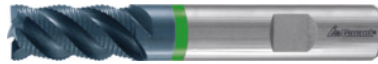


**Garant**
**Roughing end mill MTC HSS-E-SPM, TiAlN, Ø k12 DC: 12 mm**

**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.

Machining strategy: MTC

Tolerance nominal Ø: k12

No. of teeth Z: 4

Helix angle: 45 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 1835 B to h6

No. of teeth Z: 4

Flute length  $L_c$ : 26 mm

Overall length L: 83 mm

Shank Ø  $D_s$ : 12 mm

Corner chamfer width at 45°: 0.2 mm

Feed  $f_z$  for side milling in steel < 1100 N/mm<sup>2</sup>: 0.044 mm

**Technical description**

Cutting edge Ø $D_c$	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 mill