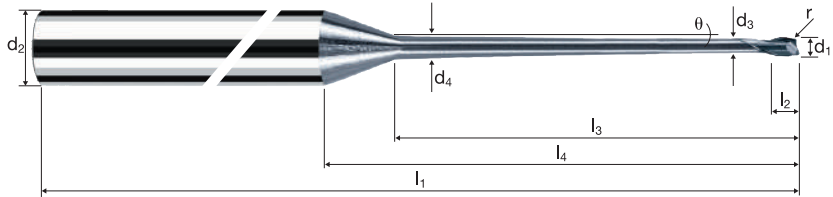
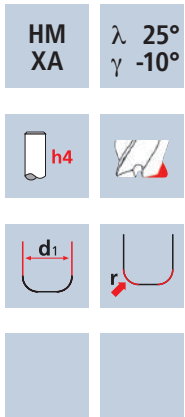


Corner radius end mills MicroX

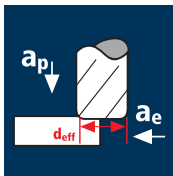
Shank \varnothing 6mm, conical neck 0.9°, 20xd



| | | | | | | | | | |
|-------------|----------------|-----------------|-----------------|--------------|--------------|-------------|-------------------|----------------|-------------------------|
| Rm < 850 | Rm 850-1100 | Rm 1100-1300 | Rm 1300-1500 | HRC 48-56 | HRC 56-60 | HRC > 60 | Inox Stainless | Ti Titanium | Cobalt-Chrome Copper |
|-------------|----------------|-----------------|-----------------|--------------|--------------|-------------|-------------------|----------------|-------------------------|

| Ø Code | Example: Order-N°. | | | | | | | | | | | | X-AL |
|------------|--|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|------|--------------|------|---|--------------|
| | d ₁ 0/-0.01 | d ₂ h4 | d ₃ | d ₄ | l ₁ | l ₂ | l ₃ | l ₄ | θ | r 0/+0.01 | α | z | |
| | Coating: X Article-N°: 6744 ø-Code: 050 | | | | | | | | | | | | |
| | | | | | | | | | | | | | X6744 |
| 050 | 0.50 | 6.00 | 0.45 | 0.75 | 61 | 0.40 | 10.00 | 20.45 | 0.9° | 0.100 | 7.8° | 2 | ● |
| 060 | 0.60 | 6.00 | 0.55 | 0.91 | 66 | 0.50 | 12.00 | 22.16 | 0.9° | 0.100 | 7.0° | 2 | ● |
| 080 | 0.80 | 6.00 | 0.75 | 1.23 | 69 | 0.65 | 16.00 | 25.56 | 0.9° | 0.100 | 5.8° | 2 | ● |
| 100 | 1.00 | 6.00 | 0.95 | 1.55 | 69 | 0.80 | 20.00 | 28.96 | 0.9° | 0.200 | 4.9° | 2 | ● |
| 120 | 1.50 | 6.00 | 1.40 | 2.30 | 80 | 1.20 | 30.00 | 37.56 | 0.9° | 0.200 | 3.4° | 2 | ● |
| 140 | 2.00 | 6.00 | 1.90 | 3.11 | 87 | 1.60 | 40.00 | 46.05 | 0.9° | 0.200 | 2.5° | 2 | ● |
| 160 | 2.50 | 6.00 | 2.30 | 3.81 | 100 | 2.00 | 50.00 | 54.74 | 0.9° | 0.200 | 1.8° | 2 | ● |
| 180 | 3.00 | 6.00 | 2.80 | 4.61 | 100 | 2.40 | 60.00 | 63.25 | 0.9° | 0.200 | 1.4° | 2 | ● |
| 145 | 2.00 | 6.00 | 1.90 | 3.11 | 87 | 1.60 | 40.00 | 46.05 | 0.9° | 0.500 | 2.5° | 2 | ● |
| 165 | 2.50 | 6.00 | 2.30 | 3.81 | 100 | 2.00 | 50.00 | 54.74 | 0.9° | 0.500 | 1.8° | 2 | ● |
| 185 | 3.00 | 6.00 | 2.80 | 4.61 | 100 | 2.40 | 60.00 | 63.25 | 0.9° | 0.500 | 1.4° | 2 | ● |

Application



Material

Hardened tool steel
42 - 48 HRC



| d1 [mm] | z | v _c [m/min] | f _z [mm] | a _s [mm] | a _e [mm] | d _{eff} [mm] | n [min ⁻¹] | v _t [mm/min] | r [mm] |
|---------|---|------------------------|---------------------|---------------------|---------------------|-----------------------|------------------------|-------------------------|--------|
| 0.50 | 2 | 48 | 0.008 | 0.004 | 0.100 | 0.36 | 42440 | 640 | 0.10 |
| 0.60 | 2 | 61 | 0.009 | 0.005 | 0.120 | 0.46 | 42210 | 745 | 0.10 |
| 0.80 | 2 | 88 | 0.013 | 0.006 | 0.160 | 0.67 | 41810 | 1055 | 0.10 |
| 1.00 | 2 | 94 | 0.015 | 0.008 | 0.200 | 0.71 | 42140 | 1275 | 0.20 |
| 1.50 | 2 | 140 | 0.023 | 0.012 | 0.300 | 1.24 | 35940 | 1630 | 0.20 |
| 2.00 | 2 | 140 | 0.030 | 0.016 | 0.400 | 1.76 | 25320 | 1530 | 0.20 |
| 2.50 | 2 | 140 | 0.038 | 0.020 | 0.500 | 2.27 | 19630 | 1485 | 0.20 |
| 3.00 | 2 | 140 | 0.045 | 0.024 | 0.600 | 2.79 | 15975 | 1450 | 0.20 |

Hardened tool steel
48 - 52 HRC



| | | | | | | | | | |
|------|---|-----|-------|-------|-------|------|-------|------|------|
| 0.50 | 2 | 48 | 0.007 | 0.004 | 0.100 | 0.36 | 42440 | 610 | 0.10 |
| 0.60 | 2 | 61 | 0.008 | 0.005 | 0.120 | 0.46 | 42210 | 710 | 0.10 |
| 0.80 | 2 | 88 | 0.012 | 0.006 | 0.160 | 0.67 | 41810 | 1005 | 0.10 |
| 1.00 | 2 | 94 | 0.014 | 0.008 | 0.200 | 0.71 | 42140 | 1215 | 0.20 |
| 1.50 | 2 | 120 | 0.022 | 0.012 | 0.300 | 1.24 | 30805 | 1330 | 0.20 |
| 2.00 | 2 | 120 | 0.029 | 0.016 | 0.400 | 1.76 | 21705 | 1250 | 0.20 |
| 2.50 | 2 | 120 | 0.036 | 0.020 | 0.500 | 2.27 | 16825 | 1210 | 0.20 |
| 3.00 | 2 | 120 | 0.043 | 0.024 | 0.600 | 2.79 | 13690 | 1185 | 0.20 |

Hardened tool steel
52 - 56 HRC



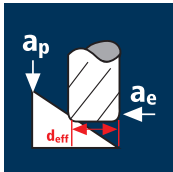
| | | | | | | | | | |
|------|---|-----|-------|-------|-------|------|-------|------|------|
| 0.50 | 2 | 48 | 0.006 | 0.004 | 0.100 | 0.36 | 42440 | 510 | 0.10 |
| 0.60 | 2 | 61 | 0.007 | 0.005 | 0.120 | 0.46 | 42210 | 590 | 0.10 |
| 0.80 | 2 | 88 | 0.010 | 0.006 | 0.160 | 0.67 | 41810 | 835 | 0.10 |
| 1.00 | 2 | 94 | 0.012 | 0.008 | 0.200 | 0.71 | 42140 | 1010 | 0.20 |
| 1.50 | 2 | 100 | 0.018 | 0.012 | 0.300 | 1.24 | 25670 | 925 | 0.20 |
| 2.00 | 2 | 100 | 0.024 | 0.016 | 0.400 | 1.76 | 18085 | 870 | 0.20 |
| 2.50 | 2 | 100 | 0.030 | 0.020 | 0.500 | 2.27 | 14020 | 840 | 0.20 |
| 3.00 | 2 | 100 | 0.036 | 0.024 | 0.600 | 2.79 | 11410 | 820 | 0.20 |

Hardened tool steel
56 - 60 HRC



| | | | | | | | | | |
|------|---|----|-------|-------|-------|------|-------|-----|------|
| 0.50 | 2 | 48 | 0.005 | 0.004 | 0.100 | 0.36 | 42440 | 460 | 0.10 |
| 0.60 | 2 | 60 | 0.006 | 0.005 | 0.120 | 0.46 | 41520 | 525 | 0.10 |
| 0.80 | 2 | 60 | 0.009 | 0.006 | 0.160 | 0.67 | 28505 | 515 | 0.10 |
| 1.00 | 2 | 60 | 0.011 | 0.008 | 0.200 | 0.71 | 26900 | 580 | 0.20 |
| 1.50 | 2 | 60 | 0.016 | 0.012 | 0.300 | 1.24 | 15400 | 500 | 0.20 |
| 2.00 | 2 | 60 | 0.022 | 0.016 | 0.400 | 1.76 | 10850 | 470 | 0.20 |
| 2.50 | 2 | 60 | 0.027 | 0.020 | 0.500 | 2.27 | 8415 | 455 | 0.20 |
| 3.00 | 2 | 60 | 0.032 | 0.024 | 0.600 | 2.79 | 6845 | 445 | 0.20 |

Application



Material

Hardened tool steel
42 - 48 HRC



| d1 [mm] | z | v _c [m/min] | f _z [mm] | a _s [mm] | a _e [mm] | d _{eff} [mm] | n [min ⁻¹] | v _t [mm/min] | β [°] |
|---------|---|------------------------|---------------------|---------------------|---------------------|-----------------------|------------------------|-------------------------|-------|
| 0.50 | 2 | 65 | 0.018 | 0.012 | 0.012 | 0.49 | 42225 | 1520 | 45° |
| 0.60 | 2 | 78 | 0.018 | 0.012 | 0.012 | 0.59 | 42080 | 1515 | 45° |
| 0.80 | 2 | 106 | 0.020 | 0.020 | 0.020 | 0.80 | 42175 | 1685 | 45° |
| 1.00 | 2 | 131 | 0.026 | 0.026 | 0.026 | 0.99 | 42120 | 2190 | 45° |
| 1.50 | 2 | 197 | 0.030 | 0.038 | 0.038 | 1.49 | 42085 | 2525 | 45° |
| 2.00 | 2 | 264 | 0.034 | 0.050 | 0.050 | 2.00 | 42015 | 2855 | 45° |
| 2.50 | 2 | 300 | 0.036 | 0.062 | 0.062 | 2.50 | 38195 | 2750 | 45° |
| 3.00 | 2 | 300 | 0.042 | 0.076 | 0.076 | 3.00 | 31830 | 2675 | 45° |

Hardened tool steel
48 - 52 HRC



| | | | | | | | | | |
|------|---|-----|-------|-------|-------|------|-------|------|-----|
| 0.50 | 2 | 65 | 0.018 | 0.012 | 0.012 | 0.49 | 42225 | 1520 | 45° |
| 0.60 | 2 | 78 | 0.018 | 0.012 | 0.012 | 0.59 | 42080 | 1515 | 45° |
| 0.80 | 2 | 106 | 0.020 | 0.020 | 0.020 | 0.80 | 42175 | 1685 | 45° |
| 1.00 | 2 | 131 | 0.024 | 0.026 | 0.026 | 0.99 | 42120 | 2020 | 45° |
| 1.50 | 2 | 197 | 0.028 | 0.038 | 0.038 | 1.49 | 42085 | 2355 | 45° |
| 2.00 | 2 | 250 | 0.032 | 0.050 | 0.050 | 2.00 | 39790 | 2545 | 45° |
| 2.50 | 2 | 250 | 0.034 | 0.062 | 0.062 | 2.50 | 31830 | 2165 | 45° |
| 3.00 | 2 | 250 | 0.040 | 0.076 | 0.076 | 3.00 | 26525 | 2120 | 45° |

Hardened tool steel
52 - 56 HRC



| | | | | | | | | | |
|------|---|-----|-------|-------|-------|------|-------|------|-----|
| 0.50 | 2 | 65 | 0.016 | 0.012 | 0.012 | 0.49 | 42225 | 1350 | 45° |
| 0.60 | 2 | 78 | 0.016 | 0.012 | 0.012 | 0.59 | 42080 | 1345 | 45° |
| 0.80 | 2 | 106 | 0.018 | 0.020 | 0.020 | 0.80 | 42175 | 1520 | 45° |
| 1.00 | 2 | 131 | 0.024 | 0.026 | 0.026 | 0.99 | 42120 | 2020 | 45° |
| 1.50 | 2 | 197 | 0.028 | 0.038 | 0.038 | 1.49 | 42085 | 2355 | 45° |
| 2.00 | 2 | 200 | 0.030 | 0.050 | 0.050 | 2.00 | 31830 | 1910 | 45° |
| 2.50 | 2 | 200 | 0.032 | 0.062 | 0.062 | 2.50 | 25465 | 1630 | 45° |
| 3.00 | 2 | 200 | 0.038 | 0.076 | 0.076 | 3.00 | 21220 | 1615 | 45° |

Hardened tool steel
56 - 60 HRC



| | | | | | | | | | |
|------|---|-----|-------|-------|-------|------|-------|------|-----|
| 0.50 | 2 | 65 | 0.014 | 0.012 | 0.012 | 0.49 | 42225 | 1180 | 45° |
| 0.60 | 2 | 78 | 0.014 | 0.012 | 0.012 | 0.59 | 42080 | 1180 | 45° |
| 0.80 | 2 | 106 | 0.016 | 0.020 | 0.020 | 0.80 | 42175 | 1350 | 45° |
| 1.00 | 2 | 131 | 0.020 | 0.026 | 0.026 | 0.99 | 42120 | 1685 | 45° |
| 1.50 | 2 | 150 | 0.024 | 0.038 | 0.038 | 1.49 | 32045 | 1540 | 45° |
| 2.00 | 2 | 150 | 0.028 | 0.050 | 0.050 | 2.00 | 23875 | 1335 | 45° |
| 2.50 | 2 | 150 | 0.028 | 0.062 | 0.062 | 2.50 | 19100 | 1070 | 45° |
| 3.00 | 2 | 150 | 0.034 | 0.076 | 0.076 | 3.00 | 15915 | 1080 | 45° |