

**Garant**
**High-precision countersink 90°, uncoated, External Ø Dc: 31mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 150152 31     |
| GTIN         | 4045197717078 |
| Item class   | 11M           |

**Description**
**Version:**

**All countersinks have 3 cutting edges**, radially relieved.

Flutes are ground from solid.

High-precision countersink, produced with tight manufacturing tolerances similar to DIN 335-C.

Three **drive flats on the shank** for use in a 3-jaw chuck.

**Application:**

High precision countersinks for chatter-free countersinking.

**Technical description**

|   |             |
|---|-------------|
| Feed f in steel < 500 N/mm <sup>2</sup> | 0.2 mm/rev. |
| smallest countersink Ø for holes from   | 4.2 mm      |
| External Ø                              | 31 mm       |
| for countersunk screws DIN 7991         | M16         |
| Shank tolerance                         | h9          |
| Shank Ø D <sub>s</sub>                  | 12 mm       |
| Overall length L                        | 71 mm       |
| Number of cutting edges Z               | 3           |
| Coating                                 | uncoated    |
| Countersink tip angle                   | 90 degrees  |

|                 |                                     |
|-----------------|-------------------------------------|
| Tool material   | HSS                                 |
| Standard        | DIN 335 C                           |
| Shank           | Shank with h9 and three drive flats |
| Through-coolant | no                                  |
| Colour ring     | without                             |
| Type of product | Stepped drill and countersink       |

### User data

|                               | Suitability                               | V <sub>c</sub> | ISO code |
|-------------------------------|---|----------------|----------|
| Alu plastics                  | suitable                                  | 70 m/min       | N        |
| Aluminium (short chipping)    | suitable                                  | 33 m/min       | N        |
| Steel < 500 N/mm <sup>2</sup> | suitable                                  | 28 m/min       | P        |
| Steel < 750 N/mm <sup>2</sup> | suitable                                  | 27 m/min       | P        |
| Steel < 900 N/mm <sup>2</sup> | suitable only under restricted conditions | 27 m/min       | P        |
| wet maximum                   | suitable                                  |                |          |
| dry                           | suitable only under restricted conditions |                |          |