X5070 END MILLS

RECOMMENDED CUTTING CONDITIONS

G851 SERIES — 6 & 8 FLUTE CORNER RADIUS - SIDE CUTTING

ISO	VDI 3323	Material Description	HRc	Ae	Ap	Parameter	Diameter (Ø) 1/4	5/16	3/8	1/2	5/8	3/4	1
P	5	Non-alloy steel	32	0.05D	1.0D	SFM (vc)	1535	1690	1755	1610	1650	1740	1650
						IPT (fz)	.0014	.0015	.0017	.0023	.0026	.0020	.0021
						RPM	23450	20650	17900	12300	10100	8850	6300
						IPM (feed)	199	191	183	168	159	141	104
	8-9	Low alloy steel	32-38	0.05D	1.0D	SFM (vc)	1535	1690	1755	1610	1650	1740	1650
						IPT (fz)	.0014	.0015	.0017	.0023	.0026	.0020	.0021
						RPM	23450	20650	17900	12300	10100	8850	6300
						IPM (feed)	199	191	183	168	159	141	104
	11.1	High alloyed steel, and tool steel	35	0.05D	1.0D	SFM (vc)	1535	1690	1755	1610	1650	1740	1650
						IPT (fz)	.0014	.0015	.0017	.0023	.0026	.0020	.0021
						RPM	23450	20650	17900	12300	10100	8850	6300
						IPM (feed)	199	191	183	168	159	141	104
	11.2		44	0.05D	1.0D	SFM (vc)	1455	1605	1670	1545	1605	1690	1610
						IPT (fz)	.0014	.0015	.0016	.0021	.0025	.0019	.0022
						RPM	22200	19600	17000	11800	9800	8600	6150
						IPM (feed)	182	175	167	152	147	133	106
H	38.1	Hardened steel	45-49	0.05D	1.0D	SFM (vc)	1455	1605	1670	1545	1605	1690	1610
						IPT (fz)	.0014	.0015	.0016	.0021	.0025	.0019	.0022
						RPM	22200	19600	17000	11800	9800	8600	6150
						IPM (feed)	182	175	167	152	147	133	106
	38.2		50-55	0.05D	1.0D	SFM (vc)	990	1080	1115	990	990	1040	995
						IPT (fz)	.0020	.0022	.0024	.0031	.0037	.0029	.0033
						RPM	15100	13200	11350	7550	6050	5300	3800
						IPM (feed)	182	172	162	141	135	123	100
	39.1		56-60	0.03D	1.0D	SFM (vc)	835	910	935	820	825	865	825
						IPT (fz)	.0016	.0017	.0019	.0025	.0030	.0024	.0026
						RPM	12750	11150	9500	6250	5050	4400	3150
						IPM (feed)	123	115	108	93	92	83	65
	39.2		61-65	0.03D	1.0D	SFM (vc)	650	710	730	655	665	695	655
						IPT (fz)	.0013	.0014	.0015	.0020	.0021	.0015	.0016
						RPM	9900	8700	7450	5000	4050	3550	2500
						IPM (feed)	78	73	69	59	50	44	31
	39.3		66-70	0.03D	1.0D	SFM (vc)	495	540	560	495	490	520	495
						IPT (fz)	.0012	.0013	.0014	.0019	.0019	.0014	.0014
						RPM	7550	6600	5700	3800	3000	2650	1900
						IPM (feed)	54	51	49	43	34	30	22
	40	Chilled Cast Iron	42	0.05D	1.0D	SFM (vc)	1455	1605	1670	1545	1605	1690	1610
						IPT (fz)	.0014	.0015	.0016	.0021	.0025	.0019	.0022
						RPM	22200	19600	17000	11800	9800	8600	6150
						IPM (feed)	182	175	167	152	147	133	106
	41	Hardened Cast Iron	55	0.05D	1.0D	SFM (vc)	990	1080	1115	990	990	1040	995
						IPT (fz)	.0020	.0022	.0024	.0031	.0037	.0029	.0033
						RPM	15100	13200	11350	7550	6050	5300	3800
						IPM (feed)	182	172	162	141	135	123	100

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)