

GARANT Master Steel SlotMachine solid carbide roughing end mill HPC, TiAlN, Ø d11 DC: 16 mm



Order data

Order number	205548 16
GTIN	4045197853585
Item class	11X

Description

Version:

With a new-type knurled profile, optimised for higher feed rates. Improved cutting edge protection thanks to slight edge honing. Tremendous bending strength due to the use of ultrafine grain substrate.

Feed rate per tooth up to 0.1 mm up to a depth of 2×D (in the slot milled from solid).

Advantage:

The tool geometry produces particularly tightly rolled swarf that is discharged via flat chip breaker recesses. As a result, the tool maintains an extremely stable core. Plunge angle of up to 10° possible thanks to generous recess on the front face.

Application:

For roughing machining, particularly suitable for full-slot machining.

Tolerance nominal Ø: d11

No. of teeth Z: 5

Helix angle: 42 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

No. of teeth Z: 5 Flute length L: 22 mm Overall length L: 82 mm Shank Ø D.: 16 mm

Corner chamfer width at 45°: 0.8 mm

Feed f_z for slot milling in steel < 900 N/mm²: 0.1 mm

Technical description



Feed I _x for slot milling in steel < 900 N/mm² Shank DIN 6535 HB to h6 Feed I _x for side milling in steel < 900 N/mm² Tolerance nominal Ø d11 Corner chamfer width at 45° 0.8 mm Cutting edge Ø D _c 16 mm No. of teeth Z Overall length L Shank Ø D, 16 mm Flute length L _c 22 mm Direction of infeed horizontal, oblique and vertical Helix angle 42 degrees Corner chamfer angle 45 degrees Series GARANT Master Steel Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _x for milling operation Cutting width a _x for milling operation Through-coolant no Machining strategy HPC Colour ring Type of product	F 16.6 1 (111) (1 000 N/ 2	0.1
Feed f₂ for side milling in steel < 900 N/mm² Tolerance nominal Ø Corner chamfer width at 45° O.8 mm Cutting edge Ø D₂ No. of teeth Z Overall length L Shank Ø D₃ Flute length L₂ Direction of infeed Helix angle Corner chamfer angle Series GARANT Master Steel Coating TiAlN Tool material Standard DIN 6527 Milling profile Spacing of the cutters Cutting width a₂ for milling operation Cutting width a₂ for milling operation Machining strategy Cloour ring Gutting width a₂ for milling operation Machining strategy Cloour ring Cutting width a₂ for milling operation Machining strategy Cloour ring Cutting width a₂ for milling operation Machining strategy Cloour ring Gutting width a₂ for milling operation Machining strategy HPC Cloour ring Cutting width a₂ for milling operation Gutting green	Feed f _z for slot milling in steel < 900 N/mm ²	0.1 mm
Tolerance nominal \varnothing d11 Corner chamfer width at 45° 0.8 mm Cutting edge \varnothing Dc 16 mm No. of teeth Z 5 Overall length L 82 mm Shank \varnothing D, 16 mm Flute length Lc 22 mm Direction of infeed horizontal, oblique and vertical Helix angle 42 degrees Corner chamfer angle 45 degrees Series GARANT Master Steel Coating TiAlN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a_e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring green	Shank	DIN 6535 HB to h6
Corner chamfer width at 45° Cutting edge Ø D _c 16 mm No. of teeth Z 5 Overall length L Shank Ø D _s 16 mm Flute length L _c 22 mm Direction of infeed Helix angle Corner chamfer angle Series GARANT Master Steel Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile Spacing of the cutters Cutting width a _s for milling operation Cutting width a _s for milling operation Through-coolant No Machining strategy Colour ring 16 mm 82 mm 82 mm 16 mm 18 degrees GARANT Master Steel GARANT Master Steel TIAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters Unequal spacing Cutting width a _s for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring	Feed f_z for side milling in steel < 900 N/mm ²	0.12 mm
Cutting edge Ø D _c No. of teeth Z 5 Overall length L 82 mm Shank Ø D _s 16 mm Flute length L _c 22 mm Direction of infeed horizontal, oblique and vertical Helix angle 42 degrees Corner chamfer angle 45 degrees Series GARANT Master Steel Coating TiAlN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _c for milling operation Cutting width a _c for milling operation Through-coolant No Machining strategy Cloour ring Green	Tolerance nominal Ø	d11
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Overall length L82 mmShank \emptyset Ds16 mmFlute length Lc22 mmDirection of infeedhorizontal, oblique and verticalHelix angle42 degreesCorner chamfer angle45 degreesSeriesGARANT Master SteelCoatingTiAINTool materialSolid carbideStandardDIN 6527Milling profileNRSpacing of the cuttersunequal spacingCutting width a_e for milling operation $0.5 \times D$ for side millingCutting width a_e for milling operationFull slot cutting depth $1 \times D$ Through-coolantnoMachining strategyHPCColour ringgreen	Cutting edge Ø D _c	16 mm
Shank Ø D₃ 16 mm Flute length L₂ 22 mm Direction of infeed horizontal, oblique and vertical Helix angle 42 degrees Corner chamfer angle 45 degrees Series GARANT Master Steel Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width ae for milling operation 0.5×D for side milling Cutting width ae for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring green	No. of teeth Z	5
Flute length L _c Direction of infeed horizontal, oblique and vertical Helix angle Corner chamfer angle Series GARANT Master Steel Coating TiAlN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters Cutting width a _e for milling operation Cutting width a _e for milling operation Through-coolant No Machining strategy HPC Colour ring	Overall length L	82 mm
Direction of infeed horizontal, oblique and vertical Helix angle 42 degrees Corner chamfer angle 45 degrees Series GARANT Master Steel Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width ae for milling operation 0.5×D for side milling Cutting width ae for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring green	Shank Ø D _s	16 mm
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Corner chamfer angle Series GARANT Master Steel Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _e for milling operation Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring GARANT Master Steel GARANT Master Steel TiAIN Solid carbide NR Spling 527 NR Pull slot cutting depth 1×D Through-coolant no Machining strategy HPC	Direction of infeed	horizontal, oblique and vertical
Series GARANT Master Steel TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _e for milling operation Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring	Helix angle	42 degrees
Coating TiAIN Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _e for milling operation O.5×D for side milling Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring	Corner chamfer angle	45 degrees
Tool material Solid carbide Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _e for milling operation Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring Solid carbide DIN 6527 NR PR Spacing of the cutters Unequal spacing Unequal spacing Full slot cutting depth 1×D Through-coolant no Machining strategy HPC	Series	GARANT Master Steel
Standard DIN 6527 Milling profile NR Spacing of the cutters unequal spacing Cutting width a _e for milling operation 0.5×D for side milling Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring green	Coating	TiAIN
Milling profile Spacing of the cutters unequal spacing Cutting width a _e for milling operation Cutting width a _e for milling operation Full slot cutting depth 1×D Through-coolant no Machining strategy HPC Colour ring green	Tool material	Solid carbide
Spacing of the cuttersunequal spacingCutting width a_e for milling operation $0.5 \times D$ for side millingCutting width a_e for milling operationFull slot cutting depth $1 \times D$ Through-coolantnoMachining strategyHPCColour ringgreen	Standard	DIN 6527
Cutting width a_e for milling operation $0.5 \times D$ for side millingCutting width a_e for milling operationFull slot cutting depth $1 \times D$ Through-coolantnoMachining strategyHPCColour ringgreen	Milling profile	NR
Cutting width a _e for milling operation Through-coolant Machining strategy Colour ring Full slot cutting depth 1×D HPC green	Spacing of the cutters	unequal spacing
Through-coolant no Machining strategy HPC Colour ring green	Cutting width a _e for milling operation	0.5×D for side milling
Machining strategy HPC Colour ring green	Cutting width a _e for milling operation	Full slot cutting depth 1×D
Colour ring green	Through-coolant	no
	Machining strategy	HPC
Type of product End mill	Colour ring	green
	Type of product	End mill

Services

Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 16 mm

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