

## Garant

### GARANT Master Steel solid carbide high-performance reamer HPC blind hole, TiAlN, Nominal $\varnothing$ DC: 12mm



#### Order data

|              |               |
|--------------|---------------|
| Order number | 164425 12     |
| GTIN         | 4062406284534 |
| Item class   | 10P           |

#### Description

##### Version:

The latest generation of **universal** HPC reamers. Extra-short teeth for increased cutting performance values. Optimised cooling strategy with radially arranged coolant outlets aligned directly to the teeth. **For uncompromising applications in steel and stainless steel.** Reliable machining of high-tensile steels **up to 60 HRC. Version suitable for NC** with straight shank  $\varnothing$  for standard arbors especially in **hydraulic chucks** or **high precision collet chucks**.

Very high concentricity and process reliability due to unequal spacing.

##### Tolerance specifications:

**Configurable:** Reamers finish ground to match your specification.

**H7:** Version for H7 bore tolerance.

**0/0.005 mm:** Manufacturing or cutting tolerance of nominal  $\varnothing$  D<sub>c</sub>.

##### Application:

Special version for blind holes.

#### Technical description

|                                    |                  |
|------------------------------------|------------------|
| Number of cutting edges Z          | 6                |
| Shank $\varnothing$ D <sub>s</sub> | 12 mm            |
| Flute length L <sub>c</sub>        | 12 mm            |
| Series                             | Master Steel     |
| Tolerance                          | Configurable     |
| $\varnothing$ range                | 11.701 - 12.2 mm |

|   |                         |
|---|-------------------------|
| Feed f in stainless steel < 900 N/mm <sup>2</sup> | 0.5 mm/rev.             |
| Feed f in steel < 1100 N/mm <sup>2</sup>          | 1.7 mm/rev.             |
| Overall length L                                  | 120 mm                  |
| Nominal Ø D <sub>c</sub>                          | 12 mm                   |
| Overhang L <sub>1</sub>                           | 75 mm                   |
| Reaming oversize in diameter                      | 0.2 mm                  |
| Coating   | TiAlN                   |
| Tool material                                     | Solid carbide           |
| Standard  | Manufacturer's standard |
| Through-coolant                                   | yes, with 25 bar        |
| Shank   | DIN 6535 HA with h6     |
| Machining strategy                                | HPC                     |
| Application for type of drilling                  | for blind holes         |
| Colour ring                                       | green                   |
| Type of product                                   | Phillips bit            |

## User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|---|----------------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable only under restricted conditions | 180 m/min      | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 180 m/min      | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 180 m/min      | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 150 m/min      | P        |
| Steel < 1400 N/mm <sup>2</sup> | Suitable                                  | 100 m/min      | P        |
| Steel < 55 HRC                 | Suitable                                  | 12 m/min       | H        |
| Steel < 60 HRC                 | Suitable only under restricted conditions | 8 m/min        | H        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 50 m/min       | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 30 m/min       | M        |

|             |          |           |   |
|-------------|----------|-----------|---|
| GG          | suitable | 110 m/min | K |
| GGG         | suitable | 90 m/min  | K |
| Uni         | suitable |           |   |
| wet maximum | suitable |           |   |
| wet minimum | suitable |           |   |