

**Garant**
**GARANT Master Steel SPEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 4,6 mm**

**Order data**

Order number	122415 4,6
GTIN	4045197783974
Item class	11E

**Description**
**Version:**

Developed for use with **very high cutting speeds**. Outstandingly suitable for machines with **low power output** 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 edge** 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.

**Recommendation:**
**Maximum drilling depth:**

flute length (see table) less 1.5×nominal Ø.

**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. 122416**.

Form **HE**: order with **No. 122415 + 129100HE**.

Standard: DIN 6537 K

Tolerance nominal Ø: h7

Number of cutting edges Z: 2

Tolerance nominal Ø: h7

recommended maximum drilling depth  $L_2$ : 17.1 mm

Overall length L: 66 mm

Shank Ø  $D_s$ : 6 mm

Feed f in steel < 1100 N/mm<sup>2</sup>: 0.16 mm/rev.

## Technical description

Number of cutting edges Z	2
Overall length L	66 mm
Nominal $\varnothing D_c$	4.6 mm
Shank $\varnothing D_s$	6 mm
Standard	DIN 6537 K
Shank tolerance	h6
Tolerance nominal $\varnothing$	h7
Feed f in steel < 1100 N/mm <sup>2</sup>	0.16 mm/rev.
Flute length L <sub>c</sub>	24 mm
recommended maximum drilling depth L <sub>2</sub>	17.1 mm
Series	GARANT Master Steel
Coating	TiAlN
Tool material	solid carbide
	4xD
Point angle	135 °
Shank	DIN 6535 HA to h6
Through-coolant	no
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	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		

**Services**

Shank grinding Type HE

129100 HE