

**Garant**
**GARANT Master Steel SPEED solid carbide drill, Weldon shank DIN 6535 HB, TiAlN, Ø DC h7: 11mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 122416 11     |
| GTIN         | 4045197790811 |
| Item class   | 11E           |

**Description**
**Version:**

Developed for use with **very high cutting speeds**. Outstandingly suitable for machines with **low installed power** and high speeds.

- **Clear reduction in cutting forces due to special cutter geometry.**
- **Coating for best wear resistance even at high process temperatures.**
- **Polished flutes for good chip clearance.**

A **slim chisel point** and the **special arrangement of the 4 guide chamfers** ensure **high positioning and alignment accuracy**. Optimised micro-geometry for increased working life and performance capability.

**Note:**

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

**Technical description**

|   |              |
|---|--------------|
| Flute length $L_c$                        | 55 mm        |
| Shank $\varnothing D_s$                   | 12 mm        |
| Standard                                  | DIN 6537 K   |
| Nominal $\varnothing D_c$                 | 11 mm        |
| Shank tolerance                           | h6           |
| Feed $f$ in steel $< 1100 \text{ N/mm}^2$ | 0.28 mm/rev. |
| Number of cutting edges $Z$               | 2            |
| Overall length $L$                        | 102 mm       |

|  |                   |
|--|-------------------|
| Tolerance nominal $\varnothing$          | h7                |
| recommended maximum drilling depth $L_2$ | 38.5 mm           |
| Series                                   | Master Steel      |
| Coating                                  | TiAlN             |
| Tool material                            | solid carbide     |
| Version                                  | 4xD               |
| Point angle                              | 135 degrees       |
| Shank                                    | DIN 6535 HB to h6 |
| Through-coolant                          | no                |
| 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                                  | 170 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 150 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 120 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 110 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable only under restricted conditions | 60 m/min  | P        |
| GG                             | suitable                                  | 110 m/min | K        |
| GGG                            | suitable                                  | 100 m/min | K        |
| Uni                            | suitable                                  |           |          |
| wet maximum                    | suitable                                  |           |          |