

Cylindrical end mills Microcut

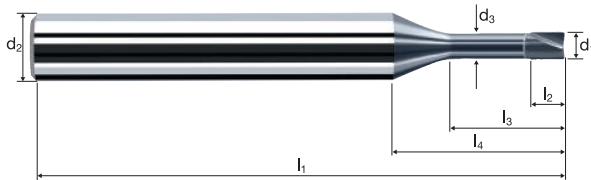
Shank \varnothing 4mm, cylindrical neck, 5xd



HM	λ	0°
XA	γ	0°

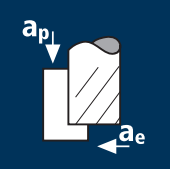










new!



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56	HRC 56-60	Inox Stainless	Ti Titanium	Cobalt-Chrome Gold / Platinum Copper
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Example: Order-N°.											X-AL
											X6804
\varnothing Code	d_1 0/-0.01	d_2 h_4	d_3	l_1	l_2	l_3	l_4	45°	α	z	
020	0.20	4.00	0.18	50	0.16	1.00	11.95	-	9.2°	2	●
030	0.30	4.00	0.25	50	0.24	1.50	12.07	-	8.9°	2	●
040	0.40	4.00	0.35	50	0.32	2.00	12.29	-	8.5°	2	●
050	0.50	4.00	0.45	50	0.40	2.50	9.28	-	10.9°	2	●
060	0.60	4.00	0.55	50	0.48	3.00	9.60	-	10.2°	2	●
080	0.80	4.00	0.75	50	0.64	4.00	10.22	-	9.1°	2	●
100	1.00	4.00	0.95	50	1.20	5.00	10.85	0.04	8.1°	2	●
108	1.20	4.00	1.10	50	1.44	6.00	11.36	0.04	7.2°	2	●
120	1.50	4.00	1.40	50	1.80	7.50	12.30	0.04	6.0°	2	●
140	2.00	4.00	1.90	50	2.40	10.00	13.87	0.07	4.3°	2	●
160	2.50	4.00	2.30	50	3.00	12.50	15.34	0.07	3.0°	2	●
180	3.00	4.00	2.80	50	3.60	15.00	16.91	0.07	1.9°	2	●

Application	Material	d_1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	n [min ⁻¹]	v_f [mm/min]	Q [mm ³ /min]	
	Steel 850 - 1100 N/mm ² 	0.20	2	26	0.001	0.050	0.020	41380	116	0.1	
		0.40	2	53	0.003	0.100	0.040	0.040	42175	236	1.0
		0.50	2	66	0.004	0.250	0.100	0.100	42015	294	7.4
		0.80	2	104	0.006	0.400	0.160	0.160	41380	464	29.7
		1.00	2	104	0.007	0.500	0.200	0.200	33105	464	46.4
		1.50	2	104	0.011	1.050	0.450	0.450	22070	464	219.0
		2.00	2	104	0.014	1.400	0.600	0.600	16550	463	389.3
		2.50	2	104	0.018	1.750	0.750	0.750	13240	463	608.2
		3.00	2	104	0.021	2.100	0.900	0.900	11035	464	876.0
			Steel 1100 - 1300 N/mm ² 	0.20	2	26	0.001	0.050	0.020	41380	99
0.40	2			53	0.002	0.100	0.040	0.040	42175	202	0.8
0.50	2			66	0.003	0.250	0.100	0.100	42015	252	6.3
0.80	2			80	0.005	0.400	0.160	0.160	31830	306	19.6
1.00	2			80	0.006	0.500	0.200	0.200	25465	306	30.6
1.50	2			80	0.009	1.050	0.450	0.450	16975	306	144.4
2.00	2			80	0.012	1.400	0.600	0.600	12730	306	256.6
2.50	2			80	0.015	1.750	0.750	0.750	10185	306	401.1
3.00	2			80	0.018	2.100	0.900	0.900	8490	306	577.6
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571] 			0.20	2	26	0.001	0.050	0.020	41380	83
		0.40	2	53	0.002	0.100	0.040	0.040	42175	169	0.7
		0.50	2	64	0.003	0.250	0.100	0.100	40745	204	5.1
		0.80	2	64	0.004	0.400	0.160	0.160	25465	204	13.1
		1.00	2	64	0.005	0.500	0.200	0.200	20370	204	20.4
		1.50	2	64	0.008	1.050	0.450	0.450	13580	204	96.3
		2.00	2	64	0.010	1.400	0.600	0.600	10185	204	171.1
		2.50	2	64	0.013	1.750	0.750	0.750	8150	204	267.5
		3.00	2	64	0.015	2.100	0.900	0.900	6790	204	385.0
			Titanium alloys > 300 HB [Ti6Al4V] 	0.20	2	26	0.001	0.050	0.020	41380	83
0.40	2			40	0.002	0.100	0.040	0.040	31830	127	0.5
0.50	2			40	0.003	0.250	0.100	0.100	25465	127	3.2
0.80	2			40	0.004	0.400	0.160	0.160	15915	127	8.2
1.00	2			40	0.005	0.500	0.200	0.200	12730	127	12.8
1.50	2			40	0.008	1.050	0.450	0.450	8490	127	60.2
2.00	2			40	0.010	1.400	0.600	0.600	6365	127	107.0
2.50	2			40	0.013	1.750	0.750	0.750	5095	127	167.2
3.00	2			40	0.015	2.100	0.900	0.900	4245	127	240.8

Application	Material	d_1 [mm]	z	v_c [m/min]	f_z [mm]	a_p [mm]	a_e [mm]	n [min ⁻¹]	v_f [mm/min]	Q [mm ³ /min]	
	Steel 850 - 1100 N/mm ² 	0.20	2	26	0.001	0.020	0.200	41380	93	0.4	
		0.40	2	53	0.002	0.040	0.400	0.400	42175	186	3.0
		0.50	2	66	0.003	0.100	0.500	0.500	42015	235	11.8
		0.80	2	88	0.004	0.160	0.800	0.800	35015	314	40.2
		1.00	2	88	0.006	0.200	1.000	1.000	28010	314	62.8
		1.50	2	88	0.008	0.450	1.500	1.500	18675	314	211.8
		2.00	2	88	0.011	0.600	2.000	2.000	14005	314	376.5
		2.50	2	88	0.014	0.750	2.500	2.500	11205	314	588.2
		3.00	2	88	0.017	0.900	3.000	3.000	9335	314	847.0
			Steel 1100 - 1300 N/mm ² 	0.20	2	26	0.001	0.020	0.200	41380	79
0.40	2			53	0.002	0.040	0.400	0.400	42175	160	2.6
0.50	2			66	0.002	0.100	0.500	0.500	42015	202	10.1
0.80	2			68	0.004	0.160	0.800	0.800	27055	208	26.6
1.00	2			68	0.005	0.200	1.000	1.000	21645	208	41.6
1.50	2			68	0.007	0.450	1.500	1.500	14430	208	140.3
2.00	2			68	0.010	0.600	2.000	2.000	10825	208	249.4
2.50	2			68	0.012	0.750	2.500	2.500	8660	208	389.7
3.00	2			68	0.014	0.900	3.000	3.000	7215	208	561.1
	Inox normal [Cr-Ni/1.4301] [Cr-Ni-Mo/1.4571] 			0.20	2	26	0.001	0.020	0.200	41380	66
		0.40	2	53	0.002	0.040	0.400	0.400	42175	135	2.2
		0.50	2	54	0.002	0.100	0.500	0.500	34375	138	6.9
		0.80	2	54	0.003	0.160	0.800	0.800	21485	138	17.6
		1.00	2	54	0.004	0.200	1.000	1.000	17190	138	27.5
		1.50	2	54	0.006	0.450	1.500	1.500	11460	138	92.8
		2.00	2	54	0.008	0.600	2.000	2.000	8595	138	165.0
		2.50	2	54	0.010	0.750	2.500	2.500	6875	138	257.8
		3.00	2	54	0.012	0.900	3.000	3.000	5730	138	371.3
			Titanium alloys > 300 HB [Ti6Al4V] 	0.20	2	26	0.001	0.020	0.200	41380	66
0.40	2			34	0.002	0.040	0.400	0.400	27055	87	1.4
0.50	2			34	0.002	0.100	0.500	0.500	21645	87	4.4
0.80	2			34	0.003	0.160	0.800	0.800	13530	87	11.1
1.00	2			34	0.004	0.200	1.000	1.000	10825	87	17.3
1.50	2			34	0.006	0.450	1.500	1.500	7215	87	58.5
2.00	2			34	0.008	0.600	2.000	2.000	5410	87	103.9
2.50	2			34	0.010	0.750	2.500	2.500	4330	87	162.4
3.00	2			34	0.012	0.900	3.000	3.000	3610	87	233.8