

Garant**GARANT Master TM solid carbide single profile thread mill 2×D, AlTiN, M: M3****Order data**

Order number	139620 M3
GTIN	4067263139843
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 cutting action** 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.**
- **Increased number of cutting edges.**
- **Latest-generation AlTiN-based HIPIMS coating.**
- **Corrected thread profile for avoidance of profile distortions.**

Parallel coolant channels.

Advantage:

Significantly **less radial pressure** than with multi-tooth thread mills. The tool can also be used for additional thread profiles (UN; UN-LH) **for various pitches and diameters**. See overview for possible threads.

Note:

HB and HE shanks are available at the same price as HA.

HB shank: order with No. **139620 + 129100 HB**.

HE shank: order with No. **139620 + 129100 HE**.

Technical description

Overhang L_1	6.3 mm
Shank length L_s	42 mm
Thread depth	6 mm
Thread size	M3

Data sheet

Through-coolant	yes
Feed f_z in CRP	0.02 mm
No. of teeth Z	4
Shank $\varnothing D_s$	6 mm
Flute length L_c	0.66 mm
Feed f_z in steel < 1400 N/mm ²	0.01 mm
Nominal $\varnothing D_c$	2.38 mm
Number of clamping slots	4
Overall length L	58 mm
Thread pitch range	0.18 - 0.5 mm
Thread profile	Partial profile
Coating	AlTiN
Thread type	M-LH
Thread type	M
Thread type	UN
Thread type	UN-LH
Flank angle	60 degrees
Tool material	Solid carbide
Thread standard	DIN 13
Shank	DIN 6535 HA to h6
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
Series	Master TM
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 < 55 HRC	suitable	45 m/min	H
Steel < 60 HRC	suitable	35 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
CuZn	suitable	200 m/min	N
GRP	suitable	100 m/min	N
CRP	suitable	100 m/min	N
Graphite	suitable	150 m/min	N
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		
Air	suitable		