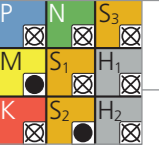


NEW

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

v_c [SFM] | [m/min]
 f_z [IPT] | [mm]
 p [inch] | [mm]

RECOMMENDATION FOR USE
● Excellent | ● Good | ○ Acceptable | ☒ Not recommended



MILLING WITH EXTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	p (pitch)		T4 Ød1		T5 Ød1		T6 - T7 Ød1		T8 - T10 Ød1		T10 - T15 Ød1		T20 Ød1		T25 Ød1		T30 Ød1	
					3.5 x d1	5 x d1	.0079" 0.20mm		.0098" 0.25mm		.0118" 0.30mm		.0157" 0.40mm		.0197" 0.50mm		.0236" 0.60mm		.0315" 0.80mm		.0394" 1.00mm	
					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
S ₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	0.2 - 0.8 x d1	0.1 - 0.4 x d1	66 - 131	.00004	82 - 164	.00004	98 - 197	.00004	131 - 246	.00006	164 - 295	.00008	197 - 328	.00010	230 - 427	.00012	263 - 459	.00016
		9.9367	TiAl6Nb7	ASTM F1295			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

Note: In case of $p = 0.8 \times d1$ decrease the feed f_z by 30% to increase tool life and profile precision.

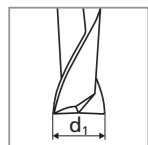
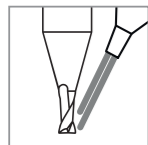
Side milling - 3.5 x d / 5 x d

v_c [SFM] | [m/min] a_p [inch] | [mm]
 f_z [IPT] | [mm] a_e [inch] | [mm]

MILLING WITH EXTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	$a_{p, max}$	a_e	T4 Ød1		T5 Ød1		T6 - T7 Ød1		T8 - T10 Ød1		T10 - T15 Ød1		T20 Ød1		T25 Ød1		T30 Ød1			
							3.5 x d1	5 x d1	.0079" 0.20mm		.0098" 0.25mm		.0118" 0.30mm		.0157" 0.40mm		.0197" 0.50mm		.0236" 0.60mm		.0315" 0.80mm		.0394" 1.00mm	
							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	66 - 131	.00006	82 - 164	.00010	98 - 197	.00012	131 - 246	.00018	164 - 295	.00024	197 - 328	.00026	230 - 427	.00032	263 - 459	.00039		
		1.4441	X2CrNiMo 18-15-3	AISI 316LM			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		
S ₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	0.5 x d1	variable	66 - 131	.00006	82 - 164	.00010	98 - 197	.00012	131 - 246	.00018	164 - 295	.00024	197 - 328	.00026	230 - 427	.00032	263 - 459	.00039		
		9.9367	TiAl6Nb7	ASTM F1295			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		



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