



X-POWER PRO END MILLS

RECOMMENDED CUTTING CONDITIONS

GM103 SERIES

4FLUTE CORNER RADIUS - SIDE CUTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)				
						3/8	1/2	5/8	3/4	7/8
P	1-4	Non-alloy steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830
					IPT(fz)	.0026	.0034	.0038	.0039	.0039
	RPM				8460	6340	5070	4230	3620	
	IPM(FEED)				87	87	78	66	56	
	SFM(Vc)				830	830	830	830	830	
	IPT(fz)				.0016	.0021	.0026	.0031	.0036	
	5	Low alloy steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830
					IPT(fz)	.0026	.0034	.0038	.0039	.0039
	RPM				8460	6340	5070	4230	3620	
	IPM(FEED)				53	53	53	53	53	
	SFM(Vc)				830	830	830	830	830	
	IPT(fz)				.0016	.0021	.0026	.0031	.0036	
6-7	High alloyed steel, and tool steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830	
				IPT(fz)	.0026	.0034	.0038	.0039	.0039	
RPM				8460	6340	5070	4230	3620		
IPM(FEED)				87	87	78	66	56		
SFM(Vc)				830	830	830	830	830		
IPT(fz)				.0016	.0021	.0026	.0031	.0036		
8-9	High alloyed steel, and tool steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830	
				IPT(fz)	.0026	.0034	.0038	.0039	.0039	
RPM				8460	6340	5070	4230	3620		
IPM(FEED)				87	87	78	66	56		
SFM(Vc)				830	830	830	830	830		
IPT(fz)				.0016	.0021	.0026	.0031	.0036		
10	Hardened steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830	
				IPT(fz)	.0026	.0034	.0038	.0039	.0039	
RPM				8460	6340	5070	4230	3620		
IPM(FEED)				87	87	78	66	56		
SFM(Vc)				830	830	830	830	830		
IPT(fz)				.0016	.0021	.0026	.0031	.0036		
11.1-11.2	Hardened steel	0.05D	1.5D	SFM(Vc)	830	830	830	830	830	
				IPT(fz)	.0026	.0034	.0038	.0039	.0039	
RPM				8460	6340	5070	4230	3620		
IPM(FEED)				53	53	53	53	53		
SFM(Vc)				615	615	615	615	610		
IPT(fz)				.0016	.0021	.0026	.0032	.0037		
M	12-14.2	Hardened steel	0.05D	1.5D	RPM	6270	4700	3760	3130	2660
					IPM(FEED)	40	40	40	40	40
	SFM(Vc)				615	615	615	615	610	
	IPT(fz)				.0013	.0017	.0021	.0025	.0030	
	RPM				6270	4700	3760	3130	2660	
	IPM(FEED)				32	32	32	32	32	
	38.1-38.2	Chilled Cast Iron	0.05D	1.5D	SFM(Vc)	830	830	830	830	830
					IPT(fz)	.0016	.0021	.0026	.0031	.0036
	RPM				8460	6340	5070	4230	3620	
	IPM(FEED)				53	53	53	53	53	
	SFM(Vc)				615	615	615	615	610	
	IPT(fz)				.0013	.0017	.0021	.0025	.0030	
40	Hardened Cast Iron	0.05D	1.5D	RPM	6270	4700	3760	3130	2660	
				IPM(FEED)	32	32	32	32	32	
SFM(Vc)				615	615	615	615	610		
IPT(fz)				.0013	.0017	.0021	.0025	.0030		
RPM				6270	4700	3760	3130	2660		
IPM(FEED)				32	32	32	32	32		
41	Hardened Cast Iron	0.05D	1.5D	SFM(Vc)	615	615	615	615	610	
				IPT(fz)	.0013	.0017	.0021	.0025	.0030	
RPM				6270	4700	3760	3130	2660		
IPM(FEED)				32	32	32	32	32		
SFM(Vc)				615	615	615	615	610		
IPT(fz)				.0013	.0017	.0021	.0025	.0030		

SFM = Surface Feet per Minute
 RPM = Revolutions Per Minute
 IPT = Inches Per Tooth
 IPM = Inches Per Minute
 Ap : Inch (Axial Depth of Cut)
 Ae : Inch (Radial Depth of Cut)



RECOMMENDED CUTTING CONDITIONS

GM103 SERIES

4FLUTE CORNER RADIUS - CONTOURING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)				
						3/8	1/2	5/8	3/4	7/8
P	1-4	Non-alloy steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	830	830	830	1050	830
					IPT(fz)	.0015	.0020	.0024	.0023	.0034
	RPM		8460		6340	5070	5350	3620		
	IPM(FEED)		50		50	50	50	50		
	SFM(Vc)		615		615	615	615	610		
	IPT(fz)		.0016		.0021	.0026	.0032	.0037		
	RPM	6270	4700	3760	3130	2660				
	IPM(FEED)	40	40	40	40	40				
	6-7	Low alloy steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	830	830	830	1050	830
					IPT(fz)	.0015	.0020	.0024	.0023	.0034
	RPM		8460		6340	5070	5350	3620		
	IPM(FEED)		50		50	50	50	50		
SFM(Vc)	615		615		615	615	610			
IPT(fz)	.0016		.0021		.0026	.0032	.0037			
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	40	40	40	40	40					
8-9	High alloyed steel, and tool steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	830	830	830	1050	830	
				IPT(fz)	.0015	.0020	.0024	.0023	.0034	
RPM		8460		6340	5070	5350	3620			
IPM(FEED)		50		50	50	50	50			
SFM(Vc)		615		615	615	615	610			
IPT(fz)		.0016		.0021	.0026	.0032	.0037			
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	40	40	40	40	40					
10	High alloyed steel, and tool steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	830	830	830	1050	830	
				IPT(fz)	.0015	.0020	.0024	.0023	.0034	
RPM		8460		6340	5070	5350	3620			
IPM(FEED)		50		50	50	50	50			
SFM(Vc)		615		615	615	615	610			
IPT(fz)		.0016		.0021	.0026	.0032	.0037			
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	40	40	40	40	40					
11.1-11.2	Hardened steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	615	615	615	615	610	
				IPT(fz)	.0014	.0018	.0023	.0027	.0032	
RPM		6270		4700	3760	3130	2660			
IPM(FEED)		34		34	34	34	34			
SFM(Vc)		615		615	615	615	610			
IPT(fz)		.0008		.0011	.0013	.0016	.0019			
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	20	20	20	20	20					
M	12-14.2	Hardened steel	0.3D ~ 0.5D	0.1D	SFM(Vc)	615	615	615	615	610
					IPT(fz)	.0014	.0018	.0023	.0027	.0032
	RPM		6270		4700	3760	3130	2660		
	IPM(FEED)		34		34	34	34	34		
	SFM(Vc)		615		615	615	615	610		
	IPT(fz)		.0008		.0011	.0013	.0016	.0019		
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	20	20	20	20	20					
K	38.1-38.2	Hardened steel	0.2D ~ 0.3D	0.05D	SFM(Vc)	615	615	615	615	610
					IPT(fz)	.0016	.0021	.0026	.0032	.0037
	RPM		6270		4700	3760	3130	2660		
	IPM(FEED)		40		40	40	40	40		
	SFM(Vc)		615		615	615	615	610		
	IPT(fz)		.0008		.0011	.0013	.0016	.0019		
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	20	20	20	20	20					
40	Chilled Cast Iron	0.2D ~ 0.3D	0.1D	SFM(Vc)	615	615	615	615	610	
				IPT(fz)	.0016	.0021	.0026	.0032	.0037	
RPM		6270		4700	3760	3130	2660			
IPM(FEED)		40		40	40	40	40			
SFM(Vc)		615		615	615	615	610			
IPT(fz)		.0008		.0011	.0013	.0016	.0019			
RPM	6270	4700	3760	3130	2660					
IPM(FEED)	20	20	20	20	20					
41	Hardened Cast Iron	0.2D ~ 0.3D	0.05D	SFM(Vc)	615	615	615	615	610	
				IPT(fz)	.0008	.0011	.0013	.0016	.0019	
RPM		6270		4700	3760	3130	2660			
IPM(FEED)		20		20	20	20	20			

SFM = Surface Feet per Minute
 RPM = Revolutions Per Minute
 IPT = Inches Per Tooth
 IPM = Inches Per Minute
 Ap : Inch (Axial Depth of Cut)
 Ae : Inch (Radial Depth of Cut)

HSS

CBN END MILLS

i-Xmill END MILLS

i-SMART MODULAR END MILLS

X5070 END MILLS

4G MILL END MILLS

X-POWER PRO END MILLS

TitaNox-POWER END MILLS

JET-POWER END MILLS

V7 PLUS A END MILLS

V7 MILL INOX

ALU-POWER HPC END MILLS

ALU-POWER END MILLS

D-POWER GRAPHITE END MILLS

STANDARD CARBIDE

ONLY ONE COATED PM60 END MILLS

SINE-POWER

TANK-POWER END MILLS

STANDARD COBALT & HSS

TECHNICAL DATA