


**HAIMER MILL end mill, AlTiN, Ø f9 DC: 12mm**

**Order data**

Order number	220289 12
GTIN	4034221136855
Item class	26X

**Description**
**Version:**

For **general-purpose use** in steel materials and high-alloy steels, especially stainless steel. With **cylindrical core** for optimised 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. 220291**.

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

**Technical description**

Helix angle	32 degrees
Shank Ø D <sub>s</sub>	12 mm
Overhang length L <sub>1</sub> incl. recess	36.5 mm
No. of teeth Z	4
Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup>	0.066 mm
Direction of infeed	horizontal, oblique and vertical
Flute length L <sub>c</sub>	26 mm
Recess Ø D <sub>1</sub>	11.4 mm
Overall length L	84 mm
Tolerance nominal Ø	f8
Shank	DIN 6535 HA to h6

Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.078 mm
Corner chamfer angle	90 degrees
Cutting edge $\varnothing D_c$	12 mm
Coating	AlTiN
Tool material	Solid carbide
Standard	DIN 6527
Type	N
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.5×D for side milling
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D
Through-coolant	no
Machining strategy	HPC
Colour ring	without
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable only under restricted conditions	480 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	480 m/min	N
Alu > 10% Si	suitable only under restricted conditions	350 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	275 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	255 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	210 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	190 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	95 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	75 m/min	M

Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	35 m/min	S
GG(G)	suitable only under restricted conditions	155 m/min	K
Uni	suitable		
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		
dry	suitable		
Air	suitable		