

RECOMMENDED CUTTING CONDITIONS

G9F41 / G9J54 SERIES 2 FLUTE - SLOTTING

Vc = (m/min.)
fz = (mm/tooth)
RPM = (rev/min.)
FEED = (mm/min.)

ISO	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	5.5	6.0	6.5	8.0	9.0	10.0	12.0	14.0	16.0	20.0
P	1-4	Non-alloy steel	1D	0.5D (Up to Ø3 : 0.2D)	Vc	49	48	53	58	62	66	70	72	73	75	77	77	78	76	74	75	81	80	79
					fz	0.004	0.008	0.010	0.012	0.014	0.020	0.025	0.028	0.031	0.035	0.040	0.048	0.056	0.060	0.064	0.065	0.062	0.063	0.062
	5	Non-alloy steel	1D	0.5D (Up to Ø3 : 0.2D)	RPM	15450	10100	8500	7380	6600	6000	5550	5090	4650	4340	4100	3770	3100	2690	2350	2000	1850	1600	1250
					FEED	115	160	170	180	190	240	275	285	290	305	325	360	350	325	300	260	230	200	155
	6-7	Low alloy steel	1D	0.5D (Up to Ø3 : 0.2D)	Vc	29	28	35	37	39	41	43	43	43	45	47	46	46	46	46	47	51	50	47
					fz	0.004	0.008	0.010	0.013	0.016	0.020	0.024	0.027	0.031	0.036	0.041	0.045	0.050	0.050	0.050	0.048	0.048	0.050	0.050
	8-9	Low alloy steel	1D	0.5D (Up to Ø3 : 0.2D)	RPM	9200	6000	5550	4710	4100	3730	3400	3040	2750	2600	2500	2250	1850	1630	1450	1250	1150	1000	750
					FEED	70	90	110	120	130	150	165	165	170	190	205	205	185	165	145	120	110	100	75
	10	High alloyed steel, and tool steel	1D	0.5D (Up to Ø3 : 0.2D)	Vc	49	48	53	58	62	66	70	72	73	75	77	77	78	76	74	75	81	80	79
					fz	0.004	0.008	0.010	0.012	0.014	0.020	0.025	0.028	0.031	0.035	0.040	0.048	0.056	0.060	0.064	0.065	0.062	0.063	0.062
	11.1 11.2	High alloyed steel, and tool steel	1D	0.5D (Up to Ø3 : 0.2D)	RPM	15450	10100	8500	7380	6600	6000	5550	5090	4650	4340	4100	3770	3100	2690	2350	2000	1850	1600	1250
					FEED	115	160	170	180	190	240	275	285	290	305	325	360	350	325	300	260	230	200	155
M	14.1	Stainless steel	1D	0.5D (Up to Ø3 : 0.2D)	Vc	24	29	29	30	32	34	36	36	36	38	40	39	39	39	39	40	40	38	38
K	15-16	Grey cast iron	1D	1.0D	fz	0.004	0.007	0.009	0.012	0.016	0.020	0.025	0.028	0.032	0.036	0.039	0.046	0.053	0.055	0.058	0.057	0.061	0.067	0.063
					RPM	7700	6050	4650	3820	3400	3090	2850	2550	2300	2200	2100	1910	1550	1380	1250	1050	900	750	600
	17-18	Nodular cast iron	1D	1.0D	FEED	55	85	85	90	110	125	140	140	145	160	165	175	165	155	135	120	110	100	75
					Vc	63	61	63	62	62	62	62	62	62	61	60	60	60	62	63	58	62	60	60
	19-20	Malleable cast iron	1D	1.0D	fz	0.005	0.008	0.012	0.015	0.018	0.021	0.024	0.027	0.030	0.037	0.043	0.052	0.061	0.069	0.078	0.103	0.120	0.144	0.192
					RPM	20200	13050	10100	7890	6550	5640	4950	4390	3950	3530	3200	2940	2400	2190	2000	1550	1400	1200	950
H	38.1 40	Hardened steel Chilled Cast Iron	1D	0.5D (Up to Ø3 : 0.2D)	FEED	220	220	240	235	240	240	240	240	240	260	275	305	295	305	310	320	335	345	365
					Vc	29	28	35	37	39	41	43	43	43	45	47	46	46	46	46	47	51	50	47
					fz	0.004	0.008	0.010	0.013	0.016	0.020	0.024	0.027	0.031	0.036	0.041	0.045	0.050	0.050	0.050	0.048	0.048	0.050	0.050
					RPM	9200	6000	5550	4710	4100	3730	3400	3040	2750	2600	2500	2250	1850	1630	1450	1250	1150	1000	750
					FEED	70	90	110	120	130	150	165	165	170	190	205	205	185	165	145	120	110	100	75

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

