



# 4G MILL END MILLS

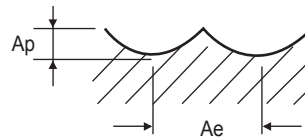
## RECOMMENDED CUTTING CONDITIONS

### GMF15 SERIES

### 2FLUTE BALL NOSE - PLANE

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)											
						.004	.008	.012	.015	.020	.024	.028	.031	.035	3/64	1/16	5/64
P	1-8	Non-alloy steel Low alloy steel	0.08D	0.05D	SFM(Vc)	40	60	95	115	155	185	215	245	280	370	465	615
					IPT(fz)	.0003	.0005	.0006	.0007	.0009	.0011	.0013	.0015	.0017	.0020	.0021	.0023
					RPM	39400	29530	29530	29490	29530	29530	29530	30480	30370	30240	28350	30050
	9	Low alloy steel	0.08D	0.05D	SFM(Vc)	40	60	95	125	155	185	215	245	280	355	445	590
					IPT(fz)	.0002	.0004	.0005	.0007	.0008	.0010	.0011	.0013	.0015	.0018	.0018	.0020
					RPM	39370	29530	29530	31500	29530	29530	29530	30480	30370	29030	27210	28910
	10-11.1	High alloyed steel, and tool steel	0.08D	0.05D	SFM(Vc)	40	60	95	115	155	185	215	245	280	370	465	615
					IPT(fz)	.0003	.0005	.0006	.0007	.0009	.0011	.0013	.0015	.0017	.0020	.0021	.0023
					RPM	39400	29530	29530	29490	29530	29530	29530	30480	30370	30240	28350	30050
	11.2	High alloyed steel, and tool steel	0.08D	0.05D	SFM(Vc)	40	60	95	125	155	185	215	245	280	355	445	590
					IPT(fz)	.0002	.0004	.0005	.0007	.0008	.0010	.0011	.0013	.0015	.0018	.0018	.0020
					RPM	39370	29530	29530	31500	29530	29530	29530	30480	30370	29030	27210	28910
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.08D	0.05D	SFM(Vc)	40	60	95	115	155	185	215	245	280	370	465	615
					IPT(fz)	.0003	.0005	.0006	.0007	.0009	.0011	.0013	.0015	.0017	.0020	.0021	.0023
					RPM	39400	29530	29530	29490	29530	29530	29530	30480	30370	30240	28350	30050
H	38.1-38.2	Hardened steel	0.08D	0.05D	SFM(Vc)	35	55	85	110	140	165	195	225	250	320	400	495
					IPT(fz)	.0002	.0004	.0005	.0007	.0008	.0010	.0011	.0013	.0015	.0018	.0018	.0020
					RPM	32480	26570	26570	28350	26570	26570	26570	27430	27330	26000	24380	24190
	40	Chilled Cast Iron	0.08D	0.05D	SFM(Vc)	40	60	95	125	155	185	215	245	280	355	445	590
					IPT(fz)	.0002	.0004	.0005	.0007	.0008	.0010	.0011	.0013	.0015	.0018	.0018	.0020
					RPM	39370	29530	29530	31500	29530	29530	29530	30480	30370	29030	27210	28910
	41	Hardened Cast Iron	0.08D	0.05D	SFM(Vc)	35	55	85	110	140	165	195	225	250	320	400	495
					IPT(fz)	.0002	.0004	.0005	.0007	.0008	.0010	.0011	.0013	.0015	.0018	.0018	.0020
					RPM	32480	26570	26570	28350	26570	26570	26570	27430	27330	26000	24380	24190

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)



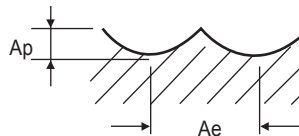
# YG 4G MILL END MILLS

## RECOMMENDED CUTTING CONDITIONS

### GMF15 SERIES 2FLUTE BALL NOSE - PLANE

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)											
						3/32	1/8	3/16	13/64	1/4	9/32	5/16	3/8	1/2	9/16	5/8	3/4
P	1-8	Non-alloy steel Low alloy steel	0.08D	0.05D	SFM(Vc)	615	615	605	575	515	520	550	575	515	540	550	550
					IPT(fz)	.0029	.0036	.0053	.0061	.0069	.0072	.0075	.0078	.0084	.0088	.0094	.0104
					RPM	24990	18770	12310	10820	7880	7070	6710	5860	3940	3670	3370	2800
					IPM(FEED)	145	134	132	133	108	102	100	92	66	65	63	58
	9	Low alloy steel	0.08D	0.05D	SFM(Vc)	590	590	580	550	495	500	530	550	495	520	530	530
					IPT(fz)	.0026	.0033	.0048	.0054	.0060	.0063	.0064	.0069	.0074	.0082	.0081	.0089
					RPM	24040	18030	11820	10350	7600	6820	6470	5610	3780	3530	3240	2710
					IPM(FEED)	125	118	114	112	92	86	83	77	56	58	52	48
	10-11.1	High alloyed steel, and tool steel	0.08D	0.05D	SFM(Vc)	615	615	605	575	515	520	550	575	515	540	550	550
					IPT(fz)	.0029	.0036	.0053	.0061	.0069	.0072	.0075	.0078	.0084	.0088	.0094	.0104
					RPM	24990	18770	12310	10820	7880	7070	6710	5860	3940	3670	3370	2800
					IPM(FEED)	145	134	132	133	108	102	100	92	66	65	63	58
11.2	High alloyed steel, and tool steel	0.08D	0.05D	SFM(Vc)	590	590	580	550	495	500	530	550	495	520	530	530	
				IPT(fz)	.0026	.0033	.0048	.0054	.0060	.0063	.0064	.0069	.0074	.0082	.0081	.0089	
				RPM	24040	18030	11820	10350	7600	6820	6470	5610	3780	3530	3240	2710	
				IPM(FEED)	125	118	114	112	92	86	83	77	56	58	52	48	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.08D	0.05D	SFM(Vc)	615	615	605	575	515	520	550	575	515	540	550	550
					IPT(fz)	.0029	.0036	.0053	.0061	.0069	.0072	.0075	.0078	.0084	.0088	.0094	.0104
					RPM	24990	18770	12310	10820	7880	7070	6710	5860	3940	3670	3370	2800
					IPM(FEED)	145	134	132	133	108	102	100	92	66	65	63	58
H	38.1-38.2	Hardened steel	0.08D	0.05D	SFM(Vc)	495	495	485	465	410	420	445	465	415	435	445	445
					IPT(fz)	.0025	.0030	.0044	.0049	.0055	.0058	.0059	.0063	.0067	.0070	.0075	.0082
					RPM	20160	15120	9920	8720	6240	5680	5440	4720	3170	2970	2720	2270
					IPM(FEED)	99	89	86	86	69	66	64	60	42	42	41	37
	40	Chilled Cast Iron	0.08D	0.05D	SFM(Vc)	590	590	580	550	495	500	530	550	495	520	530	530
					IPT(fz)	.0026	.0033	.0048	.0054	.0060	.0063	.0064	.0069	.0074	.0082	.0081	.0089
					RPM	24040	18030	11820	10350	7600	6820	6470	5610	3780	3530	3240	2710
					IPM(FEED)	125	118	114	112	92	86	83	77	56	58	52	48
	41	Hardened Cast Iron	0.08D	0.05D	SFM(Vc)	495	495	485	465	410	420	445	465	415	435	445	445
					IPT(fz)	.0025	.0030	.0044	.0049	.0055	.0058	.0059	.0063	.0067	.0070	.0075	.0082
					RPM	20160	15120	9920	8720	6240	5680	5440	4720	3170	2970	2720	2270
					IPM(FEED)	99	89	86	86	69	66	64	60	42	42	41	37

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)



HSS

CBN END MILLS

i-Xmill END MILLS

i-SMART MODULAR END MILLS

X5070 END MILLS

4G MILL END MILLS

X-POWER PRO END MILLS

TitaNox-POWER END MILLS

JET-POWER END MILLS

V7 PLUS A END MILLS

V7 MILL INOX

ALU-POWER HPC END MILLS

ALU-POWER END MILLS

D-POWER GRAPHITE END MILLS

STANDARD CARBIDE

ONLY ONE COATED PM60 END MILLS

SINE-POWER

TANK-POWER END MILLS

STANDARD COBALT & HSS

TECHNICAL DATA