



## HAIMER MILL end mill SAFE-LOCK, AlTiN, Ø f9 DC: 12mm



### Order data

Order number	220288 12
GTIN	4034221104311
Item class	26X

### Description

#### Version:

With SAFE-LOCK pull-out protection to provide an additional form fit for the tool. In conjunction with SAFE-LOCK tool holders, it secures the tool to prevent it being pulled out.

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:

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

### Technical description

Feed $f_z$ for slot milling in steel $< 900 \text{ N/mm}^2$	0.066 mm
Flute length $L_c$	26 mm
Direction of infeed	horizontal, oblique and vertical
Overhang length $L_1$ incl. recess	36.5 mm
Feed $f_z$ for side milling in steel $< 900 \text{ N/mm}^2$	0.078 mm
Helix angle	32 degrees
Overall length $L$	84 mm
No. of teeth $Z$	4
Shank $\varnothing D_s$	12 mm
Shank	Safe-Lock h6

Tolerance nominal $\varnothing$	f8
Corner chamfer width at 45°	0.24 mm
Corner chamfer angle	45 degrees
Cutting edge $\varnothing D_c$	12 mm
Recess $\varnothing D_1$	11.4 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	Full slot cutting depth 1×D
Cutting width $a_e$ for milling operation	0.5×D for side milling
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		