

**Garant**
**Jobber drill with stepped tip HSS N, uncoated, Ø DC h8: 13mm**

**Order data**

Order number	114004 13
GTIN	4062406877606
Item class	11Q

**Description**
**Version:**

Chamfers are nitrided. Particularly sturdy and robust due to the **strengthened core diameter**. Ground flutes, with high concentricity. Precision ground point. Three **drive flats on the shank** for use in a 3-jaw chuck.

- **Ideal for producing precise holes in sheet metal, pipes, and profiles.**
- **Reliable spot drilling without centring or centre punching – even on curved surfaces – thanks to innovative ground point.**
- **Oblique drilling possible without any problems after the first level of the drill tip has penetrated the material.**
- **Drilling with significantly less force required than with conventional DIN338 HSS drills – up to a diameter of 13 mm directly in the cordless drill/driver.**
- **Stable and secure form fit in the 3-jaw chuck.**
- **General use across a wide spectrum of materials including plastic, wood and acrylic without tearing or splintering.**
- **The drill does not rattle or dig in – even in the case of thin-walled materials.**
- **Burr-free drill exit.**
- **Ideal for drilling out bolts and rivets.**

**Recommendation:**
**Maximum drilling depth:**

$$L_2 = L_c - 1.5 \times D_c$$

**Technical description**

Feed f in steel < 750 N/mm <sup>2</sup>	0.2 mm/rev.
Overall length L	151 mm
Tolerance nominal Ø	h8

Point angle	118 °
Standard	DIN 338
Flute length $L_c$	101 mm
Shank $\varnothing D_s$	13 mm
Nominal $\varnothing D_c$	13 mm
Number of cutting edges Z	2
recommended maximum drilling depth $L_2$	81.5 mm
Shank	Three drive flats shank
Coating	uncoated
Tool material	HSS
Type	N
Through-coolant	no
Colour ring	without
Type of product	Jobber drill

### User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable only under restricted conditions	70 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	45 m/min	N
Alu > 10% Si	suitable only under restricted conditions	40 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable only under restricted conditions	10 m/min	P
GG(G)	suitable	25 m/min	K

CuZn	suitable only under restricted conditions
Oil	suitable
wet maximum	suitable