

**Garant**
**Solid carbide roughing end mill MTC with through-coolant, AlCrN, Ø e8 DC: 20mm**

**Order data**

Order number	203076 20
GTIN	4045197776419
Item class	11X

**Description**
**Version:**

For **roughing and finishing** up to 1.5×D into solid material **at very high feed rates** with smooth cutting action.

For cutting force reduction and better surface quality due to **45° helix**.

Improved coating for a further reduction in cutting force combined with increased tool life.

**Application:**

Especially for **MTC (Multi Task Cutting)** use on the new generation of turning / milling centres.

**Technical description**

Flute length $L_c$	41 mm
Corner chamfer width at 45°	0.3 mm
Shank	DIN 6535 HB to h6
Shank $\varnothing D_s$	20 mm
Overall length L	104 mm
Balance quality with shank	G 2.5 with HB
No. of teeth Z	4
Cutting edge $\varnothing D_c$	20 mm
Tolerance nominal $\varnothing$	e8
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.155 mm
Direction of infeed	horizontal, oblique and vertical

Helix angle	45 degrees
Corner chamfer angle	45 degrees
Coating	AlCrN
Tool material	solid carbide
Standard	Manufacturer's standard
Type	N
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	MTC
Colour ring	green
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	250 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	230 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	200 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	180 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	150 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	80 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	60 m/min	M
GG(G)	suitable	170 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		

dry	suitable
Air	suitable