

## Garant

### GARANT Master Steel DEEP solid carbide deep hole drill, plain shank DIN 6535 HA 16×D, TiAlN, Ø DC: 6mm



#### Order data

|              |               |
|--------------|---------------|
| Order number | 123888 6      |
| GTIN         | 4062406267759 |
| Item class   | 10E           |

#### Description

##### Version:

**Excellent chip evacuation** due to the unequal helical pitch of the flutes, guide rings and additional guide chamfers for very high precision when drilling. **Maximum process reliability** due to exactly matching tools within the overall system. Drilling up to the maximum depth without a pilot drill. **Significantly increased tool stability** due to the substantially strengthened core. **Increased metal removal rates** and **outstanding tool lives** lead to an economical high-end drilling process.

##### Note:

For process reliability when using the 16×D deep-hole drill, initial centre drilling with No. 121068 – 121121 or a pilot hole of at least 4×D with pilot drill No. 122736 is necessary. For deep holes greater than 20×D, a pilot hole to the maximum drilling depth with pilot drill No. 122736 is absolutely essential. The generation of a pilot hole improves process reliability. **The specified L/D ratio gives the minimum achievable depth of hole with the respective deep-hole drill.** Flute length  $L_c = L_2 + 1.5 \times D_c$ .

#### Technical description

|                                         |                         |
|-----------------------------------------|-------------------------|
| Shank Ø D <sub>s</sub>                  | 6 mm                    |
| Standard                                | Manufacturer's standard |
| Nominal Ø D <sub>c</sub>                | 6 mm                    |
| Flute length L <sub>c</sub>             | 111 mm                  |
| Number of cutting edges Z               | 2                       |
| Feed f in steel < 900 N/mm <sup>2</sup> | 0.14 mm/rev.            |

|                                                   |                   |
|---------------------------------------------------|-------------------|
| Tolerance nominal $\varnothing$                   | j6                |
| Overall length L                                  | 151 mm            |
| recommended maximum drilling depth L <sub>2</sub> | 102 mm            |
| Series                                            | Master Steel      |
| Coating                                           | TiAlN             |
| Tool material                                     | Solid carbide     |
| Version                                           | 16xD              |
| Point angle                                       | 138 degrees       |
| Shank                                             | DIN 6535 HA to h6 |
| Through-coolant                                   | yes, with 40 bar  |
| Machining strategy                                | HPC               |
| Pilot drill required                              | yes, pilot drill  |
| Colour ring                                       | green             |
| Type of product                                   | Jobber drill      |

## User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|-------------------------------------------|----------------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable only under restricted conditions | 125 m/min      | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 115 m/min      | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable only under restricted conditions | 110 m/min      | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 110 m/min      | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 90 m/min       | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 65 m/min       | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 60 m/min       | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 30 m/min       | S        |

|             |                                           |           |   |
|-------------|-------------------------------------------|-----------|---|
| GG(G)       | suitable only under restricted conditions | 115 m/min | K |
| Uni         | suitable                                  |           |   |
| wet maximum | suitable only under restricted conditions |           |   |
| wet minimum | suitable only under restricted conditions |           |   |