

Garant
GARANT Master TM plain shank thread mill 2×D, TiAlN, 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 $\varnothing D_c$: 9.95 mm

Flute length L_c : 25.98 mm

Shank length L_s : 40 mm

Overall length L: 82 mm

Shank $\varnothing D_s$: 10 mm

Technical description

Number of clamping slots	6
No. of teeth Z	6
Shank length L _s	40 mm
Thread pitch	1.27 mm
Thread Ø	12.7 mm
Shank Ø D _s	10 mm
Threads per inch	20
Thread type	UNF
Thread type	UNF-LH
Overall length L	82 mm
Flute length L _c	25.98 mm
Feed f _z in steel < 750 N/mm ²	0.1 mm
Thread size	1/2-20 UNF
Nominal Ø D _c	9.95 mm
Series	Master TM
Coating	TiAlN
Flank angle	60 °
Tool material	solid carbide
Shank	DIN 6535 HA with h6
Through-coolant	yes
Cutting direction	right-hand
Application for type of drilling	up to 2×D for blind holes
Application for type of drilling	up to 2×D for through holes
Spacing of the cutters	unequal spacing
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	N
Aluminium (short chipping)	suitable	220 m/min	N
Alu > 10% Si	Suitable	180 m/min	N
Steel < 500 N/mm ²	Suitable	140 m/min	P
Steel < 750 N/mm ²	Suitable	130 m/min	P
Steel < 900 N/mm ²	Suitable	120 m/min	P
Steel < 1100 N/mm ²	Suitable	90 m/min	P
Steel < 1400 N/mm ²	Suitable	80 m/min	P
Steel < 50 HRC	suitable only under restricted conditions	45 m/min	H
TOOLOX 33	Suitable	85 m/min	H
TOOLOX 44	Suitable	50 m/min	H
INOX < 900 N/mm ²	Suitable	82 m/min	M
INOX > 900 N/mm ²	Suitable	75 m/min	M
Ti > 850 N/mm ²	Suitable	50 m/min	S
GG(G)	Suitable	120 m/min	K
CuZn	Suitable	200 m/min	N
Uni	Suitable		
wet maximum	Suitable		
wet minimum	Suitable		
Air	Suitable		

Services

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

