

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

Order data

Order number	192860 20
GTIN	4045197108579
Item class	11W

Description
Version:
Relief ground fine pitch knuckle form profile.

Centre cutting teeth for plunging.

Size 6M to 25M – **MID mills:** Dimensions to **manufacturer's standard**, which is **between** DIN 844 **stub** and DIN 844 **long**.

Technical description

Recess Ø D ₁	19.5 mm
Feed f _z for slot milling in steel < 900 N/mm ²	0.048 mm
Corner chamfer width at 45°	0.3 mm
Cutting edge Ø D _c	20 mm
Overhang length L ₁ incl. recess	53 mm
No. of teeth Z	5
Shank Ø 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 Ø	±0.12
Helix angle	30 degrees

Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844
Milling profile	HR
Through-coolant	no
Colour ring	green
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	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		