

**Garant****GARANT Diabolo solid carbide end cutting thread mill 2.5×D, TiAlN, M: M16****Order data**

Order number	139524 M16
GTIN	4067263118053
Item class	11J

**Description****Version:**

Tool for **combined production** of bore, chamfer and thread **in a single work step**. Pre-drilling is no longer required. The innovative centre cutting edge geometry makes this tool a specialist in thread production in **hardened and hard-to-machine materials**. The **TiAlN high-performance coating** ensures the longest possible **tool life**, especially in hardened steels **up to 63 HRC**. All tools have left-hand cutting and are suitable for **right-hand and left-hand threads**.

**Note:**

**Always use with cooling lubricant emulsion.** (Fat content minimum 8%). In the case of steels **>45 HRC**: can only be used with **compressed air**!

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

Order **HB** shank: with **No. 139524 + 129100 HB**.

Order **HE** shank: with **No. 139524 + 129100 HE**.

**Technical description**

Through-coolant	yes
Overall length L	83 mm
Shank Ø D <sub>s</sub>	12 mm
Cutting edge Ø D <sub>c</sub>	11.7 mm
Thread pitch	2 mm
Programming radius	5.71 mm
Shank length L <sub>s</sub>	37.3 mm
Number of clamping slots	4

## Data sheet

Overhang $L_1$	43.2 mm
Cutter length $l_c$	6.3 mm
Thread size	M16
Neck $\varnothing D_1$	9.36 mm
Feed $f_z$ in steel < 65 HRC	0.01 mm
Thread depth	40
Thread profile	Full profile
Coating	TiAlN
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 with h6
Number of cutting edges Z	4
Application for type of drilling	up to 2.5×D for through holes
Application for type of drilling	up to 2×D for blind holes
Countersink angle	90 degrees
Cutting direction	left-hand
Shank tolerance	h6
Colour ring	without
Internal/external application	Internal
Type of product	Drill thread milling cutters

## User data

	Suitability	$V_c$	ISO code
Steel < 1100 N/mm <sup>2</sup>	suitable	90 m/min	P

## Data sheet

Steel < 1400 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 55 HRC	suitable	45 m/min	H
Steel < 60 HRC	suitable	40 m/min	H
Steel < 65 HRC	suitable only under restricted conditions	35 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	60 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	60 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	45 m/min	S
wet maximum	suitable		
Air	suitable		

### Suitable products

<https://www.hoffmann-group.com/GB/en/hom/p/139524-M16>