

# Corner radius end mills E-Cut Alu

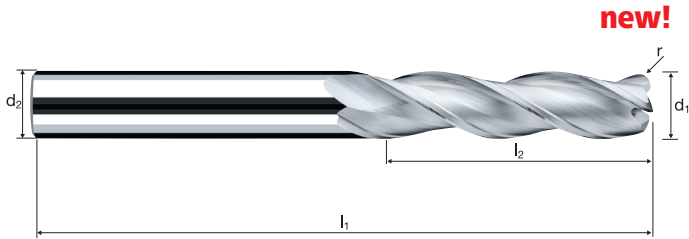
Smooth-edged, medium length version



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

**G2.5**

**Vario**



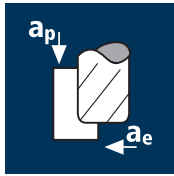
**Roughing HPC** **Roughing HDC** **Finishing**



Material compatibility: **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	Coating		Article-N°		ø-Code		l <sub>4</sub>	r 0/+0.03	α	z	Order-N°	
			8576	178	8676	8576								
<b>178</b>	3.00	6.00	57	11.10	17.05	0.200	5.3°	3	●					
<b>218</b>	4.00	6.00	60	15.00	21.04	0.200	3.0°	3	●					
<b>258</b>	5.00	6.00	63	18.50	24.37	0.200	1.4°	3	●					
<b>180</b>	3.00	6.00	57	11.10	17.05	0.500	5.3°	3	●					
<b>220</b>	4.00	6.00	60	15.00	21.04	0.500	3.0°	3	●					
<b>260</b>	5.00	6.00	63	18.50	24.37	0.500	1.4°	3	●					
<b>300</b>	6.00	6.00	65	22.50	-	0.500	0.0°	3	●					
<b>388</b>	8.00	8.00	76	30.00	-	0.500	0.0°	3	●					
<b>448</b>	10.00	10.00	90	37.00	-	0.500	0.0°	3	●					
<b>302</b>	6.00	6.00	65	22.50	-	1.000	0.0°	3	●					
<b>391</b>	8.00	8.00	76	30.00	-	1.000	0.0°	3	●					
<b>450</b>	10.00	10.00	90	37.00	-	1.000	0.0°	3	●					
<b>501</b>	12.00	12.00	105	45.00	-	1.000	0.0°	3	●					
<b>608</b>	16.00	16.00	125	60.00	-	1.000	0.0°	3	●					
<b>455</b>	10.00	10.00	90	37.00	-	2.000	0.0°	3	●					
<b>505</b>	12.00	12.00	105	45.00	-	2.000	0.0°	3	●					
<b>611</b>	16.00	16.00	125	60.00	-	2.000	0.0°	3	●					
<b>683</b>	20.00	20.00	145	74.00	-	2.000	0.0°	3	●					

## Application



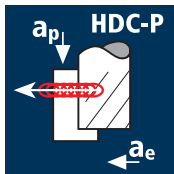
## Material

Wrought aluminium  
Construction aluminium

Unalloyed copper

Thermoplastics

Cast aluminium



Wrought aluminium  
Construction aluminium

Unalloyed copper

Thermoplastics

Cast aluminium

$d_1$ [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]
3.00	3	396	0.042	4.500	1.350	42000	5292	32.1
4.00	3	475	0.056	6.000	1.800	37800	6350	68.6
5.00	3	475	0.070	7.500	2.250	30240	6350	107.2
6.00	3	475	0.084	9.000	2.700	25200	6350	154.3
8.00	3	475	0.112	12.000	3.600	18900	6350	274.3
10.00	3	475	0.140	15.000	4.500	15120	6350	428.7
12.00	3	475	0.168	18.000	5.400	12600	6350	617.3
16.00	3	475	0.179	24.000	7.200	9450	5080	877.9
20.00	3	475	0.210	30.000	9.000	7560	4763	1286.0
3.00	3	355	0.032	4.500	1.350	37665	3559	21.6
4.00	3	355	0.042	6.000	1.800	28250	3560	38.4
5.00	3	355	0.053	7.500	2.250	22600	3560	60.1
6.00	3	355	0.063	9.000	2.700	18835	3560	86.5
8.00	3	355	0.084	12.000	3.600	14125	3560	153.8
10.00	3	355	0.105	15.000	4.500	11300	3560	240.3
12.00	3	355	0.126	18.000	5.400	9415	3559	345.9
16.00	3	355	0.134	24.000	7.200	7065	2849	492.2
20.00	3	355	0.158	30.000	9.000	5650	2670	720.8
3.00	3	396	0.050	4.500	1.350	42000	6350	38.6
4.00	3	475	0.067	6.000	1.800	37800	7621	82.3
5.00	3	475	0.084	7.500	2.250	30240	7621	128.6
6.00	3	475	0.101	9.000	2.700	25200	7621	185.2
8.00	3	475	0.134	12.000	3.600	18900	7621	329.2
10.00	3	475	0.168	15.000	4.500	15120	7621	514.4
12.00	3	475	0.202	18.000	5.400	12600	7621	740.7
16.00	3	475	0.215	24.000	7.200	9450	6096	1053.5
20.00	3	475	0.252	30.000	9.000	7560	5715	1543.2
3.00	3	380	0.042	4.500	1.350	40320	5080	30.9
4.00	3	380	0.056	6.000	1.800	30240	5080	54.9
5.00	3	380	0.070	7.500	2.250	24190	5080	85.7
6.00	3	380	0.084	9.000	2.700	20160	5080	123.5
8.00	3	380	0.112	12.000	3.600	15120	5080	219.5
10.00	3	380	0.140	15.000	4.500	12095	5080	342.9
12.00	3	380	0.168	18.000	5.400	10080	5080	493.8
16.00	3	380	0.179	24.000	7.200	7560	4064	702.3
20.00	3	380	0.210	30.000	9.000	6050	3812	1029.1
3.00	3	375	0.052	11.100	0.750	39790	6207	51.7
4.00	3	375	0.070	15.000	1.000	29840	6266	94.0
5.00	3	375	0.087	18.500	1.250	23875	6231	144.1
6.00	3	375	0.104	22.500	1.500	19895	6207	209.5
8.00	3	375	0.139	30.000	2.000	14920	6222	373.3
10.00	3	375	0.174	37.000	2.500	11935	6230	576.3
12.00	3	375	0.209	44.500	3.000	9945	6236	832.4
16.00	3	375	0.222	60.000	4.000	7460	4968	1192.4
20.00	3	375	0.261	74.000	5.000	5970	4675	1729.6
3.00	3	284	0.039	11.100	0.750	30135	3526	29.4
4.00	3	284	0.052	15.000	1.000	22600	3526	52.9
5.00	3	284	0.065	18.500	1.250	18080	3526	81.5
6.00	3	284	0.078	22.500	1.500	15065	3525	119.0
8.00	3	284	0.104	30.000	2.000	11300	3526	211.5
10.00	3	284	0.130	37.000	2.500	9040	3526	326.1
12.00	3	284	0.156	44.500	3.000	7535	3526	470.8
16.00	3	284	0.166	60.000	4.000	5650	2814	675.3
20.00	3	284	0.195	74.000	5.000	4520	2644	978.4
3.00	3	375	0.062	11.100	0.750	39790	7401	61.6
4.00	3	375	0.083	15.000	1.000	29840	7430	111.5
5.00	3	375	0.104	18.500	1.250	23875	7449	172.3
6.00	3	375	0.125	22.500	1.500	19895	7461	251.8
8.00	3	375	0.166	30.000	2.000	14920	7430	445.8
10.00	3	375	0.208	37.000	2.500	11935	7447	688.9
12.00	3	375	0.249	44.500	3.000	9945	7429	991.8
16.00	3	375	0.266	60.000	4.000	7460	5953	1428.7
20.00	3	375	0.311	74.000	5.000	5970	5570	2060.9
3.00	3	301	0.052	11.100	0.750	31935	4982	41.5
4.00	3	301	0.070	15.000	1.000	23955	5031	75.5
5.00	3	301	0.087	18.500	1.250	19160	5001	115.6
6.00	3	301	0.104	22.500	1.500	15970	4983	168.2
8.00	3	301	0.139	30.000	2.000	11975	4994	299.6
10.00	3	301	0.174	37.000	2.500	9580	5001	462.6
12.00	3	301	0.209	44.500	3.000	7985	5007	668.4
16.00	3	301	0.222	60.000	4.000	5990	3989	957.4
20.00	3	301	0.261	74.000	5.000	4790	3751	1387.7

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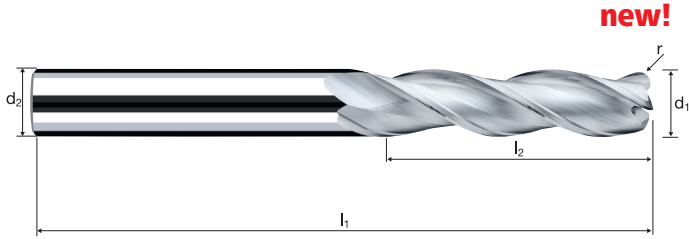
Smooth-edged, medium length version

Base-X  
**B**  
 $l_2 = 3.7 \times d_1$

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

**G 2.5**

**Vario**

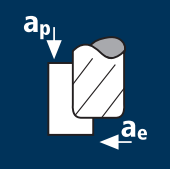



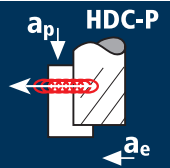





**Roughing HPC** **Roughing HDC** **Finishing**

**ReTool®**

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

Example: Order-N°.											
		Coating		Article-N°.		ø-Code					
				<b>8576</b>		<b>507</b>				<b>8676</b>	
										<b>8576</b>	
Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h5	l <sub>1</sub>	l <sub>2</sub>	l <sub>4</sub>	r 0/+0.03	α	z			
507	12.00	12.00	105	45.00	-	3.000	0.0°	3	●		
613	16.00	16.00	125	60.00	-	3.000	0.0°	3	●		
685	20.00	20.00	145	74.00	-	3.000	0.0°	3	●		

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	12.00	3	475	0.168	18.000	5.400	12600	6350	617.3
		16.00	3	475	0.179	24.000	7.200	9450	5080	877.9
		20.00	3	475	0.210	30.000	9.000	7560	4763	1286.0
	Unalloyed copper	12.00	3	355	0.126	18.000	5.400	9415	3559	345.9
		16.00	3	355	0.134	24.000	7.200	7065	2849	492.2
		20.00	3	355	0.158	30.000	9.000	5650	2670	720.8
		Thermoplastics	12.00	3	475	0.202	18.000	5.400	12600	7621
		16.00	3	475	0.215	24.000	7.200	9450	6096	1053.5
		20.00	3	475	0.252	30.000	9.000	7560	5715	1543.2
		Cast aluminium	12.00	3	380	0.168	18.000	5.400	10080	5080
		16.00	3	380	0.179	24.000	7.200	7560	4064	702.3
		20.00	3	380	0.210	30.000	9.000	6050	3812	1029.1
		Wrought aluminium Construction aluminium	12.00	3	375	0.209	44.500	3.000	9945	6236
		16.00	3	375	0.222	60.000	4.000	7460	4968	1192.4
		20.00	3	375	0.261	74.000	5.000	5970	4675	1729.6
		Unalloyed copper	12.00	3	284	0.156	44.500	3.000	7535	3526
		16.00	3	284	0.166	60.000	4.000	5650	2814	675.3
		20.00	3	284	0.195	74.000	5.000	4520	2644	978.4
		Thermoplastics	12.00	3	375	0.249	44.500	3.000	9945	7429
		16.00	3	375	0.266	60.000	4.000	7460	5953	1428.7
		20.00	3	375	0.311	74.000	5.000	5970	5570	2060.9
		Cast aluminium	12.00	3	301	0.209	44.500	3.000	7985	5007
		16.00	3	301	0.222	60.000	4.000	5990	3989	957.4
		20.00	3	301	0.261	74.000	5.000	4790	3751	1387.7