## Garant

# GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TIAIN, Ø DC h7 (mm or inch): 5,4



#### Order data

Order number	122435 5,4
GTIN	4045197786593
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.<br>For **HB shanks:** use order **No. 122436**.<br>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<sub>2</sub>: 19.9 mm

Overall length L: 66 mm

Shank Ø D<sub>s</sub>: 6 mm

Feed f in steel < 1100 N/mm<sup>2</sup>: 0.32 mm/rev.

### **Technical description**

# roup 🔥

# Data sheet

StandardDIN 6537 KFeed f in steel < 1100 N/mm²0.32 mm/rev.Flute length Lc28 mmShank Ø Ds6 mmOverall length L66 mmNominal Ø Dc5.4 mmNumber of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4xDPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreenType of productJobber drill	Tolerance nominal Ø	h7		
Flute length L,28 mmShank Ø D,6 mmOverall length L66 mmNominal Ø Dc5.4 mmNumber of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Standard	DIN 6537 K		
Shank Ø Ds6 mmOverall length L66 mmNominal Ø Dc5.4 mmNumber of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAlNTool materialsolid carbideVersion4×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Feed f in steel < 1100 N/mm <sup>2</sup>	0.32 mm/rev.		
Overall length L66 mmNominal Ø Dc5.4 mmNumber of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Flute length L <sub>c</sub>	28 mm		
Nominal Ø Dc5.4 mmNumber of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Shank Ø D <sub>s</sub>	6 mm		
Number of cutting edges Z3recommended maximum drilling depth L219.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Overall length L	66 mm		
recommended maximum drilling depth L <sub>2</sub> 19.9 mm Series Master Steel Coating TiAlN Tool material Solid carbide Version 4×D Point angle 145° Shank DIN 6535 HA to h6 Through-coolant yes, with 25 bar Machining strategy HPC Semi-Standard yes Colour ring Green	Nominal Ø D <sub>c</sub>	5.4 mm		
SeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion4×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Number of cutting edges Z	3		
CoatingTiAINTool materialSolid carbideVersion4×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	recommended maximum drilling depth $L_2$	19.9 mm		
Tool materialsolid carbideVersion4×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Series	Master Steel		
Version4×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Coating	TiAIN		
Point angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Tool material	solid carbide		
ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Version	4×D		
Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Point angle	145 °		
Machining strategyHPCSemi-StandardyesColour ringgreen	Shank	DIN 6535 HA to h6		
Semi-StandardyesColour ringgreen	Through-coolant	yes, with 25 bar		
Colour ring green	Machining strategy	HPC		
	Semi-Standard	yes		
Type of product Jobber drill	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	160 m/min	Р
Steel < 750 N/mm <sup>2</sup>	suitable	140 m/min	Р
Steel < 900 N/mm <sup>2</sup>	suitable	130 m/min	Р
Steel < 1100 N/mm <sup>2</sup>	suitable	110 m/min	Р
Steel < 1400 N/mm <sup>2</sup>	suitable	90 m/min	Р
Steel < 55 HRC	suitable	60 m/min	Н

© Hoffmann GmbH Qualitätswerkzeuge

INOX < 900 N/mm <sup>2</sup>	suitable	60 m/min	М
INOX > 900 N/mm <sup>2</sup>	suitable	50 m/min	М
Ti > 850 N/mm²	suitable only under restricted conditions	40 m/min	S
GG	suitable	130 m/min	К
GGG	suitable	80 m/min	К
Uni	suitable		
wet maximum	suitable		
wet minimum Services	suitable		

Shank grinding Type HE

129100 HE