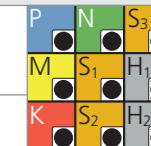


NEW

# Type C - Milling of through slots

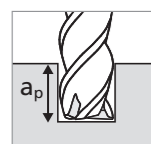
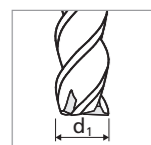
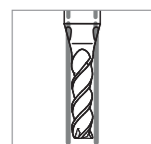
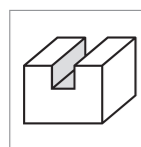
$v_c$  [m/min]  
 $f_z$  [mm]  
 $a_p$  [mm]

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/mm²	1.0301	C10	AISI 1010	120	0.009	0.5xd1	140	0.015	0.5xd1	160	0.020	0.5xd1	180	0.029	0.5xd1	200	0.031	0.5xd1	200	0.031	0.5xd1	220	0.032	0.5xd1
		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/mm²	1.5752	15NiCr13	ASTM 3415 / AISI 3310	120	0.008	0.5xd1	140	0.013	0.5xd1	160	0.019	0.5xd1	180	0.028	0.5xd1	200	0.029	0.5xd1	200	0.030	0.5xd1	220	0.031	0.5xd1
		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/mm²	1.3343	HS6-5-2C	AISI M2 / UNS T11302	120	0.006	0.25xd1	140	0.012	0.25xd1	160	0.017	0.25xd1	180	0.025	0.25xd1	200	0.026	0.25xd1	200	0.026	0.25xd1	220	0.027	0.25xd1	
	1.3355	HS18-0-1	AISI T1 / UNS T12001																						
	1.4016	X6Cr17	AISI 430 / UNS S43000																						
	1.4105	X6CrMoS17	AISI 430F																						
M	Stainless steel ferritic	1.4034	X46Cr13	AISI 420C	120	0.009	0.5xd1	140	0.013	0.5xd1	160	0.019	0.5xd1	180	0.027	0.5xd1	200	0.028	0.5xd1	200	0.029	0.5xd1	220	0.029	0.5xd1
		1.4112	X90CrMoV18	AISI 440B																					
		1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH																					
	Stainless steel martensitic	1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH	120	0.009	0.5xd1	140	0.013	0.5xd1	160	0.019	0.5xd1	180	0.027	0.5xd1	200	0.028	0.5xd1	200	0.029	0.5xd1	220	0.029	0.5xd1
		1.4301	X5CrNi18-10	AISI 304																					
	Stainless steel austenitic	1.4435	X2CrNiMo18-14-3	AISI 316L	120	0.007	0.5xd1	140	0.011	0.5xd1	160	0.017	0.5xd1	180	0.025	0.5xd1	200	0.027	0.5xd1	200	0.027	0.5xd1	220	0.028	0.5xd1
		1.4441	X2CrNiMo18-15-3	AISI 316LM																					
		1.4539	X1NiCrMoCu25-20-5	AISI 904L																					
K	Cast iron	0.6020	GG20	ASTM 30	100	0.007	0.5xd1	120	0.015	0.5xd1	140	0.017	0.5xd1	160	0.025	0.5xd1	180	0.031	0.5xd1	200	0.031	0.5xd1	200	0.032	0.5xd1
		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	170	0.010	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.034	0.5xd1	250	0.035	0.5xd1	250	0.036	0.5xd1	270	0.037	0.5xd1
		3.4365	AlZnMgCu1.5	ASTM 7075																					
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	170	0.010	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.032	0.5xd1	250	0.034	0.5xd1	250	0.034	0.5xd1	270	0.036	0.5xd1
		3.2381	GD-AlSi10Mg	UNS A03590																					
	Copper	2.0040	Cu-OF / CW008A	UNS C10100	170	0.012	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.034	0.5xd1	250	0.035	0.5xd1	250	0.036	0.5xd1	270	0.037	0.5xd1
		2.0065	Cu-ETP / CW004A	UNS C11000																					
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	170	0.012	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.034	0.5xd1	250	0.035	0.5xd1	250	0.036	0.5xd1	270	0.037	0.5xd1
		2.0360	CuZn40 CW509L	UNS C28000																					
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	170	0.012	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.034	0.5xd1	250	0.035	0.5xd1	250	0.036	0.5xd1	270	0.037	0.5xd1
		2.1020	CuSn6	UNS C51900																					
Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	170	0.011	0.5xd1	190	0.016	0.5xd1	210	0.021	0.5xd1	230	0.034	0.5xd1	250	0.035	0.5xd1	250	0.036	0.5xd1	270	0.037	0.5xd1	
	2.0960	CuAl9Mn2	UNS C63200																						
S1	Super alloys	2.4856		Inconel 625	80	0.005	0.25xd1	80	0.006	0.25xd1	100	0.007	0.25xd1	100	0.010	0.25xd1	120	0.013	0.25xd1	120	0.013	0.25xd1	120	0.013	0.25xd1
		2.4668		Inconel 718																					
		2.4617	NiMo28	Hastelloy B-2																					
		2.4665	NiCr22Fe18Mo	Hastelloy X																					
S2	Titanium pure	3.7035	Gr.2	ASTM B348 / F67	80	0.009	0.25xd1	80	0.012	0.25xd1	100	0.017	0.25xd1	100	0.027	0.25xd1	120	0.027	0.25xd1	120	0.027	0.25xd1	140	0.028	0.25xd1
		3.7065	Gr.4	ASTM B348 / F68																					
S2	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	80	0.009	0.25xd1	80	0.012	0.25xd1	100	0.017	0.25xd1	100	0.027	0.25xd1	120	0.027	0.25xd1	120	0.027	0.25xd1	140	0.028	0.25xd1
		9.9367	TiAl6Nb7	ASTM F1295																					
S3	CrCo alloys	2.4964	CoCr20W15Ni CrCoMo28	Haynes 25 ASTM F1537	80	0.005	0.25xd1	80	0.006	0.25xd1	100	0.007	0.25xd1	100	0.010	0.25xd1	120	0.013	0.25xd1	120	0.013	0.25xd1	120	0.013	0.25xd1
H1	Hardened steel < 55 HRC	1.2510	100MnCrMoW4	AISI O1																					
		1.2379	X153CrMoV12	AISI D2																					