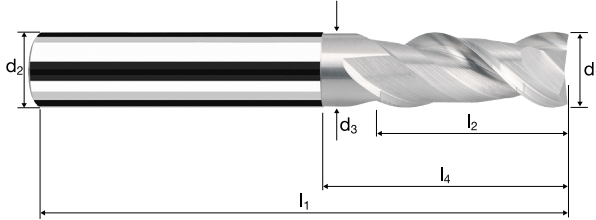
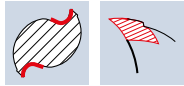
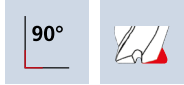


# Cylindrical end mills AX-NV2

Smooth-edged, normal version with short neck



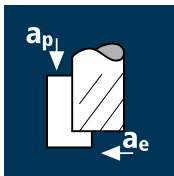
**HM**  
**MG10**     $\lambda$  40°  
                   $\gamma$  20°



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>	α	z	CELERO	
										15620	C15620
										15520	C15520
140	2.00	6.00	1.90	57	7.00	10.00	18.31	7.0°	2	●	●
180	3.00	6.00	2.80	57	8.00	14.00	20.63	4.5°	2	●	●
220	4.00	6.00	3.70	57	11.00	16.00	20.95	3.0°	2	●	●
260	5.00	6.00	4.60	57	13.00	18.00	21.27	1.5°	2	●	●
300	6.00	6.00	5.50	57	13.00	19.34	20.00	0.0°	2	●	●
391	8.00	8.00	7.40	63	19.00	25.29	26.00	0.0°	2	●	●
450	10.00	10.00	9.20	72	22.00	30.20	31.00	0.0°	2	●	●
501	12.00	12.00	11.00	83	26.00	36.13	37.00	0.0°	2	●	●
610	16.00	16.00	15.00	92	32.00	42.13	43.00	0.0°	2	●	●
682	20.00	20.00	19.00	104	38.00	52.13	53.00	0.0°	2	●	●

## Application



## Material

Wrought aluminium  
Si < 6%



d1 [mm]	z	v <sub>c</sub> [m/min]	f <sub>z</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]
3.00	2	396	0.055	4.500	1.800	42015	4620	37.4
4.00	2	528	0.075	6.000	2.400	42015	6305	90.8
5.00	2	550	0.090	7.500	3.000	35015	6305	141.8
6.00	2	550	0.120	9.000	3.600	29180	7005	226.9
8.00	2	550	0.160	12.000	4.800	21885	7005	403.4
10.00	2	550	0.200	15.000	6.000	17505	7005	630.3
12.00	2	550	0.220	18.000	7.200	14590	6420	831.9
16.00	2	550	0.245	24.000	9.600	10940	5360	1235.3
20.00	2	550	0.285	30.000	12.000	8755	4990	1796.2

Unalloyed copper



3.00	2	396	0.030	4.500	1.800	42015	2520	20.4
4.00	2	400	0.060	6.000	2.400	31830	3820	55.0
5.00	2	400	0.070	7.500	3.000	25465	3565	80.2
6.00	2	400	0.095	9.000	3.600	21220	4030	130.6
8.00	2	400	0.130	12.000	4.800	15915	4140	238.4
10.00	2	400	0.160	15.000	6.000	12730	4075	366.7
12.00	2	400	0.175	18.000	7.200	10610	3715	481.3
16.00	2	400	0.195	24.000	9.600	7960	3105	715.1
20.00	2	400	0.230	30.000	12.000	6365	2930	1054.2

Thermoplastics

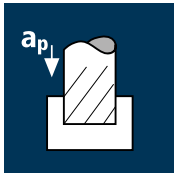


3.00	2	396	0.035	4.500	1.800	42015	2940	23.8
4.00	2	528	0.075	6.000	2.400	42015	6305	90.8
5.00	2	660	0.090	7.500	3.000	42015	7565	170.2
6.00	2	792	0.120	9.000	3.600	42015	10085	326.7
8.00	2	1000	0.160	12.000	4.800	39790	12730	733.4
10.00	2	1000	0.200	15.000	6.000	31830	12730	1145.9
12.00	2	1000	0.220	18.000	7.200	26525	11670	1512.6
16.00	2	1000	0.245	24.000	9.600	19895	9750	2246.0
20.00	2	1000	0.285	30.000	12.000	15915	9070	3265.9

Cast aluminium  
Si 6% - 15%



3.00	2	396	0.055	4.500	1.800	42015	4620	37.4
4.00	2	440	0.075	6.000	2.400	35015	5250	75.6
5.00	2	440	0.090	7.500	3.000	28010	5040	113.4
6.00	2	440	0.120	9.000	3.600	23345	5600	181.5
8.00	2	440	0.160	12.000	4.800	17505	5600	322.7
10.00	2	440	0.200	15.000	6.000	14005	5600	504.2
12.00	2	440	0.220	18.000	7.200	11670	5135	665.5
16.00	2	440	0.245	24.000	9.600	8755	4290	988.2
20.00	2	440	0.285	30.000	12.000	7005	3990	1437.0



Wrought aluminium  
Si 6% - 15%



3.00	2	396	0.025	3.000	3.000	42015	2100	18.9
4.00	2	450	0.055	4.000	4.000	35810	3940	63.0
5.00	2	450	0.065	5.000	5.000	28650	3725	93.1
6.00	2	450	0.085	6.000	6.000	23875	4060	146.1
8.00	2	450	0.110	8.000	8.000	17905	3940	252.1
10.00	2	450	0.140	10.000	10.000	14325	4010	401.1
12.00	2	450	0.155	12.000	12.000	11935	3700	532.9
16.00	2	450	0.170	16.000	16.000	8950	3045	779.2
20.00	2	450	0.200	20.000	20.000	7160	2865	1145.9

Unalloyed copper



3.00	2	350	0.020	3.000	3.000	37135	1485	13.4
4.00	2	350	0.045	4.000	4.000	27850	2505	40.1
5.00	2	350	0.050	5.000	5.000	22280	2230	55.7
6.00	2	350	0.070	6.000	6.000	18570	2600	93.6
8.00	2	350	0.090	8.000	8.000	13925	2505	160.4
10.00	2	350	0.110	10.000	10.000	11140	2450	245.1
12.00	2	350	0.125	12.000	12.000	9285	2320	334.2
16.00	2	350	0.135	16.000	16.000	6965	1880	481.3
20.00	2	350	0.160	20.000	20.000	5570	1785	713.0

Thermoplastics



3.00	2	396	0.025	3.000	3.000	42015	2100	18.9
4.00	2	528	0.055	4.000	4.000	42015	4620	73.9
5.00	2	660	0.065	5.000	5.000	42015	5460	136.6
6.00	2	792	0.085	6.000	6.000	42015	7145	257.1
8.00	2	800	0.110	8.000	8.000	31830	7005	448.2
10.00	2	800	0.140	10.000	10.000	25465	7130	713.0
12.00	2	800	0.155	12.000	12.000	21220	6580	947.3
16.00	2	800	0.170	16.000	16.000	15915	5410	1385.3
20.00	2	800	0.200	20.000	20.000	12730	5095	2037.2

Cast aluminium  
Si 6% - 15%



3.00	2	360	0.025	3.000	3.000	38195	1910	17.2
4.00	2	360	0.055	4.000	4.000	28650	3150	50.4
5.00	2	360	0.065	5.000	5.000	22920	2980	74.5
6.00	2	360	0.085	6.000	6.000	19100	3245	116.9
8.00	2	360	0.110	8.000	8.000	14325	3150	201.7
10.00	2	360	0.140	10.000	10.000	11460	3210	320.9
12.00	2	360	0.155	12.000	12.000	9550	2960	426.3
16.00	2	360	0.170	16.000	16.000	7160	2435	623.4
20.00	2	360	0.200	20.000	20.000	5730	2290	916.7