

## Garant

### Solid carbide milling cutter with internal coolant supply HPC, ZOx, Ø f8 DC: 12 mm



#### Order data

Order number	202259 12
GTIN	4045197538666
Item class	11X

#### Description

##### Version:

Sturdy roughing end mill **without** knuckle profile.

With strong core, **special chip breaker recesses** and **large polished flutes**.

##### Application:

For roughing milling with high demands on the component surface.

##### Note:

**NEW GENERATION AVAILABLE!**

**Recommended successor product is No. 202019.**

Tolerance nominal Ø: f8

No. of teeth Z: 3

Helix angle: 45 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HA to h6

Balance quality with shank: G 2.5 with HA

No. of teeth Z: 3

Flute length  $L_c$ : 19 mm

Overhang length  $L_1$  incl. recess: 73 mm

Recess Ø  $D_1$ : 11 mm

Overall length L: 120 mm

Shank Ø  $D_s$ : 12 mm

#### Technical description

Cutting edge Ø $D_c$	12 mm
Shank form	HA

Feed $f_z$ for slot milling in short-chipping aluminium	0.07 mm
Corner chamfer width at 45°	0.2 mm
Overhang length $L_1$ incl. recess	73 mm
Recess $\varnothing D_1$	11 mm
Feed $f_z$ for side milling in short-chipping aluminium	0.09 mm
No. of teeth $Z$	3
Shank $\varnothing D_s$	12 mm
Overall length $L$	120 mm
Flute length $L_c$	19 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HA to h6
Tolerance nominal $\varnothing$	f8
Balance quality with shank	G 2.5 with HA
Helix angle	45 degrees
Corner chamfer angle	45 degrees
Coating	ZOX
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.3×D for side milling
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D
Through-coolant	yes
Machining strategy	HPC
Colour ring	yellow
Type of product	End mill

## Services

Shank recess Type FRST	209900 FRST
Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 12 mm	SZ2025 12
Shank grinding Type HB	129100 HB