

Tools – Step Drill Bits



101701 shown



101701T shown



101701E 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. Drill bits are available in High Speed Steel, Cobalt 5 alloy High Speed Steel and Titanium Nitride-coated High Speed Steel. HSS-Co5 bits are the best choice for cutting stainless steels. The added titanium nitride coating increases the surface hardness to approximately 2300 HV and the heat resistance to 1100°F (600°C).

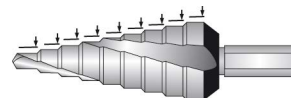
- Point Cut: split point DIN 1412 C
- Point angle: 118°
- Step angle: 90°
- Right-hand cutting



CBN-ground flute



Axial relief produced by CBN grinding



CBN-ground relief angle

Features

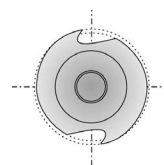
What makes these step drills special?

- 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.

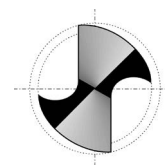
Application

Use High Speed Steel drills, HSS Cobalt 5 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

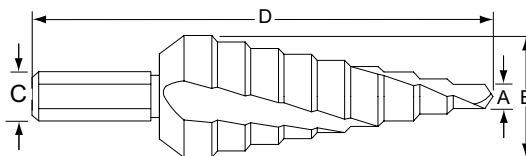


Radially adjusted relief produced by CBN grinding



CBN-ground bit with split point DIN 1412C

| Self-Starting Step Drill Bits | | | | | | | | | | | | | | | |
|-------------------------------|-------------------------|---------|---------|------------------------|---------|---------|-----------------|---------|---------|------------|---|------------------------|------------------------|------------------------|------------------------|
| Fractional | Part # High Speed Steel | Pcs /Pk | Price | Part # Titanium Coated | Pcs /Pk | Price | Part # Cobalt 5 | Pcs /Pk | Price | Drill Size | Steps | Min Drill Size A (in.) | Max Drill Size B (in.) | Shank Diameter C (in.) | Overall Length D (in.) |
| | 101701 | 1 | \$17.00 | 101701T | 1 | \$28.00 | 101701E | 1 | \$25.50 | 1 | 3/16" to 1/2" in 1/16" increments | 3/16 | 1/2 | 1/4 | 3-1/8 |
| | 101702 | 1 | \$20.00 | 101702T | 1 | \$31.00 | 101702E | 1 | \$29.00 | 2 | 1/8" to 1/2" in 1/32" increments | 1/8 | 1/2 | 1/4 | 2-7/8 |
| | 101703 | 1 | \$24.50 | 101703T | 1 | \$38.50 | 101703E | 1 | \$35.50 | 3 | 1/4" to 3/4" in 1/16" increments | 1/4 | 3/4 | 3/8 | 2-7/8 |
| | 101704 | 1 | \$33.00 | 101704T | 1 | \$43.50 | 101704E | 1 | \$39.50 | 4 | 3/16" to 7/8" in 1/16" increments | 3/16 | 7/8 | 3/8 | 3-1/4 |
| | 101705 | 1 | \$33.50 | 101705T | 1 | \$46.50 | 101705E | 1 | \$41.00 | 5 | 13/32", 9/16" to 1" in 1/16" increments | 1/4 | 1 | 3/8 | 3-1/16 |
| | 101706 | 1 | \$47.00 | 101706T | 1 | \$73.00 | 101706E | 1 | \$67.00 | 6 | 7/8", 1-1/8", 1-7/32", 1-1/4", 1-3/8" | 1/4 | 1-3/8 | 3/8 | 3 |
| | 101707 | 1 | \$19.00 | 101707T | 1 | \$30.50 | 101707E | 1 | \$25.50 | 7 | 3/8", 1/2" | 3/16 | 1/2 | 1/4 | 1-7/8 |
| | 101708 | 1 | \$29.00 | 101708T | 1 | \$40.50 | not available | - | - | 8 | 7/8" | 11/64 | 7/8 | 3/8 | 2 |
| | 101709 | 1 | \$37.50 | 101709T | 1 | \$60.00 | 101709E | 1 | \$55.00 | 9 | 7/8", 1-1/8" | 1/4 | 1-1/8 | 3/8 | 2-7/16 |



Spiral flute step drill bit



Tools – Jobber Length Drill Bits

| Jobber Length Drill Bits - Metric Sizes Continued | | | | | | | | | |
|---|-------------------------------|---------|---------|--------------------|---------|---------|-------------------------|---------------------------|-----------------------------|
| Metric | Part # High Speed Steel | Pcs/Pkg | Price | Part # Cobalt 5 | Pcs/Pkg | Price | Drill Size A (mm) | Flute Length B (mm) | Overall Length C (mm) |
| | 214075 | 10 | \$19.00 | 215075 | 10 | \$41.00 | 7.5 | 69.0 | 109.0 |
| | 214080 | 10 | \$23.00 | 215080 | 10 | \$47.00 | 8.0 | 75.0 | 117.0 |
| | 214085 | 10 | \$25.50 | 215085 | 10 | \$57.00 | 8.5 | 75.0 | 117.0 |
| | 214090 | 10 | \$28.00 | 215090 | 10 | \$67.00 | 9.0 | 81.0 | 125.0 |
| | 214095 | 10 | \$29.50 | 215095 | 10 | \$69.00 | 9.5 | 81.0 | 125.0 |
| | 214100 | 10 | \$35.00 | 215100 | 10 | \$70.00 | 10.0 | 87.0 | 133.0 |
| | 214102 | 10 | \$36.50 | 215102 | 10 | \$76.00 | 10.2 | 87.0 | 133.0 |
| | 214105 | 5 | \$19.00 | 215105 | 5 | \$44.50 | 10.5 | 87.0 | 133.0 |
| | 214110 | 5 | \$21.00 | 215110 | 5 | \$46.00 | 11.0 | 94.0 | 142.0 |
| | 214115 | 5 | \$23.00 | 215115 | 5 | \$55.00 | 11.5 | 94.0 | 142.0 |
| | 214120 | 5 | \$25.00 | 215120 | 5 | \$56.00 | 12.0 | 101.0 | 151.0 |
| | 214125 | 5 | \$26.50 | 215125 | 5 | \$55.00 | 12.5 | 101.0 | 151.0 |
| | 214130 | 5 | \$32.00 | 215130 | 5 | \$63.00 | 13.0 | 101.0 | 151.0 |



Tools – Drill Bit Sets



Jobber length drill set
214214RO shown

| Drill Bit Sets | | |
|----------------|----------|--|
| Part # | Price | Description |
| 101026USRO | \$66.00 | Three-piece Step Drill Bit Set High Speed Steel, bright finish, spiral fluted with split point. Drill size 1: 6 steps from 3/16" to 1/2" with 1/16" increments. Shank size 1/4" Drill size 2: 13 steps from 1/8 to 1/2" with 1/32" increments. Shank size 1/4" Drill size 3: 9 steps from 1/4" to 3/4" with 1/16" increments. Shank size 3/8" |
| 101026USERO | \$99.00 | Three-piece Step Drill Bit Set HSS-Co5 spiral fluted with split point. Drill size 1: 6 steps from 3/16" to 1/2" with 1/16" increments. Shank size 1/4" Drill size 2: 13 steps from 1/8 to 1/2" with 1/32" increments. Shank size 1/4" Drill size 3: 9 steps from 1/4" to 3/4" with 1/16" increments. Shank size 3/8" |
| 101026USTRO | \$103.00 | Three-piece Step Drill Bit Set HSS-TiN coated spiral fluted with split point. Drill size 1: 6 steps from 3/16" to 1/2" with 1/16" increments. Shank size 1/4" Drill size 2: 13 steps from 1/8 to 1/2" with 1/32" increments. Shank size 1/4" Drill size 3: 9 steps from 1/4" to 3/4" with 1/16" increments. Shank size 3/8" |
| 214214RO | \$50.00 | 19-piece jobber Length Drill Set Metric sizes 1.0 to 10.0 mm in increments of 0.5 mm High-speed steel, 118 degrees point |
| 214215RO | \$60.00 | 25-piece jobber Length Drill Set Metric sizes 1.0 to 13.0 mm in increments of 0.5 mm High-speed steel, 118 degrees point |
| 215214RO | \$98.00 | 19-piece jobber Length Drill Set Metric sizes 1.0 to 10.0 mm in increments of 0.5 mm High-speed steel Cobalt 5 alloy, 135 degrees point |
| 215215RO | \$116.00 | 25-piece jobber Length Drill Set Metric sizes 1.0 to 13.0 mm in increments of 0.5 mm High-speed steel Cobalt 5 alloy, 135 degrees point |
| 214850RO | \$34.00 | 21-piece jobber Length Drill Set Fractional sizes 1/16" to 3/8" in increments of 1/64" High-speed steel, 118 degrees point |
| 214851RO | \$54.00 | 29-piece jobber Length Drill Set Fractional sizes 1/16" to 1/2" in increments of 1/64" High-speed steel, 118 degrees point. |
| 215850RO | \$61.00 | 21-piece jobber Length Drill Set Fractional sizes 1/16" to 3/8" in increments of 1/64" High-speed steel Cobalt 5 alloy, 135 degrees point |
| 215851RO | \$89.00 | 29-piece jobber Length Drill Set Fractional sizes 1/16" to 1/2" in increments of 1/64" High-speed steel Cobalt 5 alloy, 135 degrees point. |
| 250850TRO | \$39.50 | 21-piece jobber Length Drill Set Fractional sizes 1/16" to 3/8" in increments of 1/64" TiN-coated high-speed steel, 118 degrees point |
| 250851TRO | \$59.00 | 29-piece jobber Length Drill Set Fractional sizes 1/16" to 1/2" in increments of 1/64" TiN-coated high-speed steel, 118 degrees point |