP9120 VP15TF VP20RT	165 (130—195)	.002 (.002—.004)	.059	.004 (.002—.006)	.079	—	—
	Heat Resistant Alloy	—	MP9120 VP15TF VP20RT	130 (65—165)	.002 (.002—.004)	.059	.004 (.002—.006)	.079	—	—
H	Hardened Steel	40—55HRC	VP15TF	165 (100—230)	.002 (.002—.004)	.059	.004 (.002—.006)	.079	—	—