

Garant
Solid carbide roughing end mill MTC / TPC, TiAlN, Ø f8 DC: 12mm

Order data

Order number	202977 12
GTIN	4045197431394
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

Overhang length L_1 incl. recess	35 mm
Cutting edge $\varnothing D_c$	12 mm
Feed f_z for side milling in steel < 60 HRC	0.035 mm
Recess $\varnothing D_1$	11 mm
No. of teeth Z	4
Corner chamfer width at 45°	0.15 mm
Feed f_z for slot milling in steel < 60 HRC	0.03 mm
Shank $\varnothing D_s$	12 mm
Overall length L	83 mm
Flute length L_c	26 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6

Tolerance nominal \varnothing	f8
Helix angle	45 degrees
Corner chamfer angle	45 degrees
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	Full slot cutting depth $1 \times D$
Cutting width a_e for milling operation	$0.15 \times D$ for side milling
Cutting width a_e for milling operation	$0.1 \times D$
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