Pin Vices

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

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A pin vice is a small hand-held collet chuck for gripping tiny drills, wires, taps and pins from 0.3 mm up to about 3 mm. It gives fine control for drilling small holes in model-making, electronics and jewellery work where a power tool is too coarse.

Key Features

- Collet sizes from 0.3-3.2 mm typical
- Knurled body for a secure finger grip
- Three-jaw or split collet designs
- Reversible handle for delicate work
- Pocket size, often sold in sets with micro drills

Typical Uses in the Workshop

- Drill small holes in plastic, PCB and soft metal
- Hold tiny taps for threading small holes
- Twist wires and pins for electronics models
- Drill through beads and jewellery findings

Safe Operation

1. Select a collet or chuck position to fit the drill shank
2. Tighten the collet firmly onto the drill
3. Mark the hole position with a punch first
4. Rotate the vice between thumb and fingers with light pressure
5. Lift frequently to clear swarf from the flutes

SAFETY NOTES

- Micro drills snap easily - use light, steady pressure
- Keep the point away from fingers and skin
- Wear eye protection when drilling
- Do not force a bent drill through material
- Store with points down in a drilled block

Maintenance & Consumables

- Clean the collets to keep grip reliable
- Protect collet slots from damage
- Replace worn or bent micro drills
- Oil the thread lightly if it binds
- Store sets in a labelled case

Specification & Buying Notes

Buy a pin vice set with a few interchangeable collets and a selection of sharp micro-drills. A swivel-head model is easier to use upright. Quality collets grip without crushing tiny shanks.