Garant

GARANT Master TM plain shank thread mill 2×D, TiAIN, UNF: 1/2-20



Order data

Order number	139727 1/2-20
GTIN	4062406058074
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.
- · Corrected thread profile for avoidance of profile distortions.
- increased number of cutting edges.
- new coating for optimum wear resistance.

Application:

For **UNF unified fine threads** ASME-B1.1.

Note:

Form HB and HE supplied at the same price as HA. Form **HB**: order with **No. 139727 + 129100 HB** Form **HE**: order with **No. 139727 + 129100 HE** Thread type: UNF Thread type: UNF-LH No. of teeth Z: 6 Threads per inch: 20 Nominal \emptyset D_c: 9.95 mm Flute length L_c: 25.98 mm Shank length L_s: 40 mm Overall length L: 82 mm Shank \emptyset D_s: 10 mm

Technical description

No. of teeth Z6Shank length L,40 mmThread pitch1.27 mmThread Ø12.7 mmShank Ø D,10 mmThreads per inch20Thread typeUNFThread typeUNF-LHOverall length L82 mmFlute length L,25.98 mmFeed f, in steel < 750 N/mm²0.1 mmThread size1/2-20 UNFNominal Ø Dc9.95 mmSeriesMaster TMCoatingTIAINFlank angle60 °Tool materialsolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2xD for blind holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternalType of productthread milling cutter	Number of clamping slots	б	
Thread pitch1.27 mmThread Ø12.7 mmShank Ø D,10 mmThreads per inch20Thread typeUNFThread typeUNF-LHOverall length L82 mmFlute length L25.98 mmFleed f, in steel < 750 N/mm²	No. of teeth Z	6	
Thread Ø12.7 mmShank Ø D,10 mmThreads per inch20Thread typeUNFThread typeUNFThread type0.1 mmOverall length L82 mmFlute length L,25.98 mmFeed f, in steel < 750 N/mm²	Shank length L_s	40 mm	
Shank Ø D,10 mmThreads per inch20Thread typeUNFThread typeUNF-LHOverall length L82 mmFlute length L,25.98 mmFeed fz in steel < 750 N/mm²	Thread pitch	1.27 mm	
Threads per inch20Thread typeUNFThread typeUNF-LHOverall length L82 mmFlute length L25.98 mmFeed f, in steel < 750 N/mm²	Thread Ø	12.7 mm	
Thread typeUNFThread typeUNF-LHOverall length L82 mmFlute length L25.98 mmFlute length L0.1 mmFeed f, in steel < 750 N/mm²	Shank Ø D _s	10 mm	
Thread typeUNF-LHOverall length L82 mmFlute length L,25.98 mmFlute length L,0.1 mmFeed f, in steel < 750 N/mm²	Threads per inch	20	
Overall length L82 mmFlute length L,25.98 mmFlute length L,0.1 mmFeed f, in steel < 750 N/mm²	Thread type	UNF	
Flute length L25.98 mmFlute length L0.1 mmFeed f2 in steel < 750 N/mm²	Thread type	UNF-LH	
Feed f, in steel < 750 N/mm²0.1 mmFreed f, in steel < 750 N/mm²	Overall length L	82 mm	
Thread size1/2-20 UNFNominal Ø Dc9.95 mmSeriesMaster TMCoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Flute length L _c	25.98 mm	
Nominal Ø Dc9.95 mmSeriesMaster TMCoatingTiAINFlank angle60 °Tool materialsolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Feed f _z in steel < 750 N/mm ²	0.1 mm	
SeriesMaster TMCoatingTiAINFlank angle60°Tool materialsolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Thread size	1/2-20 UNF	
CoatingTiAINFlank angle60°Tool materialSolid carbideShankDIN 6535 HA with h6Through-coolantyesCutting directionright-handApplication for type of drillingup to 2×D for blind holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Nominal Ø D _c	9.95 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 drillingunequal spacingSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	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 holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	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 holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	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 holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	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 holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	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 holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal applicationInternal	Through-coolant	yes	
Application for type of drillingup to 2×D for through holesSpacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Cutting direction	right-hand	
Spacing of the cuttersunequal spacingShank toleranceh6Colour ringgreenInternal/external applicationInternal	Application for type of drilling	up to 2×D for blind holes	
Shank toleranceh6Colour ringgreenInternal/external applicationInternal	Application for type of drilling	up to 2×D for through holes	
Colour ringgreenInternal/external applicationInternal	Spacing of the cutters	unequal spacing	
Internal/external application Internal	Shank tolerance	h6	
	Colour ring	green	
Type of product thread milling cutter	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/mm²	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		
Air	Suitable		

Services

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