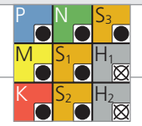
CRAZYMILL™ by Mikron Tool Cool Micro

MILLING

NEW Type C - Z3 - Slot milling

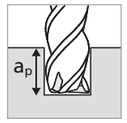
v_c [SFM] | [m/min]
f_z [IPT] | [mm]

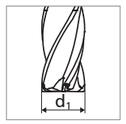
RECOMMENDATION FOR USE
● Excellent | ◐ Good | ○ Acceptable | ⊠ Not recommended



MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Slot milling





Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	Cutting edge geometry		a_p	Ød$_1$ .008" | 0.2 mm v_c	.008" | 0.2 mm f_z	.012" | 0.3 mm v_c	.012" | 0.3 mm f_z	1/64" .016" | 0.4 mm v_c	1/64" .016" | 0.4 mm f_z	.020" | 0.5 mm v_c	.020" | 0.5 mm f_z	.024" | 0.6 mm v_c	.024" | 0.6 mm f_z	.028" | 0.7 mm v_c	.028" | 0.7 mm f_z	1/32" .031" | 0.8 mm v_c	1/32" .031" | 0.8 mm f_z	.035" - .039" | 0.9 - 1.0 mm v_c	.035" - .039" | 0.9 - 1.0 mm f_z
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	GEOMETRY S		0.2 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																			
	Low alloyed steel Rm > 900 N/mm²	1.5752	15NiCr13	ASTM 3415 / AISI 3310			0.2 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
		1.7131	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/mm²	1.2379	X153CrMoV12	AISI D2			0.2 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
		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	AISI 430 / UNS S43000	GEOMETRY S		0.2 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			0.2 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
		1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																			
	Stainless steel austenitic	1.4301	X5CrNi18-10	AISI 304			0.2 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
		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		0.2 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		0.2 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			0.2 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
		3.2381	GD-AlSi10Mg	UNS A03590																			
	Copper	2.0040	Cu-OF / CW008A	UNS C10100			0.2 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
		2.0065	Cu-ETP / CW004A	UNS C11000																			
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400			0.2 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
		2.0360	CuZn40 CW509L	UNS C28000																			
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500			0.2 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
		2.1020	CuSn6	UNS C51900																			
	Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000			0.2 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
		2.0960	CuAl9Mn2	UNS C63200																			
S_1	Super alloys	2.4856		Inconel 625	GEOMETRY SX		0.1 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		0.2 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																			
	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	GEOMETRY S		0.2 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	Haynes 25	GEOMETRY SX		0.2 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
			CrCoMo28	ASTM F1537																			
H_1	Hardened steel < 55 HRC	1.2510	100MnCrMoW4	AISI O1																			
H_2	Hardened steel ≥ 55 HRC	1.2379	X153CrMoV12	AISI D2																			