

Fume Extraction Units for Soldering

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

A fume extraction unit captures solder smoke at the workbench with a small fan and activated carbon filter, removing flux fumes from breathing air near soldering stations. It protects students from the irritating and potentially harmful vapours of rosin flux.

Key Features

- Desktop or bench-mounted units
- Activated carbon or HEPA filter stages
- Articulated nozzle positioned at the joint
- Suction rated in litres per minute
- Replacement filter indicators on good units

Typical Uses in the Workshop

- Capture flux fumes during soldering lessons
- Filter fumes at hot air rework stations
- Clear glue and marker odours at benches
- Improve air quality in electronics classrooms

Safe Operation

1. Place the nozzle 2-5 cm from the solder joint
2. Switch on before starting to solder
3. Adjust the arm to follow the work
4. Replace the filter when smoke passes through
5. Turn off and cover after the session

SAFETY NOTES

- The unit filters fumes but does not remove the need for room ventilation
- Do not breathe solder fumes directly
- Keep the unit away from water and spills
- Replace filters on schedule, not when visible only
- Do not block the intake or exhaust

Maintenance & Consumables

- Replace the carbon filter per the manufacturer
- Wipe the unit body and arm clean
- Check the fan runs quietly and freely
- Record filter life for replacement planning
- Keep a spare filter in stock

Specification & Buying Notes

Buy units with easily replaceable filters and a flexible arm. Desktop units on a stand work best with team benches. Filter life depends on use - plan spares termly.