

**Garant**
**Roughing end mill HPC HSS-E-SPM, TiAlN, Ø k12 DC: 20 mm**

**Order data**

Order number	192852 20
GTIN	4045197198297
Item class	11W

**Description**
**Version:**

Special **SPM** substrate with very high cobalt content.

Combines the **hardness of solid carbide** and the **toughness of PM steel**.

Centre cutting teeth profile for plunging.

**Application:**

**For very high metal removal rates and increased machining volumes on stainless steels.**

Machining strategy: HPC

Tolerance nominal Ø: k12

No. of teeth Z: 5

Helix angle: 30 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 1835 B to h6

No. of teeth Z: 5

Flute length  $L_c$ : 22 mm

Overall length L: 88 mm

Shank Ø  $D_s$ : 20 mm

Corner chamfer width at 45°: 0.3 mm

Feed  $f_z$  for slot milling in stainless steel > 900 N/mm<sup>2</sup>: 0.042 mm

**Technical description**

No. of teeth Z	5
Corner chamfer width at 45°	0.3 mm
Cutting edge Ø $D_c$	20 mm
Feed $f_z$ for slot milling in stainless steel > 900 N/mm <sup>2</sup>	0.042 mm

Shank $\varnothing D_s$	20 mm
Overall length L	88 mm
Flute length $L_c$	22 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal $\varnothing$	k12
Helix angle	30 degrees
Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS E SPM
Standard	DIN 327
Milling profile	HRF
Through-coolant	no
Machining strategy	HPC
Colour ring	blue
Type of product	End mill