



RECOMMENDED CUTTING CONDITIONS

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

GM109 SERIES 2FLUTE BALL NOSE - PROFILE (NORMAL SPEED)

ISO	VDI 3323	Material Description	Ae	Parameter	Diameter (Ø)								
					1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
H	38.1	Hardened steel	0.1D	SFM(Vc)	455	510	620	630	655	785	785	755	805
				IPT(fz)	.0017	.0023	.0026	.0029	.0032	.0036	.0039	.0039	.0049
				RPM	13910	10390	9470	7700	6670	6000	4800	3850	3080
				IPM(FEED)	48	48	50	45	43	43	38	30	30
	38.2	Hardened steel	0.1D	SFM(Vc)	445	490	595	605	625	750	750	715	765
				IPT(fz)	.0017	.0023	.0026	.0029	.0033	.0036	.0039	.0039	.0048
				RPM	13600	9980	9090	7400	6370	5730	4580	3640	2920
				IPM(FEED)	45	45	48	43	42	42	36	28	28
	41	Hardened Cast Iron	0.1D	SFM(Vc)	445	490	595	605	625	750	750	715	765
				IPT(fz)	.0017	.0023	.0026	.0029	.0033	.0036	.0039	.0039	.0048
				RPM	13600	9980	9090	7400	6370	5730	4580	3640	2920
				IPM(FEED)	45	45	48	43	42	42	36	28	28

(HIGH SPEED)

ISO	VDI 3323	Material Description	Ae	Parameter	Diameter (Ø)								
					1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
H	38.1	Hardened steel	0.05D	SFM(Vc)	455	510	620	630	655	785	785	755	805
				IPT(fz)	.0027	.0034	.0040	.0044	.0047	.0051	.0055	.0056	.0070
				RPM	13910	10390	9470	7700	6670	6000	4800	3850	3080
				IPM(FEED)	76	72	76	67	63	62	53	43	43
	38.2	Hardened steel	0.05D	SFM(Vc)	445	490	595	605	625	750	750	715	760
				IPT(fz)	.0027	.0034	.0040	.0043	.0046	.0050	.0053	.0053	.0067
				RPM	13600	9980	9090	7400	6370	5730	4580	3640	2900
				IPM(FEED)	72	68	72	63	59	58	49	39	39
	41	Hardened Cast Iron	0.05D	SFM(Vc)	445	490	595	605	625	750	750	715	760
				IPT(fz)	.0027	.0034	.0040	.0043	.0046	.0050	.0053	.0053	.0067
				RPM	13600	9980	9090	7400	6370	5730	4580	3640	2900
				IPM(FEED)	72	68	72	63	59	58	49	39	39

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)

Ap
D1/8 = .006
D3/16~D5/16 = .010
D3/8~D1 = .012