

Garant
End cutting thread mill 2.5×D, TiAlN, M: M16

Order data

Order number	139521 M16
GTIN	4062406568931
Item class	11J

Description
Version:

Tool for **combined production** of bore, chamfer and thread **in a single operation**. No more pre-drilling 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** achieves a top **tool life**, especially in hardened steels **up to 67 HRC**. All tools are left-hand cutting and 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!**

Through-coolant: yes

Thread pitch: 2 mm

Cutting edge $\varnothing D_c$: 11.7 mm

Cutter length l_c : 6.3 mm

Overhang L_1 : 43.2 mm

Shank length L_s : 37.3 mm

Overall length L : 83 mm

Technical description

Number of clamping slots	4
Thread size	M16
Thread depth	40
Shank length L_s	37.3 mm
Thread pitch	2 mm

Overall length L	83 mm
Shank $\varnothing D_s$	12 mm
Feed f_z in steel < 65 HRC	0.01 mm
Cutter length l_c	6.3 mm
Programming radius	5.71 mm
Overhang L_1	43.2 mm
Cutting edge $\varnothing D_c$	11.7 mm
Neck $\varnothing D_1$	9.36 mm
Through-coolant	yes
Coating	TiAlN
Thread type	M
Thread type	M-LH
Flank angle	60°
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×D for blind holes
Application for type of drilling	up to 2.5×D for through holes
Countersink angle	90°
Cutting direction	right-hand
Shank tolerance	h6
Colour ring	without
Internal/external application	Internal
Type of product	Combination drill / thread mill

User data

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

Steel < 1400 N/mm ²	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	35 m/min	H
Steel < 67 HRC	suitable	30 m/min	H
INOX < 900 N/mm ²	suitable	60 m/min	M
INOX > 900 N/mm ²	suitable	60 m/min	M
Ti > 850 N/mm ²	suitable	45 m/min	S
wet maximum	suitable		
Air	suitable		

Services

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