X5070 END MILLS

RECOMMENDED CUTTING CONDITIONS

G850 SERIES — 4 FLUTE CORNER RADIUS - SIDE CUTTING

ISO	VDI 3323	Material Description	HRc	Ae	Ap	Parameter	Diameter (Ø) 1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4
P	5	Non-alloy steel	32	0.03D	1.0D	SFM (vc)	685	675	810	810	815	805	825	810	805
						IPT (fz)	.0004	.0006	.0010	.0012	.0015	.0018	.0021	.0024	.0026
						RPM	41950	20600	16500	12400	9950	8200	6300	4950	4100
						IPM (feed)	69	52	66	58	60	58	52	48	43
	8-9	Low alloy steel	32-38	0.03D	1.0D	SFM (vc)	685	675	810	810	815	805	825	810	805
						IPT (fz)	.0004	.0006	.0010	.0012	.0015	.0018	.0021	.0024	.0026
						RPM	41950	20600	16500	12400	9950	8200	6300	4950	4100
						IPM (feed)	69	52	66	58	60	58	52	48	43
	11.1	High alloyed steel, and tool steel	35	0.03D	1.0D	SFM (vc)	685	675	810	810	815	805	825	810	805
						IPT (fz)	.0004	.0006	.0010	.0012	.0015	.0018	.0021	.0024	.0026
						RPM	41950	20600	16500	12400	9950	8200	6300	4950	4100
						IPM (feed)	69	52	66	58	60	58	52	48	43
	11.2		44	0.03D	1.0D	SFM (vc)	535	535	645	640	640	635	650	645	640
						IPT (fz)	.0004	.0006	.0010	.0011	.0014	.0016	.0019	.0022	.0025
						RPM	32750	16350	13100	9800	7850	6450	4950	3950	3250
						IPM (feed)	50	37	50	42	43	42	37	35	32
H	38.1	Hardened steel	45-49	0.03D	1.0D	SFM (vc)	535	535	645	640	640	635	650	645	640
						IPT (fz)	.0004	.0006	.0010	.0011	.0014	.0016	.0019	.0022	.0025
						RPM	32750	16350	13100	9800	7850	6450	4950	3950	3250
						IPM (feed)	50	37	50	42	43	42	37	35	32
	38.2		50-55	0.03D	1.0D	SFM (vc)	360	355	425	425	430	420	430	425	420
						IPT (fz)	.0004	.0006	.0009	.0011	.0014	.0016	.0019	.0022	.0026
						RPM	22050	10850	8700	6500	5250	4300	3300	2600	2150
						IPM (feed)	33	25	33	28	29	28	25	23	22
	39.1		56-60	0.03D	1.0D	SFM (vc)	300	295	330	325	330	330	325	325	335
						IPT (fz)	.0003	.0004	.0007	.0009	.0010	.0012	.0014	.0016	.0019
						RPM	18250	9000	6700	5000	4050	3350	2500	2000	1700
						IPM (feed)	21	16	19	17	17	16	14	13	13
	39.2		61-65	0.03D	1.0D	SFM (vc)	225	230	265	260	265	265	260	260	265
						IPT (fz)	.0002	.0004	.0006	.0006	.0008	.0009	.0011	.0014	.0015
						RPM	13850	7100	5350	3950	3250	2700	2000	1600	1350
						IPM (feed)	13	10	12	10	11	10	9	9	8
	39.3		66-70	0.03D	1.0D	SFM (vc)	195	200	230	230	230	225	230	230	225
						IPT (fz)	.0002	.0003	.0005	.0006	.0007	.0008	.0010	.0011	.0013
						RPM	11950	6050	4650	3500	2800	2300	1750	1400	1150
						IPM (feed)	9	7	9	8	8	7	7	6	6
	40	Chilled Cast Iron	42	0.03D	1.0D	SFM (vc)	535	535	645	640	640	635	650	645	640
						IPT (fz)	.0004	.0006	.0010	.0011	.0014	.0016	.0019	.0022	.0025
						RPM	32750	16350	13100	9800	7850	6450	4950	3950	3250
						IPM (feed)	50	37	50	42	43	42	37	35	32
	41	Hardened Cast Iron	55	0.03D	1.0D	SFM (vc)	360	355	425	425	430	420	430	425	420
						IPT (fz)	.0004	.0006	.0009	.0011	.0014	.0016	.0019	.0022	.0026
						RPM	22050	10850	8700	6500	5250	4300	3300	2600	2150
						IPM (feed)	33	25	33	28	29	28	25	23	22

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)