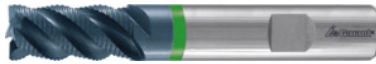


## Garant

### Roughing end mill MTC HSS-E-SPM, TiAlN, Ø k12 DC: 12mm



#### Order data

Order number	192895 12
GTIN	4045197274762
Item class	11W

#### Description

##### Version:

**SPM** substrate with very high cobalt content. Combines the **hardness of solid carbide** with the **toughness of PM steel**. **Dynamic special knuckle profile for roughing**.

**For use as a** universal roughing end mill Centre cutting edge geometry for plunging.

##### Application:

**For very high metal removal rates and increased machining volumes**. Especially for **MTC (Multi Task Cutting)** use on the new generation of turning / milling centres.

#### Technical description

Cutting edge $\varnothing D_c$	12 mm
No. of teeth Z	4
Feed $f_z$ for side milling in steel < 1100 N/mm <sup>2</sup>	0.044 mm
Corner chamfer width at 45°	0.2 mm
Shank $\varnothing D_s$	12 mm
Overall length L	83 mm
Flute length $L_c$	26 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal $\varnothing$	k12
Helix angle	45 degrees

Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS E SPM
Standard	DIN 844
Milling profile	HRF
Through-coolant	no
Machining strategy	MTC
Colour ring	green
Type of product	End / face mill

### User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable only under restricted conditions	95 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	35 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	25 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	20 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	14 m/min	S
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		
Air	suitable		

