### Garant

# GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TIAIN, Ø DC h7 (mm or inch): 3/16

damer (

#### Order data

Order number	122725 3/16
GTIN	4045197957115
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.
- With 145° tip angle for low burr formation when drilling through holes.

The **sector-leading technology of the chisel edge** 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  $L_c = L_2 + 1.5 \times D_c$ . Form HB and HE supplied at the same price as HA. Form **HB**: order with **No. 122726**. Form **HE**: order with **No. 122725 + 129100HE**. Standard: DIN 6537 Tolerance nominal Ø: h7 Number of cutting edges Z: 3 Tolerance nominal Ø: h7 recommended maximum drilling depth  $L_2$ : 36.9 mm Overall length L: 82 mm Shank Ø D<sub>s</sub>: 6 mm Feed f in steel < 1100 N/mm<sup>2</sup>: 0.28 mm/rev.

#### **Technical description**

## roup 🔥

## Data sheet

Flute length L44 mmInch nominal Ø corresponds to4.76 mmOverall length L82 mmTolerance nominal Øh7Shank Ø Ds6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingTiAINTool material6 xDVersion6 xDPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesCoour ringgreen	Standard	DIN 6537		
Flute length L44 mmInch nominal Ø corresponds to4.76 mmOverall length L82 mmTolerance nominal Øh7Shank Ø Ds6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingTiAINTool material6 xDVersion6 xDPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesCoour ringgreen	Number of cutting edges Z	3		
Inch nominal Ø corresponds to4.76 mmInch nominal Ø corresponds to4.76 mmOverall length L82 mmTolerance nominal Øh7Shank Ø Ds6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingTiAINTool material6×DVersion6×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Feed f in steel < 1100 N/mm <sup>2</sup>	0.28 mm/rev.		
Overall length L82 mmTolerance nominal Øh7Shank Ø Ds6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingTiAINTool materialSolid carbideVersion6 xDPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Flute length L <sub>c</sub>	44 mm		
Tolerance nominal Øh7Shank Ø Ds6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion6×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Inch nominal Ø corresponds to	4.76 mm		
Shank Ø D,6 mmrecommended maximum drilling depth L236.9 mmSeriesMaster SteelCoatingMaster SteelTool materialsolid carbideVersion6×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Overall length L	82 mm		
recommended maximum drilling depth L <sub>2</sub> 36.9 mm Series Master Steel Coating TiAlN Tool material Solid carbide Version 6×D Point angle 145° Shank DIN 6535 HA to h6 Through-coolant yes, with 25 bar Machining strategy Allows Yes Semi-Standard yes Colour ring Green	Tolerance nominal Ø	h7		
SeriesMaster SteelCoatingTiAINTool materialsolid carbideVersion6×DPoint angle145°ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Shank Ø Ds	6 mm		
CoatingTiAINTool materialsolid carbideVersion $6 \times D$ Point angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	recommended maximum drilling depth $L_2$	36.9 mm		
Tool materialsolid carbideVersion6×DPoint angle145 °ShankDIN 6535 HA to h6Through-coolantyes, with 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Series	Master Steel		
Version6×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	6×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/mm <sup>2</sup>	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		
<del>wet minimum</del> Services	suitable		

Shank grinding Type HE

129100 HE