



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

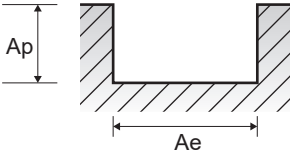
G9553, G9G46, G9410, G9425, G9G47, G9439
G9528, G9433, G9G48, G9447, G9G49 SERIES

3 FLUTE - **SLOTING**

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)													
						1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	
P	1-4	Non-alloy steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	60	50	55	65	70	70	70	70	70	75	75	70	
					fz	0.002	0.003	0.005	0.007	0.012	0.015	0.018	0.027	0.03	0.031	0.029	0.029	0.029	
					RPM	14324	12732	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114	
					FEED	86	115	119	123	186	201	201	226	201	173	148	130	97	
	5		1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45	
					fz	0.002	0.004	0.005	0.007	0.012	0.014	0.02	0.024	0.023	0.022	0.022	0.023	0.024	
					RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716	
					FEED	48	64	72	78	115	107	143	129	88	79	68	69	52	
	6-7	Low alloy steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	60	50	55	65	70	70	70	70	70	75	75	70	
					fz	0.002	0.003	0.005	0.007	0.012	0.015	0.018	0.027	0.03	0.031	0.029	0.029	0.029	
					RPM	14324	12732	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114	
					FEED	86	115	119	123	186	201	201	226	201	173	148	130	97	
	8-9		1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45	
					fz	0.002	0.004	0.005	0.007	0.012	0.014	0.02	0.024	0.023	0.022	0.022	0.023	0.024	
RPM					7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716		
FEED					48	64	72	78	115	107	143	129	88	79	68	69	52		
10	High alloyed steel, and tool steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	45	60	50	55	65	70	70	70	70	70	75	75	70		
				fz	0.002	0.003	0.005	0.007	0.012	0.015	0.018	0.027	0.03	0.031	0.029	0.029	0.029		
				RPM	14324	12732	7958	5836	5173	4456	3714	2785	2228	1857	1705	1492	1114		
				FEED	86	115	119	123	186	201	201	226	201	173	148	130	97		
11.1 - 11.2		1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45		
				fz	0.002	0.004	0.005	0.007	0.012	0.014	0.02	0.024	0.023	0.022	0.022	0.023	0.024		
				RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716		
				FEED	48	64	72	78	115	107	143	129	88	79	68	69	52		
M	14.1	Stainless steel	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	20	25	25	30	35	35	35	35	35	35	35	35		
					fz	0.002	0.003	0.004	0.007	0.011	0.015	0.019	0.025	0.028	0.026	0.027	0.031	0.03	
					RPM	6366	5305	3979	3183	2785	2228	1857	1393	1114	928	796	696	557	
					FEED	38	48	48	67	92	100	106	104	94	72	64	65	50	
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	1.0D	1.0D	Vc	60	55	60	55	60	55	55	55	60	55	55	55		
					fz	0.003	0.005	0.007	0.011	0.013	0.018	0.026	0.036	0.046	0.063	0.073	0.086	0.115	
					RPM	19099	11671	9549	5836	4775	3501	2918	2188	1910	1459	1251	1094	875	
					FEED	172	175	201	193	186	189	228	236	264	276	274	282	302	
N	21~22	Aluminum-wrought alloy	1.0D	1.0D	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140	
					fz	0.002	0.004	0.006	0.009	0.013	0.015	0.019	0.026	0.032	0.038	0.043	0.05	0.065	
					RPM	44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228	
					FEED	267	331	401	415	434	415	438	450	443	423	425	433	434	
	23~25	Aluminum-cast, alloyed	1.0D	1.0D	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140	
					fz	0.002	0.004	0.006	0.009	0.013	0.015	0.019	0.026	0.032	0.038	0.043	0.05	0.065	
					RPM	44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228	
					FEED	267	331	401	415	434	415	438	450	443	423	425	433	434	
	26-28	Copper and Copper Alloys (Bronze / Brass)	1.0D	1.0D	Vc	80	95	105	105	110	105	105	110	105	105	105	110	105	
					fz	0.002	0.004	0.006	0.009	0.012	0.015	0.02	0.025	0.032	0.039	0.046	0.05	0.065	
					RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671	
					FEED	153	242	301	301	315	301	334	328	321	326	329	328	326	
29.1	Non Metallic Materials	1.0D	1.0D	Vc	80	95	105	105	110	105	105	110	105	105	105	110	105		
				fz	0.002	0.004	0.006	0.009	0.012	0.015	0.02	0.025	0.032	0.039	0.046	0.05	0.065		
				RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671		
				FEED	153	242	301	301	315	301	334	328	321	326	329	328	326		
H	40	Chilled Cast Iron	1.0D	0.5D (Up to Ø3 : 0.2D)	Vc	25	25	30	35	40	40	45	45	40	45	45	50	45	
					fz	0.002	0.004	0.005	0.007	0.012	0.014	0.02	0.024	0.023	0.022	0.022	0.023	0.024	
					RPM	7958	5305	4775	3714	3183	2546	2387	1790	1273	1194	1023	995	716	
					FEED	48	64	72	78	115	107	143	129	88	79	68	69	52	

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



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G9528, G9433, G9G48, G9447, G9G49 SERIES

3 FLUTE - **SIDE CUTTING**

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

ISO	VDI 3323	Material Description	Ae	Ap	Parameter	Diameter (Ø)													
						1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	
P	1-4	Non-alloy steel	0.1D	1.0D	Vc	55	55	60	70	80	85	90	90	85	90	90	95	90	
					fz	0.002	0.005	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.048	0.047	
					RPM	17507	11671	9549	7427	6366	5411	4775	3581	2706	2387	2046	1890	1432	
	FEED		105	175	172	201	363	390	430	451	381	337	289	272	202				
	Vc		30	35	40	45	50	55	55	55	55	55	55	60	55				
	fz		0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037				
	RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875					
	FEED	57	89	115	129	227	229	271	249	200	162	139	136	97					
	Vc	55	55	60	70	80	85	90	90	85	90	90	95	90					
	fz	0.002	0.005	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.048	0.047					
	RPM	17507	11671	9549	7427	6366	5411	4775	3581	2706	2387	2046	1890	1432					
	FEED	105	175	172	201	363	390	430	451	381	337	289	272	202					
6-7	Low alloy steel	0.1D	1.0D	Vc	30	35	40	45	50	50	55	55	55	55	55	60	55		
				fz	0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037		
				RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875		
FEED		57	89	115	129	227	229	271	249	200	162	139	136	97					
Vc		30	35	40	45	50	50	55	55	55	55	55	60	55					
fz		0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037					
RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875						
FEED	57	89	115	129	227	229	271	249	200	162	139	136	97						
8-9	High alloyed steel, and tool steel	0.1D	1.0D	Vc	55	55	60	70	80	85	90	90	85	90	90	95	90		
				fz	0.002	0.005	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.048	0.047		
				RPM	17507	11671	9549	7427	6366	5411	4775	3581	2706	2387	2046	1890	1432		
FEED		105	175	172	201	363	390	430	451	381	337	289	272	202					
Vc		30	35	40	45	50	50	55	55	55	55	55	60	55					
fz		0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037					
RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875						
FEED	57	89	115	129	227	229	271	249	200	162	139	136	97						
10	High alloyed steel, and tool steel	0.1D	1.0D	Vc	55	55	60	70	80	85	90	90	85	90	90	95	90		
				fz	0.002	0.005	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.048	0.047		
				RPM	17507	11671	9549	7427	6366	5411	4775	3581	2706	2387	2046	1890	1432		
FEED		105	175	172	201	363	390	430	451	381	337	289	272	202					
Vc		30	35	40	45	50	50	55	55	55	55	55	60	55					
fz		0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037					
RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875						
FEED	57	89	115	129	227	229	271	249	200	162	139	136	97						
11.1 - 11.2	High alloyed steel, and tool steel	0.1D	1.0D	Vc	55	55	60	70	80	85	90	90	85	90	90	95	90		
				fz	0.002	0.005	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.048	0.047		
				RPM	17507	11671	9549	7427	6366	5411	4775	3581	2706	2387	2046	1890	1432		
FEED		105	175	172	201	363	390	430	451	381	337	289	272	202					
Vc		30	35	40	45	50	50	55	55	55	55	55	60	55					
fz		0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037					
RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875						
FEED	57	89	115	129	227	229	271	249	200	162	139	136	97						
M	14.1	Stainless steel	0.1D	1.0D	Vc	25	35	35	35	40	40	45	45	45	45	45	45		
					fz	0.002	0.004	0.006	0.009	0.018	0.024	0.03	0.042	0.045	0.045	0.044	0.048	0.048	
					RPM	7958	7427	5570	3714	3183	2546	2387	1790	1432	1194	1023	895	716	
FEED	48	89	100	100	172	183	215	226	193	161	135	129	103						
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.1D	1.5D	Vc	60	55	60	55	60	55	55	55	60	55	55	55		
					fz	0.008	0.013	0.017	0.026	0.035	0.044	0.064	0.093	0.115	0.154	0.181	0.22	0.285	
					RPM	19099	11671	9549	5836	4775	3501	2918	2188	1910	1459	1251	1094	875	
FEED	458	455	487	455	501	462	560	611	659	674	679	722	748						
N	21~22	Aluminum-wrought alloy	0.1D	1.5D	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140	
					fz	0.006	0.01	0.016	0.021	0.031	0.037	0.048	0.064	0.08	0.098	0.111	0.129	0.167	
					RPM	44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228	
	FEED	802	828	1070	969	1036	1025	1108	1108	1108	1092	1098	1116	1116					
	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140					
	fz	0.006	0.01	0.016	0.021	0.031	0.037	0.048	0.064	0.08	0.098	0.111	0.129	0.167					
	RPM	44563	27587	22282	15385	11141	9231	7692	5769	4615	3714	3297	2885	2228					
	FEED	802	828	1070	969	1036	1025	1108	1108	1108	1092	1098	1116	1116					
	Vc	80	95	105	105	110	105	105	105	105	105	105	110	105					
	fz	0.006	0.011	0.016	0.023	0.029	0.037	0.048	0.063	0.081	0.096	0.115	0.125	0.162					
	RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671					
	FEED	458	665	802	769	762	742	802	827	812	802	824	821	812					
29.1	Non Metallic Materials	0.1D	1.5D	Vc	80	95	105	105	110	105	105	110	105	105	105	110	105		
				fz	0.006	0.011	0.016	0.023	0.029	0.037	0.048	0.063	0.081	0.096	0.115	0.125	0.162		
				RPM	25465	20160	16711	11141	8754	6685	5570	4377	3342	2785	2387	2188	1671		
FEED	458	665	802	769	762	742	802	827	812	802	824	821	812						
H	40	Chilled Cast Iron	0.1D	1.0D	Vc	30	35	40	45	50	50	55	55	55	55	60	55		
					fz	0.002	0.004	0.006	0.009	0.019	0.024	0.031	0.038	0.038	0.037	0.037	0.038	0.037	
					RPM	9549	7427	6366	4775	3979	3183	2918	2188	1751	1459	1251	1194	875	
FEED	57	89	115	129	227	229	271	249	200	162	139	136	97						