

**Garant**
**Solid carbide short stepped drill 90°, TiAlN, for threads: M12**

**Order data**

Order number	125050 M12
GTIN	4045197064936
Item class	11E

**Description**
**Version:**

**Very sturdy – step length to DIN 8378. Tight concentricity tolerances** between drill and counterbore  $\varnothing$  guarantee exact alignment.

**Application:**

**Particularly suitable for NC machines and automatic machines.** For drilling tapping holes to DIN 336 sheet 1 with 90° countersinking. In the following operation, the tap therefore does not have to cut into the sharp edge of the hole.

Sizes **F: Tapping holes** for the following **fluteless taps**.

**Technical description**

for threads	M12
$\varnothing D_2$ 2nd step with chamfer h8	13.5 mm
Flute length $L_c$	60 mm
$\varnothing D_1$ 1st step with chamfer h8	10.2 mm
Feed $f$ in steel < 1100 N/mm <sup>2</sup>	0.18 mm/rev.
Shank $\varnothing D_s$	14 mm
Overall length $L$	107 mm
Through-coolant	no
No. of teeth $Z$	2
Step height $L_1$ 1st step	30 mm
Coating	TiAlN

Tool material	Solid carbide
Standard	DIN 8378
Type	N
Tolerance nominal $\varnothing$	h8
Point angle	140 degrees
Shank	DIN 6535 HA to h6
Countersink angle	90 degrees
Shank tolerance	h6
Colour ring	without
Application for type of drilling	for blind hole and through hole
Type of product	Stepped drill

## User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable only under restricted conditions	260 m/min	N
Aluminium (short chipping)	suitable	180 m/min	N
Alu > 10% Si	suitable	180 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	90 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	60 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	35 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	35 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	30 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	25 m/min	S
GG(G)	suitable only under restricted conditions	110 m/min	K
CuZn	suitable	180 m/min	N

Uni	suitable
wet maximum	suitable
dry	suitable only under restricted conditions