

# Cylindrical end mills E-Cut Alu

Smooth-edged, normal version, short neck

Base-X  
**B**

$$l_2 = 2.2 \times d_1$$

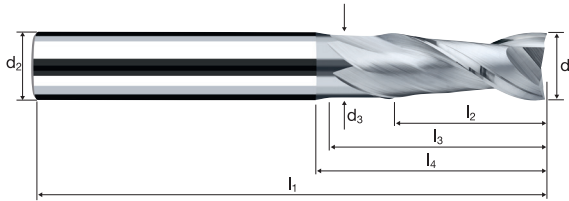
$$l_3 = 3.0 \times d_1$$

**new!**

**HM MG10**  $\lambda$  **34°**  
 $\gamma$  **24°**

**90°** **G 2.5**

**Vario**



Roughing

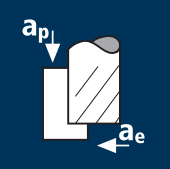









Finishing



**ReTool®**

Al Aluminium > 99% | Al Aluminium Alloy | Al Aluminium Cast | Cu Copper | Plastic Thermoplast

Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h5	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	α	z	Example: Order-N°.	
										Coating	Article-N°.
										<b>8661</b>	
										<b>8561</b>	
<b>100</b>	1.00	6.00	0.95	50	2.20	3.00	8.41	16.8°	2	●	
<b>140</b>	2.00	6.00	1.90	51	4.40	6.00	10.18	11.4°	2	●	
<b>180</b>	3.00	6.00	2.80	54	6.60	9.00	12.33	7.2°	2	●	
<b>220</b>	4.00	6.00	3.70	54	9.00	12.00	14.54	4.2°	2	●	
<b>260</b>	5.00	6.00	4.60	57	11.00	15.00	16.72	2.0°	2	●	
<b>300</b>	6.00	6.00	5.50	57	13.50	18.00	19.85	0.0°	2	●	
<b>391</b>	8.00	8.00	7.40	63	18.00	24.00	26.37	0.0°	2	●	
<b>450</b>	10.00	10.00	9.20	74	22.00	30.00	33.01	0.0°	2	●	

Application	Material	$d_1$ [mm]	$z$	$v_c$ [m/min]	$f_z$ [mm]	$a_p$ [mm]	$a_e$ [mm]	$n$ [min <sup>-1</sup> ]	$v_f$ [mm/min]	$Q$ [cm <sup>3</sup> /min]		
	Wrought aluminium Construction aluminium 	1.00	2	132	0.020	1.500	0.650	42000	1680	1.6		
		2.00	2	264	0.040	3.000	1.300	42000	3360	13.1		
		3.00	2	396	0.060	4.500	1.950	42000	5040	44.2		
		4.00	2	500	0.080	6.000	2.600	39790	6366	99.3		
		5.00	2	500	0.100	7.500	3.250	31830	6366	155.2		
		6.00	2	500	0.120	9.000	3.900	26525	6366	223.4		
		8.00	2	500	0.160	12.000	5.200	19895	6366	397.3		
		10.00	2	500	0.200	15.000	6.500	15915	6366	620.7		
			Unalloyed copper	1.00	2	132	0.014	1.500	0.650	42000	1176	1.1
				2.00	2	264	0.028	3.000	1.300	42000	2352	9.2
3.00	2			350	0.042	4.500	1.950	37135	3119	27.4		
4.00	2			350	0.056	6.000	2.600	27850	3119	48.7		
5.00	2			350	0.070	7.500	3.250	22280	3119	76.0		
6.00	2			350	0.084	9.000	3.900	18570	3120	109.5		
8.00	2			350	0.112	12.000	5.200	13925	3119	194.6		
10.00	2			350	0.140	15.000	6.500	11140	3119	304.1		
	Thermoplastics			1.00	2	132	0.024	1.500	0.650	42000	2016	2.0
				2.00	2	264	0.048	3.000	1.300	42000	4032	15.7
		3.00	2	396	0.072	4.500	1.950	42000	6048	53.1		
		4.00	2	500	0.096	6.000	2.600	39790	7640	119.2		
		5.00	2	500	0.120	7.500	3.250	31830	7639	186.2		
		6.00	2	500	0.144	9.000	3.900	26525	7639	268.1		
		8.00	2	500	0.192	12.000	5.200	19895	7640	476.7		
		10.00	2	500	0.240	15.000	6.500	15915	7639	744.8		
			Cast aluminium	1.00	2	132	0.020	1.500	0.650	42000	1680	1.6
				2.00	2	264	0.040	3.000	1.300	42000	3360	13.1
3.00	2			396	0.060	4.500	1.950	42000	5040	44.2		
4.00	2			400	0.080	6.000	2.600	31830	5093	79.4		
5.00	2			400	0.100	7.500	3.250	25465	5093	124.1		
6.00	2			400	0.120	9.000	3.900	21220	5093	178.8		
8.00	2			400	0.160	12.000	5.200	15915	5093	317.8		
10.00	2			400	0.200	15.000	6.500	12730	5092	496.5		
	Wrought aluminium Construction aluminium 			1.00	2	132	0.016	1.500	1.000	42000	1344	2.0
				2.00	2	264	0.032	3.000	2.000	42000	2688	16.1
		3.00	2	396	0.048	4.500	3.000	42000	4032	54.4		
		4.00	2	425	0.064	6.000	4.000	33820	4329	103.9		
		5.00	2	425	0.080	7.500	5.000	27055	4329	162.3		
		6.00	2	425	0.096	9.000	6.000	22545	4329	233.7		
		8.00	2	425	0.128	12.000	8.000	16910	4329	415.6		
		10.00	2	425	0.160	15.000	10.000	13530	4330	649.4		
			Unalloyed copper	1.00	2	132	0.011	1.500	1.000	42000	941	1.4
				2.00	2	264	0.022	3.000	2.000	42000	1882	11.3
3.00	2			300	0.034	4.500	3.000	31830	2139	28.9		
4.00	2			300	0.045	6.000	4.000	23875	2139	51.3		
5.00	2			300	0.056	7.500	5.000	19100	2139	80.2		
6.00	2			300	0.067	9.000	6.000	15915	2139	115.5		
8.00	2			300	0.090	12.000	8.000	11935	2139	205.3		
10.00	2			300	0.112	15.000	10.000	9550	2139	320.9		
	Thermoplastics			1.00	2	132	0.019	1.500	1.000	42000	1613	2.4
				2.00	2	264	0.038	3.000	2.000	42000	3226	19.4
		3.00	2	396	0.058	4.500	3.000	42000	4838	65.3		
		4.00	2	425	0.077	6.000	4.000	33820	5195	124.7		
		5.00	2	425	0.096	7.500	5.000	27055	5195	194.8		
		6.00	2	425	0.115	9.000	6.000	22545	5194	280.5		
		8.00	2	425	0.154	12.000	8.000	16910	5195	498.7		
		10.00	2	425	0.192	15.000	10.000	13530	5196	779.3		
			Cast aluminium	1.00	2	132	0.016	1.500	1.000	42000	1344	2.0
				2.00	2	264	0.032	3.000	2.000	42000	2688	16.1
3.00	2			396	0.048	4.500	3.000	42000	4032	54.4		
4.00	2			340	0.064	6.000	4.000	27055	3463	83.1		
5.00	2			340	0.080	7.500	5.000	21645	3463	129.9		
6.00	2			340	0.096	9.000	6.000	18040	3464	187.0		
8.00	2			340	0.128	12.000	8.000	13530	3464	332.5		
10.00	2			340	0.160	15.000	10.000	10825	3464	519.6		