CRAZYMILL by Mikron Tool Cool

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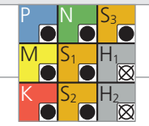
MILLING TOOLS
CRAZYMILL COOL P&S

NEW Type A - Side milling - Semi-finishing

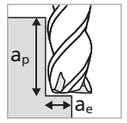
v_c [m/min] | **[SFM]**
f_z [mm] | **[IPT]**

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

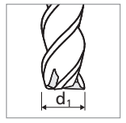


MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Semi-finishing



- $a_p = 1 \times d_1 - 2 \times d_1$
- $a_e = 0.2 \times d_1$



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	1.0 mm | .039"		1/16" 1.5 mm | .059"		3/32" 2.0 mm | .079"		1/8" 3.0 mm | .118"		Ød1 5/32" 4.0 mm | .157"		3/16" - 7/32" 5.0 mm | .197"		1/4" 6.0 mm | .236"		8.0 mm | .315"	
					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	v_c	f_z
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	140 **459**	0.013 **.00051**	200 **656**	0.020 **.00079**	220 **722**	0.029 **.00114**	240 **787**	0.037 **.00146**	260 **853**	0.040 **.00158**	260 **853**	0.040 **.00158**	260 **853**	0.043 **.00169**	260 **853**	0.051 **.00169**
		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	140 **459**	0.012 **.00047**	200 **656**	0.019 **.00075**	220 **722**	0.027 **.00106**	240 **787**	0.035 **.00138**	260 **853**	0.038 **.00150**	260 **853**	0.038 **.00150**	260 **853**	0.041 **.00161**	260 **853**	0.049 **.00193**
		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	140 **459**	0.009 **.00035**	200 **656**	0.017 **.00067**	220 **722**	0.026 **.00102**	240 **787**	0.032 **.00126**	260 **853**	0.034 **.00134**	260 **853**	0.034 **.00134**	260 **853**	0.036 **.00141**	260 **853**	0.043 **.00169**
		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	140 **459**	0.014 **.00055**	200 **656**	0.020 **.00079**	220 **722**	0.029 **.00114**	240 **787**	0.035 **.00138**	260 **853**	0.038 **.00150**	260 **853**	0.038 **.00150**	260 **853**	0.041 **.00161**	260 **853**	0.046 **.00161**
		1.4105	X6CrMoS17	AISI 430F																
	Stainless steel martensitic	1.4034	X46Cr13	AISI 420C	140 **459**	0.013 **.00051**	200 **656**	0.019 **.00075**	220 **722**	0.027 **.00106**	240 **787**	0.035 **.00138**	260 **853**	0.037 **.00146**	260 **853**	0.037 **.00146**	260 **853**	0.039 **.00154**	260 **853**	0.045 **.00177**
		1.4112	X90CrMoV18	AISI 440B																
	Stainless steel martensitic – PH	1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH	140 **459**	0.013 **.00051**	200 **656**	0.019 **.00075**	220 **722**	0.027 **.00106**	240 **787**	0.035 **.00138**	260 **853**	0.037 **.00146**	260 **853**	0.037 **.00146**	260 **853**	0.039 **.00154**	260 **853**	0.045 **.00177**
		1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																
	Stainless steel austenitic	1.4301	X5CrNi18-10	AISI 304	140 **459**	0.010 **.00039**	200 **656**	0.014 **.00055**	220 **722**	0.026 **.00102**	240 **787**	0.032 **.00126**	260 **853**	0.035 **.00138**	260 **853**	0.035 **.00138**	260 **853**	0.037 **.00146**	260 **853**	0.043 **.00146**
		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	120 **394**	0.009 **.00035**	140 **459**	0.020 **.00079**	160 **525**	0.024 **.00095**	180 **591**	0.034 **.00134**	200 **656**	0.040 **.00158**	200 **656**	0.042 **.00165**	200 **656**	0.044 **.00173**	200 **656**	0.052 **.00173**
		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 **459**	0.015 **.00059**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		3.4365	AlZnMgCu1.5	ASTM 7075																
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	140 **459**	0.015 **.00059**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		3.2381	GD-AlSi10Mg	UNS A03590																
	Copper	2.0040	Cu-OF / CW008A	UNS C10100	140 **459**	0.017 **.00067**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		2.0065	Cu-ETP / CW004A	UNS C11000																
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	140 **459**	0.017 **.00067**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		2.0360	CuZn40 CW509L	UNS C28000																
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	140 **459**	0.017 **.00067**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		2.1020	CuSn6	UNS C51900																
	Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	140 **459**	0.015 **.00059**	200 **656**	0.022 **.00087**	220 **722**	0.031 **.00122**	240 **787**	0.046 **.00181**	260 **853**	0.048 **.00189**	260 **853**	0.048 **.00189**	260 **853**	0.051 **.00201**	260 **853**	0.063 **.00248**
		2.0960	CuAl9Mn2	UNS C63200																
S_1	Super alloys	2.4856		Inconel 625	80 **262**	0.006 **.00024**	100 **328**	0.008 **.00032**	100 **328**	0.009 **.00035**	100 **328**	0.012 **.00047**	120 **394**	0.016 **.00063**	120 **394**	0.016 **.00063**	120 **394**	0.017 **.00067**	120 **394**	0.018 **.00071**
		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	120 **394**	0.014 **.00054**	120 **394**	0.017 **.00067**	130 **427**	0.024 **.00095**	130 **427**	0.032 **.00126**	150 **492**	0.035 **.00138**	150 **492**	0.035 **.00138**	150 **492**	0.037 **.00146**	150 **492**	0.040 **.00146**
		3.7065	Gr.4	ASTM B348 / F68																
	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	120 **394**	0.014 **.00054**	120 **394**	0.017 **.00067**	130 **427**	0.024 **.00095**	130 **427**	0.032 **.00126**	150 **492**	0.035 **.00138**	150 **492**	0.035 **.00138**	150 **492**	0.037 **.00146**	150 **492**	0.040 **.00146**
		9.9367	TiAl6Nb7	ASTM F1295																
S_3	CrCo alloys	2.4964	CoCr20W15Ni	Haynes 25	80 **262**	0.006 **.00024**	100 **328**	0.008 **.00032**	100 **328**	0.009 **.00035**	100 **328**	0.012 **.00047**	120 **394**	0.016 **.00063**	120 **394**	0.016 **.00063**	120 **394**	0.017 **.00067**	120 **394**	0.018 **.00071**
			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																