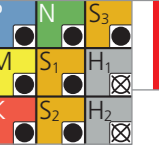


NEW

Type B - Z3 - Slot milling

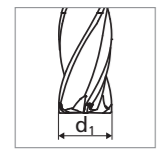
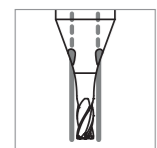
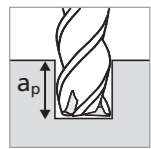
v_c [m/min]
 f_z [mm]

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																		
							0.2 mm		0.3 mm		0.4 mm 1/64"		0.5 mm		0.6 mm		0.7 mm		0.8 mm 1/32"		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 $R_m < 800 \text{ N/mm}^2$	1.0301	C10	AISI 1010	GEOMETRY S	$0.5 \times d_1$	15 - 25	0.003	20 - 40	0.005	25 - 50	0.007	30 - 65	0.010	40 - 75	0.012	45 - 90	0.014	50 - 100	0.016	55 - 115	0.018	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 $R_m > 900 \text{ N/mm}^2$	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 $R_m < 1200 \text{ N/mm}^2$	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	$0.5 \times d_1$	15 - 25	0.003	20 - 40	0.005	25 - 50	0.007	30 - 65	0.010	40 - 75	0.012	45 - 90	0.014	50 - 100	0.016	55 - 115	0.018	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																						
K	Cast iron	1.4539	X1NiCrMoCu25-20-5	AISI 904L	GEOMETRY S	$0.5 \times d_1$	15 - 25	0.002	20 - 40	0.004	25 - 50	0.006	30 - 65	0.008	40 - 75	0.009	45 - 90	0.011	50 - 100	0.013	55 - 115	0.015	0.015		
		0.6020	GG20	ASTM 30																					
		0.6030	GG30	ASTM 40B																					
		0.7040	GGG40	ASTM 60-40-18																					
N	Aluminium alloy wrought	0.7060	GGG60	ASTM 80-60-03	GEOMETRY S	$0.5 \times d_1$	15 - 25	0.002	20 - 40	0.004	25 - 50	0.006	30 - 65	0.008	40 - 75	0.009	45 - 90	0.011	50 - 100	0.013	55 - 115	0.015	0.015		
		3.2315	AlMgSi1	ASTM 6351																					
	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 $R_m < 400 \text{ N/mm}^2$	2.0401	CuZn39Pb3 / CW614N	UNS C38500																					
2.1020		CuSn6	UNS C51900																						
Bronze $R_m < 600 \text{ N/mm}^2$	2.0966	CuAl10Ni5Fe4	UNS C63000																						
	2.0960	CuAl9Mn2	UNS C63200																						
S ₁	Super alloys	2.4856		Inconel 625	GEOMETRY SX	$0.25 \times d_1$	15 - 25	0.002	20 - 40	0.003	25 - 50	0.004	30 - 65	0.005	40 - 75	0.007	45 - 90	0.008	50 - 100	0.009	55 - 115	0.010	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	$0.5 \times d_1$	15 - 25	0.002	20 - 40	0.004	25 - 50	0.006	30 - 65	0.008	40 - 75	0.009	45 - 90	0.011	50 - 100	0.013	55 - 115	0.015	0.015		
		3.7065	Gr.4	ASTM B348 / F68																					
	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136																					
9.9367		TiAl6Nb7	ASTM F1295																						
S ₃	CoCr alloys	2.4964	CoCr20W15Ni CrCoMo28	Haynes 25 ASTM F1537	GEOMETRY SX	$0.5 \times d_1$	15 - 25	0.002	20 - 40	0.003	25 - 50	0.004	30 - 65	0.005	40 - 75	0.007	45 - 90	0.008	50 - 100	0.009	55 - 115	0.010	0.010		
H ₁ H ₂	Hardened steel $\geq 55 \text{ HRC}$	1.2510	100MnCrMoW4	AISI O1																					
		1.2379	X153CrMoV12	AISI D2																					