

**Garant**
**Stub stepped drill HSS 90°, vaporised, for threads: M12**

**Order data**

Order number	117020 M12
GTIN	4045197035691
Item class	11C

**Description**
**Version:**

**Very sturdy. Tight concentricity tolerances** between drill  $\varnothing$  and counterbore  $\varnothing$  guarantee exact alignment.

Special surface treatment, resulting in reduced tendency to edge build-up and improved chip evacuation.

**Advantage:**

**Hole and countersink are produced in one operation and precisely aligned.**

**Application:**

**Particularly suitable for NC machines** due to high positional accuracy, excellent centring properties and great sturdiness. The preceding centring operation can thus often be omitted. For thread tapping drill holes to DIN 336 sheet 1 with 90° countersink. In the following operation, the tap therefore does not have to cut into the sharp edge of the hole.

Countersink angle: 90°

No. of teeth Z: 2

Through-coolant: no

$\varnothing D_1$  1st step with chamfer h8: 10.2 mm

$\varnothing D_2$  2nd step with chamfer h8: 13.5 mm

Step height  $L_1$  1st step: 30 mm

Flute length  $L_c$ : 54 mm

Overall length L: 107 mm

Shank  $\varnothing D_s$ : 13.5 mm

**Technical description**

for threads	M12
$\varnothing D_2$ 2nd step with chamfer h8	13.5 mm

Ø D <sub>1</sub> 1st step with chamfer h8	10.2 mm
Flute length L <sub>c</sub>	54 mm
Feed f in steel < 750 N/mm <sup>2</sup>	0.16 mm/rev.
Shank Ø D <sub>s</sub>	13.5 mm
Overall length L	107 mm
No. of teeth Z	2
Through-coolant	no
Step height L <sub>1</sub> 1st step	30 mm
Coating	vaporised
Tool material	HSS
Standard	DIN 1897
Tolerance nominal Ø	h8
Point angle	118 °
Shank	Parallel shank to h8
Countersink angle	90 °
Shank tolerance	h8
Colour ring	without
Application for type of drilling	for blind hole and through hole
Type of product	Stepped drill

## User data

	Suitability	V <sub>c</sub>	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	45 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	P
GG(G)	suitable	25 m/min	K

CuZn	suitable only under restricted conditions	80 m/min	N
Oil	suitable		
wet maximum	suitable		