

## Garant

**GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7 (mm or inch): 18,5**



### Order data

|              |               |
|--------------|---------------|
| Order number | 122435 18,5   |
| GTIN         | 4045197787514 |
| 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  $L_2$ : 51.3 mm

Overall length L: 131 mm

Shank Ø  $D_s$ : 20 mm

Feed f in steel < 1100 N/mm<sup>2</sup>: 0.69 mm/rev.

### Technical description

|   |                   |
|---|-------------------|
| Number of cutting edges Z                         | 3                 |
| Feed f in steel < 1100 N/mm <sup>2</sup>          | 0.69 mm/rev.      |
| Shank Ø D <sub>s</sub>                            | 20 mm             |
| Overall length L                                  | 131 mm            |
| Standard  | DIN 6537 K        |
| Nominal Ø D <sub>c</sub>                          | 18.5 mm           |
| Flute length L <sub>c</sub>                       | 79 mm             |
| Tolerance nominal Ø                               | h7                |
| recommended maximum drilling depth L <sub>2</sub> | 51.3 mm           |
| 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 <sub>c</sub> | 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                                  |           |   |

### Services

Shank grinding Type HE

129100 HE