Garant

GARANT Master TM plain shank thread mill with countersink 2×D, TiAIN, UNC: 10-24



Order data

Order number	139723 10-24
GTIN	4062406058197
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.
- $\cdot\,$ Increased number of cutting edges.
- New coating for optimum wear resistance.
- $\cdot\,$ Corrected thread profile for avoidance of profile distortions.

Advantage:

Incorporating a countersink profile for a 90° countersink and thread milling in a single operation. **Application:**

For **UNC unified coarse threads** ASME-B1.1.

Note:

Form HB and HE supplied at the same price as HA. Form **HB**: order with **No. 139723 + 129100 HB** Form **HE**: order with **No. 139723 + 129100 HE** Thread type: UNC Thread type: UNC-LH No. of teeth Z: 4 Threads per inch: 24 Nominal \emptyset D_c: 3.55 mm Flute length L_c: 10.02 mm Shank length L_s: 36 mm Overall length L: 58 mm Shank Ø D_s: 6 mm

Technical description

Thread Ø4.83 mmNo. of teeth Z4Number of clamping slots4Shank length L,36 mmThread typeUNCThread typeUNC-LHOverall length L58 mmThreads per inch24Shank Ø D,6 mmFlute length L,10.02 mmFlute length L,0.03 mmFlute length L,0.03 mmFlute length L,10.02 mmFeed f, in steel < 750 N/mm²0.03 mmThread size10.24 UNCNominal Ø Dc3.55 mmProgramming value for countersink L,10.91 mmNeck Ø D,5.5 mmSeriesMaster TMCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingunequal spacing	Thread pitch	1.058 mm	
Number of clamping slots4Shank length L,36 mmThread typeUNCThread typeUNC-LHOverall length L58 mmThreads per inch24Shank Ø D,6 mmFlute length L,10.02 mmFeed f, in steel < 750 N/mm²	Thread Ø	4.83 mm	
Shank length L,36 mmThread typeUNCThread typeUNC-LHOverall length L58 mmThreads per inch24Shank Ø D,6 mmFlute length Lc10.02 mmFlute length Lc0.03 mmFlute size10-24 UNCNominal Ø Dc3.55 mmProgramming value for countersink L,10.91 mmNeck Ø D,5.5 mmSeriesMaster TMCoatingTiAlNFlank angle60°ShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holes	No. of teeth Z	4	
Thread typeUNCThread typeUNC-LHOverall length L58 mmThreads per inch24Shank Ø D,6 mmFlute length L,10.02 mmFlute length L,0.03 mmFeed f, in steel < 750 N/mm²	Number of clamping slots	ots 4	
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Overall length L58 mmOverall length L58 mmThreads per inch24Shank Ø D,6 mmFlute length L,10.02 mmFeed f, in steel < 750 N/mm²	Thread type	UNC	
Threads per inch24Shank Ø Ds6 mmFlute length Lc10.02 mmFeed fz in steel < 750 N/mm²	Thread type	UNC-LH	
Shank Ø Ds6 mmFlute length Lc10.02 mmFeed fz in steel < 750 N/mm²	Overall length L	58 mm	
Flute length Lc10.02 mmFeed fz in steel < 750 N/mm²	Threads per inch	24	
Feed f, in steel < 750 N/mm²0.03 mmThread size10-24 UNCNominal Ø Dc3.55 mmProgramming value for countersink L,10.91 mmNeck Ø D,5.5 mmSeriesMaster TMCoatingTiAINFlank angle60 °Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Shank Ø D _s	6 mm	
Thread size10-24 UNCNominal Ø Dc3.55 mmProgramming value for countersink L110.91 mmNeck Ø D15.5 mmSeriesMaster TMCoatingTiAINFlank angle60 °Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Flute length L _c	10.02 mm	
Nominal Ø Dc3.55 mmProgramming value for countersink L110.91 mmNeck Ø D15.5 mmSeriesMaster TMCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Feed f _z in steel < 750 N/mm ²	0.03 mm	
Programming value for countersink L110.91 mmNeck Ø D110.91 mmNeck Ø D15.5 mmSeriesMaster TMCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Thread size	10-24 UNC	
Neck Ø D15.5 mmSeriesMaster TMCoatingTiAINCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Nominal Ø D _c	3.55 mm	
SeriesMaster TMCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Programming value for countersink L ₁	10.91 mm	
CoatingTiAINFlank angle60°Tool materialsolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Neck Ø D ₁	5.5 mm	
Flank angle60 °Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Series	Master TM	
Tool materialsolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Coating	TiAIN	
ShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Flank angle	60 °	
Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Tool material	solid carbide	
Cutting directionright-handApplication for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Shank	DIN 6535 HA with h6	
Application for type of drillingup to 2×D for blind holesApplication for type of drillingup to 2×D for through holes	Through-coolant	yes	
Application for type of drillingup to 2×D for through holes	Cutting direction	right-hand	
	Application for type of drilling	up to 2×D for blind holes	
Spacing of the cutters unequal spacing	Application for type of drilling	up to 2×D for through holes	
	Spacing of the cutters	unequal spacing	

Countersink angle	90 °	
Shank tolerance	h6	
Colour ring	green	
Internal/external application	Internal	
Type of product	thread milling cutter	

User data

	Suitability	V _c	ISO code
Alu plastics	Suitable	220 m/min	Ν
Aluminium (short chipping)	suitable	220 m/min	Ν
Alu > 10% Si	Suitable	180 m/min	Ν
Steel < 500 N/mm ²	Suitable	140 m/min	Р
Steel < 750 N/mm ²	Suitable	130 m/min	Р
Steel < 900 N/mm ²	Suitable	120 m/min	Р
Steel < 1100 N/mm ²	Suitable	90 m/min	Р
Steel < 1400 N/mm ²	Suitable	80 m/min	Р
Steel < 50 HRC	suitable only under restricted conditions	45 m/min	н
TOOLOX 33	Suitable	85 m/min	Н
TOOLOX 44	Suitable	50 m/min	Н
INOX < 900 N/mm ²	Suitable	82 m/min	М
INOX > 900 N/mm ²	Suitable	75 m/min	М
Ti > 850 N/mm ²	Suitable	50 m/min	S
GG(G)	Suitable	120 m/min	К
CuZn	Suitable	200 m/min	Ν
Uni	Suitable		
wet maximum	Suitable		
wet minimum	Suitable		

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Air Services	Suitable	
Shank grinding Type HB	}	129100 HB
Shank grinding Type HE		129100 HE