

**Garant**
**GARANT Master TM plain shank thread mill, TiAlN, G: G1**

**Order data**

Order number	139705 G1
GTIN	4045197957740
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.**
- **Increased number of cutting edges.**
- **New coating for optimum wear resistance.**
- **Corrected thread profile for avoidance of profile distortions.**

**Application:**

For **Whitworth parallel pipe threads** DIN-ISO 228/1 (threads that do not form a seal within the connections). **Suitable for internal and external threads.**

**Note:**

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

Order **HB** shank: with **No. 139705 + 129100 HB**.

Order **HE** shank: with **No. 139705 + 129100 HE**.

**Technical description**

Thread pitch	2.309 mm
Overall length L	120 mm
Flute length L <sub>c</sub>	51.95 mm
Feed f <sub>z</sub> in steel < 750 N/mm <sup>2</sup>	0.17 mm

Shank $\varnothing D_s$	20 mm
Thread depth	51.95 mm
Thread size	G1
Number of clamping slots	6
Shank length $L_s$	50 mm
Threads per inch	11
No. of teeth Z	6
Series	Master TM
Nominal $\varnothing D_c$	19.95 mm
Application for type of drilling	up to 1.5xD for through holes
Application for type of drilling	up to 1.5xD for blind holes
For use with external threads	up to 1.5xD for bolt threads
Coating	TiAlN
Thread type	G
Thread type	G-LH
Flank angle	55 degrees
Tool material	Solid carbide
Shank	DIN 6535 HA to h6
Through-coolant	yes
Spacing of the cutters	unequal spacing
Colour ring	green
Internal/external application	Internal and external
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 <sup>2</sup>	suitable	140 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	120 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 1400 N/mm <sup>2</sup>	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 <sup>2</sup>	suitable	82 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	75 m/min	M
Ti > 850 N/mm <sup>2</sup>	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