

# Tools – Step Drill Bits


**101701 shown**

**101701T shown**

**101702 shown**

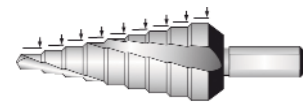
**101702T shown**

## Split Point Step Drills

The spiral flutes of RUKO high-performance step drills are CBN-ground from the solid hardened form. Because CBN (cubical boron nitride) is a much harder abrasive than even silicon carbide or corundum, a better and sharper cutting edge is achieved without burrs. Because of this higher dimensional precision, the drills will last considerably longer while maintaining precise process tolerances. Available in High Speed Steel and Titanium Nitride-coated High Speed Steel, the added titanium nitride coating increases the surface hardness to approximately 2300 HV and the heat resistance to 1100°F (600°C).

- Point Cut: split point DIN 1412 C
- Point angle: 118°
- Step angle: 90°
- Right-hand cutting


**CBN-ground flute**

**Axial relief produced by CBN grinding**

**CBN-ground relief angle**

## Features

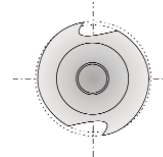
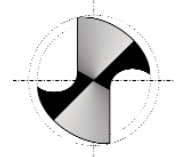
What makes these step drills special?

- CBN-ground flutes without burrs mean a superior cutting edge and longer tool life.
- Each step has a radially adjusted relief produced by CBN grinding, relating directly to the diameter of the step, so the cutting edge is always the highest point of the diameter.
- Each step is axially CBN relief-ground, meaning the cutting edge is also the highest point of the axial cutting axis.
- The cutting edge of each step has relief angle, meaning the cutting edge is also the highest point in advance direction.
- The CBN-ground point ensures centering and spot-drilling, even in thin-walled material.

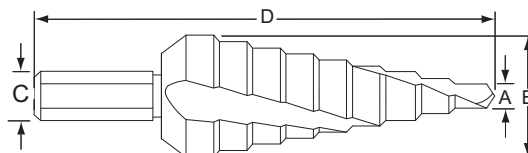
## Application

Use High Speed Steel drills and HSS-TiN coated drills for:

- Sheet metal working in electrical, sanitary engineering, heating technologies, automotive, mechanical engineering, switching systems and aviation
- Non-ferrous metal, steel, stainless steel, thermoplastics, duroplastics, sheet metals up to 0.16" (8 ga.) thick
- Center, spot-drill, bore and debur - all in one operation


**Radially adjusted relief produced by CBN grinding**

**CBN-ground bit with split point DIN 1412C**

Self-Starting Step Drill Bits											
Fractional	Part # High Speed Steel	Pcs/Pkg	Price	Part # Titanium Coated	Pcs/Pkg	Price	Drill Size	Steps	Drill Size (Gauge) A - B (in.)	Shank Diameter C (in.)	Overall Length D (in.)
	101701	1	<-->	101701T	1	<-->	1	6 steps in 1/16" increments	3/16 to 1/2	1/4	3 1/8
	101702	1	<-->	101702T	1	<-->	2	13 steps in 1/32" increments	1/8 to 1/2	1/4	3 1/8
	101703	1	<-->	101703T	1	<-->	3	9 steps in 1/16" increments	1/4 to 3/4	3/8	2 3/4
	101704	1	<-->	101704T	1	<-->	4	12 steps in 1/16" increments	3/16 to 7/8	3/8	3 1/4
	101705	1	<-->	101705T	1	<-->	5	9 steps in 1/16" increments	13/32 to 1	3/8	3 1/4
	101706	1	<-->	101706T	1	<-->	6	5 steps in 1/16" increments	7/8 to 1 3/8	3/8	3 1/4
	101707	1	<-->	101707T	1	<-->	7	2 steps 3/8" to 1/2"	3/8 to 1/2	1/4	1 7/8
	101708	1	<-->	101708T	1	<-->	8	1 step 7/8"	7/8	3/8	2
	101709	1	<-->	101709T	1	<-->	9	2 steps 7/8" to 1 1/8"	7/8 to 1 1/8	3/8	2 7/16


**Spiral flute step drill bit**