# Garant

# GARANT Master Steel FEED solid carbide drill, Weldon shank DIN 6535 HB, TiAIN, Ø DC h7: 16,2 mm

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### Order data

Order number	123036 16,2
GTIN	4045197842305
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 machining 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.

## **Recommendation:**

#### Maximum drilling depth:

clamping slot length (see table) less  $1.5 \times nominal \emptyset$ .

#### Note:

Flute length  $L_c = L_2 + 1.5 \times D_c$ . Standard: Manufacturer's standard Tolerance nominal Ø: h7 Number of cutting edges Z: 3 Tolerance nominal Ø: h7 recommended maximum drilling depth L<sub>2</sub>: 146.7 mm Overall length L: 222 mm Shank Ø D<sub>3</sub>: 18 mm Feed f in steel < 1100 N/mm<sup>2</sup>: 0.66 mm/rev.

## **Technical description**

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# Data sheet

Overall length L222 mmNumber of cutting edges Z3Feed f in steel < 1100 N/mm²0.66 mm/rev.Flute length Lc171 mmStandardManufacturer's standardShank Ø D,18 mmrecommended maximum drilling depth L2146.7 mmSeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesCourr ringgreen	Nominal Ø D <sub>c</sub>	16.2 mm
Number of cutting edges Z3Feed f in steel < 1100 N/mm²	Tolerance nominal Ø	h7
Feed f in steel < 1100 N/mm²0.66 mm/rev.Flute length L,171 mmStandardManufacturer's standardShank Ø D,18 mmrecommended maximum drilling depth L₂146.7 mmSeriesGARANT Master SteelCoatingTiAlNTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Overall length L	222 mm
Flute length L <sub>ε</sub> 171 mmStandardManufacturer's standardStandx Ø D <sub>s</sub> 18 mmrecommended maximum drilling depth L <sub>2</sub> 146.7 mmSeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategy4Semi-StandardyesColour ringgreen	Number of cutting edges Z	3
StandardManufacturer's standardShank Ø Ds18 mmrecommended maximum drilling depth L2146.7 mmSeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyyesSemi-StandardyesColour ringgreen	Feed f in steel < 1100 N/mm <sup>2</sup>	0.66 mm/rev.
Shank Ø D,18 mmrecommended maximum drilling depth L2146.7 mmSeriesGARANT Master SteelCoatingTiAlNTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantYes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Flute length L <sub>c</sub>	171 mm
recommended maximum drilling depth L <sub>2</sub> 146.7 mm Series GARANT Master Steel Coating TiAlN Tool material Solid carbide Drill depth up to 8×D Point angle 140 degrees Shank DIN 6535 HB to h6 Through-coolant yes, to 25 bar Machining strategy Allow Semi-Standard yes Colour ring Green	Standard	Manufacturer's standard
SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Shank Ø D <sub>s</sub>	18 mm
CoatingTiAINTool materialSolid carbideDrill depth up to $8 \times D$ Point angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	recommended maximum drilling depth $L_2$	146.7 mm
Tool materialSolid carbideDrill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Series	GARANT Master Steel
Drill depth up to8×DPoint angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Coating	TiAIN
Point angle140 degreesShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Tool material	Solid carbide
ShankDIN 6535 HB to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Drill depth up to	8×D
Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Point angle	140 degrees
Machining strategy     HPC       Semi-Standard     yes       Colour ring     green	Shank	DIN 6535 HB to h6
Semi-Standard yes Colour ring green	Through-coolant	yes, to 25 bar
Colour ring green	Machining strategy	HPC
	Semi-Standard	yes
Type of product Jobber drill	Colour ring	green
	Type of product	Jobber drill