

Zylindrische Fräser AX-NV2

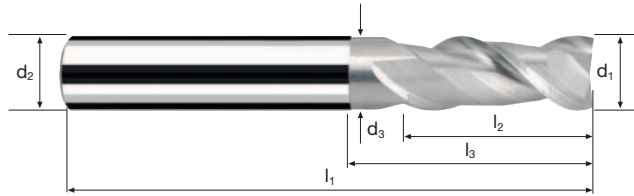
Glattschneidig, normale Ausführung mit Kurzhals



HM MG10 λ 40°
 γ 20°

90°

Vario



Schuppen

Schichten

Rm < 850

Al Aluminium > 99%

Al Aluminium Alloy

Al Aluminium Cast

Cu Copper

Plastic Thermoplast

| Beispiel: Bestell-Nr. | | Beschichtung C | | Artikel-Nr. 15520 | | α-Code .140 | | | | | |
|--------------------------|----------|--------------------------|------|-----------------------------|----|-----------------------|------|---|-------|-------|------------------|
| Ø Code | d1 e8 | d2 h6 | d3 | l1 | l2 | l3 | α | z | 15620 | 15520 | CELERO C15620 |
| .140 | 2 | 6 | 1.9 | 57 | 7 | 10 | 7.0° | 2 | ● | ● | ● |
| .180 | 3 | 6 | 2.8 | 57 | 8 | 14 | 4.5° | 2 | ● | ● | ● |
| .220 | 4 | 6 | 3.7 | 57 | 11 | 16 | 3.0° | 2 | ● | ● | ● |
| .260 | 5 | 6 | 4.6 | 57 | 13 | 18 | 1.5° | 2 | ● | ● | ● |
| .300 | 6 | 6 | 5.5 | 57 | 13 | 20 | 0.0° | 2 | ● | ● | ● |
| .391 | 8 | 8 | 7.4 | 63 | 19 | 26 | 0.0° | 2 | ● | ● | ● |
| .450 | 10 | 10 | 9.2 | 72 | 22 | 31 | 0.0° | 2 | ● | ● | ● |
| .501 | 12 | 12 | 11.0 | 83 | 26 | 37 | 0.0° | 2 | ● | ● | ● |
| .610 | 16 | 16 | 15.0 | 92 | 32 | 43 | 0.0° | 2 | ● | ● | ● |
| .682 | 20 | 20 | 19.0 | 104 | 38 | 53 | 0.0° | 2 | ● | ● | ● |
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Anwendung

Werkstoff

Al-Knetlegierung
Si < 6%

| d1 [mm] | z | v _c [m/min] | f _z [mm] | a _p [mm] | a _e [mm] | n [min ⁻¹] | v _f [mm/min] | Q [cm ³ /min] |
|---------|---|------------------------|---------------------|---------------------|---------------------|------------------------|-------------------------|--------------------------|
| 3 | 2 | 550 | 0.055 | 4.5 | 1.8 | 58360 | 6420 | 52.0 |
| 4 | 2 | 550 | 0.075 | 6.0 | 2.4 | 43770 | 6565 | 94.5 |
| 5 | 2 | 550 | 0.090 | 7.5 | 3.0 | 35015 | 6305 | 142.0 |
| 6 | 2 | 550 | 0.120 | 9.0 | 3.6 | 29180 | 7005 | 227.0 |
| 8 | 2 | 550 | 0.160 | 12.0 | 4.8 | 21885 | 7005 | 403.5 |
| 10 | 2 | 550 | 0.200 | 15.0 | 6.0 | 17510 | 7005 | 630.5 |
| 12 | 2 | 550 | 0.220 | 18.0 | 7.2 | 14590 | 6420 | 832.0 |
| 16 | 2 | 550 | 0.245 | 24.0 | 9.6 | 10940 | 5360 | 1235.0 |
| 20 | 2 | 550 | 0.285 | 30.0 | 12.0 | 8755 | 4990 | 1796.5 |

Reinkupfer

| | | | | | | | | |
|----|---|-----|-------|------|------|-------|------|--------|
| 3 | 2 | 400 | 0.045 | 4.5 | 1.8 | 42445 | 3820 | 31.0 |
| 4 | 2 | 400 | 0.060 | 6.0 | 2.4 | 31830 | 3820 | 55.0 |
| 5 | 2 | 400 | 0.070 | 7.5 | 3.0 | 25465 | 3565 | 80.0 |
| 6 | 2 | 400 | 0.095 | 9.0 | 3.6 | 21220 | 4030 | 130.5 |
| 8 | 2 | 400 | 0.130 | 12.0 | 4.8 | 15915 | 4140 | 238.5 |
| 10 | 2 | 400 | 0.160 | 15.0 | 6.0 | 12735 | 4075 | 367.0 |
| 12 | 2 | 400 | 0.175 | 18.0 | 7.2 | 10610 | 3715 | 481.5 |
| 16 | 2 | 400 | 0.195 | 24.0 | 9.6 | 7960 | 3105 | 715.5 |
| 20 | 2 | 400 | 0.230 | 30.0 | 12.0 | 6365 | 2930 | 1055.0 |

Thermoplaste

| | | | | | | | | |
|----|---|------|-------|------|------|-------|-------|--------|
| 3 | 2 | 1000 | 0.055 | 4.5 | 1.8 | 60000 | 6600 | 53.5 |
| 4 | 2 | 1000 | 0.075 | 6.0 | 2.4 | 60000 | 9000 | 129.5 |
| 5 | 2 | 1000 | 0.090 | 7.5 | 3.0 | 60000 | 10800 | 243.0 |
| 6 | 2 | 1000 | 0.120 | 9.0 | 3.6 | 53055 | 12735 | 412.5 |
| 8 | 2 | 1000 | 0.160 | 12.0 | 4.8 | 39790 | 12735 | 733.5 |
| 10 | 2 | 1000 | 0.200 | 15.0 | 6.0 | 31830 | 12730 | 1145.5 |
| 12 | 2 | 1000 | 0.220 | 18.0 | 7.2 | 26525 | 11670 | 1512.5 |
| 16 | 2 | 1000 | 0.245 | 24.0 | 9.6 | 19895 | 9750 | 2246.5 |
| 20 | 2 | 1000 | 0.285 | 30.0 | 12.0 | 15915 | 9070 | 3265.0 |

Aluminiumguss
Si 6% - 15%

| | | | | | | | | |
|----|---|-----|-------|------|------|-------|------|-------|
| 3 | 2 | 350 | 0.040 | 4.5 | 1.8 | 37135 | 2970 | 24.0 |
| 4 | 2 | 350 | 0.055 | 6.0 | 2.4 | 27855 | 3065 | 44.0 |
| 5 | 2 | 350 | 0.065 | 7.5 | 3.0 | 22280 | 2895 | 65.0 |
| 6 | 2 | 350 | 0.085 | 9.0 | 3.6 | 18570 | 3155 | 102.0 |
| 8 | 2 | 350 | 0.110 | 12.0 | 4.8 | 13925 | 3065 | 176.5 |
| 10 | 2 | 350 | 0.140 | 15.0 | 6.0 | 11140 | 3120 | 281.0 |
| 12 | 2 | 350 | 0.155 | 18.0 | 7.2 | 9285 | 2880 | 373.0 |
| 16 | 2 | 350 | 0.170 | 24.0 | 9.6 | 6965 | 2370 | 546.0 |
| 20 | 2 | 350 | 0.200 | 30.0 | 12.0 | 5570 | 2230 | 803.0 |

Anwendung

Werkstoff

Al-Knetlegierung
Si < 6%

| d1 [mm] | z | v _c [m/min] | f _z [mm] | a _p [mm] | a _e [mm] | n [min ⁻¹] | v _f [mm/min] | Q [cm ³ /min] |
|---------|---|------------------------|---------------------|---------------------|---------------------|------------------------|-------------------------|--------------------------|
| 3 | 2 | 450 | 0.040 | 3.0 | 3 | 47750 | 3820 | 34.5 |
| 4 | 2 | 450 | 0.055 | 4.0 | 4 | 35810 | 3940 | 63.0 |
| 5 | 2 | 450 | 0.065 | 5.0 | 5 | 28650 | 3725 | 93.0 |
| 6 | 2 | 450 | 0.085 | 6.0 | 6 | 23875 | 4060 | 146.0 |
| 8 | 2 | 450 | 0.110 | 8.0 | 8 | 17905 | 3940 | 252.0 |
| 10 | 2 | 450 | 0.140 | 10.0 | 10 | 14325 | 4010 | 401.0 |
| 12 | 2 | 450 | 0.155 | 12.0 | 12 | 11935 | 3700 | 533.0 |
| 16 | 2 | 450 | 0.170 | 16.0 | 16 | 8955 | 3045 | 779.5 |
| 20 | 2 | 450 | 0.200 | 20.0 | 20 | 7160 | 2865 | 1146.0 |

Reinkupfer

| | | | | | | | | |
|----|---|-----|-------|------|----|-------|------|-------|
| 3 | 2 | 350 | 0.030 | 3.0 | 3 | 37135 | 2230 | 20.0 |
| 4 | 2 | 350 | 0.045 | 4.0 | 4 | 27855 | 2505 | 40.0 |
| 5 | 2 | 350 | 0.050 | 5.0 | 5 | 22280 | 2230 | 56.0 |
| 6 | 2 | 350 | 0.070 | 6.0 | 6 | 18570 | 2600 | 93.5 |
| 8 | 2 | 350 | 0.090 | 8.0 | 8 | 13925 | 2505 | 160.5 |
| 10 | 2 | 350 | 0.110 | 10.0 | 10 | 11140 | 2450 | 245.0 |
| 12 | 2 | 350 | 0.125 | 12.0 | 12 | 9285 | 2320 | 334.0 |
| 16 | 2 | 350 | 0.135 | 16.0 | 16 | 6965 | 1880 | 481.5 |
| 20 | 2 | 350 | 0.160 | 20.0 | 20 | 5570 | 1780 | 712.0 |

Thermoplaste

| | | | | | | | | |
|----|---|-----|-------|------|----|-------|------|--------|
| 3 | 2 | 800 | 0.040 | 3.0 | 3 | 60000 | 4800 | 43.0 |
| 4 | 2 | 800 | 0.055 | 4.0 | 4 | 60000 | 6600 | 105.5 |
| 5 | 2 | 800 | 0.065 | 5.0 | 5 | 50930 | 6620 | 165.5 |
| 6 | 2 | 800 | 0.085 | 6.0 | 6 | 42445 | 7215 | 259.5 |
| 8 | 2 | 800 | 0.110 | 8.0 | 8 | 31830 | 7005 | 448.5 |
| 10 | 2 | 800 | 0.140 | 10.0 | 10 | 25465 | 7130 | 713.0 |
| 12 | 2 | 800 | 0.155 | 12.0 | 12 | 21220 | 6580 | 947.5 |
| 16 | 2 | 800 | 0.170 | 16.0 | 16 | 15915 | 5410 | 1385.0 |
| 20 | 2 | 800 | 0.200 | 20.0 | 20 | 12735 | 5095 | 2038.0 |

Aluminiumguss
Si 6% - 15%

| | | | | | | | | |
|----|---|-----|-------|------|----|-------|------|-------|
| 3 | 2 | 300 | 0.030 | 3.0 | 3 | 31830 | 1910 | 17.0 |
| 4 | 2 | 300 | 0.040 | 4.0 | 4 | 23875 | 1910 | 30.5 |
| 5 | 2 | 300 | 0.045 | 5.0 | 5 | 19100 | 1720 | 43.0 |
| 6 | 2 | 300 | 0.060 | 6.0 | 6 | 15915 | 1910 | 69.0 |
| 8 | 2 | 300 | 0.075 | 8.0 | 8 | 11935 | 1790 | 114.5 |
| 10 | 2 | 300 | 0.100 | 10.0 | 10 | 9550 | 1910 | 191.0 |
| 12 | 2 | 300 | 0.110 | 12.0 | 12 | 7960 | 1750 | 252.0 |
| 16 | 2 | 300 | 0.120 | 16.0 | 16 | 5970 | 1435 | 367.5 |
| 20 | 2 | 300 | 0.140 | 20.0 | 20 | 4775 | 1335 | 534.0 |