

## Garant

**GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7 (mm or inch): 7/16**



### Order data

|              |               |
|--------------|---------------|
| Order number | 122435 7/16   |
| GTIN         | 4062406108892 |
| Item class   | 11E           |

### Description

#### Version:

**3-flute drill**, specially developed for **use at very high feed rates**. Extremely suitable for **machines with high power** output and stable machining conditions.

- **Special point geometry with stable cutting edges and large clearance at the centre permits very high feed rates.**
- **The patented point geometry is optimised for chip flow and generates low cutting forces with good chip breakage.**
- **With 145° point angle for low burr formation when drilling through holes.**

The **sector-leading technology of the chisel point** guarantees **optimum self-centring behaviour** and permits spot drilling on irregular surfaces. 3 guide chamfers guarantee a stable exit from the hole and an exact roundness of the hole.

#### Note:

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

HB and HE shanks are available at the same price as HA. <br>For **HB shanks**: use order **No. 122436**. <br>For **HE shanks**: use order **No. 122435 + 129100HE**.

Standard: DIN 6537 K

Tolerance nominal Ø: h7

Number of cutting edges Z: 3

Tolerance nominal Ø: h7

recommended maximum drilling depth  $L_2$ : 38.4 mm

Overall length L: 102 mm

Shank Ø  $D_s$ : 12 mm

Feed f in steel < 1100 N/mm<sup>2</sup>: 0.5 mm/rev.

### Technical description

|  |                   |
|--|-------------------|
| recommended maximum drilling depth $L_2$   | 38.4 mm           |
| Flute length $L_c$                         | 55 mm             |
| Standard                                   | DIN 6537 K        |
| Shank $\varnothing D_s$                    | 12 mm             |
| Feed $f$ in steel < 1100 N/mm <sup>2</sup> | 0.5 mm/rev.       |
| Overall length $L$                         | 102 mm            |
| Number of cutting edges $Z$                | 3                 |
| Inch nominal $\varnothing$ corresponds to  | 11,11 mm          |
| Tolerance nominal $\varnothing$            | h7                |
| Series                                     | Master Steel      |
| Coating                                    | TiAlN             |
| Tool material                              | solid carbide     |
| Version                                    | 4xD               |
| Point angle                                | 145 °             |
| Shank                                      | DIN 6535 HA to h6 |
| Through-coolant                            | yes, with 25 bar  |
| Machining strategy                         | HPC               |
| Semi-Standard                              | yes               |
| Colour ring                                | green             |
| Type of product                            | Jobber drill      |

## User data

|                                | Suitability | $V_c$     | ISO code |
|--------------------------------|-------------|-----------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable    | 160 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable    | 140 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable    | 130 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        |
| Steel < 55 HRC                 | suitable    | 60 m/min  | H        |

|                              |   |           |   |
|------------------------------|---|-----------|---|
| INOX < 900 N/mm <sup>2</sup> | suitable                                  | 60 m/min  | M |
| INOX > 900 N/mm <sup>2</sup> | suitable                                  | 50 m/min  | M |
| Ti > 850 N/mm <sup>2</sup>   | suitable only under restricted conditions | 40 m/min  | S |
| GG                           | suitable                                  | 130 m/min | K |
| GGG                          | suitable                                  | 80 m/min  | K |
| Uni                          | suitable                                  |           |   |
| wet maximum                  | suitable                                  |           |   |
| wet minimum                  | suitable                                  |           |   |
| <b>Services</b>              |   |           |   |

Shank grinding Type HE

129100 HE