

Garant
Roughing end mill HSS-PM, TiAlN, Ø js12 DC: 20mm

Order data

Order number	192445 20
GTIN	4045197106162
Item class	11W

Description
Version:
Relief ground knuckle form profile.

Centre cutting teeth for plunging.

Universal end mills for profile milling or for plunging.

For the most demanding metal removal rates.

Advantage:

 Compared to multi-flute cutters, **better chip evacuation due to larger flutes.**
Technical description

Feed f_z for slot milling in steel $< 750 \text{ N/mm}^2$	0.05 mm
No. of teeth Z	3
Cutting edge $\varnothing D_c$	20 mm
Corner chamfer width at 45°	0.6 mm
Shank $\varnothing D_s$	20 mm
Overall length L	104 mm
Flute length L_c	38 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal \varnothing	js12
Helix angle	25 degrees

Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844 B
Milling profile	NR
Through-coolant	no
Colour ring	without
Type of product	End / face mill

User data

	Suitability	V _c	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	138 m/min	N
Steel < 500 N/mm ²	suitable	83 m/min	P
Steel < 750 N/mm ²	suitable	64 m/min	P
Steel < 900 N/mm ²	suitable	64 m/min	P
Steel < 1100 N/mm ²	suitable	37 m/min	P
Steel < 1400 N/mm ²	suitable only under restricted conditions	32 m/min	P
INOX < 900 N/mm ²	suitable	23 m/min	M
INOX > 900 N/mm ²	suitable only under restricted conditions	18 m/min	M
GG(G)	suitable only under restricted conditions	55 m/min	K
CuZn	suitable only under restricted conditions	110 m/min	N
Uni	suitable		
wet maximum	suitable		
dry	suitable		

