X-POWER PRO END MILLS

RECOMMENDED CUTTING CONDITIONS

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)

GM810 SERIES — 2 FLUTE - SLOTTING

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø) 0.4	0.8	1.0	1.2	1.5
P	5	Non-alloy steel	1.0D	D<1:0.15D D≥1:0.25D	SFM(Vc)	130	215	230	215	195
					IPT(fz)	.0001	.0001	.0002	.0002	.0002
					RPM	31530	26080	22320	17380	12610
					IPM(FEED)	5	6	7	7	6
P	8-9	Low alloy steel	1.0D	D<1:0.15D D≥1:0.25D	SFM(Vc)	130	215	230	215	195
					IPT(fz)	.0001	.0001	.0002	.0002	.0002
					RPM	31530	26080	22320	17380	12610
					IPM(FEED)	5	6	7	7	6
P	11.1 - 11.2	High alloyed steel, and tool steel	1.0D	D<1:0.15D D≥1:0.25D	SFM(Vc)	130	215	230	215	195
					IPT(fz)	.0001	.0001	.0002	.0002	.0002
					RPM	31530	26080	22320	17380	12610
					IPM(FEED)	5	6	7	7	6
H	38.1 - 38.2	Hardened steel	1.0D	D<1:0.02D D≥1:0.05D	SFM(Vc)	100	165	165	165	150
					IPT(fz)	.00004	.0001	.0001	.0001	.0002
					RPM	24260	20010	16010	13340	9700
					IPM(FEED)	2	3	4	3	3
H	40	Chilled Cast Iron	1.0D	D<1:0.15D D≥1:0.25D	SFM(Vc)	130	215	230	215	195
					IPT(fz)	.0001	.0001	.0002	.0002	.0002
					RPM	31530	26080	22320	17380	12610
					IPM(FEED)	5	6	7	7	6
H	41	Hardened Cast Iron	1.0D	D<1:0.02D D≥1:0.05D	SFM(Vc)	100	165	165	165	150
					IPT(fz)	.00004	.0001	.0001	.0001	.0002
					RPM	24260	20010	16010	13340	9700
					IPM(FEED)	2	3	4	3	3

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	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	215	245	280	295	310	310	295	310	330	310
					IPT(fz)	.0004	.0006	.0010	.0013	.0015	.0023	.0025	.0025	.0024	.0025
					RPM	10430	7920	6790	5730	5010	3760	2860	2510	2000	1500
					IPM(FEED)	8	9	13	14	16	17	14	13	10	8
P	5	Non-alloy steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	150	150	165	180	180	180	180	180	195	195
					IPT(fz)	.0004	.0006	.0009	.0013	.0016	.0020	.0020	.0019	.0020	.0018
					RPM	7280	4850	4000	3490	2910	2180	1750	1460	1180	950
					IPM(FEED)	6	6	8	9	9	9	7	6	5	4
P	6-7	Low alloy steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	215	245	280	295	310	310	295	310	330	310
					IPT(fz)	.0004	.0006	.0010	.0013	.0015	.0023	.0025	.0025	.0024	.0025
					RPM	10430	7920	6790	5730	5010	3760	2860	2510	2000	1500
					IPM(FEED)	8	9	13	14	16	17	14	13	10	8
P	8-9	Low alloy steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	150	150	165	180	180	180	180	180	195	195
					IPT(fz)	.0004	.0006	.0009	.0013	.0016	.0020	.0020	.0019	.0020	.0018
					RPM	7280	4850	4000	3490	2910	2180	1750	1460	1180	950
					IPM(FEED)	6	6	8	9	9	9	7	6	5	4
P	10	High alloyed steel, and tool steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	215	245	280	295	310	310	295	310	330	310
					IPT(fz)	.0004	.0006	.0010	.0013	.0015	.0023	.0025	.0025	.0024	.0025
					RPM	10430	7920	6790	5730	5010	3760	2860	2510	2000	1500
					IPM(FEED)	8	9	13	14	16	17	14	13	10	8
P	11.1 - 11.2	High alloyed steel, and tool steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	150	150	165	180	180	180	180	180	195	195
					IPT(fz)	.0004	.0006	.0009	.0013	.0016	.0020	.0020	.0019	.0020	.0018
					RPM	7280	4850	4000	3490	2910	2180	1750	1460	1180	950
					IPM(FEED)	6	6	8	9	9	9	7	6	5	4
M	14.1	Stainless steel	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	115	130	150	150	165	150	150	150	165	150
					IPT(fz)	.0003	.0006	.0009	.0012	.0015	.0021	.0023	.0023	.0026	.0023
					RPM	5580	4210	3640	2910	2670	1820	1460	1210	1000	730
					IPM(FEED)	4	5	7	7	8	8	7	6	5	3
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	215	245	280	295	310	310	295	310	330	310
					IPT(fz)	.0004	.0006	.0010	.0013	.0015	.0023	.0025	.0025	.0024	.0025
					RPM	10430	7920	6790	5730	5010	3760	2860	2510	2000	1500
					IPM(FEED)	8	9	13	14	16	17	14	13	10	8
H	38.1 - 38.2	Hardened steel	1.0D	0.05D	SFM(Vc)	100	100	115	115	115	130	130	130	130	130
					IPT(fz)	.0002	.0003	.0004	.0005	.0007	.0011	.0011	.0011	.0011	.0011
					RPM	4850	3230	2790	2230	1860	1580	1260	1050	790	630
					IPM(FEED)	2	2	2	2	3	4	3	2	2	1
H	40	Chilled Cast Iron	1.0D	D≤3:0.2D D>3:0.5D	SFM(Vc)	150	150	165	180	180	180	180	180	195	195
					IPT(fz)	.0004	.0006	.0009	.0013	.0016	.0020	.0020	.0019	.0020	.0018
					RPM	7280	4850	4000	3490	2910	2180	1750	1460	1180	950
					IPM(FEED)	6	6	8	9	9	9	7	6	5	4
H	41	Hardened Cast Iron	1.0D	0.05D	SFM(Vc)	100	100	115	115	115	130	130	130	130	130
					IPT(fz)	.0002	.0003	.0004	.0005	.0007	.0011	.0011	.0011	.0011	.0011
					RPM	4850	3230	2790	2230	1860	1580	1260	1050	790	630
					IPM(FEED)	2	2	2	2	3	4	3	2	2	1