

# **YG** X-POWER PRO END MILLS

## RECOMMENDED CUTTING CONDITIONS

### GM817 SERIES 4 FLUTE - SIDE CUTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)									
						2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0
P	1-4	Non-alloy steel	0.05D	2.5D	SFM(Vc)	195	215	230	245	260	260	280	260	295	280
					IPT(fz)	.0002	.0004	.0006	.0008	.0012	.0016	.0019	.0019	.0020	.0019
					RPM	9460	6950	5580	4750	4210	3150	2720	2100	1790	1360
					IPM(FEED)	9	10	12	16	19	21	21	16	14	10
	5	Non-alloy steel	0.05D	2.5D	SFM(Vc)	115	130	130	150	150	150	165	165	165	165
					IPT(fz)	.0002	.0003	.0004	.0005	.0008	.0011	.0013	.0014	.0014	.0013
					RPM	5580	4210	3150	2910	2430	1820	1600	1330	1000	800
					IPM(FEED)	4	5	5	6	8	8	8	7	6	4
	6-7	Low alloy steel	0.05D	2.5D	SFM(Vc)	195	215	230	245	260	260	280	260	295	280
					IPT(fz)	.0002	.0004	.0006	.0008	.0012	.0016	.0019	.0019	.0020	.0019
					RPM	9460	6950	5580	4750	4210	3150	2720	2100	1790	1360
					IPM(FEED)	9	10	12	16	19	21	21	16	14	10
8-9	Low alloy steel	0.05D	2.5D	SFM(Vc)	115	130	130	150	150	150	165	165	165	165	
				IPT(fz)	.0002	.0003	.0004	.0005	.0008	.0011	.0013	.0014	.0014	.0013	
				RPM	5580	4210	3150	2910	2430	1820	1600	1330	1000	800	
				IPM(FEED)	4	5	5	6	8	8	8	7	6	4	
10	High alloyed steel, and tool steel	0.05D	2.5D	SFM(Vc)	195	215	230	245	260	260	280	260	295	280	
				IPT(fz)	.0002	.0004	.0006	.0008	.0012	.0016	.0019	.0019	.0020	.0019	
				RPM	9460	6950	5580	4750	4210	3150	2720	2100	1790	1360	
				IPM(FEED)	9	10	12	16	19	21	21	16	14	10	
11.1 - 11.2	High alloyed steel, and tool steel	0.05D	2.5D	SFM(Vc)	115	130	130	150	150	150	165	165	165	165	
				IPT(fz)	.0002	.0003	.0004	.0005	.0008	.0011	.0013	.0014	.0014	.0013	
				RPM	5580	4210	3150	2910	2430	1820	1600	1330	1000	800	
				IPM(FEED)	4	5	5	6	8	8	8	7	6	4	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.05D	2.5D	SFM(Vc)	195	215	230	245	260	260	280	260	295	280
					IPT(fz)	.0002	.0004	.0006	.0008	.0012	.0016	.0019	.0019	.0020	.0019
					RPM	9460	6950	5580	4750	4210	3150	2720	2100	1790	1360
					IPM(FEED)	9	10	12	16	19	21	21	16	14	10
H	38.1 - 38.2	Hardened steel	0.02D	2.0D	SFM(Vc)	65	80	80	100	100	100	100	100	100	100
					IPT(fz)	.0002	.0002	.0003	.0004	.0006	.0008	.0011	.0010	.0010	.0010
					RPM	3150	2590	1940	1940	1620	1210	970	810	610	490
					IPM(FEED)	2	3	3	3	4	4	4	3	2	2
	40	Chilled Cast Iron	0.05D	2.5D	SFM(Vc)	115	130	130	150	150	150	165	165	165	165
					IPT(fz)	.0002	.0003	.0004	.0005	.0008	.0011	.0013	.0014	.0014	.0013
					RPM	5580	4210	3150	2910	2430	1820	1600	1330	1000	800
					IPM(FEED)	4	5	5	6	8	8	8	7	6	4
	41	Hardened Cast Iron	0.02D	2.0D	SFM(Vc)	65	80	80	100	100	100	100	100	100	100
					IPT(fz)	.0002	.0002	.0003	.0004	.0006	.0008	.0011	.0010	.0010	.0010
					RPM	3150	2590	1940	1940	1620	1210	970	810	610	490
					IPM(FEED)	2	3	3	3	4	4	4	3	2	2

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)

