

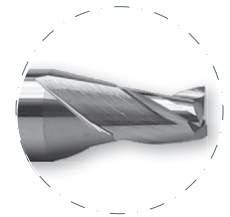
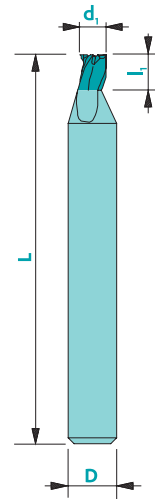
Short end mill Z3

103-0

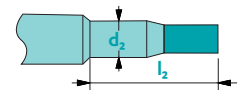
| Material | Vc uncoated | Vc coated | Uncoated | Coated | Rec. Coating* |
|-------------------------------|-------------|-----------|----------|--------|---------------|
| Steel < 700 N/mm ² | 100 | 130 | □ | ■ | Tisi (BQ) |
| Steel > 700 N/mm ² | 80 | 100 | - | ■ | Tisi (BQ) |
| Stainless steel | 50 | 70 | □ | ■ | Tisi (BQ) |
| Cast iron | 60 | 100 | □ | ■ | Tisi (BQ) |
| Copper | 130 | 160 | □ | ■ | Solo (DA) |
| Brass - Bronze | 140 | 190 | ■ | □ | Solo (DA) |
| Aluminium | 200 | 350 | □ | ■ | Solo (DA) |
| Gold - Silver | 140 | 180 | ■ | ■ | Solo (DA) |
| Platinum - Palladium | - | 35 | - | □ | Solo (DA) |
| Superalloys | - | 40 | - | ■ | Trio (PO) |
| Titanium | 40 | 60 | ■ | ■ | RICO (ZB) |

not adapted - adapted □ highly adapted ■

Tolerances $d_1 \leq 1 \text{ mm}$ ▶ 0/-0.01 $D: h5$
 $d_1 > 1 \text{ mm}$ ▶ 0/-0.02
 $d_1 = D$ ▶ $d_1: e8$



Upon request



| Art. n° | d_1 | l_1 | D | L | Uncoat. | Trio* | Art. n° | d_1 | l_1 | D | L | Uncoat. | Trio* |
|------------|-------|-------|---|----|---------|-------|-------------|-------|-------|----|----|---------|-------|
| 103-0d1.00 | 1.00 | 2.0 | 4 | 38 | ▲ | ▲ | 103-0d2.50 | 2.50 | 3.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.05 | 1.05 | 2.0 | 4 | 38 | ▲ | ▲ | 103-0d2.55 | 2.55 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.10 | 1.10 | 2.0 | 4 | 38 | ▲ | ▲ | 103-0d2.60 | 2.60 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.15 | 1.15 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.65 | 2.65 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.20 | 1.20 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.70 | 2.70 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.25 | 1.25 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.75 | 2.75 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.30 | 1.30 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.80 | 2.80 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.35 | 1.35 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.85 | 2.85 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.40 | 1.40 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.90 | 2.90 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.45 | 1.45 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d2.95 | 2.95 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.50 | 1.50 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d3.00 | 3.00 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.55 | 1.55 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d3.50 | 3.50 | 4.0 | 4 | 38 | ▲ | ▲ |
| 103-0d1.60 | 1.60 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d4.00 | 4.00 | 4.0 | 6 | 51 | ▲ | ▲ |
| 103-0d1.65 | 1.65 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d4.50 | 4.50 | 4.0 | 6 | 51 | ▲ | ▲ |
| 103-0d1.70 | 1.70 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d5.00 | 5.00 | 6.0 | 6 | 51 | ▲ | ▲ |
| 103-0d1.75 | 1.75 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d5.50 | 5.50 | 6.0 | 6 | 51 | ▲ | ▲ |
| 103-0d1.80 | 1.80 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d6.00 | 6.00 | 8.0 | 6 | 51 | ▲ | ▲ |
| 103-0d1.85 | 1.85 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d7.00 | 7.00 | 8.0 | 7 | 61 | ▲ | ▲ |
| 103-0d1.90 | 1.90 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d8.00 | 8.00 | 10.0 | 8 | 61 | ▲ | ▲ |
| 103-0d1.95 | 1.95 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d9.00 | 9.00 | 12.0 | 9 | 61 | ▲ | ▲ |
| 103-0d2.00 | 2.00 | 3.0 | 4 | 38 | ▲ | ▲ | 103-0d10.00 | 10.00 | 15.0 | 10 | 72 | ▲ | ▲ |
| 103-0d2.05 | 2.05 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.10 | 2.10 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.15 | 2.15 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.20 | 2.20 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.25 | 2.25 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.30 | 2.30 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.35 | 2.35 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.40 | 2.40 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |
| 103-0d2.45 | 2.45 | 3.0 | 4 | 38 | ▲ | ▲ | | | | | | | |

Available uncoated or coated (see page 308)

Z3



λ 30° γ 8-10°

CARB



$ap=0.25xd_1$ $ae=0.5xd_1$
 $ap=0.5xd_1$

* Prices for other coatings: contact us!

To order a coated tool, add the 2-letter coating code to the article number