CRAZYMILL™ by Mikron Tool Cool

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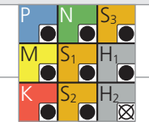
MILLING TOOLS
CRAZYMILL COOL BALL - Z4

NEW

Type M - Semi-finishing

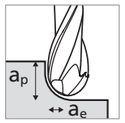
v_c [m/min]
f_z [mm]

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



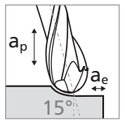
MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Possibility 1
Inclination 0°

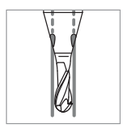


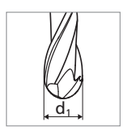
- $a_p = 1 \times d_1$
- $a_e = 0.2 \times d_1$

Possibility 2
Inclination 15°



- $a_p = 0.5 \times d_1$
- $a_e = 0.2 \times d_1$





Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	Ød1 1.0 mm v_c	1.0 mm f_z	1.2 mm v_c	1.2 mm f_z	1.5 mm 1/16" v_c	1.5 mm 1/16" f_z	1.8 mm v_c	1.8 mm f_z	2.0 mm v_c	2.0 mm f_z	2.5 mm 3/32" v_c	2.5 mm 3/32" f_z	3.0 mm 1/8" v_c	3.0 mm 1/8" f_z	4.0 mm 5/32" v_c	4.0 mm 5/32" f_z	5.0 mm 3/16" v_c	5.0 mm 3/16" f_z	6.0 mm – 8.0 mm 7/32 – 1/4" v_c	6.0 mm – 8.0 mm 7/32 – 1/4" f_z
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	140	0.013	140	0.014	200	0.020	200	0.022	220	0.029	220	0.031	240	0.037	260	0.040	260	0.040	260	0.043
		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	0.012	140	0.014	200	0.019	200	0.020	220	0.027	220	0.029	240	0.035	260	0.038	260	0.038	260	0.041
		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	0.009	140	0.011	200	0.017	200	0.019	220	0.026	220	0.027	240	0.032	260	0.034	260	0.034	260	0.036
		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	0.014	140	0.015	200	0.020	200	0.022	220	0.029	220	0.031	240	0.035	260	0.038	260	0.038	260	0.041
		1.4105	X6CrMoS17	AISI 430F																				
	Stainless steel martensitic	1.4034	X46Cr13	AISI 420C	140	0.013	140	0.014	200	0.019	200	0.020	220	0.027	220	0.029	240	0.035	260	0.037	260	0.037	260	0.039
		1.4112	X90CrMoV18	AISI 440B																				
	Stainless steel martensitic – PH	1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH	140	0.013	140	0.014	200	0.019	200	0.020	220	0.027	220	0.029	240	0.035	260	0.037	260	0.037	260	0.039
		1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																				
	Stainless steel austenitic	1.4301	X5CrNi18-10	AISI 304	140	0.010	140	0.012	200	0.014	200	0.015	220	0.026	220	0.027	240	0.032	260	0.035	260	0.035	260	0.037
		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	0.009	120	0.019	140	0.020	140	0.022	160	0.024	160	0.031	180	0.034	200	0.040	200	0.042	200	0.044
		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	0.015	140	0.017	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		3.4365	AlZnMgCu1.5	ASTM 7075																				
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	140	0.015	140	0.017	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		3.2381	GD-AlSi10Mg	UNS A03590																				
	Copper	2.0040	Cu-OF / CW008A	UNS C10100	140	0.017	140	0.019	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		2.0065	Cu-ETP / CW004A	UNS C11000																				
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	140	0.017	140	0.019	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		2.0360	CuZn40 CW509L	UNS C28000																				
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	140	0.017	140	0.019	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		2.1020	CuSn6	UNS C51900																				
	Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	140	0.015	140	0.017	200	0.022	200	0.024	220	0.031	220	0.034	240	0.046	260	0.048	260	0.048	260	0.051
		2.0960	CuAl9Mn2	UNS C63200																				
S_1	Super alloys	2.4856		Inconel 625	120	0.006	120	0.007	130	0.008	130	0.009	140	0.009	140	0.010	150	0.012	170	0.016	170	0.016	170	0.017
		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	0.014	120	0.015	130	0.017	130	0.019	140	0.024	140	0.026	150	0.032	170	0.035	170	0.035	170	0.037
		3.7065	Gr.4	ASTM B348 / F68																				
	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	120	0.014	120	0.015	130	0.017	130	0.019	140	0.024	140	0.026	150	0.032	170	0.035	170	0.035	170	0.037
		9.9367	TiAl6Nb7	ASTM F1295																				
S_3	CrCo alloys	2.4964	CoCr20W15Ni	Haynes 25	140	0.006	140	0.007	180	0.008	180	0.009	200	0.009	200	0.010	220	0.012	240	0.016	240	0.016	240	0.017
			CrCoMo28	ASTM F1537																				
H_1	Hardened steel < 55 HRC	1.2510	100MnCrMoW4	AISI O1	100	0.009	100	0.010	140	0.012	140	0.015	180	0.017	180	0.022	200	0.026	240	0.032	240	0.032	240	0.034
H_2	Hardened steel ≥ 55 HRC	1.2379	X153CrMoV12	AISI D2																				