Garant

GARANT Master Steel FEED solid carbide drill, plain shank DIN 6535 HA, TiAIN, Ø DC h7: 4,5 mm

and the state of the state

Order data

Order number	123235 4,5
GTIN	4045197840264
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.

Recommendation:

Maximum drilling depth:

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

Note:

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Flute length L_c = L_2 + 1.5 \times D_c.
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For process reliability when using the 12×D drill, an initial centre drilling with an NC spotting drill No. 121130 with **155° point angle** is necessary.

Standard: Manufacturer's standard

Tolerance nominal Ø: h7

Number of cutting edges Z: 3

Tolerance nominal Ø: h7

recommended maximum drilling depth L_2 : 57.3 mm

Overall length L: 102 mm

Shank Ø D₅: 6 mm

Feed f in steel < 1100 N/mm²: 0.28 mm/rev.

Technical description

recommended maximum drilling depth L257.3 mmShank Ø D46 mmNominal Ø DC4.5 mmFlute length L264 mmStandardManufacturer's standardOverall length L102 mmTolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAlNTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreenType of productJobber drill	Feed f in steel < 1100 N/mm ²	0.28 mm/rev.
Nominal Ø Dc4.5 mmFlute length Lc64 mmStandardManufacturer's standardOverall length L102 mmTolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAlNTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyyesSemi-StandardyesColour ringgreen	recommended maximum drilling depth L_2	57.3 mm
Flute length L64 mmStandardManufacturer's standardOverall length L102 mmTolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAlNTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Shank \varnothing D _s	6 mm
StandardManufacturer's standardOverall length L102 mmTolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Nominal Ø D _c	4.5 mm
Overall length L102 mmTolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Flute length L _c	64 mm
Tolerance nominal Øh7Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Standard	Manufacturer's standard
Number of cutting edges Z3SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Overall length L	102 mm
SeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Tolerance nominal Ø	h7
CoatingTiAINTool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Number of cutting edges Z	3
Tool materialSolid carbideDrill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Series	GARANT Master Steel
Drill depth up to12×DPoint angle140 degreesShankDIN 6535 HA to h6Through-coolantyes, to 25 barMachining strategyHPCSemi-StandardyesColour ringgreen	Coating	TiAIN
Point angle140 degreesShankDIN 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	Drill depth up to	12×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 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

Services

Shank grinding Type HE	129100 HE
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