

Dust Extraction Systems

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Extraction & Ventilation

A dust extraction system pulls wood dust and shavings from machines through ducting to a central collector, protecting lungs, eyes and the workshop environment. It is a legal and practical requirement in any woodworking shop that runs saws, planers, sanders and routers.

Key Features

- Central collector with 1-3 kW motors
- Duct sizes 100-150 mm for main runs
- Blast gates at each machine branch
- Cyclone or bag filter separation stages
- High air flow rated in litres per second

Typical Uses in the Workshop

- Extract sawdust from table saws and bandsaws
- Collect shavings from planers and thicknessers
- Pull dust from sanders and routers
- Keep workshop air clear for the whole class

Safe Operation

1. Open the blast gate for the machine in use
2. Turn the extractor on before starting the machine
3. Empty the collection bag or bin before full
4. Check hoses for kinks and blockages
5. Switch off after the machine stops running

SAFETY NOTES

- Fine dust is a health hazard - extraction is PPE for the room
- Empty bags with a mask and outside
- Check ducts for sawdust build-up that can catch fire
- Keep extraction away from flames and sparks
- Check earthing on metal ducting to avoid static

Maintenance & Consumables

- Empty and inspect the collector regularly
- Clean or replace filter bags per the schedule
- Check hose clamps and branch joins for leaks
- Inspect the impeller for wear and balance
- Lubricate motor bearings as directed

Specification & Buying Notes

Sizing matters: match total air flow to the machines served. A cyclone stage protects the filter and keeps suction strong. Buy machine connections and blast gates with the ducting kit. School extractors should meet local dust regulations.