YG X5070 END MILLS

RECOMMENDED CUTTING CONDITIONS

G8A43 SERIES — 2 FLUTE BALL NOSE

ISO	VDI 3323	Material Description	HRc	Ae	Ap	Parameter	Diameter (Ø) 1/32	1/16	3/32	1/8	3/16	1/4	5/16	3/8	1/2
P	5	Non-alloy steel	32	0.05D	0.02D	SFM (vc)	410	815	1220	1085	915	910	910	915	910
						IPT (fz)	.0019	.0023	.0023	.0036	.0061	.0069	.0074	.0078	.0083
						RPM	50000	49700	49700	33100	18600	13900	11100	9300	6950
						IPM (feed)	189	224	224	236	228	191	165	146	116
	8-9	Low alloy steel	32-38	0.05D	0.02D	SFM (vc)	410	815	1220	1085	915	910	910	915	910
						IPT (fz)	.0019	.0023	.0023	.0036	.0061	.0069	.0074	.0078	.0083
						RPM	50000	49700	49700	33100	18600	13900	11100	9300	6950
						IPM (feed)	189	224	224	236	228	191	165	146	116
	11.1	High alloyed steel, and tool steel	35	0.05D	0.02D	SFM (vc)	410	815	1220	1085	915	910	910	915	910
						IPT (fz)	.0019	.0023	.0023	.0036	.0061	.0069	.0074	.0078	.0083
						RPM	50000	49700	49700	33100	18600	13900	11100	9300	6950
						IPM (feed)	189	224	224	236	228	191	165	146	116
	11.2		44	0.05D	0.02D	SFM (vc)	410	780	1175	1040	875	875	875	875	875
						IPT (fz)	.0017	.0020	.0020	.0033	.0054	.0060	.0064	.0069	.0073
						RPM	50000	47800	47800	31800	17800	13400	10700	8900	6680
						IPM (feed)	165	189	189	209	193	161	138	122	98
H	38.1	Hardened steel	45-49	0.05D	0.02D	SFM (vc)	410	780	1175	1040	875	875	875	875	875
						IPT (fz)	.0017	.0020	.0020	.0033	.0054	.0060	.0064	.0069	.0073
						RPM	50000	47800	47800	31800	17800	13400	10700	8900	6680
						IPM (feed)	165	189	189	209	193	161	138	122	98
	38.2		50-55	0.05D	0.02D	SFM (vc)	370	655	980	865	735	720	735	735	735
						IPT (fz)	.0017	.0020	.0020	.0030	.0049	.0055	.0059	.0063	.0067
						RPM	45000	40000	40000	26500	15000	11000	9000	7500	5600
						IPM (feed)	150	158	158	158	148	122	106	95	75
	39.1		56-60	0.05D	0.02D	SFM (vc)	325	575	860	770	665	655	655	650	655
						IPT (fz)	.0015	.0018	.0018	.0026	.0044	.0049	.0053	.0057	.0061
						RPM	40000	35000	35000	23500	13500	10000	8000	6600	5000
						IPM (feed)	118	124	124	124	120	98	85	75	61
	39.2		61-65	0.05D	0.02D	SFM (vc)	285	525	785	685	565	575	575	570	575
						IPT (fz)	.0015	.0017	.0017	.0026	.0043	.0048	.0052	.0056	.0056
						RPM	35000	32000	32000	21000	11500	8800	7000	5800	4400
						IPM (feed)	102	110	110	110	100	85	73	65	49
	39.3		66-70	0.05D	0.02D	SFM (vc)	285	465	700	620	515	525	530	520	525
						IPT (fz)	.0013	.0016	.0016	.0024	.0040	.0043	.0047	.0051	.0051
						RPM	35000	28500	28500	19000	10500	8000	6500	5300	4000
						IPM (feed)	91	91	91	91	83	69	61	54	41
	40	Chilled Cast Iron	42	0.05D	0.02D	SFM (vc)	410	780	1175	1040	875	875	875	875	875
						IPT (fz)	.0017	.0020	.0020	.0033	.0054	.0060	.0064	.0069	.0073
						RPM	50000	47800	47800	31800	17800	13400	10700	8900	6680
						IPM (feed)	165	189	189	209	193	161	138	122	98
	41	Hardened Cast Iron	55	0.05D	0.02D	SFM (vc)	370	655	980	865	735	720	735	735	735
						IPT (fz)	.0017	.0020	.0020	.0030	.0049	.0055	.0059	.0063	.0067
						RPM	45000	40000	40000	26500	15000	11000	9000	7500	5600
						IPM (feed)	150	158	158	158	148	122	106	95	75

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)