

Pipe and Tube Benders

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Metalworking Machines



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Pipe and tube benders form accurate bends in tube and pipe without kinking, using handles, dies or hydraulic force matched to the tube diameter. Hand benders manage small tube; hydraulic and mandrel benders handle larger or thinner pipe for frames and projects.

Key Features

- Ratchet and hydraulic hand benders
- Die sets for common tube diameters
- Spring and mandrel benders for thin wall
- Bend angles marked on the tool
- Bench and portable mountings

Typical Uses in the Workshop

- Bend tube for frames, trolleys and furniture
- Form pipework for models and prototypes
- Make handles, hoops and bends in stock
- Produce consistent angles in batches

Safe Operation

1. Mark the tube at the bend position
2. Fit the correct die for the tube size
3. Line up the marks with the former
4. Apply steady force through the lever
5. Check the angle against the template

SAFETY NOTES

- Wear gloves - tube edges are sharp
- Clamp or secure the tube against movement
- Do not bend beyond the tool's rating
- Stand clear of the lever swing
- Check dies are seated before applying force

Maintenance & Consumables

- Wipe and oil the dies and pivots
- Check dies for wear and cracks
- Store dies in the labelled case
- Clean the tool after use
- Replace worn handle grips

Specification & Buying Notes

Start with a ratchet bender and dies for the tube sizes used in projects. Add a hydraulic bender for 25 mm and larger pipe. Buy a spring bender for thin-wall tube.