

RECOMMENDED CUTTING CONDITIONS

G9F42 / G9J55 SERIES

4 FLUTE - SIDE CUTTING

V_c = (m/min.)
 f_z = (mm/tooth)
 RPM = (rev./min.)
 FEED = (mm/min.)

SUPER HARDENED HSS END MILL	VDI 3323	Material Description	Ae(mm)	Ap(mm)	Parameter	Diameter (Ø)																		
						1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0	20.0	
COATED CARBIDE END MILL FOR GENERAL	P	Non-alloy steel	0.1D	1D	V_c	60	60	67	72	77	82	87	89	91	96	96	97	96	93	96	99	101	97	
					f_z	0.002	0.005	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.030	0.037	0.043	0.045	0.047	0.047	0.047	0.048	0.047	
		Low alloy steel	0.1D	1D	V_c	35	36	44	46	49	51	53	53	54	58	58	58	58	58	58	62	63	60	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.037	0.038	0.037	0.038	
					RPM	19000	12750	10650	9165	8200	7460	6950	6295	5800	5100	4365	3850	3395	2950	2550	2250	2000	1550	
	M	High alloyed steel, and tool steel	0.1D	1D	V_c	160	230	260	255	290	420	525	530	550	605	645	655	611	560	475	425	380	290	
					f_z	0.002	0.005	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.030	0.037	0.043	0.045	0.047	0.047	0.047	0.048	0.047	
		Stainless steel	0.1D	1D	V_c	35	36	44	46	49	51	53	53	54	58	58	58	58	58	58	62	63	60	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.037	0.038	0.037	0.038	
					RPM	11050	7600	6950	5855	5150	4640	4250	3750	3450	3100	2640	2300	2050	1850	1550	1400	1250	950	
COATED CARBIDE END MILL FOR HEAVY CUTTING	K	Grey cast iron	0.1D	1.5D	V_c	90	125	155	165	185	260	325	315	330	380	370	350	305	275	230	210	185	145	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.038	0.037	0.038		
		Nodular cast iron	0.1D	1.5D	V_c	60	60	67	72	77	82	87	89	91	96	96	97	96	93	96	99	101	97	
					f_z	0.002	0.005	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.030	0.037	0.043	0.045	0.047	0.047	0.047	0.048	0.047	
					RPM	19000	12750	10650	9165	8200	7460	6950	6295	5800	5100	4365	3850	3395	2950	2550	2250	2000	1550	
	H	Malleable cast iron	0.1D	1.5D	V_c	160	230	260	255	290	420	525	530	550	605	645	655	611	560	475	425	380	290	
					f_z	0.002	0.005	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.038	0.037	0.038		
		Hardened steel	0.1D	1D	V_c	35	36	44	46	49	51	53	53	54	58	58	58	58	58	58	62	63	60	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.038	0.037	0.038		
					RPM	11050	7600	6950	5855	5150	4640	4250	3750	3450	3100	2640	2300	2050	1850	1550	1400	1250	950	
COATED CARBIDE END MILL FOR HARDED MATERIAL	38.1	Chilled Cast Iron	0.1D	1D	V_c	90	125	155	165	185	260	325	315	330	380	370	350	305	275	230	210	185	145	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.038	0.037	0.038		
COATED CARBIDE DRILL FOR GENERAL	40				V_c	90	125	155	165	185	260	325	315	330	380	370	350	305	275	230	210	185	145	
					f_z	0.002	0.004	0.006	0.007	0.009	0.014	0.019	0.021	0.024	0.031	0.035	0.038	0.037	0.037	0.038	0.037	0.038		

* The FEED, in long & extra long types, should be reduced by around 50%

