

# Cylindrical end mills AX (AX-NV3)

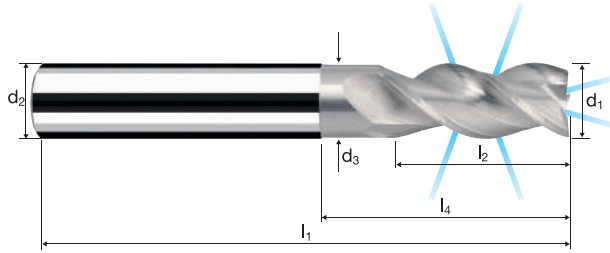
Smooth-edged, normal version with short neck, with integral cooling channel



**HM**  $\lambda$  40°  
**MG10**  $\gamma$  20°

90°

Vario



**Roughing** **Finishing**

Rm < 850

Al Aluminium > 99%

Al Aluminium Alloy

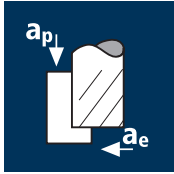
Al Aluminium Cast

Cu Copper

Plastic Thermoplast

Ø Code	d <sub>1</sub> e8	d <sub>2</sub> h6	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	z	CELERO	
									15635	C15635
300	6.00	6.00	5.50	57	13.00	19.34	20.00	3	●	●
391	8.00	8.00	7.40	63	19.00	25.29	26.00	3	●	●
450	10.00	10.00	9.20	72	22.00	30.20	31.00	3	●	●
501	12.00	12.00	11.00	83	26.00	36.13	37.00	3	●	●
610	16.00	16.00	15.00	92	32.00	42.13	43.00	3	●	●
682	20.00	20.00	19.00	104	38.00	52.13	53.00	3	●	●

## Application



## Material

Wrought aluminium  
Construction aluminium



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>t</sub> [mm]	a <sub>p</sub> [mm]	a <sub>e</sub> [mm]	n [min <sup>-1</sup> ]	v <sub>r</sub> [mm/min]	Q [cm <sup>3</sup> /min]
6.00	3	650	0.060	9.000	2.400	34485	6205	134.1
8.00	3	650	0.075	12.000	3.200	25865	5820	223.5
10.00	3	650	0.090	15.000	4.000	20690	5585	335.2
12.00	3	650	0.110	18.000	4.800	17240	5690	491.6
16.00	3	650	0.120	24.000	6.400	12930	4655	715.1
20.00	3	650	0.140	30.000	8.000	10345	4345	1042.8

Unalloyed copper



6.00	3	500	0.050	9.000	2.400	26525	3980	85.9
8.00	3	500	0.060	12.000	3.200	19895	3580	137.5
10.00	3	500	0.070	15.000	4.000	15915	3340	200.5
12.00	3	500	0.090	18.000	4.800	13265	3580	309.4
16.00	3	500	0.095	24.000	6.400	9945	2835	435.4
20.00	3	500	0.110	30.000	8.000	7960	2625	630.3

Thermoplastics

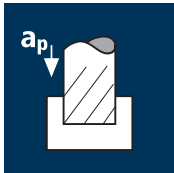


6.00	3	792	0.060	9.000	2.400	42015	7565	163.4
8.00	3	1056	0.075	12.000	3.200	42015	9455	363.0
10.00	3	1200	0.090	15.000	4.000	38195	10315	618.8
12.00	3	1200	0.110	18.000	4.800	31830	10505	907.6
16.00	3	1200	0.120	24.000	6.400	23875	8595	1320.1
20.00	3	1200	0.140	30.000	8.000	19100	8020	1925.1

Cast aluminium



6.00	3	520	0.060	9.000	2.400	27585	4965	107.3
8.00	3	520	0.075	12.000	3.200	20690	4655	178.8
10.00	3	520	0.090	15.000	4.000	16550	4470	268.1
12.00	3	520	0.110	18.000	4.800	13795	4550	393.3
16.00	3	520	0.120	24.000	6.400	10345	3725	572.0
20.00	3	520	0.140	30.000	8.000	8275	3475	834.2



Wrought aluminium  
Construction aluminium



6.00	3	550	0.040	3.000	6.000	29180	3500	63.0
8.00	3	550	0.050	4.000	8.000	21885	3285	105.0
10.00	3	550	0.065	5.000	10.000	17505	3415	170.7
12.00	3	550	0.075	6.000	12.000	14590	3285	236.3
16.00	3	550	0.085	8.000	16.000	10940	2790	357.1
20.00	3	550	0.095	10.000	20.000	8755	2495	499.0

Unalloyed copper



6.00	3	450	0.035	3.000	6.000	23875	2505	45.1
8.00	3	450	0.040	4.000	8.000	17905	2150	68.8
10.00	3	450	0.050	5.000	10.000	14325	2150	107.4
12.00	3	450	0.060	6.000	12.000	11935	2150	154.7
16.00	3	450	0.065	8.000	16.000	8950	1745	223.5
20.00	3	450	0.075	10.000	20.000	7160	1610	322.3

Thermoplastics



6.00	3	792	0.040	3.000	6.000	42015	5040	90.8
8.00	3	1000	0.050	4.000	8.000	39790	5970	191.0
10.00	3	1000	0.065	5.000	10.000	31830	6205	310.4
12.00	3	1000	0.075	6.000	12.000	26525	5970	429.7
16.00	3	1000	0.085	8.000	16.000	19895	5075	649.4
20.00	3	1000	0.095	10.000	20.000	15915	4535	907.2

Cast aluminium



6.00	3	440	0.040	3.000	6.000	23345	2800	50.4
8.00	3	440	0.050	4.000	8.000	17505	2625	84.0
10.00	3	440	0.065	5.000	10.000	14005	2730	136.6
12.00	3	440	0.075	6.000	12.000	11670	2625	189.1
16.00	3	440	0.085	8.000	16.000	8755	2230	285.7
20.00	3	440	0.095	10.000	20.000	7005	1995	399.2