



Controlling exposures to prevent occupational lung disease

Respiratory Protective Equipment (RPE) Guidance 4/5

4. Maintenance, examination and testing



Looking after your RPE

Many types of RPE need regular checks, cleaning, testing and maintenance to ensure that they are working properly and can give protection to the wearer. Poorly maintained RPE may reduce protection, but they may also have reduced in-service lifetimes, meaning that they need to be replaced more frequently, costing you more money.

RPE should be regularly checked, cleaned and maintained by properly trained personnel in accordance with the manufacturer's instructions. All RPE - whether brand new, disposable or well-maintained reusable - should be checked for any signs of damage or wear prior to use.

And proper storage of reusable RPE is essential.

What needs to be checked?

Essentially you should read and follow the manufacturer's user instructions and carry out the following checks.

Before use

- Check RPE function (according to manufacturer's pre-use checks)
- Check tightness of connections
- Check flexibility / pliability of elastomeric parts, for example face seals, valves
- Check the condition of the various parts including the facepiece, head straps, valves, connecting tube, cartridges, canisters or filters

At regular intervals (at least monthly)

- Carry out and record thoroughly all the 'before use' checks as listed above
- Pay particular attention to
 - Face seal and nose cup (full face masks) – ensure it is inserted properly and free from splits and tears
 - Visor (if used)
 - Valves and gaskets
 - Straps and head harness
 - Forehead seals, comfort pad(s) (if used)
 - Replace peel-off visor covers (if used)

In situations where RPE is used only occasionally, an examination and test should be made before their next use. In all cases records should be kept.

How should RPE be tested?

Powered RPE

For powered RPE, test to ensure that the battery and blower unit are in good order and deliver the correct flow rate. A flow check system is often provided with the RPE.



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Air Supplied RPE

If you are using a supplied air system, the air must be of breathable quality and must be periodically tested in accordance with BS EN 12021. Testing must be conducted at a frequency based upon your risk assessment.



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How should RPE be maintained?

The frequency and level of detail of testing and maintenance should reflect the complexity of the RPE, the health risks and the degree of potential exposure.

Always follow the manufacturer's user instructions when conducting maintenance. Replacement parts may be required and should be ordered from the RPE manufacturer and fitted in accordance with the manufacturer's instructions. After fitting, testing of the RPE may be required.

How should RPE be cleaned?

Follow manufacturer's user instructions on cleaning. The frequency and type of cleaning depends upon how the respirator was used and the respiratory hazard.

- RPE used exclusively by a single wearer: as often as necessary to be hygienic and to remove contamination that may be transferred inside of the mask during handling, storage, fitting and removal.
- RPE used by more than one wearer: should be cleaned and disinfected before being worn by a different person.
- Reusable RPE used in fit testing and training: after each use.

Cleaning and drying should be conducted in a clean area, away from contamination that could get inside the RPE. Each manufacturer has different recommended cleaning procedures; however, the following are generally acceptable:

- Particulate contamination may be removed using a vacuum. Do not use compressed air to remove particulate contamination.
- Clean with cloth dampened with a mild solution of water and liquid household soap.
- Other methods of cleaning may be appropriate and permitted by the manufacturer depending upon requirements.

Also don't forget to think about protecting the person cleaning the RPE.

How should RPE be stored?

RPE must not be stored where they may be exposed to contaminants – they should be stored in dry, clean area / locker away from direct sunlight, high temperatures and solvents.

They should be packed in such a way that does not distort the face piece and exhalation valve, and should not be hung by their straps.

How should RPE be disposed of?

Used RPE, as well as the materials used to clean them, should be considered as hazardous waste, and so should be disposed accordingly.