

SPRAY PAINTING**Scope**

This control sheet is part of the ILO Chemical Control Toolkit and should be used when the toolkit identifies that a control approach 2 – solution is needed. This sheet provides good practice advice on spray painting tasks. It is important that all the points are followed. Some chemicals are flammable or corrosive and your controls must be suitable for those hazards too. Look at the safety data sheet for more information. Air cleaning equipment may be necessary before discharging exhaust air to the atmosphere. This sheet identifies the minimum standards you need to apply to protect your health. It should not be used to justify a lower standard of control than that which may be required for process control or control of other risks.

Access

- Keep unnecessary people away from the work area. Ensure that no one is working close by downwind.

Design and Equipment

- Make the enclosure deep enough to contain equipment and materials. Enclose the work area fully – **see diagram 1**.
- Keep the open area as small as possible – while allowing enough room for safe working.
- Provide a turntable so that objects can be rotated and the operator does not need to spray into the airflow.
- Ensure large items do not obstruct the work opening, extraction or air inlet system.
- Do not store items inside the ventilated area, they will obstruct the airflow.
- Consider whether sprayed items are to be located whilst drying. A separate ventilated area may be required.
- The airflow at the face of the enclosure should be at least 1.0 metre per second.
- Air should be exhausted from the booth across the full cross-sectional area.
- For water spray booths ensure that the water level in the reservoir is kept just above the base of the baffle (**see diagram 2**).
- Provide good lighting. It should be suitable for the chemical(s) and task(s), for example dust tight or flameproof.
- Use filters to avoid paint deposits on electric motors, fan blades and ventilation ducts.
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading vapour.
- Provide an air supply to the workroom to replace extracted air.

- Provide an easy way of checking the control is working, such as a tell-tale.
- Keep ducts short and simple, and avoid long sections of flexible duct. Discharge extracted air to a safe place away from doors, windows and air inlets.
- With vapours, air recirculation is not recommended.

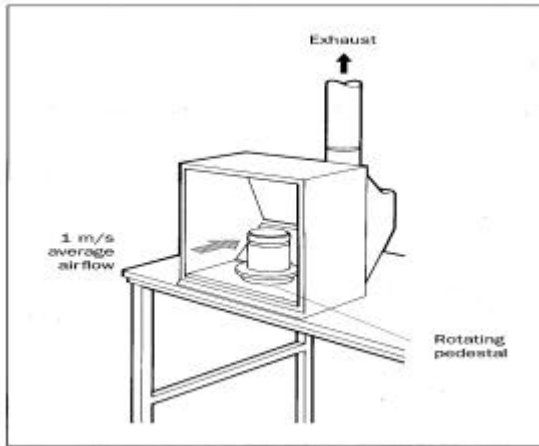


Diagram 1 Small scale spray booth

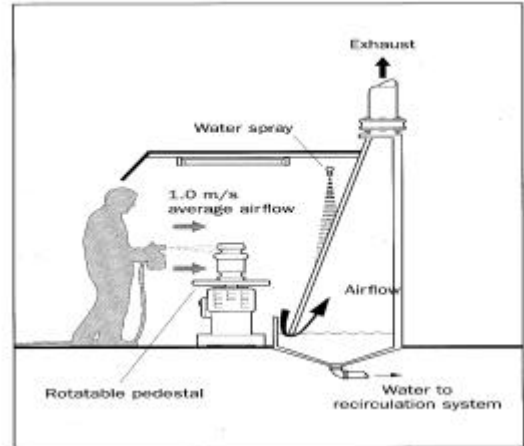


Diagram 2 Water baffle spray

Examination, Testing and Maintenance

- Get information on the design performance of the equipment from the supplier. Keep this information to compare with future test results.
- Check that the extraction system is working every day when it is switched on.
- Visually check the ducting once a week for signs of damage, and repair when necessary.
- Have the system thoroughly examined and tested at least once a year.
- Maintain the equipment as advised by the supplier/installer, in effective and efficient working order.
- Do not use the equipment if you have any suspicion that it is not working properly.

Cleaning and Housekeeping

- Only keep the amount of material in the workplace that will be used that day.
- Clean the work equipment and work area daily.
- Spills are the major cause of dust or vapour in the workplace. Clean up all spills immediately.
- Don't clean up dusts with a brush or compressed air. Use a damp cloth or vacuum.
- Put lids on containers immediately after use.
- Store containers in a safe place where they won't get damaged. Store volatile liquids out of direct sunlight.

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- Dispose of empty containers safely.

Personal Protective Equipment (PPE)

- Chemicals in hazard group S can damage the skin or eyes, or enter the body through the skin and harm you. Sheets Sk100 and Sk101 give good advice on how to keep the materials off your skin.
- Check the material safety data sheet or ask your supplier to find out what personal protective equipment is needed.
- Look after your protective equipment. When not in use, keep it clean and store it in a clean, safe place.
- Keep your protective equipment clean and change it at recommended intervals or when it is damaged.

Training and Supervision

- Tell your workers about any harmful properties of the substances they are working with and why they must use the controls and PPE provided.
- Teach them to handle chemicals safely. Check controls are working and ensure that they know what to do if something goes wrong.
- Have a system to check that the precautions you have put in place are being followed.