

**Garant**
**Solid carbide end mill HPC, ZOX, Ø f8 DC: 20mm**

**Order data**

Order number	202551 20
GTIN	4045197271884
Item class	11X

**Description**
**Version:**

Sturdy roughing end mills **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.

**Technical description**

Feed $f_z$ for side milling in short-chipping aluminium	0.16 mm
No. of teeth Z	4
Corner chamfer width at 45°	0.2 mm
Overhang length $L_1$ incl. recess	98 mm
Cutting edge Ø $D_c$	20 mm
Feed $f_z$ for slot milling in short-chipping aluminium	0.12 mm
Recess Ø $D_1$	19 mm
Shank form	HB
Shank Ø $D_s$	20 mm
Overall length L	150 mm
Flute length $L_c$	40 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6

Tolerance nominal Ø	f8
Balance quality with shank	G 2.5 with HB
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	no
Machining strategy	HPC
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium	suitable only under restricted conditions	250 m/min	N
Aluminium (short chipping)	suitable	240 m/min	N
Alu > 10% Si	suitable	120 m/min	N
Hybrids	suitable only under restricted conditions	m/min	N
CuZn	Suitable	120 m/min	N
wet maximum	suitable		
wet minimum	suitable		

dry	suitable only under restricted conditions
Air	suitable only under restricted conditions