

High-Speed Steel (HSS) Twist Drill Sets

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



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HSS twist drill sets are the standard drill bits for wood, plastic and metal, supplied in organised cases from 1 mm up to 13 mm. The spiral flutes clear swarf, the point angles suit the material, and quality sets stay sharp through years of school use.

Key Features

- Sets from 1.0 to 13.0 mm in 0.5 mm steps
- 135 degree split points reduce walking
- Straight or reduced shanks
- HSS holds an edge for metal work
- Indexed cases keep sizes organised

Typical Uses in the Workshop

- Drill accurate holes in wood and board materials
- Drill steel, brass, aluminium and plastic
- Pilot holes before countersinking or screwing
- Start holes with a centre punch for accuracy

Safe Operation

1. Centre-punch and select the right bit size
2. Use a pilot hole for large sizes
3. Clamp work and drill at the correct speed for the material
4. Use cutting fluid for metal, low speed for steel
5. Clear swarf and let the bit cool

SAFETY NOTES

- Never hold work by hand - always clamp
- Keep the drill chuck key removed
- Wear eye protection against swarf
- Do not force bits; let the cutting edge work
- Check bits for bends before use

Maintenance & Consumables

- Return bits to the case after use
- Keep the case dry to avoid rust
- Sharpen with a drill sharpener when dull
- Replace damaged bits promptly
- Wipe bits with an oily cloth for metal work

Specification & Buying Notes

Buy decent HSS sets in indexed cases; cheap sets blunt quickly and teach bad drilling. Add a drill sharpener and a set of cobalt or carbide bits for harder stock.