

**Garant**

**Countersink set No. 150378 in a case 90°, uncoated, Number of countersinks: 17**

**Order data**

Order number	150381 17
GTIN	4045197086457
Item class	11M

**Description****Version:**

Countersink sets, **in a case.**

Practical set for assembly and workshop use.

**All countersinks have 3 cutting edges**, radially relieved.

Flutes are ground from solid.

High-precision countersink, produced with tight manufacturing tolerances similar to DIN 335-C.

**Content:**

1× each precision countersink: Size 4.3; 5; 6; 6.3; 7; 8; 8.3; 10; 10.4; 11.5; 12.4; 15; 16.5; 19; 20.5; 23; 25

**Technical description**

Number of countersinks	17
Number of cutting edges Z	3
Coating	uncoated
Countersink tip angle	90 degrees

Tool material	HSS E
Standard	DIN 335 C
Shank	Plain shank with h9
Colour ring	blue
Type of product	Stepped drill and countersink

### User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable	70 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	33 m/min	N
Alu > 10% Si	suitable only under restricted conditions	25 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable only under restricted conditions	28 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	27 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	27 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	8 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	4 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	7 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	7 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	7 m/min	S
GG(G)	suitable only under restricted conditions	12 m/min	K
CuZn	suitable only under restricted conditions	65 m/min	N
wet minimum	suitable		
dry	suitable only under restricted conditions		

## Accessories

High-precision countersink90° External Ø Dc 8 mm	150378 8
High-precision countersink90° External Ø Dc 12,4 mm	150378 12,4
High-precision countersink90° External Ø Dc 25 mm	150378 25
High-precision countersink90° External Ø Dc 10 mm	150378 10
High-precision countersink90° External Ø Dc 19 mm	150378 19
High-precision countersink90° External Ø Dc 10,4 mm	150378 10,4
High-precision countersink90° External Ø Dc 23 mm	150378 23
High-precision countersink90° External Ø Dc 20,5 mm	150378 20,5
High-precision countersink90° External Ø Dc 6 mm	150378 6
High-precision countersink90° External Ø Dc 11,5 mm	150378 11,5
High-precision countersink90° External Ø Dc 8,3 mm	150378 8,3
High-precision countersink90° External Ø Dc 15 mm	150378 15
High-precision countersink90° External Ø Dc 16,5 mm	150378 16,5
High-precision countersink90° External Ø Dc 4,3 mm	150378 4,3
High-precision countersink90° External Ø Dc 6,3 mm	150378 6,3
High-precision countersink90° External Ø Dc 5 mm	150378 5
High-precision countersink90° External Ø Dc 7 mm	150378 7