



X-POWER PRO END MILLS

RECOMMENDED CUTTING CONDITIONS

GM811 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	25.0	
P	1-4	Non-alloy steel	0.05D	1.0D	SFM(Vc)	260	310	345	360	375	395	375	375	410	395	395	
					IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0016	.0019	.0019	.0019	.0019	.0019	.0018
					RPM	12610	10030	8370	6990	6060	4790	3640	3030	2490	1920	1530	
					IPM(FEED)	12	14	25	27	29	32	27	23	18	14	11	
	5	Non-alloy steel	0.05D	1.0D	SFM(Vc)	180	195	215	215	230	230	230	230	245	245	245	
					IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0015	.0015	.0015	.0015	.0015	.0016	
					RPM	8730	6310	5220	4170	3720	2790	2230	1860	1490	1190	950	
					IPM(FEED)	8	9	16	16	18	17	13	11	9	7	6	
	6-7	Low alloy steel	0.05D	1.0D	SFM(Vc)	260	310	345	360	375	395	375	375	410	395	395	
					IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0016	.0019	.0019	.0019	.0019	.0018	
					RPM	12610	10030	8370	6990	6060	4790	3640	3030	2490	1920	1530	
					IPM(FEED)	12	14	25	27	29	32	27	23	18	14	11	
8-9	Low alloy steel	0.05D	1.0D	SFM(Vc)	180	195	215	215	230	230	230	230	245	245	245		
				IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0015	.0015	.0015	.0015	.0015	.0016		
				RPM	8730	6310	5220	4170	3720	2790	2230	1860	1490	1190	950		
				IPM(FEED)	8	9	16	16	18	17	13	11	9	7	6		
10	High alloyed steel, and tool steel	0.05D	1.0D	SFM(Vc)	260	310	345	360	375	395	375	375	410	395	395		
				IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0016	.0019	.0019	.0019	.0019	.0018		
				RPM	12610	10030	8370	6990	6060	4790	3640	3030	2490	1920	1530		
				IPM(FEED)	12	14	25	27	29	32	27	23	18	14	11		
11.1 - 11.2	High alloyed steel, and tool steel	0.05D	1.0D	SFM(Vc)	180	195	215	215	230	230	230	230	245	245	245		
				IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0015	.0015	.0015	.0015	.0015	.0016		
				RPM	8730	6310	5220	4170	3720	2790	2230	1860	1490	1190	950		
				IPM(FEED)	8	9	16	16	18	17	13	11	9	7	6		
M	14.1	Stainless steel	0.05D	1.0D	SFM(Vc)	150	165	180	180	195	195	195	180	195	195	195	
					IPT(fz)	.0002	.0004	.0007	.0009	.0011	.0016	.0018	.0017	.0018	.0018	.0018	
					RPM	7280	5340	4370	3490	3150	2370	1890	1460	1180	950	760	
					IPM(FEED)	6	8	12	13	15	15	14	10	9	7	5	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.05D	1.0D	SFM(Vc)	260	310	345	360	375	395	375	375	410	395	395	
					IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0016	.0019	.0019	.0019	.0019	.0018	
					RPM	12610	10030	8370	6990	6060	4790	3640	3030	2490	1920	1530	
					IPM(FEED)	12	14	25	27	29	32	27	23	18	14	11	
H	38.1 - 38.2	Hardened steel	0.05D	1.0D	SFM(Vc)	115	105	130	130	130	150	165	165	165	165	150	
					IPT(fz)	.0001	.0002	.0002	.0003	.0004	.0007	.0006	.0007	.0006	.0006	.0006	
					RPM	5580	3400	3150	2520	2100	1820	1600	1330	1000	800	580	
					IPM(FEED)	2	2	3	3	3	5	4	4	3	2	1	
H	40	Chilled Cast Iron	0.05D	1.0D	SFM(Vc)	180	195	215	215	230	230	230	230	245	245	245	
					IPT(fz)	.0002	.0004	.0007	.0009	.0012	.0015	.0015	.0015	.0015	.0015	.0016	
					RPM	8730	6310	5220	4170	3720	2790	2230	1860	1490	1190	950	
					IPM(FEED)	8	9	16	16	18	17	13	11	9	7	6	
H	41	Hardened Cast Iron	0.05D	1.0D	SFM(Vc)	115	105	130	130	130	150	165	165	165	165	150	
					IPT(fz)	.0001	.0002	.0002	.0003	.0004	.0007	.0006	.0007	.0006	.0006	.0006	
					RPM	5580	3400	3150	2520	2100	1820	1600	1330	1000	800	580	
					IPM(FEED)	2	2	3	3	3	5	4	4	3	2	1	

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)

