

Garant

GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 4,5mm



Order data

| | |
|--------------|---------------|
| Order number | 123235 4,5 |
| GTIN | 4045197840264 |
| 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 12xD drill, an initial centre drilling with an NC spotting drill No. 121130 with **155° point angle** is necessary.

Technical description

| | |
|---|-------------------------|
| Feed f in steel < 1100 N/mm ² | 0.28 mm/rev. |
| recommended maximum drilling depth L ₂ | 57.3 mm |
| Shank Ø D _s | 6 mm |
| Nominal Ø D _c | 4.5 mm |
| Flute length L _c | 64 mm |
| Standard | Manufacturer's standard |

| | |
|---------------------------------|-------------------|
| Overall length L | 102 mm |
| Tolerance nominal \varnothing | h7 |
| Number of cutting edges Z | 3 |
| 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_c | ISO code |
|--------------------------------|---|-----------|----------|
| Steel < 500 N/mm ² | suitable | 120 m/min | P |
| Steel < 750 N/mm ² | suitable | 110 m/min | P |
| Steel < 900 N/mm ² | suitable | 100 m/min | P |
| Steel < 1100 N/mm ² | suitable | 90 m/min | P |
| Steel < 1400 N/mm ² | suitable | 70 m/min | P |
| Steel < 55 HRC | suitable | 60 m/min | H |
| INOX < 900 N/mm ² | suitable | 55 m/min | M |
| INOX > 900 N/mm ² | suitable | 50 m/min | M |
| Ti > 850 N/mm ² | 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 |
|------------------------|-----------|