

# CUTTING CONDITIONS

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## PSF

4 corner shoulder cutter

Work Material		Tensile Strength / Hardness	Milling Speed Vc (m/min)	Feed per Tooth fz (mm/t)	Depth of Cut ap (mm)	Grade
P	Mild Steel-Carbon Steel (SS400-S10C)	~180HB	180 (100 ~ 250)	0,12 (0,05 ~ 0,2)	3	XP3035 XP2040
	Carbon Steel-Alloy Steel (S50C-SCM440)	~280HB	180 (100 ~ 250)	0,12 (0,05 ~ 0,2)	3	XP3035 XP2040
	Die Steel (SKD11-SKD61)	~280HB	150 (80 ~ 200)	0,1 (0,05 ~ 0,18)	3	XP3035 XP2040
M	Stainless Steel (coolant) (SUS304-SUS420)	~250HB	80 (60 ~ 120)	0,1 (0,05 ~ 0,18)	2	XP2040
	Stainless Steel (Dry) (SUS304-SUS420)	~250HB	150 (80 ~ 200)	0,1 (0,05 ~ 0,18)	2	XC5035
K	Cast Iron (FC250)	~350N/mm <sup>2</sup>	180 (100 ~ 350)	0,12 (0,05 ~ 0,2)	3	XC1015
	Ductile Cast Iron (FCD400)	~800N/mm <sup>2</sup>	180 (100~270)	0,12 (0,05 ~ 0,2)	3	XC1015
N	Alluminium Alloy	~13%Si	300 (200 ~ 1.500)	0,15 (0,1 ~ 0,25)	3	CK010
S	Heat Resistant Alloy (Wet) (Inconel 718)	-	35 (25 ~ 60)	0,1 (0,05 ~ 0,15)	1,5	XC5040
	Titanium Alloy (Wet) (Ti-6Al-4V)	-	40 (30 ~ 120)	0,1 (0,05 ~ 0,18)	1,5	XC5040
H	Pre-hardened Steel (NAK80)	40~43HRC	90 (40 ~ 150)	0,1 (0,08 ~ 0,2)	1,5	XP2040
	Steel for Die Casting (DAC55-DH31)	43~48HRC	70 (40 ~ 120)	0,08 (0,06 ~ 0,15)	0,5	XP2040
	Hardened Steel (SKD11)	50~55HRC	50 (40 ~ 90)	0,06 (0,05 ~ 0,1)	0,5	XP2040