

# FL1

## COSHH essentials for craft bakers



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

Health Regulations 2002 (COSHH), as amended, to control exposure to flour dusts, etc, 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

- Bag opening, tipping, sieving and dough making create high dust levels.
- Keep exposure as low as possible using all the controls in this sheet.
- Make sure the controls work.
- You need to use health surveillance - see sheets G402 and G403.
- Also see sheet FLO.

# Bag opening, tipping and dough mixing

## Control approach 2 Engineering control

### Hazard

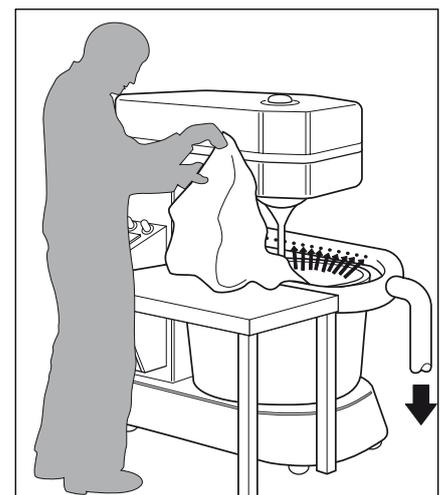
- ✓ Handling bakery ingredients produces airborne dust. Stop dust getting into the air.
- ✓ Flour dust, enzyme improvers and other ingredient dusts such as egg powder and soya can cause asthma. Even short-term exposures can cause harm.
- ✓ Control exposure to stop occupational asthma developing. If an individual does develop occupational asthma, avoid further exposure.
- ✓ When all controls are applied properly, less than 2 mg/m<sup>3</sup> flour dust is usually achievable (based on an 8-hour time-weighted average).
- ✓ Frequent hand-washing using soap and detergent can cause dermatitis.

### Access and premises

- ✓ Only allow access to authorised staff.
- ✓ Provide good washing facilities, and after-work creams to help replace skin oils.

### Equipment

- ✓ Reduce flour dusts in air as much as possible. Use dust extraction for flour tipping and dough mixing.
- ✓ If dust extraction is impossible, use respiratory protective equipment.
- ✓ Can you put a solid lid on the mixer?
- ✓ A permanent dust extraction system is preferred, though a stand-alone mobile system is acceptable. See sheet FL8.
- ✓ Where the mixer has extraction fitted, you need an air speed between 1 and 2.5 metres per second into the mixer with the hood lowered.
- ✓ If using an 'immaterial lid' (see illustration and sheet FL9), you need an extracted air volume between 4 and 6 cubic metres of air per minute for it to work properly.
- ✓ Fit a manometer or pressure gauge near the extraction point, to show that the extraction is working properly.
- ✓ Keep extraction ducts short and simple - avoid long sections of flexible duct.



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- ✓ Consult a qualified ventilation engineer to design new control systems and to update current controls - see sheet G406.

### **Respiratory protective equipment (RPE)**

- ✓ RPE should not be needed if the extraction is designed correctly and working properly.
- ✓ Otherwise, provide RPE with an assigned protection factor (APF) up to 20. See sheets R2 and R3.
- ✓ Disposable RPE is acceptable.
- ✓ Make sure all RPE is fit-tested - get advice from your supplier.
- ✓ Replace RPE filters as recommended by your supplier. Throw away disposable RPE at the end of the shift.
- ✓ Train workers to use RPE properly.
- ✓ Keep RPE clean.

### **Procedures**

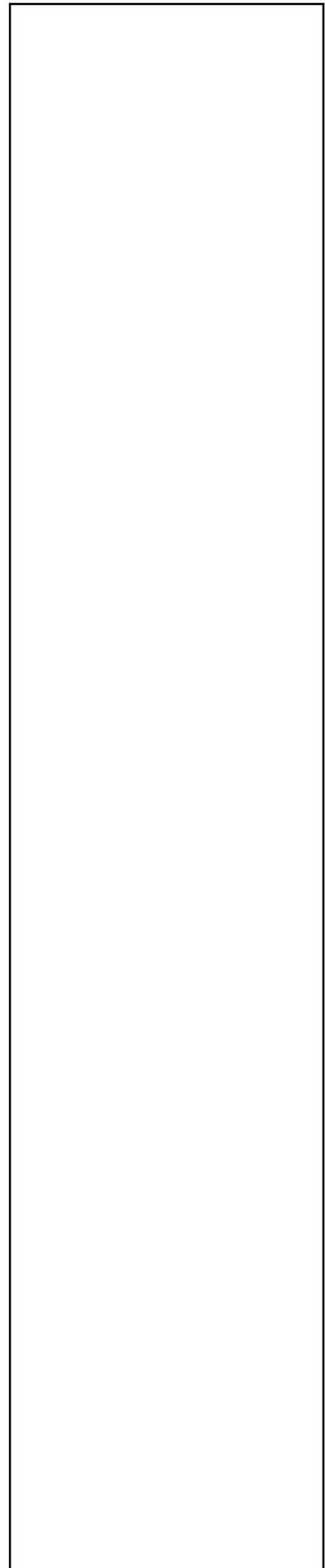
- ✓ Always confirm that the extraction is turned on and working at the start of work. Check the gauge.
- ✓ Ensure that workers check any RPE works properly every time they use it.
- ✓ Check that workers tip flour gently - never dump it.
- ✓ Check that workers add other ingredients gently, trickle water down the side of the mixer bowl and start the mixer on a slow speed.
- ✓ Bag crushing creates a lot of dust. Workers should roll up empty bags with the open end in the extraction zone.
- ✓ Store empty bags outside the workroom.

### **Maintenance, examination and testing**

- ✓ Keep equipment in effective and efficient working order - follow instructions in suppliers' manuals.
- ✓ Repair faulty extraction systems as soon as possible.
- ✓ Every day, look for signs of damage.
- ✓ At least once a week, check that the extraction system and gauge 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 extraction 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.
- ✓ 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.
- ✓ Use health surveillance for dermatitis - see sheet G403.
- ✓ Consult an occupational health professional. See 'Useful links'.



### Cleaning and housekeeping

- ✓ Every day, clean the workroom. Can you use wet cleaning methods?
- ✓ Clean thoroughly at least once a week, including overhead beams, heating pipes and light fittings.
- ✓ Use a vacuum cleaner fitted with a HEPA filter to clear up dust. You may need a Class H vacuum cleaner.

**Caution: Never allow the use of brushes or compressed air for removing dust from clothing, surfaces or from inside machinery.**

### Training and supervision

- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet FLO.
- ✓ Tell workers that flour dust can cause asthma, that there is a risk of dermatitis, and how to recognise the early signs.

### Further information

- *Breathe easy* training package, Federation of Bakers 1998 - includes *Guidance on dust control and health surveillance in bakeries*. Available from [www.bakersfederation.org.uk](http://www.bakersfederation.org.uk)
- *Maintenance, examination and testing of local exhaust ventilation* HSG54 (Second edition) HSE Books 1998 ISBN 0 7176 1485 9
- *Respiratory protective equipment at work: A practical guide* HSG53 (Third edition) HSE Books 2005 ISBN 0 7176 2904 X
- R2, R3 from [www.hse.gov.uk/pubns/guidance/rseries.htm](http://www.hse.gov.uk/pubns/guidance/rseries.htm)
- G402, G403, G406 from [www.hse.gov.uk/pubns/guidance/gseries.htm](http://www.hse.gov.uk/pubns/guidance/gseries.htm)
- Contact Infoline for the design specification for an 'immaterial lid' Report IR/WQ/004/97 - HSL, 1997.
- For environmental guidelines see sheet FLO

### Useful links

- Your trade association may advise on health and safety consultants and training providers.
- HSE priced and free publications are available from HSE Books Tel: 01787 881165 Website: [www.hsebooks.co.uk](http://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](mailto:hse.infoline@natbrit.com).
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at [www.bohs.org](http://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](http://www.nhsplus.nhs.uk).

### Employee checklist

- Is the extraction switched on and working properly? Check the gauge.
- Work carefully – don't create dust.
- 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.

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.