

**Garant**
**GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 8mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 123235 8      |
| GTIN         | 4045197840615 |
| Item class   | 11E           |

**Description**
**Version:**

**3-flute drill**, specially developed for **use at very high feed rates**. Outstandingly suitable for **machines with high installed power** and stable operating conditions.

- **Special cutter geometry with stable cutting edges and large clearance at the centre enables very high feed rates.**
- **The patented tip is optimised for chip flow and generates low cutting pressure with good chip breakage.**

The **sector-leading technology of the drill point** guarantees **optimum self-centring behaviour**. 3 guide chamfers guarantee a stable exit from the hole and an exact roundness of the hole.

**Note:**

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

For process reliability when using the 12×D drill, an initial centre drilling with an NC spotting drill No. 121130 with **155° point angle** is necessary.

**Technical description**

|  |                         |
|--|-------------------------|
| Flute length $L_c$                       | 108 mm                  |
| Nominal $\varnothing D_c$                | 8 mm                    |
| Number of cutting edges Z                | 3                       |
| recommended maximum drilling depth $L_2$ | 96 mm                   |
| Standard                                 | Manufacturer's standard |
| Shank $\varnothing D_s$                  | 8 mm                    |

|  |                   |
|--|-------------------|
| Feed f in steel < 1100 N/mm <sup>2</sup> | 0.37 mm/rev.      |
| Overall length L                         | 146 mm            |
| Tolerance nominal Ø                      | h7                |
| Series                                   | Master Steel      |
| Coating                                  | TiAlN             |
| Tool material                            | Solid carbide     |
| Version                                  | 12xD              |
| Point angle                              | 140 degrees       |
| Shank                                    | DIN 6535 HA to h6 |
| Through-coolant                          | yes, to 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                                  | 120 m/min      | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 110 m/min      | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 100 m/min      | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 90 m/min       | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 70 m/min       | P        |
| Steel < 55 HRC                 | suitable                                  | 60 m/min       | H        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 55 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                                  | 120 m/min      | K        |
| GGG                            | suitable                                  | 80 m/min       | K        |

|             |          |
|-------------|----------|
| Uni         | suitable |
| wet maximum | suitable |
| wet minimum | suitable |

**Services**

|                        |           |
|------------------------|-----------|
| Shank grinding Type HE | 129100 HE |
|------------------------|-----------|