

Engineer's Squares and Try Squares

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Measuring & Inspection

Engineer's squares and try squares are L-shaped tools for checking and marking right angles. Engineer's squares are precision ground for metalwork, while try squares with a fixed stock are the woodworker's version. Both are used to set up machines and verify that joints and parts are square.

Key Features

- Precision ground faces on engineer's squares
- Try squares with wooden or metal stocks
- Sizes from 50 mm to 300 mm blade length
- Accuracy to 0.01 mm on decent engineer's squares
- Hardened blade with clear marking scale

Typical Uses in the Workshop

- Mark square lines across wood and metal
- Check frames and carcasses are square before assembly
- Set up saw fences and machine tables
- Verify finished parts against drawing tolerances

Safe Operation

1. Hold the stock firmly against the reference edge
2. Mark along the blade with a sharp pencil or scriber
3. Test squareness by placing the tool both ways
4. Check machines with the work surface clean
5. Store the square so faces are not dinged

SAFETY NOTES

- Handle blades carefully - edges are sharp
- Never use a square as a straightedge for cutting
- Keep squares away from heat that warps them
- Do not drop them on hard floors
- Store in a shadow board or tool roll

Maintenance & Consumables

- Wipe faces and apply a light oil film
- Check squareness against a known reference
- Re-sharpen or replace damaged blades
- Keep them separate from general tools
- Verify calibration with a feeler gauge annually

Specification & Buying Notes

Buy good quality engineer's squares in a set of 3 sizes and try squares in 150 and 300 mm. Check the faces are dead flat and the joint is tight. Avoid cheap cast squares with poor edges.