

WD1

Bandsaw

COSHH essentials for woodworkers

Control approach 2 Engineering control



This information will help employers and the self-employed comply with the Control of Substances Hazardous to Health

Regulations 2002 (COSHH), as amended, to control exposure to wood dust and protect workers health.

It is also useful for trade union and employee safety representatives.

This sheet describes good practice using dust extraction.

It covers the points you need to follow to reduce exposure to an adequate level.

It is important to follow all the points, or use equally effective measures.

Main points

- Sawing produces high dust levels.
- Keep exposure as low as possible using all the controls in this sheet.
- Make sure the controls work.
- Use health surveillance for asthma and dermatitis - see sheets G402 and G403.

Also see sheet WDO.

Hazard

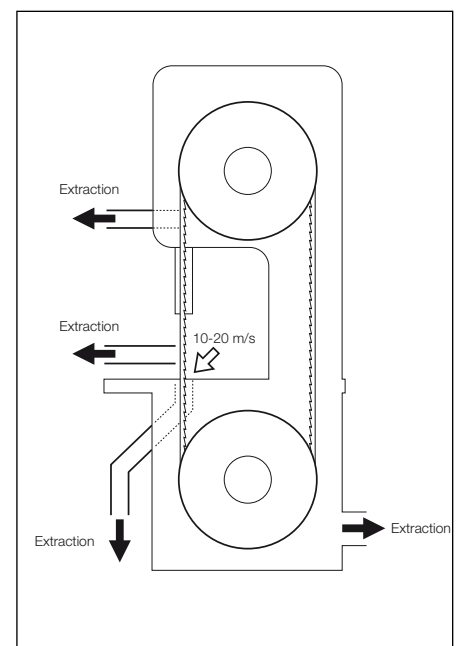
- ✓ Wood dust includes dust from hardwood, softwood and composite boards such as MDF.
- ✓ Wood dust can cause cancer, dermatitis, and serious lung diseases including asthma.
- ✓ The dermatitis risk is high for softwoods.
- ✓ The asthma risk is highest for woods like Western Red Cedar.
- ✓ Control exposure to stop occupational asthma developing. If an individual does develop occupational asthma, avoid further exposure.
- ✓ When all controls are applied properly, less than 5 mg/m³ wood dust is usually achievable (based on an 8-hour time-weighted average).

Access and premises

- ✓ Only allow access to authorised staff.

Equipment

- ✓ Sawing creates coarse and fine dust. Fit extraction to control dust.
- ✓ Enclose the saw casing as much as possible to contain dust and reduce the amount of extraction needed.
- ✓ If necessary, fit additional extraction at the openings in the blade casing.
- ✓ Fit a manometer or pressure gauge near the extraction point, to show that the system is working properly.
- ✓ You need an air speed between 10 and 20 metres per second (m/s) into the table slot.
- ✓ Keep extraction ducts short and simple; long sections of flexible duct damage easily.
- ✓ Have a supply of clean air coming into the workroom to replace extracted air.
- ✓ Consult a qualified ventilation engineer to design new control systems and to update current controls. See sheet G406.



Personal protective equipment (PPE)

- ✓ Ask your supplier to help you select the right PPE.

Respiratory protective equipment (RPE)

- ✓ RPE should not be needed if the extraction is designed correctly and working properly.
- ✓ RPE is needed for maintenance and cleaning.
- ✓ Provide RPE with an assigned protection factor (APF) of at least 10. See sheet R2.
- ✓ Disposable RPE is acceptable - throw it away at the end of the task. Otherwise, replace RPE filters as recommended by the supplier.
- ✓ Train workers to use RPE properly.
- ✓ Make sure all RPE is fit-tested - get advice from your supplier.
- ✓ Keep RPE clean. Store it away from dust.

Other PPE

- ✓ Provide coveralls that do not retain dust.
- ✓ Skin creams are important for skin condition and help in washing contamination from the skin. After work creams help to replace skin oils.

Caution: 'Barrier creams' do not create a full barrier.

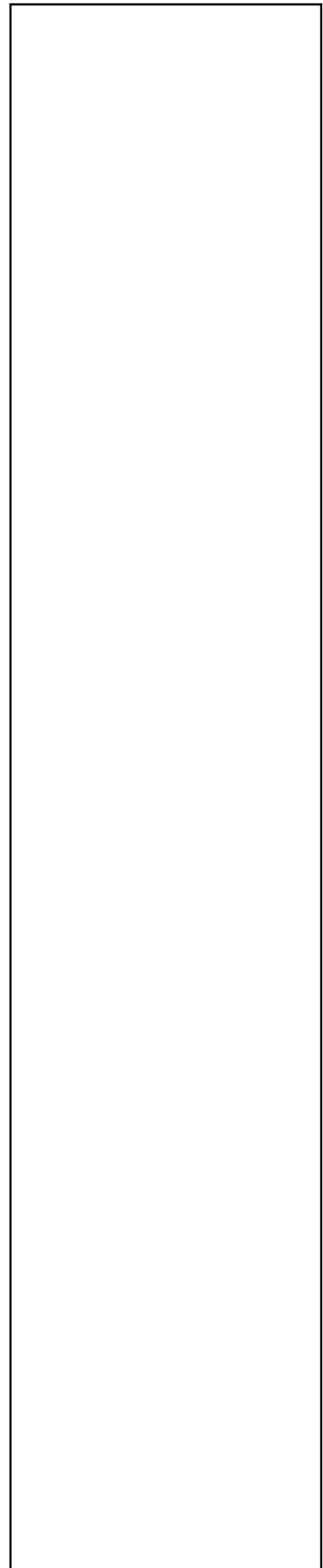
Procedures

- ✓ Always confirm that the dust extraction is turned on and working at the start of work.
- ✓ Keep the length of exposed saw blade as short as possible.
- ✓ Keep the slot free of chippings for effective dust capture.

Caution: Don't alter the dust extraction or the dampers yourself unless the system is designed for this.

Maintenance, examination and testing

- ✓ Keep equipment in effective and efficient working order - follow instructions in maintenance manuals.
- ✓ Daily, look for signs of damage. Noisy or vibrating fans can indicate a problem.
- ✓ Repair faulty extraction systems as soon as possible. Meanwhile, wear RPE.
- ✓ At least once a week, check that the dust extraction system and gauges work properly.
- ✓ You need to know the manufacturer's specifications to check the extraction's performance.
- ✓ If this information isn't available, hire a competent ventilation engineer to determine the performance needed for effective control.
- ✓ The engineer's report must show the target extraction rates.
- ✓ Keep this information in your testing logbook.
- ✓ Get a competent ventilation engineer to examine the system thoroughly and test its performance at least once every 14 months. See the HSE publication HSG54 - see 'Further information'.
- ✓ Examine and test non-disposable RPE thoroughly at least once every three months.
- ✓ Consider air sampling to check the controls - see sheet G409.
- ✓ Keep records of all examinations and tests for at least five years.



Health surveillance

- ✓ Use health surveillance for asthma - see sheet G402. There is a chance of asthma developing, even with good controls in place.
- ✓ For woods such as Western Red Cedar, use high-level surveillance. For other woods, low-level surveillance is adequate.
- ✓ Use health surveillance for dermatitis. See sheet G403.
- ✓ Consult an occupational health professional - see 'Useful links'.

Cleaning and housekeeping

- ✓ Clean the machinery and work area every day. Regular cleaning will help you find dust leaks.
- ✓ Shovel large amounts carefully to avoid stirring up dust.
- ✓ Clean general workrooms once a week.
- ✓ Use a Class H vacuum cleaner fitted with a HEPA filter to clear up dust.

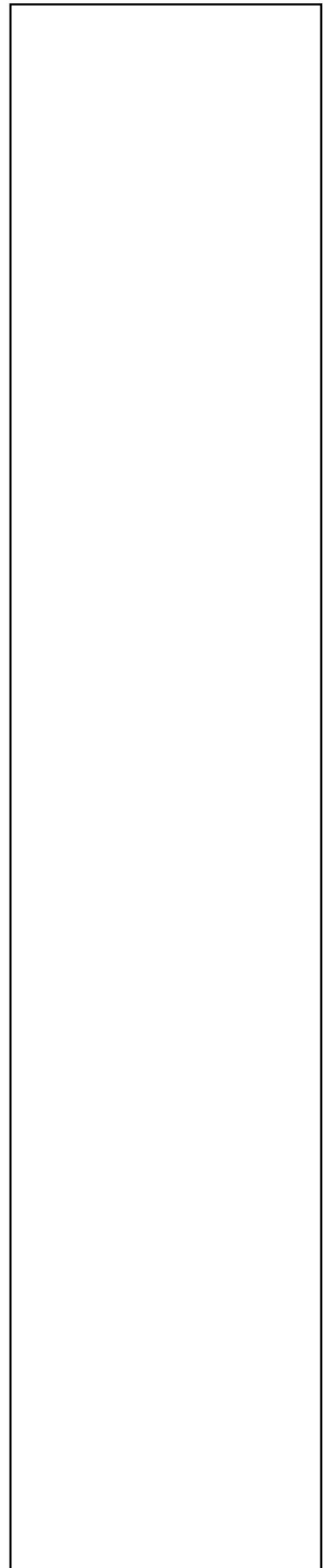
Caution: Don't use a brush or compressed air for cleaning surfaces and clothing.

Training and supervision

- ✓ Tell your workers that wood dust can cause asthma, cancer and dermatitis. Tell them what the early signs of asthma are.
- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet WD0.
- ✓ Include supervisors and managers in health and safety training.
- ✓ Ask your local Learning Skills Council or trade association for advice on training providers.

Further information

- *Maintenance, examination and testing of local exhaust ventilation*
HSG54 (Second edition) HSE Books 1998 ISBN 978 0 7176 1485 1
- *Respiratory protective equipment at work: A practical guide*
HSG53 (Third edition) HSE Books 2005 ISBN 978 0 7176 2904 6
- Woodworking Information Sheets -
www.hse.gov.uk/pubns/woodindx.htm
- *Preventing dermatitis at work: Advice for employers and employees*
Leaflet INDG233 HSE Books 1996 (single copy free or priced packs of 15 ISBN 0 7176 1246 5)
- For environmental guidelines, see sheet WD0



Useful links

- HSE priced and free publications are available from HSE Books
Tel: 01787 881165 Website: www.hsebooks.co.uk.
- For information about health and safety ring HSE's Infoline Tel: 0845 345 0055 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com.
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org for lists of qualified hygienists who can help you.
- Look in the Yellow Pages under 'Health and safety consultants' and 'Health authorities and services' for 'occupational health'.
- Also see www.nhsplus.nhs.uk.

Employee checklist

- Is the extraction switched on and working properly, with the guard correctly adjusted?
Check the gauge.
- Check that any RPE works properly every time you use it.
- Look for signs of leaks, wear and damage.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Co-operate with health surveillance.
- Use, maintain and store your PPE in accordance with instructions.
- Wash your hands before eating, drinking, smoking or using the lavatory.
- Never use solvents to clean your skin.
- Use skin creams provided as instructed.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.