

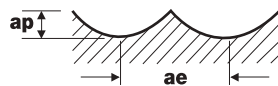
4 FLUTE BALL NOSE

GMG55 & GMG56 Series

CUTTING DATA

Stepover Cutting

Speed & Feed Recommendations				Diameter (mm)											
Hardness (Brinell)	Work Materials	ap x D	ae x D	3	4	5	6	8	10	12	16	18	20	25	
P < 300	CARBON STEEL 1.1191(C45) 1.0726(35 S 20) 1.0715(9 SMN 28) 1.0718(9 SMNPB 28)	1	0.5	Vc	162 (130-194)										
				RPM	17189	12892	10313	8594	6446	5157	4297	3223	2865	2578	2063
				Fz	0.025	0.027	0.030	0.040	0.060	0.065	0.070	0.075	0.080	0.090	0.099
				Feed	1719	1392	1238	1375	1547	1341	1203	967	917	928	817
P > 300 P < 380	ALLOY STEEL 1.2330(35 CRMO 4) 1.6565(40NICRMO6) 1.7033(34CR4) 1.6523(21 NICRMO2)	1	0.5	Vc	113 (90-136)										
				RPM	11990	8992	7194	5995	4496	3597	2997	2248	1998	1798	1439
				Fz	0.025	0.027	0.030	0.040	0.060	0.065	0.070	0.074	0.079	0.090	0.099
				Feed	1199	971	863	959	1079	935	839	665	631	647	570
P < 380	TOOL STEEL 1.2363(X100 CRMOV 5 1) 1.2379(X155 CRVMO 12 1) 1.2344(X40 CRMOV 5 1) 1.3243(S 6-5-2-5)	1	0.5	Vc	68 (54-82)										
				RPM	7215	5411	4329	3608	2706	2165	1804	1353	1203	1082	866
				Fz	0.017	0.019	0.021	0.028	0.042	0.045	0.049	0.052	0.056	0.063	0.070
				Feed	491	411	364	404	455	390	354	281	269	273	242
K < 260	CAST IRON 0.6020(GG20) 0.8145(GTS-45-06) 0.7060(GGG-60)	1	0.5	Vc	119 (95-143)										
				RPM	12626	9470	7576	6313	4735	3788	3157	2367	2104	1894	1515
				Fz	0.031	0.033	0.037	0.050	0.074	0.081	0.087	0.093	0.099	0.112	0.124
				Feed	1566	1250	1121	1263	1402	1227	1098	881	833	848	752
M	STAINLESS STEELS 300 1.4301(X5 CRNI 18 10) 1.4436(X3 CRNIMO 17 13 3) 1.4306(X2 CRNI 19 11) 1.4435(X2 CRNIMO 18 14 3)	1	0.5	Vc	85 (68-102)										
				RPM	9019	6764	5411	4509	3382	2706	2255	1691	1503	1353	1082
				Fz	0.020	0.020	0.025	0.041	0.045	0.050	0.055	0.060	0.064	0.065	0.068
				Feed	722	541	541	740	609	541	496	406	385	352	294
M	STAINLESS STEELS 400 1.4005(X12 CRS 13) 1.4104(X14 CRMOS 17)	1	0.5	Vc	77 (62-92)										
				RPM	8170	6127	4902	4085	3064	2451	2042	1532	1362	1225	980
				Fz	0.015	0.015	0.025	0.030	0.040	0.045	0.050	0.054	0.059	0.058	0.059
				Feed	490	368	490	490	490	441	408	331	321	284	231
M	STAINLESS STEELS(PH) 1.4594(Z7 CNU 15.05)	1	0.5	Vc	77 (62-92)										
				RPM	8170	6127	4902	4085	3064	2451	2042	1532	1362	1225	980
				Fz	0.020	0.020	0.025	0.041	0.045	0.050	0.055	0.060	0.064	0.065	0.068
				Feed	654	490	490	670	551	490	449	368	349	319	267
S	TITANIUM Ti6AL4V Ti5AL5V5MO Ti7AL4MO	0.3	0.5	Vc	47 (38-56)										
				RPM	4987	3740	2992	2493	1870	1496	1247	935	831	748	598
				Fz	0.018	0.018	0.022	0.037	0.040	0.045	0.049	0.054	0.058	0.058	0.061
				Feed	359	269	263	369	299	269	244	202	193	174	146
S	HIGH TEMPERATURE ALLOY INCONEL HASTELLOY, RENE	0.3	0.2	Vc	21 (17-25)										
				RPM	2228	1671	1337	1114	836	668	557	418	371	334	267
				Fz	0.014	0.014	0.017	0.028	0.031	0.035	0.038	0.042	0.045	0.045	0.048
				Feed	125	94	91	125	104	94	85	70	67	60	51



RPM: revolutions per minute Feed: mm per minute Vc: surface speed (metres per minute) Fz: feed per tooth