


**HAIMER MILL solid carbide torus cutter, AlTiN, Ø f9 DC / R1: 20/3,0mm**

**Order data**

Order number	220296 20/3,0
GTIN	4034221161758
Item class	26X

**Description**
**Version:**

For **general-purpose use** in steel materials and high-alloy steels, especially stainless steel. With **cylindrical core** for optimum tool stiffness when milling slots. Reliable processes guaranteed when ramping and during circular interpolation milling thanks to **special end face geometry**.

**Note:**

For **HB** use order **No. 220297**.

Tool arbor with the SAFE-LOCK pull-out protection can be found under clamping technology.

**Technical description**

Helix angle	32 degrees
Cutting edge Ø D <sub>c</sub>	20 mm
Shank	DIN 6535 HA to h6
Flute length L <sub>c</sub>	38 mm
Corner radius R <sub>1</sub>	3 mm
Recess Ø D <sub>1</sub>	19 mm
No. of teeth Z	4
Feed f <sub>z</sub> for side milling in steel < 900 N/mm <sup>2</sup>	0.13 mm
Shank Ø D <sub>s</sub>	20 mm
Overall length L	105 mm
Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup>	0.11 mm

Overhang length $L_1$ incl. recess	52 mm
Coating	AlTiN
Tool material	Solid carbide
Standard	DIN 6527
Type	N
Tolerance nominal $\varnothing$	f9
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	Full slot cutting depth $1 \times D$
Cutting width $a_e$ for milling operation	$0.5 \times D$ for side milling
Through-coolant	no
Machining strategy	HPC
Type of product	Torus cutter

## User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable only under restricted conditions		
Aluminium (short chipping)	suitable only under restricted conditions	480 m/min	N
Alu > 10% Si	suitable only under restricted conditions	375 m/min	N
Steel < 500 N/mm <sup>2</sup>	Suitable		
Steel < 750 N/mm <sup>2</sup>	Suitable		
Steel < 900 N/mm <sup>2</sup>	Suitable		
Steel < 1100 N/mm <sup>2</sup>	Suitable		
INOX < 900 N/mm <sup>2</sup>	Suitable		
INOX > 900 N/mm <sup>2</sup>	Suitable		

Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions
GG(G)	suitable only under restricted conditions
Uni	Suitable
Oil	Suitable
wet maximum	suitable
wet minimum	Suitable
dry	Suitable
Air	Suitable