

Garant**GARANT Master TM solid carbide three-profile thread mill 3×D, AlTiN, M: M12****Order data**

Order number	139630 M12
GTIN	4067263140092
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.**

Axial cooling grooves on the shank.

Advantage:

Significantly **less radial pressure** than with multi-tooth thread mills.

Note:

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

HB shank: order with No. **139630 + 129100 HB**.

HE shank: order with No. **139630 + 129100 HE**.

Technical description

Thread size	M12
Flute length L_c	5.25 mm
Overall length L	82 mm
Nominal $\varnothing D_c$	9.8 mm
Overhang L_1	36.9 mm

Data sheet

Shank Ø D _s	10 mm
Feed f _z in CRP	0.1 mm
Feed f _z in steel < 1400 N/mm ²	0.08 mm
Shank length L _s	42.7 mm
Thread pitch	1.75 mm
Through-coolant	yes
No. of teeth Z	6
Number of clamping slots	6
Thread depth	36 mm
Thread profile	Full profile
Coating	AlTiN
Thread type	M
Thread type	M-LH
Thread type	EG-M
Thread type	EG-M-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 3×D for blind holes
Application for type of drilling	up to 3×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

Data sheet

	Suitability	V_c	ISO code
Alu plastics	suitable	200 m/min	N
Aluminium (short chipping)	suitable	190 m/min	N
Alu > 10% Si	suitable	160 m/min	N
Steel < 500 N/mm ²	suitable	125 m/min	P
Steel < 750 N/mm ²	suitable	115 m/min	P
Steel < 900 N/mm ²	suitable	110 m/min	P
Steel < 1100 N/mm ²	suitable	80 m/min	P
Steel < 1400 N/mm ²	suitable	70 m/min	P
Steel < 55 HRC	suitable	45 m/min	H
Steel < 60 HRC	suitable only under restricted conditions	35 m/min	H
INOX < 900 N/mm ²	suitable	75 m/min	M
INOX > 900 N/mm ²	suitable	70 m/min	M
Ti > 850 N/mm ²	suitable	45 m/min	S
CuZn	suitable	175 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		