

**Garant**
**Roughing end mill HSS-Co8, uncoated, Ø k12 DC: 19mm**

**Order data**

Order number	192600 19
GTIN	4045197107060
Item class	11W

**Description**
**Version:**

**With relief ground knuckle profile.** The wide teeth lands permit multiple re-grinding without losing the profile.

Up to size 20 end cutting teeth profile for plunging.

**Technical description**

No. of teeth Z	4
Feed $f_z$ for slot milling in steel $< 750 \text{ N/mm}^2$	0.025 mm
Cutting edge $\varnothing D_c$	19 mm
Corner chamfer width at $45^\circ$	0.5 mm
Shank $\varnothing D_s$	16 mm
Overall length L	92 mm
Flute length $L_c$	32 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 1835 B to h6
Tolerance nominal $\varnothing$	k12
Helix angle	30 degrees
Corner chamfer angle	45 degrees
Coating	uncoated

Tool material	HSS Co 8
Standard	DIN 844 B
Milling profile	NR
Through-coolant	no
Colour ring	without
Type of product	End / face mill

### User data

	Suitability	V <sub>c</sub>	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	83 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	25 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable only under restricted conditions	12 m/min	P
GG(G)	suitable only under restricted conditions	23 m/min	K
Uni	suitable		
wet maximum	suitable		