

**Garant**
**High-precision countersink 90°, uncoated, External Ø Dc: 19mm**

**Order data**

Order number	150390 19
GTIN	4045197086723
Item class	11M

**Description**
**Version:**

Countersinks radially relief ground. Chip flutes are ground from solid up to size 31. Chip angle varies with the countersink Ø for optimum chip formation. Countersink point and circumference are relief ground and cut easily.

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

**Note:**

For suitable reducing adapters for tools with MT shanks see **No. 343000-343530**.

For countersink bits with shank 6.3 mm (1/4 inch) see Group 67.

**Technical description**

Feed f in steel < 500 N/mm <sup>2</sup>	0.14 mm/rev.
External Ø	19 mm
smallest countersink Ø for holes from	3.5 mm
for countersunk screws ISO 2009, 2010, 7046, 7047	M10
Pre-drill Ø	3.5 mm
Overall length L	100 mm
Morse taper MT	2
Number of cutting edges Z	3
Coating	uncoated
Countersink tip angle	90 degrees

Tool material	HSS
Standard	DIN 335 D
Shank	Morse taper
Through-coolant	no
Colour ring	without
Type of product	Stepped drill and countersink

### User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	70 m/min	N
Aluminium (short chipping)	suitable	33 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	28 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	27 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	27 m/min	P
wet maximum	suitable		
dry	suitable only under restricted conditions		