



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

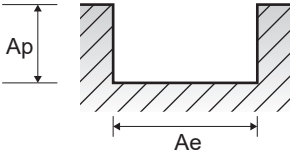
G9553, G9G46, G9410, G9425, G9G47, G9439
G9528, G9433, G9G48, G9447, G9G49 SERIES

3 FLUTE - **SLOT**TING

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	60	55	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	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	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	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	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	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	0.023	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%



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

G9553, G9G46, G9410, G9425, G9G47, G9439
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	
	5		0.1D	1.0D	FEED	105	175	172	201	363	390	430	451	381	337	289	272	202	
					Vc	30	35	40	45	50	55	55	55	55	60	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	
	6-7	Low alloy steel	0.1D	1.0D	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	
	8-9		0.1D	1.0D	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	
10	High alloyed steel, and tool 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		
11.1 - 11.2		0.1D	1.0D	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		
M	14.1	Stainless steel	0.1D	1.0D	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	60	55		
K	15-20	Grey cast iron Nodular cast iron Malleable cast iron	0.1D	1.5D	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	
N	21~22	Aluminum-wrought alloy	0.1D	1.5D	Vc	25	35	35	35	40	40	45	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	
	23~25	Aluminum-cast, alloyed	0.1D	1.5D	FEED	48	89	100	100	172	183	215	226	193	161	135	129	103	
					Vc	60	55	60	55	60	55	55	55	60	55	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	
	26-28	Copper and Copper Alloys (Bronze / Brass)	0.1D	1.5D	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	
					Vc	140	130	140	145	140	145	145	145	145	140	145	145	140	
	29.1	Non Metallic Materials	0.1D	1.5D	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	
H	40	Chilled Cast Iron	0.1D	1.0D	Vc	140	130	140	145	140	145	145	145	145	140	145	145	140	
					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	
H	40	Chilled Cast Iron	0.1D	1.0D	FEED	458	665	802	769	762	742	802	827	812	802	824	821	812	
					Vc	80	95	105	105	110	105	105	110	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	
H	40	Chilled Cast Iron	0.1D	1.0D	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	
					Vc	30	35	40	45	50	50	55	55	55	55	55	60	55	
H	40	Chilled Cast Iron	0.1D	1.0D	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	