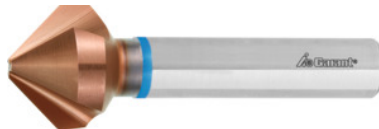


Garant**High-precision countersink with unequal spacing and 3 drive flats 90°, AlTiCN, External Ø Dc: 19mm****Order data**

Order number	150393 19
GTIN	4062406277222
Item class	11M

Description**Version:**

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.

Special geometry with **unequal spacing** and matching cutting edge preparation.

Newly developed AlTiCN coating especially **for stainless steels**.

Three **drive flats on the shank** for use in a 3-jaw chuck.

Application:

High-precision countersinks for chatter-free production of **precise, round 90° countersunk surfaces**.

Technical description

Pre-drill Ø	3.5 mm
External Ø	19 mm
for countersunk screws ISO 2009, 2010, 7046, 7047	M10
Number of cutting edges Z	3
Shank Ø D _s	10 mm
Shank tolerance	h9
Feed f in stainless steel < 900 N/mm ²	0.12 mm/rev.

smallest countersink \varnothing for holes from	3.5 mm
Overall length L	63 mm
Coating	AlTiCN
Countersink tip angle	90 degrees
Tool material	HSS E
Spacing of the countersink cutting edges	unequal spacing
Standard	DIN 335 C
Shank	Shank with h9 and three drive flats
Through-coolant	no
Colour ring	blue
Type of product	Stepped drill and countersink

User data

	Suitability	V_c	ISO code
Alu plastics	suitable only under restricted conditions	53 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	40 m/min	N
Alu > 10% Si	suitable only under restricted conditions	35 m/min	N
Steel < 500 N/mm ²	suitable	55 m/min	P
Steel < 750 N/mm ²	suitable	30 m/min	P
Steel < 900 N/mm ²	suitable	25 m/min	P
Steel < 1100 N/mm ²	suitable	15 m/min	P
Steel < 1400 N/mm ²	suitable	12 m/min	P
INOX < 900 N/mm ²	suitable	18 m/min	M
INOX > 900 N/mm ²	suitable	13 m/min	M
Ti > 850 N/mm ²	suitable	13 m/min	S
GG(G)	suitable only under restricted conditions	30 m/min	K

CuZn	suitable only under restricted conditions	42 m/min	N
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		