

Garant

GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7 (mm or inch): 19



Order data

| | |
|--------------|---------------|
| Order number | 122435 19 |
| GTIN | 4045197787538 |
| 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.
For **HB shanks**: use order **No. 122436**.
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 : 50.5 mm

Overall length L: 131 mm

Shank Ø D_s : 20 mm

Feed f in steel < 1100 N/mm²: 0.69 mm/rev.

Technical description

| | |
|---|-------------------|
| Flute length L_c | 79 mm |
| Overall length L | 131 mm |
| Nominal $\varnothing D_c$ | 19 mm |
| Tolerance nominal \varnothing | h7 |
| Shank $\varnothing D_s$ | 20 mm |
| Standard | DIN 6537 K |
| Feed f in steel $< 1100 \text{ N/mm}^2$ | 0.69 mm/rev. |
| Number of cutting edges Z | 3 |
| recommended maximum drilling depth L_2 | 50.5 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_c | ISO code |
|-------------------------------|-------------|-----------|----------|
| Steel $< 500 \text{ N/mm}^2$ | suitable | 160 m/min | P |
| Steel $< 750 \text{ N/mm}^2$ | suitable | 140 m/min | P |
| Steel $< 900 \text{ N/mm}^2$ | suitable | 130 m/min | P |
| Steel $< 1100 \text{ N/mm}^2$ | suitable | 110 m/min | P |
| Steel $< 1400 \text{ N/mm}^2$ | suitable | 90 m/min | P |
| Steel $< 55 \text{ HRC}$ | suitable | 60 m/min | H |

| | | | |
|------------------------------|---|-----------|---|
| INOX < 900 N/mm ² | suitable | 60 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 | 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