

## Garant

**GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7 (mm or inch): 19,5**



### Order data

Order number	123035 19,5
GTIN	4045197840196
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  $L_c = L_2 + 1.5 \times D_c$ .

Form HB and HE supplied at the same price as HA.

Form **HB**: order with **No. 123036**.

Form **HE**: order with **No. 123035 + 129100HE**.

Standard: Manufacturer's standard

Tolerance nominal Ø: h7

Number of cutting edges Z: 3

Tolerance nominal Ø: h7

recommended maximum drilling depth  $L_2$ : 160.8 mm

Overall length L: 243 mm

Shank Ø  $D_s$ : 20 mm

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

### Technical description

Flute length $L_c$	190 mm
Feed $f$ in steel $< 1100 \text{ N/mm}^2$	0.69 mm/rev.
recommended maximum drilling depth $L_2$	160.8 mm
Overall length $L$	243 mm
Shank $\varnothing D_s$	20 mm
Nominal $\varnothing D_c$	19.5 mm
Tolerance nominal $\varnothing$	h7
Standard	Manufacturer's standard
Number of cutting edges $Z$	3
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Version	8xD
Point angle	140°
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 $< 500 \text{ N/mm}^2$	suitable	120 m/min	P
Steel $< 750 \text{ N/mm}^2$	suitable	110 m/min	P
Steel $< 900 \text{ N/mm}^2$	suitable	100 m/min	P
Steel $< 1100 \text{ N/mm}^2$	suitable	90 m/min	P
Steel $< 1400 \text{ N/mm}^2$	suitable	70 m/min	P
Steel $< 55 \text{ HRC}$	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