

Garant
Solid carbide roughing end mill MTC / TPC, TiAlN, Ø f8 DC: 20mm

Order data

Order number	202979 20
GTIN	4062406245429
Item class	11X

Description
Version:

Significant cutting force reduction due to 45° helix.

Application:

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

Note:

For materials > 55 HRC we recommend reducing the depth of cut to $a_p=0.25 \times D \dots 0.5 \times D$.

Technical description

Cutting edge Ø D _c	20 mm
Recess Ø D ₁	19 mm
Feed f _z for side milling in steel < 60 HRC	0.05 mm
Feed f _z for slot milling in steel < 60 HRC	0.045 mm
Helix angle	45 degrees
Flute length L _c	41 mm
Shank	DIN 6535 HA to h6
Overhang length L ₁ incl. recess	50 mm
Tolerance nominal Ø	f8
No. of teeth Z	4
Shank Ø D _s	20 mm
Overall length L	104 mm

Direction of infeed	horizontal, oblique and vertical
Corner rounding r_v	0.3 mm
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width a_e for milling operation	$0.1 \times D$
Cutting width a_e for milling operation	Full slot cutting depth $1 \times D$
Cutting width a_e for milling operation	$0.15 \times D$ for side milling
Through-coolant	no
Machining strategy	MTC
Machining strategy	TPC
Colour ring	red
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel < 900 N/mm ²	suitable	160 m/min	P
Steel < 1100 N/mm ²	suitable	115 m/min	P
Steel < 1400 N/mm ²	suitable	115 m/min	P
Steel < 55 HRC	suitable	60 m/min	H
Steel < 60 HRC	suitable	30 m/min	H
Steel < 65 HRC	suitable	25 m/min	H
Steel < 67 HRC	suitable only under restricted conditions	20 m/min	H
wet maximum	suitable only under restricted conditions		

wet minimum	suitable only under restricted conditions
dry	suitable
Air	suitable