

Radius and Fillet Gauges

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

Radius and fillet gauges are sets of thin blades with curved edges of known radius, used to check the size of rounded corners, fillets and convex curves on machined parts. Each blade is marked with its radius in millimetres or inches.

Key Features

- Sets cover 0.5 to 25 mm typical
- Convex and concave blades in one set
- Stamped or etched radius markings
- Folding sets with a holding handle
- Matching pairs for inside and outside curves

Typical Uses in the Workshop

- Check fillet radii on turned and milled parts
- Verify corner radii against drawings
- Set up tooling by comparing blade edges
- Mark out curves by tracing a matching blade

Safe Operation

1. Select a blade near the expected radius
2. Hold the blade against the curve and compare the gap
3. Rock the blade to find the closest match
4. Record the stamped value
5. Check both ends and along the curve length

SAFETY NOTES

- Blades are thin and sharp-edged - handle by the holder
- Do not force blades between parts
- Store blades closed in the case
- Keep blades dry and lightly oiled
- Do not use blades as scrapers or formers

Maintenance & Consumables

- Wipe blades after use
- Check the stamped sizes remain readable
- Replace any blade that is bent or burred
- Keep the folding mechanism working
- Store the set in its case

Specification & Buying Notes

Buy a combined metric radius and fillet set with good etching. Quality sets read accurately; cheap pressed blades can be off by fractions of a millimetre.