

COUNTERSINK TOOLS

- ALFRA HSS precision countersink tools are the perfect tools for all deburring works.
- ALFRA HSS precision countersink tools guarantee an excellent of grooves as well as the best center-pointing features.
- Applicable on steel, cast, light and non-ferrous metal.
- NEW: innovative relief-grinding for better cutting quality.

ALFRA HSS Precision Countersink Tools

(α) 90° DIN 335 C with cylinder shank

| Nom. Ø | Smallest Ø | shank Ø h 8 | Total-length | Prod.-No. |
|--------|------------|-------------|--------------|-----------|
| 6.3 | 1.5 | 5 | 45 | 1101063 |
| 8.3 | 2.0 | 6 | 50 | 1101083 |
| 10.4 | 2.5 | 6 | 50 | 1101104 |
| 12.4 | 2.8 | 8 | 56 | 1101124 |
| 15.0 | 3.2 | 10 | 60 | 1101150 |
| 16.5 | 3.2 | 10 | 60 | 1101165 |
| 19.0 | 3.5 | 10 | 63 | 1101190 |
| 20.5 | 3.5 | 10 | 63 | 1101205 |
| 25.0 | 3.8 | 10 | 67 | 1101250 |
| 31.0 | 4.2 | 12 | 71 | 1101310 |

with wear-resistant TiAlN-Coating

| | | | | |
|------|-----|----|----|---------|
| 6.3 | 1.5 | 5 | 45 | 1102063 |
| 8.3 | 2.0 | 6 | 50 | 1102083 |
| 10.4 | 2.5 | 6 | 50 | 1102104 |
| 12.4 | 2.8 | 8 | 56 | 1102124 |
| 16.5 | 3.2 | 10 | 60 | 1102165 |
| 20.5 | 3.5 | 10 | 63 | 1102205 |
| 25.0 | 3.8 | 10 | 67 | 1102250 |
| 31.0 | 4.2 | 12 | 71 | 1102310 |

Countersink tools with cylinder shank

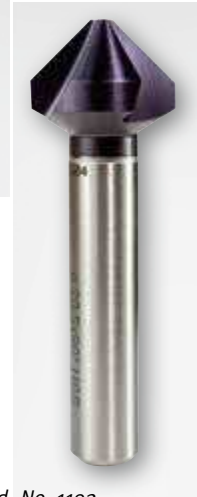
with oblique drilling 90° of HSS-E

These tools have an improved relief-grinding for even more quiet and chatter-free working. The chip-flow through the hole avoids chips being seized with the work piece

| Ø mm | for sagging | shank | length Ø h8 | Prod.-No. |
|------|-------------|-------|-------------|-----------|
| 10 | 2 - 5 | 6 | 45 | 1104100 |
| 14 | 5 - 10 | 8 | 48 | 1104140 |
| 21 | 10 - 15 | 10 | 65 | 1104210 |
| 28 | 15 - 20 | 12 | 85 | 1104280 |
| 35 | 20 - 25 | 15 | 95 | 1104350 |



Prod.-No. 1101...



Prod.-No. 1102...



Prod.-No. 1104...