

## Garant

### GARANT Master Steel solid carbide high-performance reamer HPC through hole, TiAlN, Nominal $\varnothing$ DC: 19mm



#### Order data

Order number	164420 19
GTIN	4062406284350
Item class	10P

#### Description

##### Version:

The latest generation of **universal** HPC reamers. Extra-short teeth for increased cutting performance values. Optimised cooling strategy with radially arranged coolant outlets aligned directly to the teeth. **For uncompromising applications in steel and stainless steel.** Reliable machining of high-tensile steels **up to 60 HRC.** **Version suitable for NC** with straight shank  $\varnothing$  for standard arbors especially in **hydraulic chucks** or **high precision collet chucks.**

Very high concentricity and process reliability due to unequal spacing.

##### Tolerance specifications:

**Configurable:** Reamers finish ground to match your specification.

**H7:** Version for H7 bore tolerance.

**0/0.005 mm:** Manufacturing or cutting tolerance of nominal  $\varnothing$  D<sub>c</sub>.

##### Application:

Special version for through holes.

#### Technical description

$\varnothing$ range	18.201 - 19.2 mm
Tolerance	Configurable
Nominal $\varnothing$ D <sub>c</sub>	19 mm
Overall length L	150 mm
Series	Master Steel
Shank $\varnothing$ D <sub>s</sub>	20 mm
Feed f in stainless steel < 900 N/mm <sup>2</sup>	0.6 mm/rev.

Feed f in steel < 1100 N/mm <sup>2</sup>	2 mm/rev.
Flute length L <sub>c</sub>	15 mm
Overhang L <sub>1</sub>	100 mm
Number of cutting edges Z	6
Reaming oversize in diameter	0.2 mm
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Through-coolant	yes, with 25 bar
Shank	DIN 6535 HA with h6
Machining strategy	HPC
Application for type of drilling	for through holes
Colour ring	green
Type of product	Phillips bit

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable only under restricted conditions	180 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	180 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	180 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	150 m/min	P
Steel < 1400 N/mm <sup>2</sup>	Suitable	100 m/min	P
Steel < 55 HRC	Suitable	12 m/min	H
Steel < 60 HRC	Suitable only under restricted conditions	8 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	50 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	30 m/min	M
GG	suitable	110 m/min	K

GGG	suitable	90 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable		