

Garant
Solid carbide copy slot drill, DLC, Ø DC × L1: 1X20mm

Order data

Order number	207025 1X20
GTIN	4062406386900
Item class	11X

Description
Version:

With **advanced DLC sp² coating**. For the **highest demands regarding performance and precision in aluminium materials**. **Extremely tight tolerances** ensure maximum accuracy. Double-relief ground with 2 chamfers.

Tolerances:

- **Corner radius: Radius contour = 0 / -0.005 mm.**
- **Neck Ø: D₁ = 0 / -0.01 mm.**

Recess angle $\alpha = 16^\circ$.

Extra-sturdy shank to reduce the tendency to vibrate.

Note:

At greater tool overhang lengths, use a reduced value for a_p!

values for:

copying: $a_p = 0.25 \times D \times a_{p, \text{corr}}$

To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)!

e.g: $vf = 18000 [\text{rpm}] \times fz [\text{mm/Z}] \times z$

Technical description

Helix angle	30 degrees
Recess Ø D ₁	0.96 mm
Correction factor a _{p, corr}	0.08
No. of teeth Z	2
Cutting edge Ø D _c	1 mm

Overhang length L_1 incl. recess	20 mm
Feed f_z for copy milling in cast aluminium	0.024 mm
Flute length L_c	0.8 mm
Overall length L	57 mm
Corner radius R_1	0.5 mm
Shank $\varnothing D_s$	6 mm
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Tolerance nominal \varnothing	0 / -0.005
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.05×D for copy milling
Shank	DIN 6535 HA to h5
Through-coolant	no
Colour ring	yellow
Type of product	Ball-nosed slot drill

User data

	Suitability	V_c	ISO code
Aluminium	suitable	480 m/min	N
Aluminium (short chipping)	suitable	440 m/min	N
Alu > 10% Si	suitable	400 m/min	N
PMMA acrylic	Suitable	200 m/min	N
PE-HD	Suitable	160 m/min	N
PA 66	Suitable	200 m/min	N
PEEK	Suitable	150 m/min	N
PF 31	Suitable	130 m/min	N

PVDF GF20	suitable	180 m/min	N
POM GF25	Suitable	160 m/min	N
PA 66 GF30	suitable	150 m/min	N
PEEK GF30	suitable	130 m/min	N
PTFE CF25	suitable	160 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	300 m/min	N
Cu	suitable	160 m/min	N
CuZn	suitable	200 m/min	N
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		
Air	suitable		