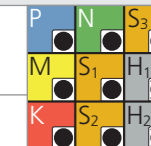


NEW

Type A - Milling of through slots

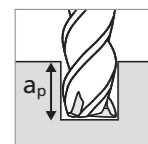
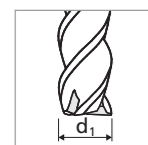
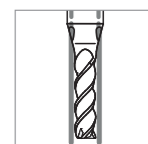
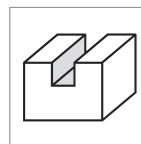
v_c [m/min]
 f_z [mm]
 a_p [mm]

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



MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Through slot milling



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	1.0 mm			1.5 mm 1/16"			2.0 mm 3/32"			3.0 mm 1/8"			4.0 mm 5/32"			5.0 mm 3/16" - 7/32"			6.0 mm - 8.0 mm 1/4"		
					v_c	f_z	a_p	v_c	f_z	a_p	v_c	f_z	a_p	v_c	f_z	a_p	v_c	f_z	a_p	v_c	f_z	a_p	v_c	f_z	a_p
P	Unalloyed carbon steel Rm < 800 N/mm ²	1.0301	C10	AISI 1010	140	0.009	1xd1	180	0.015	1xd1	200	0.020	1xd1	220	0.029	1xd1	230	0.031	1xd1	240	0.031	1xd1	260	0.032	1xd1
		1.0401	C15	AISI 1015																					
		1.1191	C45E/CK45	AISI 1045																					
		1.0044	S275JR	AISI 1020																					
		1.0715	11SMn30	AISI 1215																					
	Low alloyed steel Rm > 900 N/mm ²	1.5752	15NiCr13	ASTM 3415 / AISI 3310	140	0.008	1xd1	180	0.013	1xd1	200	0.019	1xd1	220	0.028	1xd1	230	0.029	1xd1	240	0.030	1xd1	260	0.031	1xd1
		1.7131	16MnCr5	AISI 5115																					
		1.3505	100Cr6	AISI 52100																					
		1.7225	42CrMo4	AISI 4140																					
		1.2842	90MnCrV8	AISI O2																					
High alloyed tool steel Rm < 1200 N/mm ²	1.2379	X153CrMoV12	AISI D2	140	0.006	0.5xd1	180	0.012	0.5xd1	200	0.017	0.5xd1	220	0.025	0.5xd1	230	0.026	0.5xd1	240	0.026	0.5xd1	260	0.027	0.5xd1	
	1.2436	X210CrW12	AISI D4/D6																						
	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
1.4105			X6CrMoS17	AISI 430F																					
Stainless steel martensitic		1.4034	X46Cr13	AISI 420C	140	0.009	1xd1	180	0.013	1xd1	200	0.019	1xd1	220	0.027	1xd1	230	0.028	1xd1	240	0.029	1xd1	260	0.029	1xd1
		1.4112	X90CrMoV18	AISI 440B																					
Stainless steel martensitic - PH		1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH	140	0.009	1xd1	180	0.013	1xd1	200	0.019	1xd1	220	0.027	1xd1	230	0.028	1xd1	240	0.029	1xd1	260	0.029	1xd1
		1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																					
Stainless steel austenitic		1.4301	X5CrNi18-10	AISI 304	140	0.007	1xd1	180	0.011	1xd1	200	0.017	1xd1	220	0.025	1xd1	230	0.027	1xd1	240	0.027	1xd1	260	0.028	1xd1
		1.4435	X2CrNiMo18-14-3	AISI 316L																					
	1.4441	X2CrNiMo18-15-3	AISI 316LM																						
K	Cast iron	0.6020	GG20	ASTM 30	120	0.007	1xd1	140	0.015	1xd1	160	0.017	1xd1	180	0.025	1xd1	200	0.031	1xd1	200	0.031	1xd1	200	0.032	1xd1
		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	140	0.010	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.034	1xd1	260	0.035	1xd1	300	0.036	1xd1	340	0.037	1xd1
		3.4365	AlZnMgCu1.5	ASTM 7075																					
	Aluminium alloy cast	3.2163	GD-ALSi9Cu3	ASTM A380	140	0.010	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.032	1xd1	260	0.034	1xd1	300	0.034	1xd1	340	0.036	1xd1
		3.2381	GD-ALSi10Mg	UNS A03590																					
	Copper	2.0040	Cu-OF / CW008A	UNS C10100	140	0.012	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.034	1xd1	260	0.035	1xd1	300	0.036	1xd1	340	0.037	1xd1
		2.0065	Cu-ETP / CW004A	UNS C11000																					
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	140	0.012	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.034	1xd1	260	0.035	1xd1	300	0.036	1xd1	340	0.037	1xd1
		2.0360	CuZn40 CW509L	UNS C28000																					
	Brass, Bronze Rm < 400 N/mm ²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	140	0.012	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.034	1xd1	260	0.035	1xd1	300	0.036	1xd1	340	0.037	1xd1
		2.1020	CuSn6	UNS C51900																					
Bronze Rm < 600 N/mm ²	2.0966	CuAl10Ni5Fe4	UNS C63000	140	0.011	1xd1	180	0.016	1xd1	200	0.021	1xd1	220	0.034	1xd1	260	0.035	1xd1	300	0.036	1xd1	340	0.037	1xd1	
	2.0960	CuAl9Mn2	UNS C63200																						
S ₁	Super alloys	2.4856		Inconel 625	80	0.005	0.5xd1	80	0.006	0.5xd1	100	0.007	0.5xd1	100	0.010	0.5xd1	120	0.013	0.5xd1	120	0.013	0.5xd1	120	0.013	0.5xd1
		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	100	0.009	0.5xd1	100	0.012	0.5xd1	120	0.017	0.5xd1	120	0.027	0.5xd1	140	0.027	0.5xd1	140	0.027	0.5xd1	140	0.028	0.5xd1
		3.7065	Gr.4	ASTM B348 / F68																					
S ₃	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	100	0.009	0.5xd1	100	0.012	0.5xd1	120	0.017	0.5xd1	120	0.027	0.5xd1	140	0.027	0.5xd1	140	0.027	0.5xd1	140	0.028	0.5xd1
		9.9367	TiAl6Nb7	ASTM F1295																					
H ₁	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25	80	0.005	0.5xd1	80	0.006	0.5xd1	100	0.007	0.5xd1	100	0.010	0.5xd1	120	0.013	0.5xd1	120	0.013	0.5xd1	120	0.013	0.5xd1
			CrCoMo28	ASTM F1537																					
H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1																					
		1.2379	X153CrMoV12	AISI D2																					