

Garant
High-precision countersink with unequal spacing 60°, TiAlN, External Ø Dc: 20mm

Order data

Order number	150815 20
GTIN	4045197868107
Item class	11M

Description
Version:

High-precision 60° countersink with unequal spacing.

Special geometry with extremely unequal spacing and matching cutting edge preparation. Radially relief ground. Flutes ground from solid. Newly developed **special TiAlN coating** for long service life.

Advantage:

Very smooth cutting throughout the entire countersinking operation. Chatter-free running for perfect results and **optimum tool service life.**

Application:

High-precision countersinks for production of **exactly round 60° countersunk surfaces.**

Technical description

Shank Ø D _s	10 mm
External Ø	20 mm
smallest countersink Ø for holes from	5 mm
Feed f in steel < 500 N/mm ²	0.22 mm/rev.
Number of cutting edges Z	3
Overall length L	67 mm
Coating	TiAlN
Countersink tip angle	60 degrees

Tool material	HSS
Spacing of the countersink cutting edges	unequal spacing
Standard	DIN 334
Shank	Parallel shank to h9
Through-coolant	no
Colour ring	green
Type of product	Stepped drill and countersink

User data

	Suitability	V _c	ISO code
Alu plastics	suitable	75 m/min	N
Aluminium (short chipping)	suitable	75 m/min	N
Alu > 10% Si	suitable	50 m/min	N
Steel < 500 N/mm ²	suitable	65 m/min	P
Steel < 750 N/mm ²	suitable	50 m/min	P
Steel < 900 N/mm ²	suitable	30 m/min	P
Steel < 1100 N/mm ²	suitable	18 m/min	P
Steel < 1400 N/mm ²	suitable	8 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	8 m/min	H
INOX < 900 N/mm ²	suitable	16 m/min	M
INOX > 900 N/mm ²	suitable	10 m/min	M
Ti > 850 N/mm ²	suitable only under restricted conditions	12 m/min	S
GG(G)	suitable	25 m/min	K
CuZn	suitable	60 m/min	N
Graphite, GRP, CRP	suitable only under restricted conditions		
Uni	suitable		

wet maximum	suitable
dry	suitable only under restricted conditions