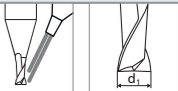


Helical interpolation (XYZ / XCZ) - 3.5 x d / 5 x d

v_c [m/min]
 f_z [mm]
 p [mm]

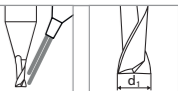


Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	p (pitch)		T4 Ød1 0.20 mm		T5 Ød1 0.25 mm		T6 - T7 Ød1 0.30 mm		T8 - T10 Ød1 0.40 mm		T10 - T15 Ød1 0.50 mm		T20 Ød1 0.60 mm		T25 Ød1 0.80 mm		T30 Ød1 1.00 mm			
					3.5 x d1	5 x d1	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z
					M	Stainless steel austenitic	1.4435	X2CrNiMo 18-14-3	AISI 316L	0.2 - 0.8 x d1	0.1 - 0.4 x d1	20 - 40	0.0010	25 - 50	0.0010	30 - 60	0.0010	40 - 75	0.0015	50 - 90	0.0020	60 - 100	0.0025	70 - 130
		1.4441	X2CrNiMo 18-15-3	AISI 316LM																				
S₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	0.2 - 0.8 x d1	0.1 - 0.4 x d1	20 - 40	0.0010	25 - 50	0.0010	30 - 60	0.0010	40 - 75	0.0015	50 - 90	0.0020	60 - 100	0.0025	70 - 130	0.0030	80 - 140	0.0040		
		9.9367	TiAl6Nb7	ASTM F1295																				
S₃	CrCo alloys	2.4964	CoCr20W15Ni	Haynes 25	0.2 - 0.8 x d1	0.1 - 0.4 x d1	20 - 40	0.0008	25 - 50	0.0008	30 - 60	0.0008	40 - 75	0.0012	50 - 90	0.0015	60 - 100	0.0020	70 - 130	0.0025	80 - 140	0.0030		
			CrCoMo28	ASTM F1537																				

Note: In case of p = 0.8 x d1 decrease the feed fz by 30% to increase tool life and profile precision.

Side milling - 3.5 x d / 5 x d

v_c [m/min]
 f_z [mm]
 a_p [mm]
 a_e [mm]



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	$a_{p, max}$	a_e	T4 Ød1 0.20 mm		T5 Ød1 0.25 mm		T6 - T7 Ød1 0.30 mm		T8 - T10 Ød1 0.40 mm		T10 - T15 Ød1 0.50 mm		T20 Ød1 0.60 mm		T25 Ød1 0.80 mm		T30 Ød1 1.00 mm			
							v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c	f_z
							M	Stainless steel austenitic	1.4435	X2CrNiMo 18-14-3	AISI 316L	0.5 x d1	0.1 x d1	20 - 40	0.0015	25 - 50	0.0025	30 - 60	0.0030	40 - 75	0.0045	50 - 90	0.0060	60 - 100
		1.4441	X2CrNiMo 18-15-3	AISI 316LM																				
S₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	0.5 x d1	variable	20 - 40	0.0015	25 - 50	0.0025	30 - 60	0.0030	40 - 75	0.0045	50 - 90	0.0060	60 - 100	0.0065	70 - 130	0.0080	80 - 140	0.0100		
		9.9367	TiAl6Nb7	ASTM F1295																				
S₃	CrCo alloys	2.4964	CoCr20W15Ni	Haynes 25	0.5 x d1	0.1 x d1	20 - 40	0.0012	25 - 50	0.0020	30 - 60	0.0025	40 - 75	0.0035	50 - 90	0.0045	60 - 100	0.0050	70 - 130	0.0060	80 - 140	0.0075		
			CrCoMo28	ASTM F1537																				

General advise: Cutting conditions have been tested and approved with n = 30'000 - 40'000 rpm, different cutting speeds may affect tool life.