

**Garant****Mini counterbore for through holes 90°, uncoated, Counterbore Ø D1 x pin Ø D2: 2,8X1,5mm****Order data**

Order number	155600 2,8X1,5
GTIN	4045197462749
Item class	11M

**Description****Version:**

Spiral fluted counterbore with fixed pilot.  
DIN 1866-A / ISO 4205.

**Application:**

**For through hole** quality **fine** (ISO values) to DIN 69.

For countersunk screws to ISO 2009, 2010, 7046, 7047 (DIN 963, 964, 965, 966).

**Note:**

Size 4.6 × 2.4 is not defined in DIN.

**Technical description**

Counterbore Ø	2.8 mm
Pre-drill Ø	1.5 mm
Pin Ø	1,5 mm
Number of cutting edges Z	3
for screw size	M1.4
Feed f in steel < 500 N/mm <sup>2</sup>	0.07 mm/rev.
Shank Ø D <sub>s</sub>	2.8 mm
Overall length L	45 mm
Step height L <sub>1</sub> 1st step with chamfer	2 mm
Point angle	90 degrees

Cutter length $l_c$	7 mm
Coating	uncoated
Tool material	HSS E
Standard	DIN 1866 A
Shank	Plain shank
Countersink angle	90 degrees
Through-coolant	no
Type of product	Counterbore

### User data

	Suitability	$V_c$	ISO code
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
INOX < 900 N/mm <sup>2</sup>	Suitable only under restricted conditions	8 m/min	M
INOX > 900 N/mm <sup>2</sup>	Suitable only under restricted conditions	5 m/min	M
wet maximum	suitable		