Garant

GARANT Master Alu solid carbide milling cutter with more chip separators TPC, DLC, \emptyset h6 DC: 5 mm



Order data

Order number	203115 5
GTIN	4062406249694
Item class	11X

Description

Version:

Specially designed for TPC high-performance milling. **Optimised bending strength** due to the use of ultra-fine grain substrates. **1**×**D** chip separator for controlled chip breaking.

Balanced for very high process reliability and protecting the machine at high speeds.

Application:

Especially for milling aluminium and non-ferrous metals.

Note:

 h_{max} : The values stated in the table are maximum values.

 $ae_{max} = 0.1 \times D$ for TPC machining.

Successor product for No. 202283, 202284.

Tolerance nominal \emptyset : h6 No. of teeth Z: 4 Helix angle: 38 degrees Direction of infeed: horizontal and oblique Shank: DIN 6535 HA to h6 Balance quality with shank: G 2.5 with HA No. of teeth Z: 4 Flute length L_c: 26 mm Overhang length L₁ incl. recess: 36 mm Recess \emptyset D₁: 4.5 mm Overall length L: 75 mm Shank \emptyset D₃: 6 mm

Technical description

Shank $Ø D_s$

6 mm

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Helix angle38 degreesAverage chip thickness hmax for TPC milling in short- chipping aluminium0.03 mmNo. of teeth Z4Recess Ø D,4.5 mmShank formHAShank formHAShank form01N 6535 HA to h6Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length L_26 mmDirection of infeedhorizontal and obliqueTolerance nominal Øh6Cutting edge Ø D_c5 mmCorner rounding r,0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardWSpacing of the cuttersunequal spacingCutting width a, for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellowType of productEnd mill	Overhang length L₁ incl. recess	36 mm
chipping aluminium0.03 mmNo. of teeth Z4Recess Ø D,4.5 mmShank formHAShank formDIN 6535 HA to h6Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length L,26 mmDirection of infeedhorizontal and obliqueTolerance nominal Ø6Cutting edge Ø Dc5 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width a, for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Helix angle	38 degrees
Recess Ø D,4.5 mmShank formHAShankDIN 6535 HA to h6Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length Lc26 mmDirection of infeedhorizontal and obliqueTolerance nominal Ø6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width a, for milling operation0.1×DThrough-coolantnoMachining strategyYellow		0.03 mm
Shank formHAShankDIN 6335 HA to h6Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length Lc26 mmDirection of infeedhorizontal and obliqueTolerance nominal Ø6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width a, for milling operation0.1×DThrough-coolantnoMachining strategyYellow	No. of teeth Z	4
ShankDIN 6535 HA to h6Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length L26 mmDirection of infeedhorizontal and obliqueTolerance nominal Øh6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ave for milling operation0.1 xDThrough-coolantnoMachining strategyTPCColour ringyellow	Recess Ø D ₁	4.5 mm
Overall length L75 mmBalance quality with shankG 2.5 with HAFlute length L26 mmDirection of infeedhorizontal and obliqueTolerance nominal Øh6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ac for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Shank form	HA
Balance quality with shankG 2.5 with HAFlute length Lc26 mmDirection of infeedhorizontal and obliqueTolerance nominal Øh6Cutting edge Ø Dc5 mmCorner rounding r,0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardWTypeWSpacing of the cuttersunequal spacingCutting width ac for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Shank	DIN 6535 HA to h6
Flute length L26 mmDirection of infeedhorizontal and obliqueTolerance nominal Øh6Cutting edge Ø Dc5 mmCutting edge Ø Dc0.05 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ac for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Overall length L	75 mm
Direction of infeedhorizontal and obliqueDirection of infeedh6Tolerance nominal Øh6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Balance quality with shank	G 2.5 with HA
Tolerance nominal Øh6Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ave for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Flute length L _c	26 mm
Cutting edge Ø Dc5 mmCorner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Direction of infeed	horizontal and oblique
Corner rounding rv0.05 mmSeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Tolerance nominal Ø	h6
SeriesGARANT Master AluCoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Cutting edge Ø D _c	5 mm
CoatingDLCTool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Corner rounding r _v	0.05 mm
Tool materialSolid carbideStandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Series	GARANT Master Alu
StandardManufacturer's standardTypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Coating	DLC
TypeWSpacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Tool material	Solid carbide
Spacing of the cuttersunequal spacingCutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Standard	Manufacturer's standard
Cutting width ae for milling operation0.1×DThrough-coolantnoMachining strategyTPCColour ringyellow	Туре	W
Through-coolant no Machining strategy TPC Colour ring yellow	Spacing of the cutters	unequal spacing
Machining strategyTPCColour ringyellow	Cutting width a_{e} for milling operation	0.1×D
Colour ring yellow	Through-coolant	no
	Machining strategy	TPC
Type of product End mill	Colour ring	yellow
	Type of product	End mill