### Garant

# GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TIAIN, Ø DC h7 (mm or inch): 6,1

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#### Order data

Order number	123035 6,1
GTIN	4045197839305
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  $\emptyset$ : h7 Number of cutting edges Z: 3 Tolerance nominal  $\emptyset$ : h7 recommended maximum drilling depth  $L_2$ : 66.9 mm Overall length L: 114 mm Shank  $\emptyset$  D<sub>s</sub>: 8 mm Feed f in steel < 1100 N/mm<sup>2</sup>: 0.37 mm/rev.

#### **Technical description**

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Feed f in steel < 1100 N/mm²	Nominal Ø $D_c$	6.1 mm		
recommended maximum drilling depth L₂ 66.9 mm Flute length L₄ 76 mm Number of cutting edges Z 3 Overall length L Shank Ø D, 114 mm Tolerance nominal Ø 8 mm Tolerance nominal Ø 68 mm Series Master Steel Coating TiAlN Tool material Solid carbide Version 8×D Point angle 140° Shank DIN 6535 HA to h6 Through-coolant yes, to 25 bar Machining strategy Semi-Standard yes Colour ring 0 green	Standard	Manufacturer's standard		
Flute length L76 mmNumber of cutting edges Z3Overall length L114 mmShank Ø Ds8 mmTolerance nominal Øh7SeriesMaster SteelCoatingTiAlNTool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Feed f in steel < 1100 N/mm <sup>2</sup>	0.37 mm/rev.		
Number of cutting edges Z3Overall length L114 mmShank Ø D,8 mmTolerance nominal Øh7SeriesMaster SteelCoatingTiAINTool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	recommended maximum drilling depth L <sub>2</sub>	66.9 mm		
Overall length L114 mmShank Ø D,8 mmTolerance nominal Øh7SeriesMaster SteelCoatingTiAINTool materialSolid carbideVersion8 xDPoint angle140 °ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Flute length L <sub>c</sub>	76 mm		
Shank Ø D,8 mmTolerance nominal Øh7SeriesMaster SteelCoatingTiAINTool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Number of cutting edges Z	3		
Tolerance nominal Øh7SeriesMaster SteelCoatingTiAINTool materialSolid carbideVersionSolid carbidePoint angle140 °ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Overall length L	114 mm		
SeriesMaster SteelCoatingTiAINTool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Shank Ø D <sub>s</sub>	8 mm		
CoatingTiAINTool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Tolerance nominal Ø	h7		
Tool materialSolid carbideVersion8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Series	Master Steel		
Version8×DPoint angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Coating	TiAIN		
Point angle140°ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Tool material	Solid carbide		
ShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Version	8×D		
Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Point angle	140 °		
Machining strategyHPCSemi-StandardyesColour ringgreen	Shank	DIN 6535 HA 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		

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	120 m/min	Р
Steel < 750 N/mm <sup>2</sup>	suitable	110 m/min	Р
Steel < 900 N/mm <sup>2</sup>	suitable	100 m/min	Р
Steel < 1100 N/mm <sup>2</sup>	suitable	90 m/min	Р
Steel < 1400 N/mm <sup>2</sup>	suitable	70 m/min	Р
Steel < 55 HRC	suitable	60 m/min	Н

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INOX < 900 N/mm <sup>2</sup>	suitable	55 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	120 m/min	К
GGG	suitable	80 m/min	К
Uni	suitable		
wet maximum	suitable		
wet minimum Services	suitable		

Shank grinding Type HE

129100 HE