

**Garant****GARANT Master Steel solid carbide high-performance drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 4,5mm****Order data**

|              |               |
|--------------|---------------|
| Order number | 123040 4,5    |
| GTIN         | 4069515029766 |
| Item class   | 11E           |

**Description****Version:**

**Robust drill design and optimised special point geometry** for the **best possible chip formation and reliable chip breakage** with **higher feed rates at the same time**. **Advanced micro-geometry, convex cutting edge and conical profile grinding** to provide additional stability for the main cutting edge. **Optimised flute geometry and patented face geometry** for **reliable chip evacuation** in steel materials and cast material. **High-performance coating** of the latest generation.

**Note:**

Flute length  $L_c = L_2 + 1.5 \times D_c$ .

**HB** and **HE** shanks are available at the same price as HA.

For **HB shanks**: use order **no. 123041**.

**HE** shank: use order **No. 123040 + 129100 HE**.

**Technical description**

|                                          |                |
|------------------------------------------|----------------|
| Nominal Ø $D_c$                          | 4.5 mm         |
| Number of cutting edges Z                | 2              |
| Feed f in steel < 1100 N/mm <sup>2</sup> | 0.15 mm/rev.   |
| recommended maximum drilling depth $L_2$ | 36.3 mm        |
| Standard                                 | Works standard |
| Tolerance nominal Ø                      | h7             |
| Flute length $L_c$                       | 43 mm          |

## Data sheet

|                        |                   |
|------------------------|-------------------|
| Shank Ø D <sub>s</sub> | 6 mm              |
| Overall length L       | 81 mm             |
| Series                 | Master Steel      |
| Coating                | TiAlN             |
| Tool material          | Solid carbide     |
| Version                | 8xD               |
| Point angle            | 135 degrees       |
| Shank                  | DIN 6535 HA to h6 |
| Through-coolant        | yes, with 25 bar  |
| Machining strategy     | HPC               |
| Semi-Standard          | yes               |
| Type of product        | Jobber drill      |

## User data

|                                | Suitability | V <sub>c</sub> | ISO code |
|--------------------------------|-------------|----------------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable    | 130 m/min      | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable    | 120 m/min      | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable    | 110 m/min      | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable    | 100 m/min      | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable    | 80 m/min       | P        |
| GG(G)                          | suitable    | 95 m/min       | K        |
| Uni                            | suitable    |                |          |
| wet maximum                    | suitable    |                |          |
| wet minimum                    | suitable    |                |          |
| Air                            | suitable    |                |          |

## Suitable products

<https://www.hoffmann-group.com/GB/en/hom/p/123040-4,5>