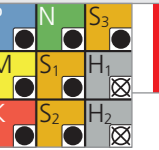


NEW

Type B - Z3 - Slot milling

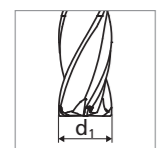
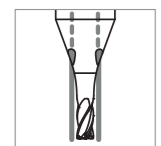
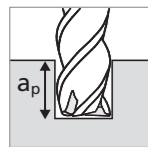
v_c [SFM] | [m/min]
 f_z [IPT] | [mm]

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



MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Slot milling



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	Cutting edge geometry	a_p	ϕd_1																	
							.008" 0.2 mm		.012" 0.3 mm		1/64" 0.4 mm		.020" 0.5 mm		.024" 0.6 mm		.028" 0.7 mm		1/32" 0.8 mm		.035" - .039" 0.9-1.0 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		
P	Unalloyed carbon steel Rm < 800 N/mm ²	1.0301	C10	AISI 1010	GEOMETRY S	0.5 x d ₁	49 - 82 15 - 25	.00012 0.003	66 - 131 20 - 40	.00020 0.005	82 - 164 25 - 50	.00028 0.007	98 - 213 30 - 65	.00039 0.010	131 - 246 40 - 75	.00047 0.012	148 - 295 45 - 90	.00055 0.014	164 - 328 50 - 100	.00063 0.016	180 - 377 55 - 115	.00071 0.018		
		1.0401	C15	AISI 1015																				
		1.1191	C45E/CK45	AISI 1045																				
		1.0044	S275JR	AISI 1020																				
		1.0715	11SMn30	AISI 1215																				
		1.5752	15NiCr13	ASTM 3415 / AISI 3310																				
	Low alloyed steel Rm > 900 N/mm ²	1.7131	16MnCr5	AISI 5115																				
		1.3505	100Cr6	AISI 52100																				
		1.7225	42CrMo4	AISI 4140																				
		1.2842	90MnCrV8	AISI O2																				
		1.2379	X153CrMoV12	AISI D2																				
		1.2436	X210CrW12	AISI D4/D6																				
High alloyed tool steel Rm < 1200 N/mm ²	1.3343	HS6-5-2C	AISI M2 / UNS T11302																					
	1.3355	HS18-0-1	AISI T1 / UNS T12001																					
	M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000	GEOMETRY S	0.5 x d ₁	49 - 82 15 - 25	.00012 0.003	66 - 131 20 - 40	.00020 0.005	82 - 164 25 - 50	.00028 0.007	98 - 213 30 - 65	.00039 0.010	131 - 246 40 - 75	.00047 0.012	148 - 295 45 - 90	.00055 0.014	164 - 328 50 - 100	.00063 0.016	180 - 377 55 - 115	.00071 0.018	
			1.4105	X6CrMoS17	AISI 430F																			
			Stainless steel martensitic	1.4034	X46Cr13																			AISI 420C
				1.4112	X90CrMoV18																			AISI 440B
Stainless steel martensitic - PH			1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH																			
			1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																			
Stainless steel austenitic	1.4301	X5CrNi18-10	AISI 304																					
	1.4435	X2CrNiMo18-14-3	AISI 316L																					
	1.4441	X2CrNiMo18-15-3	AISI 316LM																					
1.4539	X1NiCrMoCu25-20-5	AISI 904L																						
K	Cast iron	0.6020	GG20	ASTM 30	GEOMETRY S			0.5 x d ₁	49 - 82 15 - 25	.00008 0.002	66 - 131 20 - 40	.00016 0.004	82 - 164 25 - 50	.00024 0.006	98 - 213 30 - 65	.00031 0.008	131 - 246 40 - 75	.00035 0.009	148 - 295 45 - 90	.00043 0.011	164 - 328 50 - 100	.00051 0.013	180 - 377 55 - 115	.00059 0.015
		0.6030	GG30	ASTM 40B																				
		0.7040	GGG40	ASTM 60-40-18																				
		0.7060	GGG60	ASTM 80-60-03																				
N	Aluminium alloy wrought	3.2315	AlMgSi1	ASTM 6351	GEOMETRY S	0.5 x d ₁	49 - 82 15 - 25	.00016 0.004	66 - 131 20 - 40	.00028 0.007	82 - 164 25 - 50	.00035 0.009	98 - 213 30 - 65	.00047 0.012	131 - 246 40 - 75	.00051 0.013	148 - 295 45 - 90	.00059 0.015	164 - 328 50 - 100	.00063 0.016	180 - 377 55 - 115	.00067 0.017		
		3.4365	AlZnMgCu1.5	ASTM 7075																				
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380																				
		3.2381	GD-AlSi10Mg	UNS A03590																				
	Copper	2.0040	Cu-OF / CW008A	UNS C10100																				
		2.0065	Cu-ETP / CW004A	UNS C11000																				
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400																				
		2.0360	CuZn40 CW509L	UNS C28000																				
	Brass, Bronze Rm < 400 N/mm ²	2.0401	CuZn39Pb3 / CW614N	UNS C38500																				
		2.1020	CuSn6	UNS C51900																				
Bronze Rm < 600 N/mm ²	2.0966	CuAl10Ni5Fe4	UNS C63000																					
	2.0960	CuAl9Mn2	UNS C63200																					
S ₁	Super alloys	2.4856		Inconel 625	GEOMETRY SX	0.25 x d ₁	49 - 82 15 - 25	.00008 0.002	66 - 131 20 - 40	.00012 0.003	82 - 164 25 - 50	.00016 0.004	98 - 213 30 - 65	.00020 0.005	131 - 246 40 - 75	.00028 0.007	148 - 295 45 - 90	.00031 0.008	164 - 328 50 - 100	.00035 0.009	180 - 377 55 - 115	.00039 0.010		
		2.4668		Inconel 718																				
		2.4617	NiMo28	Hastelloy B-2																				
		2.4665	NiCr22Fe18Mo	Hastelloy X																				
S ₂	Titanium pure	3.7035	Gr.2	ASTM B348 / F67	GEOMETRY S	0.5 x d ₁	49 - 82 15 - 25	.00008 0.002	66 - 131 20 - 40	.00016 0.004	82 - 164 25 - 50	.00024 0.006	98 - 213 30 - 65	.00031 0.008	131 - 246 40 - 75	.00035 0.009	148 - 295 45 - 90	.00043 0.011	164 - 328 50 - 100	.00051 0.013	180 - 377 55 - 115	.00059 0.015		
		3.7065	Gr.4	ASTM B348 / F68																				
S ₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	GEOMETRY S	0.5 x d ₁	49 - 82 15 - 25	.00012 0.003	66 - 131 20 - 40	.00020 0.005	82 - 164 25 - 50	.00028 0.007	98 - 213 30 - 65	.00039 0.010	131 - 246 40 - 75	.00047 0.012	148 - 295 45 - 90	.00055 0.014	164 - 328 50 - 100	.00063 0.016	180 - 377 55 - 115	.00071 0.018		
		9.9367	TiAl6Nb7	ASTM F1295																				
S ₃	CoCr alloys	2.4964	CoCr20W15Ni CrCoMo28	Haynes 25 ASTM F1537	GEOMETRY SX	0.5 x d ₁	49 - 82 15 - 25	.00008 0.002	66 - 131 20 - 40	.00012 0.003	82 - 164 25 - 50	.00016 0.004	98 - 213 30 - 65	.00020 0.005	131 - 246 40 - 75	.00028 0.007	148 - 295 45 - 90	.00031 0.008	164 - 328 50 - 100	.00035 0.009	180 - 377 55 - 115	.00039 0.010		
H ₁ H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1																				
		1.2379	X153CrMoV12	AISI D2																				