

**Garant**
**DIN counterbore for through holes, uncoated, Counterbore  $\varnothing$  D1 x pin  $\varnothing$  D2: 20X13,5mm**

**Order data**

Order number	156020 20X13,5
GTIN	4045197087805
Item class	11M

**Description**
**Version:**

Spiral fluted counterbore. The pilot  $\varnothing$  matches the intended purpose:

**f** – for through holes **fine** quality to DIN ISO 273.

**m** for through holes **medium** quality to DIN ISO 273.

**Application:**

For counterboring socket head screws DIN 912, 6912, 7984, and cheese head screws ISO 1207 (DIN 84).

**Technical description**

Feed f in steel < 500 N/mm <sup>2</sup>	0.16 mm/rev.
Counterbore $\varnothing$	20 mm
Pin $\varnothing$	13,5 mm
Number of cutting edges Z	3
for screw size	M12
for quality of the hole	m
Pre-drill $\varnothing$	13.5 mm
Shank $\varnothing$ D <sub>s</sub>	12.5 mm
Overall length L	100 mm
Step height L <sub>1</sub> 1st step with chamfer	22 mm

Point angle	180 degrees
Coating	uncoated
Tool material	HSS
Standard	DIN 373
Shank	Parallel shank to h9
Through-coolant	no
Type of product	Counterbore

### User data

	Suitability	V <sub>c</sub>	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
wet maximum	suitable		