Dust from abrasive wheels

Control approach 2  Engineering control

Access and premises
✓ Restrict access to those people who need to be there.
✓ Provide access to good washing facilities.

Equipment
✓ Keep the workplace well ventilated; at least 10 air changes per hour with a through draught.
✓ You need an extraction rate up to 8 metres per second around the inlets to the wheel for equipment in frequent use.
✓ Make sure a manometer or pressure gauge is fitted near the extraction point, to show that it is working properly.
✓ Discharge extracted air to a safe place, away from doors, windows and air inlets. Have a supply of clean air coming into the workroom to replace extracted air.
Caution: Some metal dusts and oily cloth fibres can self-ignite.

Personal protective equipment (PPE)
✓ You may need respiratory protective equipment (RPE) for maintenance, cleaning and emptying the vacuum cleaner. Seek advice from your RPE supplier.
✓ Provide eye protection when using an abrasive wheel.
✓ Provide close-fitting overalls to avoid clothing being caught up in the wheel.
✓ Skin creams are important for skin protection and help in washing contamination from the skin. These are not ‘barrier creams’. After-work creams help to replace skin oils.
Caution: Never allow compressed air use to remove dust from clothing.

Procedures
✓ Confirm that the extraction is turned on and working at the start of work. Check the gauge.
Special Care

- Dust from cutting or polishing stone can cause serious lung diseases. Leather dust can cause cancer.

Maintenance, examination and testing

- Follow instructions in maintenance manuals - keep equipment in effective and efficient working order.
- If the extraction is faulty, stop work until it is repaired.
- At least once a week, look for signs of damage.
- You need to know the extraction design performance to know if it is working properly. The equipment supplier's manual should give this information.
- 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’.
- Keep records of all examinations and tests for at least five years.
- Abrasive wheels have special safety provisions - seek specialist advice.

Health monitoring

- Ask your workers to check their skin for dryness or soreness every six months. If these effects appear, check the proper use of skin creams and PPE.
- Consult an occupational health professional if workers report frequent lung infections. See sheet G401.

Cleaning and housekeeping

- Keep the work area clean - use a vacuum cleaner.
  Caution: Never use compressed air to clear dust.

Training and supervision

- Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet SR0.
Further information

- Maintenance, examination and testing of local exhaust ventilation
- 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)
- Safety in the use of abrasive wheels HSG17 (Third edition)
  HSE Books 2000 ISBN 0 7176 1739 4

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?
  Check the gauge.
- Look for signs of leaks, wear and damage.
- If you find any problems, tell your supervisor. Don’t just carry on working.
- Wash your hands after use, and before and after eating, drinking, smoking and using the lavatory.
- Never clean your hands with concentrated cleaning products or solvents.
- Check your skin regularly for dryness or soreness - tell your supervisor if these symptoms appear.
- Use skin creams provided as instructed.