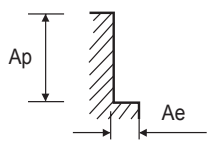
4G MILL END MILLS

RECOMMENDED CUTTING CONDITIONS

SEME75 SERIES 6FLUTE 45° HELIX - SIDE CUTTING (NORMAL)

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)										
						6	6	6	8	8	8	8	10	10	10	10
					LOC	15	20	30	20	30	35	40	25	30	40	50
P	1-8	Non-alloy steel	0.1D	1.5D	SFM(Vc)	360	360	360	365	365	365	365	365	365	365	365
					IPT(fz)	.0024	.0024	.002	.0031	.0031	.0031	.0027	.0039	.0039	.0039	.0033
					RPM	5840	5840	5840	4410	4410	4410	4410	3530	3530	3530	3530
					IPM(FEED)	83	83	70	83	83	83	70	83	83	83	70
	9	Low alloy steel	0.05D	1.5D	SFM(Vc)	250	250	250	255	255	255	255	250	250	250	250
					IPT(fz)	.0023	.0023	.002	.0031	.0031	.0031	.0026	.0039	.0039	.0039	.0033
					RPM	4075	4075	4075	3085	3085	3085	3085	2435	2435	2435	2435
					IPM(FEED)	57	57	48	57	57	57	48	57	57	57	48
	10-	High alloyed steel, and tool steel	0.1D	1.5D	SFM(Vc)	360	360	360	365	365	365	365	365	365	365	365
					IPT(fz)	.0024	.0024	.002	.0031	.0031	.0031	.0027	.0039	.0039	.0039	.0033
					RPM	5840	5840	5840	4410	4410	4410	4410	3530	3530	3530	3530
					IPM(FEED)	83	83	70	83	83	83	70	83	83	83	70
	11.1-11.2		0.05D	1.5D	SFM(Vc)	250	250	250	255	255	255	255	250	250	250	250
					IPT(fz)	.0023	.0023	.002	.0031	.0031	.0031	.0026	.0039	.0039	.0039	.0033
					RPM	4075	4075	4075	3085	3085	3085	3085	2435	2435	2435	2435
					IPM(FEED)	57	57	48	57	57	57	48	57	57	57	48
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.1D	1.5D	SFM(Vc)	360	360	360	365	365	365	365	365	365	365	365
					IPT(fz)	.0024	.0024	.002	.0031	.0031	.0031	.0027	.0039	.0039	.0039	.0033
					RPM	5840	5840	5840	4410	4410	4410	4410	3530	3530	3530	3530
					IPM(FEED)	83	83	70	83	83	83	70	83	83	83	70
H	38.1-38.2	Hardened steel	0.05D	1.0D	SFM(Vc)	105	105	105	100	100	100	100	110	110	110	110
					IPT(fz)	.0009	.0009	.0008	.0012	.0012	.0012	.001	.0014	.0014	.0014	.0012
					RPM	1660	1660	1660	1220	1220	1220	1220	1050	1050	1050	1050
					IPM(FEED)	9	9	8	9	9	9	8	9	9	9	8
	40	Chilled Cast Iron	0.05D	1.5D	SFM(Vc)	250	250	250	255	255	255	255	250	250	250	250
					IPT(fz)	.0023	.0023	.002	.0031	.0031	.0031	.0026	.0039	.0039	.0039	.0033
					RPM	4075	4075	4075	3085	3085	3085	3085	2435	2435	2435	2435
					IPM(FEED)	57	57	48	57	57	57	48	57	57	57	48
	41	Hardened Cast Iron	0.05D	1.0D	SFM(Vc)	105	105	105	100	100	100	100	110	110	110	110
					IPT(fz)	.0009	.0009	.0008	.0012	.0012	.0012	.001	.0014	.0014	.0014	.0012
					RPM	1660	1660	1660	1220	1220	1220	1220	1050	1050	1050	1050
					IPM(FEED)	9	9	8	9	9	9	8	9	9	9	8

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)



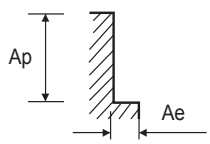
4G MILL END MILLS

RECOMMENDED CUTTING CONDITIONS

SEME75 SERIES 6FLUTE 45˚ HELIX - SIDE CUTTING (NORMAL)

ISO	VDI 3323	Ae	Ap	Parameter	Diameter (Ø)												
					12	12	12	12	16	16	16	16	16	20	20	20	20
				LOC	30	40	50	60	40	50	60	90	110	45	60	70	110
P	1-8	0.1D	1.5D	SFM(Vc)	370	370	370	370	365	365	365	325	325	365	365	365	325
				IPT(fz)	.0039	.0039	.0033	.0029	.004	.004	.0034	.003	.003	.0039	.0039	.0034	.003
				RPM	2980	2980	2980	2980	2205	2205	2205	1985	1985	1765	1765	1765	1585
				IPM(FEED)	70	70	59	52	52	52	44	35	35	42	42	36	28
	9	0.05D	1.5D	SFM(Vc)	260	260	260	260	255	255	255	230	230	250	250	250	225
				IPT(fz)	.0038	.0038	.0032	.0029	.0039	.0039	.0033	.0029	.0029	.0039	.0039	.0033	.003
				RPM	2100	2100	2100	2100	1555	1555	1555	1395	1395	1220	1220	1220	1090
				IPM(FEED)	48	48	41	36	36	36	31	25	25	29	29	24	19
	10-	0.1D	1.5D	SFM(Vc)	370	370	370	370	365	365	365	325	325	365	365	365	325
				IPT(fz)	.0039	.0039	.0033	.0029	.004	.004	.0034	.003	.003	.0039	.0039	.0034	.003
				RPM	2980	2980	2980	2980	2205	2205	2205	1985	1985	1765	1765	1765	1585
				IPM(FEED)	70	70	59	52	52	52	44	35	35	42	42	36	28
	11.1-11.2	0.05D	1.5D	SFM(Vc)	260	260	260	260	255	255	255	230	230	250	250	250	225
				IPT(fz)	.0038	.0038	.0032	.0029	.0039	.0039	.0033	.0029	.0029	.0039	.0039	.0033	.003
				RPM	2100	2100	2100	2100	1555	1555	1555	1395	1395	1220	1220	1220	1090
				IPM(FEED)	48	48	41	36	36	36	31	25	25	29	29	24	19
K	15-20	0.1D	1.5D	SFM(Vc)	370	370	370	370	365	365	365	325	325	365	365	365	325
				IPT(fz)	.0039	.0039	.0033	.0029	.004	.004	.0034	.003	.003	.0039	.0039	.0034	.003
				RPM	2980	2980	2980	2980	2205	2205	2205	1985	1985	1765	1765	1765	1585
				IPM(FEED)	70	70	59	52	52	52	44	35	35	42	42	36	28
H	38.1-38.2	0.05D	1.0D	SFM(Vc)	110	110	110	110	110	110	110	100	100	110	110	110	100
				IPT(fz)	.0014	.0014	.0012	.001	.0013	.0013	.0011	.001	.001	.0014	.0014	.0012	.0011
				RPM	880	880	880	880	670	670	670	610	610	525	525	525	475
				IPM(FEED)	8	8	7	6	5	5	5	4	4	5	5	4	3
	40	0.05D	1.5D	SFM(Vc)	260	260	260	260	255	255	255	230	230	250	250	250	225
				IPT(fz)	.0038	.0038	.0032	.0029	.0039	.0039	.0033	.0029	.0029	.0039	.0039	.0033	.003
				RPM	2100	2100	2100	2100	1555	1555	1555	1395	1395	1220	1220	1220	1090
				IPM(FEED)	48	48	41	36	36	36	31	25	25	29	29	24	19
	41	0.05D	1.0D	SFM(Vc)	110	110	110	110	110	110	110	100	100	110	110	110	100
				IPT(fz)	.0014	.0014	.0012	.001	.0013	.0013	.0011	.001	.001	.0014	.0014	.0012	.0011
				RPM	880	880	880	880	670	670	670	610	610	525	525	525	475
				IPM(FEED)	8	8	7	6	5	5	5	4	4	5	5	4	3

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)



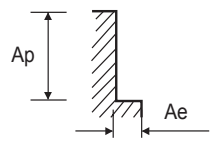
4G MILL END MILLS

RECOMMENDED CUTTING CONDITIONS

SEME75 SERIES 6FLUTE 45˚ HELIX - SIDE CUTTING (HIGH SPEED)

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)											
						6	6	6	8	8	8	8	10	10	10	10	12
					LOC	15	20	30	20	30	35	40	25	30	40	50	30
P	9	Non-alloy steel	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	1090	1080	1080	1080	1080	1090
					IPT(fz)	.0024	.0024	.002	.0032	.0032	.0032	.0027	.0039	.0039	.0039	.0034	.0039
					RPM	17640	17640	17640	13230	13230	13230	13230	10480	10480	10480	10480	8820
					IPM(FEED)	252	252	214	252	252	252	214	248	248	248	210	208
	11.1-11.2	High alloyed steel, and tool steel	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	1090	1080	1080	1080	1080	1090
					IPT(fz)	.0024	.0024	.002	.0032	.0032	.0032	.0027	.0039	.0039	.0039	.0034	.0039
					RPM	17640	17640	17640	13230	13230	13230	13230	10480	10480	10480	10480	8820
					IPM(FEED)	252	252	214	252	252	252	214	248	248	248	210	208
H	38.1-38.2	Hardened steel	0.05D	1.0D	SFM(Vc)	545	545	545	545	545	545	545	545	545	545	545	545
					IPT(fz)	.0024	.0024	.002	.0032	.0032	.0032	.0027	.004	.004	.004	.0034	.0039
					RPM	8820	8820	8820	6615	6615	6615	6615	5290	5290	5290	5290	4410
					IPM(FEED)	126	126	107	126	126	126	107	126	126	126	107	104
	40	Chilled Cast Iron	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	1090	1080	1080	1080	1080	1090
					IPT(fz)	.0024	.0024	.002	.0032	.0032	.0032	.0027	.0039	.0039	.0039	.0034	.0039
					RPM	17640	17640	17640	13230	13230	13230	13230	10480	10480	10480	10480	8820
					IPM(FEED)	252	252	214	252	252	252	214	248	248	248	210	208
	41	Hardened Cast Iron	0.05D	1.0D	SFM(Vc)	545	545	545	545	545	545	545	545	545	545	545	545
					IPT(fz)	.0024	.0024	.002	.0032	.0032	.0032	.0027	.004	.004	.004	.0034	.0039
					RPM	8820	8820	8820	6615	6615	6615	6615	5290	5290	5290	5290	4410
					IPM(FEED)	126	126	107	126	126	126	107	126	126	126	107	104

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)



4G MILL END MILLS

RECOMMENDED CUTTING CONDITIONS

SEME75 SERIES 6FLUTE 45° HELIX - SIDE CUTTING (HIGH SPEED)

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)											
						12	12	12	16	16	16	16	16	20	20	20	20
					LOC	40	50	60	40	50	60	90	110	45	60	70	110
P	9	Non-alloy steel	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	980	980	1090	1090	1090	980
					IPT(fz)	.0039	.0034	.003	.0039	.0039	.0034	.003	.003	.004	.004	.0034	.003
					RPM	8820	8820	8820	6615	6615	6615	5955	5955	5290	5290	5290	4765
					IPM(FEED)	208	177	156	156	156	133	106	106	126	126	107	85
	11.1-11.2	High alloyed steel, and tool steel	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	980	980	1090	1090	1090	980
					IPT(fz)	.0039	.0034	.003	.0039	.0039	.0034	.003	.003	.004	.004	.0034	.003
					RPM	8820	8820	8820	6615	6615	6615	5955	5955	5290	5290	5290	4765
					IPM(FEED)	208	177	156	156	156	133	106	106	126	126	107	85
H	38.1-38.2	Hardened steel	0.05D	1.0D	SFM(Vc)	545	545	545	545	545	545	490	490	545	545	545	490
					IPT(fz)	.0039	.0033	.003	.0039	.0039	.0033	.003	.003	.0038	.0038	.0033	.0029
					RPM	4410	4410	4410	3320	3320	3320	2980	2980	2645	2645	2645	2385
					IPM(FEED)	104	88	78	78	78	66	53	53	61	61	52	41
	40	Chilled Cast Iron	0.05D	1.5D	SFM(Vc)	1090	1090	1090	1090	1090	1090	980	980	1090	1090	1090	980
					IPT(fz)	.0039	.0034	.003	.0039	.0039	.0034	.003	.003	.004	.004	.0034	.003
					RPM	8820	8820	8820	6615	6615	6615	5955	5955	5290	5290	5290	4765
					IPM(FEED)	208	177	156	156	156	133	106	106	126	126	107	85
	41	Hardened Cast Iron	0.05D	1.0D	SFM(Vc)	545	545	545	545	545	545	490	490	545	545	545	490
					IPT(fz)	.0039	.0033	.003	.0039	.0039	.0033	.003	.003	.0038	.0038	.0033	.0029
					RPM	4410	4410	4410	3320	3320	3320	2980	2980	2645	2645	2645	2385
					IPM(FEED)	104	88	78	78	78	66	53	53	61	61	52	41

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)