

**Garant**
**Roughing end mill HSS-PM, TiAlN, Ø DC: 20/4 mm**

**Order data**

Order number	192860 20/4
GTIN	4045197108586
Item class	11W

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

Centre cutting teeth for plunging.

Size 6M to 25M – **MID mills:** Dimensions to **manufacturer's standard**, which is **between** DIN 844 **stub** and DIN 844 **long**.

Through-coolant: no

Tolerance nominal Ø: ±0.12

No. of teeth Z: 4

Helix angle: 30 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 1835 B to h6

No. of teeth Z: 4

Flute length  $L_c$ : 38 mm

Overhang length  $L_1$  incl. recess: 53 mm

Recess Ø  $D_1$ : 19.5 mm

Overall length L: 104 mm

Shank Ø  $D_s$ : 20 mm

**Technical description**

No. of teeth Z	4
Cutting edge Ø $D_c$	20 mm
Feed $f_z$ for slot milling in steel < 900 N/mm <sup>2</sup>	0.048 mm
Overhang length $L_1$ incl. recess	53 mm
Corner chamfer width at 45°	0.3 mm

Recess $\varnothing D_1$	19.5 mm
Shank $\varnothing D_s$	20 mm
Overall length L	104 mm
Flute length $L_c$	38 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal $\varnothing$	$\pm 0.12$
Helix angle	30 degrees
Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844
Milling profile	HR
Through-coolant	no
Colour ring	green
Type of product	End mill