

**Garant**
**Carbide machine reamer H7, uncoated, Nominal  $\varnothing$  DC: 13mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 164500 13     |
| GTIN         | 4045197252111 |
| Item class   | 110           |

**Description**
**Version:**

**Long flutes**, left-hand helix.

**Extremely irregular** spacing (EU) from size 2.

This ensures that the reamed bore is absolutely round and free from chatter marks.

**Application:**

On stable, low vibration machines. Longer tool life and better dimensional accuracy than HSS reamers.

**Tool material:**

Sizes 1 – 13 **solid carbide**.

Sizes 14 – 16 with **carbide inserts**, supported by hard nitrided steel guidel chamfers.

**Technical description**

|  |              |
|--|--------------|
| Nominal $\varnothing$ D <sub>c</sub>     | 13 mm        |
| Overhang L <sub>1</sub>                  | 104 mm       |
| Feed f in steel < 1100 N/mm <sup>2</sup> | 0.15 mm/rev. |
| Shank tolerance                          | h9           |
| Shank $\varnothing$ D <sub>s</sub>       | 10 mm        |
| Overall length L                         | 151 mm       |
| Flute length L <sub>c</sub>              | 44 mm        |
| Number of cutting edges Z                | 6            |
| Tolerance                                | H7           |
| Reaming oversize in diameter             | 0.2 mm       |

|                                  |                      |
|----------------------------------|----------------------|
| Coating                          | uncoated             |
| Tool material                    | Carbide K10          |
| Standard                         | DIN 8093             |
| Through-coolant                  | no                   |
| Shank                            | Parallel shank to h6 |
| Application for type of drilling | for through holes    |
| Colour ring                      | without              |
| Type of product                  | Phillips bit         |

### User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|---|----------------|----------|
| Aluminium                      | suitable                                  | 35 m/min       | N        |
| Aluminium (short chipping)     | suitable                                  | 30 m/min       | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 20 m/min       | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 13 m/min       | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 10 m/min       | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 8 m/min        | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 6 m/min        | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 10 m/min       | M        |
| CuZn                           | suitable                                  | 20 m/min       | N        |
| Oil                            | suitable                                  |                |          |
| wet maximum                    | suitable                                  |                |          |