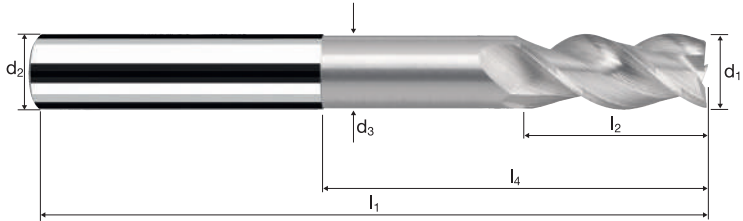
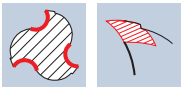
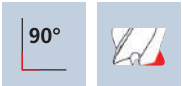


Cylindrical end mills AX

Smooth-edged, long version, neck



HM
MG10 λ 40°
 γ 20°

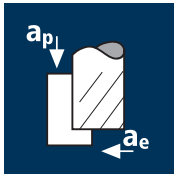


Roughing Finishing

Rm < 850 Al Aluminium > 99% Al Aluminium Alloy Al Aluminium Cast Cu Copper Plastic Thermoplast

| Example: Order-N°. | | Coating C | | Article-N° 15559 | | ø-Code 300 | | | | CELERO | |
|-----------------------|----------------------|----------------------|----------------|---------------------|----------------|----------------|----------------|---|---|--------|--------|
| | | | | | | | | | | 15659 | C15659 |
| | | | | | | | | | | 15559 | C15559 |
| Ø Code | d ₁ e8 | d ₂ h6 | d ₃ | l ₁ | l ₂ | l ₃ | l ₄ | z | | | |
| 300 | 6.00 | 6.00 | 5.50 | 70 | 13.00 | 32.34 | 33.00 | 3 | ● | | ● |
| 391 | 8.00 | 8.00 | 7.40 | 80 | 19.00 | 42.29 | 43.00 | 3 | ● | | ● |
| 450 | 10.00 | 10.00 | 9.20 | 100 | 22.00 | 58.20 | 59.00 | 3 | ● | | ● |
| 501 | 12.00 | 12.00 | 11.00 | 110 | 26.00 | 63.13 | 64.00 | 3 | ● | | ● |
| 610 | 16.00 | 16.00 | 15.00 | 123 | 32.00 | 73.13 | 74.00 | 3 | ● | | ● |
| 682 | 20.00 | 20.00 | 19.00 | 141 | 38.00 | 89.13 | 90.00 | 3 | ● | | ● |
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Application



Material

Wrought aluminium
Construction aluminium



| d1 [mm] | z | v _r [m/min] | f _s [mm] | a _p [mm] | a _e [mm] | n [min ⁻¹] | v _r [mm/min] | Q [cm ³ /min] |
|------------|---|---------------------------|------------------------|------------------------|------------------------|---------------------------|----------------------------|-----------------------------|
| 6.00 | 3 | 550 | 0.085 | 9.000 | 1.500 | 29180 | 7440 | 100.4 |
| 8.00 | 3 | 550 | 0.105 | 12.000 | 2.000 | 21885 | 6895 | 165.4 |
| 10.00 | 3 | 550 | 0.135 | 15.000 | 2.500 | 17505 | 7090 | 265.9 |
| 12.00 | 3 | 550 | 0.160 | 18.000 | 3.000 | 14590 | 7005 | 378.2 |
| 16.00 | 3 | 550 | 0.170 | 24.000 | 4.000 | 10940 | 5580 | 535.7 |
| 20.00 | 3 | 550 | 0.200 | 30.000 | 5.000 | 8755 | 5250 | 787.8 |

Unalloyed copper



| | | | | | | | | |
|-------|---|-----|-------|--------|-------|-------|------|-------|
| 6.00 | 3 | 400 | 0.070 | 9.000 | 1.500 | 21220 | 4455 | 60.2 |
| 8.00 | 3 | 400 | 0.085 | 12.000 | 2.000 | 15915 | 4060 | 97.4 |
| 10.00 | 3 | 400 | 0.110 | 15.000 | 2.500 | 12730 | 4200 | 157.6 |
| 12.00 | 3 | 400 | 0.130 | 18.000 | 3.000 | 10610 | 4140 | 223.5 |
| 16.00 | 3 | 400 | 0.135 | 24.000 | 4.000 | 7960 | 3225 | 309.4 |
| 20.00 | 3 | 400 | 0.160 | 30.000 | 5.000 | 6365 | 3055 | 458.4 |

Thermoplastics



| | | | | | | | | |
|-------|---|------|-------|--------|-------|-------|-------|--------|
| 6.00 | 3 | 792 | 0.085 | 9.000 | 1.500 | 42015 | 10715 | 144.6 |
| 8.00 | 3 | 1000 | 0.105 | 12.000 | 2.000 | 39790 | 12535 | 300.8 |
| 10.00 | 3 | 1000 | 0.135 | 15.000 | 2.500 | 31830 | 12890 | 483.4 |
| 12.00 | 3 | 1000 | 0.160 | 18.000 | 3.000 | 26525 | 12730 | 687.5 |
| 16.00 | 3 | 1000 | 0.170 | 24.000 | 4.000 | 19895 | 10145 | 974.0 |
| 20.00 | 3 | 1000 | 0.200 | 30.000 | 5.000 | 15915 | 9550 | 1432.4 |

Cast aluminium



| | | | | | | | | |
|-------|---|-----|-------|--------|-------|-------|------|-------|
| 6.00 | 3 | 440 | 0.085 | 9.000 | 1.500 | 23345 | 5950 | 80.4 |
| 8.00 | 3 | 440 | 0.105 | 12.000 | 2.000 | 17505 | 5515 | 132.4 |
| 10.00 | 3 | 440 | 0.135 | 15.000 | 2.500 | 14005 | 5670 | 212.7 |
| 12.00 | 3 | 440 | 0.160 | 18.000 | 3.000 | 11670 | 5600 | 302.5 |
| 16.00 | 3 | 440 | 0.170 | 24.000 | 4.000 | 8755 | 4465 | 428.6 |
| 20.00 | 3 | 440 | 0.200 | 30.000 | 5.000 | 7005 | 4200 | 630.3 |



Wrought aluminium
Construction aluminium



| | | | | | | | | |
|-------|---|-----|-------|-------|--------|-------|------|-------|
| 6.00 | 3 | 450 | 0.060 | 2.100 | 6.000 | 23875 | 4295 | 54.1 |
| 8.00 | 3 | 450 | 0.075 | 2.800 | 8.000 | 17905 | 4030 | 90.2 |
| 10.00 | 3 | 450 | 0.095 | 3.500 | 10.000 | 14325 | 4080 | 142.9 |
| 12.00 | 3 | 450 | 0.110 | 4.200 | 12.000 | 11935 | 3940 | 198.5 |
| 16.00 | 3 | 450 | 0.120 | 5.600 | 16.000 | 8950 | 3225 | 288.8 |
| 20.00 | 3 | 450 | 0.140 | 7.000 | 20.000 | 7160 | 3010 | 421.1 |

Unalloyed copper



| | | | | | | | | |
|-------|---|-----|-------|-------|--------|-------|------|-------|
| 6.00 | 3 | 350 | 0.050 | 2.100 | 6.000 | 18570 | 2785 | 35.1 |
| 8.00 | 3 | 350 | 0.060 | 2.800 | 8.000 | 13925 | 2505 | 56.1 |
| 10.00 | 3 | 350 | 0.075 | 3.500 | 10.000 | 11140 | 2505 | 87.7 |
| 12.00 | 3 | 350 | 0.090 | 4.200 | 12.000 | 9285 | 2505 | 126.3 |
| 16.00 | 3 | 350 | 0.095 | 5.600 | 16.000 | 6965 | 1985 | 177.8 |
| 20.00 | 3 | 350 | 0.110 | 7.000 | 20.000 | 5570 | 1840 | 257.4 |

Thermoplastics



| | | | | | | | | |
|-------|---|-----|-------|-------|--------|-------|------|-------|
| 6.00 | 3 | 792 | 0.060 | 2.100 | 6.000 | 42015 | 7565 | 95.3 |
| 8.00 | 3 | 800 | 0.075 | 2.800 | 8.000 | 31830 | 7160 | 160.4 |
| 10.00 | 3 | 800 | 0.095 | 3.500 | 10.000 | 25465 | 7255 | 254.0 |
| 12.00 | 3 | 800 | 0.110 | 4.200 | 12.000 | 21220 | 7005 | 352.9 |
| 16.00 | 3 | 800 | 0.120 | 5.600 | 16.000 | 15915 | 5730 | 513.4 |
| 20.00 | 3 | 800 | 0.140 | 7.000 | 20.000 | 12730 | 5350 | 748.7 |

Cast aluminium



| | | | | | | | | |
|-------|---|-----|-------|-------|--------|-------|------|-------|
| 6.00 | 3 | 360 | 0.060 | 2.100 | 6.000 | 19100 | 3440 | 43.3 |
| 8.00 | 3 | 360 | 0.075 | 2.800 | 8.000 | 14325 | 3225 | 72.2 |
| 10.00 | 3 | 360 | 0.095 | 3.500 | 10.000 | 11460 | 3265 | 114.3 |
| 12.00 | 3 | 360 | 0.110 | 4.200 | 12.000 | 9550 | 3150 | 158.8 |
| 16.00 | 3 | 360 | 0.120 | 5.600 | 16.000 | 7160 | 2580 | 231.0 |
| 20.00 | 3 | 360 | 0.140 | 7.000 | 20.000 | 5730 | 2405 | 336.9 |