

**Garant**
**Roughing end mill HSS-PM, TiAlN, Ø js12 DC: 16mm**

**Order data**

Order number	192445 16
GTIN	4045197106148
Item class	11W

**Description**
**Version:**
**Relief ground knuckle form profile.**

Centre cutting teeth for plunging.

**Universal end mills** for profile milling or for plunging.

For the most demanding metal removal rates.

**Advantage:**

Compared to multi-flute cutters, **better chip evacuation due to larger flutes.**

**Technical description**

No. of teeth Z	3
Cutting edge Ø D <sub>c</sub>	16 mm
Feed f <sub>z</sub> for slot milling in steel < 750 N/mm <sup>2</sup>	0.04 mm
Corner chamfer width at 45°	0.6 mm
Shank Ø D <sub>s</sub>	16 mm
Overall length L	92 mm
Flute length L <sub>c</sub>	32 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal Ø	js12
Helix angle	25 degrees

Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844 B
Milling profile	NR
Through-coolant	no
Colour ring	without
Type of product	End / face mill

### User data

	Suitability	V <sub>c</sub>	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	138 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	83 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	64 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	64 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	37 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	32 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	23 m/min	M
INOX > 900 N/mm <sup>2</sup>	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		

