



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



Order data

Order number	220290 12
GTIN	4034221136978
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 N/mm ²	0.066 mm
Shank Ø D_s	12 mm
Recess Ø D_1	11.4 mm
Cutting edge Ø D_c	12 mm
Flute length L_c	26 mm
Overall length L	84 mm
Corner chamfer angle	90 degrees
Shank	Safe-Lock h6
Feed f_z for side milling in steel < 900 N/mm ²	0.078 mm
Tolerance nominal Ø	f8

No. of teeth Z	4
Overhang length L_1 incl. recess	36.5 mm
Helix angle	32 degrees
Direction of infeed	horizontal, oblique and vertical
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 ²	suitable	275 m/min	P
Steel < 750 N/mm ²	suitable	255 m/min	P
Steel < 900 N/mm ²	suitable	210 m/min	P
Steel < 1100 N/mm ²	suitable	190 m/min	P
INOX < 900 N/mm ²	suitable	95 m/min	M

INOX > 900 N/mm ²	suitable	75 m/min	M
Ti > 850 N/mm ²	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		