

Step Drill Bits (Cone Drills for Sheet Metal)

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Drilling & Cutting Tools

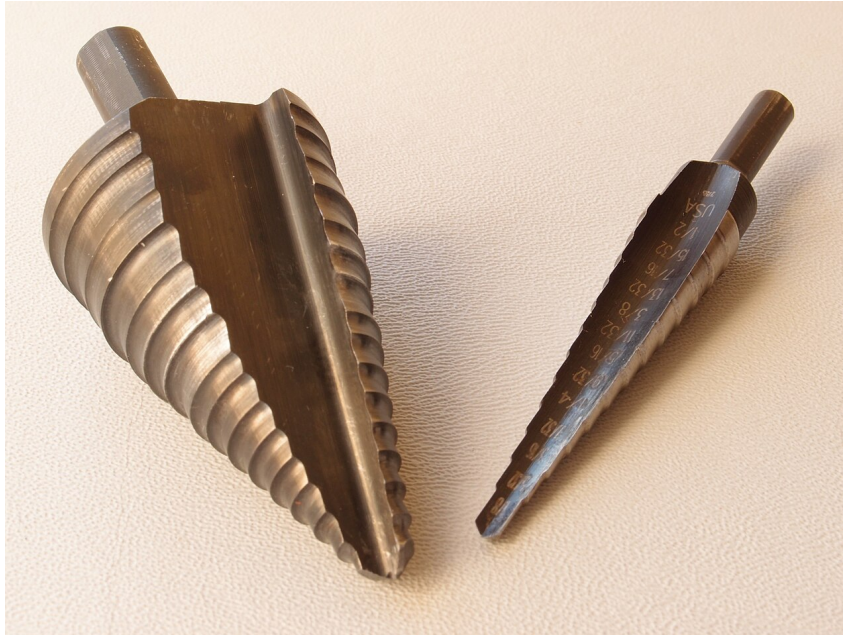


Photo: Junkyardsparkle — CC0 — via Wikimedia Commons (Pair_of_unibits_aka_step_bits.jpg)

Step drill bits cut progressively larger holes in thin sheet metal, plastic and board with one tool - each step enlarges the hole while the cone geometry stops it grabbing. They deburr as they cut and replace a whole set of twist drills for sheet work.

Key Features

- Sizes 4-32 mm in steps
- Multiple flutes for smooth cut
- Self-starting points
- Deburring edges
- HSS and cobalt grades

Typical Uses in the Workshop

- Hole sizes in sheet metal and enclosures
- Enlarge existing holes cleanly
- Cut electrical and distribution box entries
- De-burr as you drill

Safe Operation

1. Centre-punch and start slowly
2. Feed the bit until the step engages
3. Advance step by step for clean holes
4. Use cutting fluid on steel
5. Deburr both sides after

SAFETY NOTES

- Step bits grab - hold the drill firmly
- Support thin sheet on a backing block
- Wear eye protection against swarf
- Do not drill hardened or case-hardened steel
- Clamp the work securely

Maintenance & Consumables

- Clean the flutes of resin
- Check the steps for wear
- Sharpen with the step bit stone
- Store in the case
- Replace worn bits

Specification & Buying Notes

A quality step bit set 4-32 mm covers the enclosure and sheet work the workshop does. Cobalt cuts stainless. Good geometry steers clean; cheap steps chatter and tear.