# Garant

GARANT Master TM plain shank thread mill 2×D, TiAlN, MF: 16X1,5



## Order data

Order number	139665 16X1,5
GTIN	4045197957665
Item class	11D

### Description

#### Version:

Solid carbide thread milling cutters with irregular cutting edge spacing and an increased number of cutting edges. Due to the irregular cutting edge spacing they achieve very smooth running and long tool life.

**Newly developed universal geometry** and **high-performance coating** for use across a wide spectrum of materials.

- · Significantly reduced vibration due to irregular cutting edge spacing
- · Increased number of cutting edges
- · New coating for optimum wear resistance
- · Corrected thread profile for avoidance of profile distortions
- Through-coolant feed ≥ 4×0.5

#### Note:

Form HB and HE supplied at the same price as HA. Form **HB**: order with **No. 139665 + 129100 HB** Form **HE**: order with **No. 139665 + 129100 HE** Through-coolant: yes No. of teeth Z: 6 Thread pitch: 1.5 mm Nominal  $\emptyset$  D<sub>c</sub>: 13.9 mm maximum insertion depth L<sub>1</sub>: 32.25 mm Shank length L<sub>5</sub>: 45 mm Overall length L: 94 mm Shank  $\emptyset$  D<sub>5</sub>: 14 mm

### **Technical description**

No. of teeth Z

6

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Thread pitch1.5 mmOverall length L94 mmShank Ø D,14 mmThread depth32 mmFeed f, in steel < 750 N/mm²0.11 mmmaximum insertion depth L,32.25 mmShank length L,45 mmThrough-coolantyesNumber of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAINThread typeMFThread typeMFFlank angle60 degreesTool materialSolid carbideThread standardDIN 6335 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringGGRANT Master TMType of productthread milling cutter		
Shank Ø D,14 mmThread depth32 mmFeed f, in steel < 750 N/mm²	Thread pitch	1.5 mm
Thread depth32 mmFeed f, in steel < 750 N/mm²	Overall length L	94 mm
Feed f, in steel < 750 N/mm²0.11 mmmaximum insertion depth L,32.25 mmShank length L,45 mmThrough-coolantyesNumber of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAlNThread typeMFThread typeMFThread type60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Shank Ø D <sub>s</sub>	14 mm
maximum insertion depth L,32.25 mmShank length L,45 mmThrough-coolantyesNumber of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAINThread typeMFThread type60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationGARANT Master TM	Thread depth	32 mm
Shank length L,45 mmThrough-coolantyesNumber of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAlNThread typeMFThread typeMFThread type60 degreesTool materialSolid carbideTool materialDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Feed f <sub>z</sub> in steel < 750 N/mm <sup>2</sup>	0.11 mm
Through-coolantyesNumber of clamping slots6Number of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAINCoatingMFThread typeMFThread type60 degreesTool materialSolid carbideThread standardDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringIndvendigSeriesGARANT Master TM	maximum insertion depth L <sub>1</sub>	32.25 mm
Number of clamping slots6Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAINThread typeMFThread typeMF-LHFlank angle60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Shank length L <sub>s</sub>	45 mm
Thread sizeM16×1.5Nominal Ø Dc13.9 mmCoatingTiAINCoatingMFThread typeMFThread type60 degreesTool materialSolid carbideTool materialDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringIndvendigInternal/external applicationGARANT Master TM	Through-coolant	yes
Nominal Ø Dc13.9 mmCoatingTiAINThread typeMFThread typeMF-LHFlank angle60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Number of clamping slots	б
CoatingTiAINCoatingTiAINThread typeMFThread typeMF-LHFlank angle60 degreesTool materialSolid carbideThread standardDIN 6535 HA to h6ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringGreenInternal/external applicationIndvendigSeriesGARANT Master TM	Thread size	M16×1.5
Thread typeMFThread typeMF-LHFlank angle60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Nominal Ø D <sub>c</sub>	13.9 mm
Thread typeMF-LHFlank angle60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Coating	TiAIN
Flank angle60 degreesTool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Thread type	MF
Tool materialSolid carbideThread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Thread type	MF-LH
Thread standardDIN 13ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Flank angle	60 degrees
ShankDIN 6535 HA to h6Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Tool material	Solid carbide
Application for type of drillingup to 2×D for blind holes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Thread standard	DIN 13
Application for type of drillingholes and through holesSpacing of the cuttersunequal spacingColour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Shank	DIN 6535 HA to h6
Colour ringgreenInternal/external applicationIndvendigSeriesGARANT Master TM	Application for type of drilling	•
Internal/external application Indvendig   Series GARANT Master TM	Spacing of the cutters	unequal spacing
Series GARANT Master TM	Colour ring	green
	Internal/external application	Indvendig
Type of product thread milling cutter	Series	GARANT Master TM
	Type of product	thread milling cutter

## Services

Shank grinding Type HB	129100 HB
Shank grinding Type HE	129100 HE