

Garant
Roughing end mill HSS-PM, TiAlN, Ø DC: 12mm

Order data

Order number	192920 12
GTIN	4045197108821
Item class	11W

Description
Version:
Relief ground fine pitch knuckle form profile.

Centre cutting teeth for plunging.

For the most demanding metal removal rates.

Advantage:

Excellent results when milling dry.

Technical description

Corner chamfer width at 45°	0.5 mm
Cutting edge Ø D _c	12 mm
Feed f _z for slot milling in steel < 900 N/mm ²	0.034 mm
No. of teeth Z	4
Shank Ø D _s	12 mm
Overall length L	110 mm
Flute length L _c	53 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal Ø	k12
Helix angle	30 degrees
Corner chamfer angle	45 degrees

Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844
Milling profile	HR
Spacing of the cutters	unequal spacing
Through-coolant	no
Colour ring	without
Type of product	End / face mill

User data

	Suitability	V _c	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	138 m/min	N
Alu > 10% Si	suitable only under restricted conditions	110 m/min	N
Steel < 500 N/mm ²	suitable	83 m/min	P
Steel < 750 N/mm ²	suitable	64 m/min	P
Steel < 900 N/mm ²	suitable	64 m/min	P
Steel < 1100 N/mm ²	suitable	37 m/min	P
Steel < 1400 N/mm ²	suitable	32 m/min	P
INOX < 900 N/mm ²	suitable	23 m/min	M
INOX > 900 N/mm ²	suitable only under restricted conditions	18 m/min	M
GG(G)	suitable only under restricted conditions	55 m/min	K
CuZn	suitable only under restricted conditions	110 m/min	N
Uni	suitable		
wet maximum	suitable		
dry	suitable		

