

## RECOMMENDED CUTTING CONDITIONS

Work Material	Cutting Mode	Breaker	Recommendation	Grade	Cutting Speed (m/min)	l/d ≤ 3 (Steel shank) l/d ≤ 6 (Carbide shank)		l/d = 4-5 (Steel shank) l/d = 7-8 (Carbide shank)		
						Feed (mm/rev)	Depth of Cut (mm)	Feed (mm/rev)	Depth of Cut (mm)	
<b>P</b> Mild Steel ≤180HB	Finish	<b>FV</b>	①	<b>NX2525</b>	170 (120-220)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5	
			②	<b>NX3035</b>	150 (100-200)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
	Light	<b>SV</b>	①	<b>NX2525</b>	160 (110-210)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
			②	<b>NX3035</b>	140 (90-190)	0.25 (0.15-0.35)	-2.0	0.20 (0.15-0.25)	-1.5	
	Medium	<b>MV</b>	①	<b>NX2525</b>	150 (100-200)	0.25 (0.15-0.35)	-2.0	0.20 (0.15-0.25)	-1.5	
			②	<b>NX3035</b>	140 (90-190)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5	
	Carbon Steel Alloy Steel 180-350HB	Finish	<b>FV</b>	①	<b>VP15TF</b>	140 (90-190)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5
				②	<b>NX2525</b>	130 (80-180)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5
Light		<b>SV</b>	①	<b>UE6020</b>	140 (90-190)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
			②	<b>NX3035</b>	110 (60-160)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
Medium		<b>MV</b>	①	<b>UE6020</b>	130 (80-180)	0.25 (0.15-0.35)	-2.0	0.20 (0.15-0.25)	-1.5	
			②	<b>NX3035</b>	100 (60-150)	0.25 (0.15-0.35)	-2.0	0.20 (0.15-0.25)	-1.5	
<b>M</b> Stainless Steel ≤200HB	Finish	<b>FV</b>	①	<b>VP15TF</b>	150 (110-190)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5	
			②	<b>US735</b>	125 (85-165)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
	Light	<b>SV</b>	①	<b>VP15TF</b>	130 (90-170)	0.20 (0.10-0.25)	-1.0	0.15 (0.05-0.20)	-1.0	
			②	<b>US735</b>	105 (70-135)	0.20 (0.15-0.25)	-2.0	0.20 (0.15-0.25)	-1.0	
	Medium	<b>MV</b>	①	<b>VP15TF</b>	120 (80-160)	0.20 (0.15-0.25)	-2.0	0.20 (0.15-0.25)	-1.0	
<b>K</b> Cast Iron Tensile Strength ≤350MPa	Finish	<b>F, FS</b>	①	<b>HTi10</b>	130 (90-160)	0.15 (0.10-0.20)	-0.5	0.15 (0.10-0.20)	-0.5	
	Medium	<b>MV</b>	①	<b>VP15TF</b>	90 (60-120)	0.20 (0.15-0.25)	-2.0	0.20 (0.15-0.25)	-1.5	
<b>N</b> Aluminium Alloy	Finish	<b>F, FS</b>	①	<b>HTi10</b>	300 (200-400)	0.10 (0.05-0.15)	-0.5	0.10 (0.05-0.15)	-0.5	
		<b>Flat Top</b>	①	<b>MD220</b>	200 (150-250)	0.10 (0.05-0.15)	-2.0	0.10 (0.05-0.15)	-1.0	
<b>H</b> Heat Treated Steel 35-65HRC	Finish	<b>Flat Top</b>	①	<b>MB825</b>	100 (80-200)	0.10 (0.05-0.15)	-0.15	0.10 (0.05-0.15)	-0.1	

(Note 1) When vibrations occur, reduce cutting speed by 30%.

(Note 2) The depth of cut needs to be less than the nose diameter when using the FSVJ type.