

**Garant****HSS-E centre drill for tapping holes A with flat, uncoated, for threads: M20****Order data**

Order number	111313 M20
GTIN	4062406102012
Item class	11A

**Description****Version:**

Stepped centre drill for tapping holes to Form A.

For **combined production** of centring, entry chamfer and tapping hole **all in a single operation**.

With additional flats on the shank.

Nominal  $\varnothing D_c$ : 17.5 mm

$\varnothing D_1$  1st step with chamfer  $\pm 0.05$ : 21 mm

$\varnothing D_2$  2nd step: 31.5 mm

Step height  $L_1$  1st step: 38 mm

Step height  $L_2$  2nd step: 48.3 mm

for workpiece  $\varnothing$ : 290 – 320 mm

**Technical description**

for workpiece $\varnothing$	290 – 320 mm
Overall length L	145 mm
s – 0.1	29.35 mm
Number of cutting edges Z	2
Shank $\varnothing D_s$	31.5 mm
Nominal $\varnothing D_c$	17.5 mm
Feed f in steel < 900 N/mm <sup>2</sup>	0.3 mm/rev.
Step height $L_2$ 2nd step	48.3 mm

## Data sheet

Step height L <sub>1</sub> 1st step	38 mm
Ø D <sub>2</sub> 2nd step	31.5 mm
Ø D <sub>1</sub> 1st step with chamfer ±0.05	21 mm
Coating	uncoated
Tool material	HSS E
Standard	DIN 332/2
Type	A
Tolerance nominal Ø	0 / -0.05
Countersink angle	60 °
Cutting direction	right-hand
Shank	Parallel shank to h7
Through-coolant	no
Colour ring	without
Type of product	convex

### User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	65 m/min	N
Aluminium (short chipping)	suitable	65 m/min	N
Alu > 10% Si	suitable	60 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	28 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	9 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	7 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	7 m/min	M
GG(G)	suitable	28 m/min	K
CuZn	suitable	35 m/min	N

## Data sheet

Oil	suitable
wet maximum	suitable