

Bench Grinders and Bandfacers

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

A bench grinder is a small motor with two abrasive wheels used for sharpening chisels and drill bits, shaping metal and cleaning up rough edges. A bandfacer is a vertical belt sander for squaring and smoothing edges of timber. Many school benches combine both in one stand.

Key Features

- Wheel size typically 150-200 mm diameter
- Coarse and fine wheels for different jobs
- Tool rests adjustable to the wheel face
- Bandfacers use 50 mm wide belts on a vertical platen
- Dust ports for extraction connections

Typical Uses in the Workshop

- Sharpen chisels, plane irons and lathe tools
- Deburr cut metal stock before assembly
- Square and flatten ends of wooden components
- Shape small wood and plastic parts accurately

Safe Operation

1. Fit eye protection and check the wheel for damage
2. Set the tool rest to within 3 mm of the wheel
3. Move the work across the full wheel face
4. Keep work moving to avoid burning the metal
5. On the bandfacer, use the table to hold work square

SAFETY NOTES

- Always wear eye protection - wheels can shed grit
- Hold small work in pliers or a vice, never bare hands
- Never grind on the side of the wheel
- Check the wheel guard and spark shields are fitted
- Let the wheel stop before adjusting the tool rest

Maintenance & Consumables

- Dress the wheel face when it glazes over
- Vacuum grit and dust from the motor housing
- Replace worn belts on the bandfacer
- Check that both wheels run true
- Store guarding tools close to the machine

Specification & Buying Notes

A combined grinder-bandfacer unit saves space in a school shop. Choose one with spark guards, adjustable tool rests and dust extraction ports. A 250-350 W motor is plenty for sharpening and light shaping.