



Technical Datasheet

3M™ K100 Series Particulate Respirators

Description

The 3M K100 range of filtering face pieces provide effective respiratory protection for use in industries where workers will be exposed to dust particles.

- Tested and CE Approved to EN 149:2001
- Flat design enables product to be easily stored when not in use
- Diamond-shaped front allows the respirator to maintain its shape in hot humid environments
- Single loop strap allows easy adjustment on the face and head
- Exhalation valve offers improved comfort in hot humid environments and/or where work is hard and physical (K111, K112 and K113 models only).
- Coloured noseclip for easy identification: yellow for FFP1, blue for FFP2 and red for FFP3

Materials

The following materials are used in the production of this product:

- Straps – Thermoplastic Elastomer
- Nose Clip – Steel / Plastic
- Filter - Polypropylene
- Valve – Polypropylene
- Valve diaphragm – Thermoplastic Elastomer
- Nosefoam – Polyurethane

Mass of product: Non-valved (K101, K102) = 10g;
Valved (K111, K112, K113) = 11g. These products do not contain components made from natural rubber latex.

Standards

These products meet the requirements of European Standard EN149:2001, filtering facepiece respirators for use against particles. Performance tests in this standard include filter penetration; flammability; breathing resistance and total inward leakage. A full copy of EN149:2001 can be purchased from your national standards body. In addition, these products have been tested to the exposure test referenced in EN 13274-7 (paraffin oil loading) and meet the 120mg loading requirements as per EN 149:2001/prA1:2008.

Approvals

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment) and are thus CE marked. Certification under Article 10, EC Type-Examination has been issued by INSPEC International Limited (Notified Body number 0194). Certification under Article 11, EC Quality Control has been issued by BSI Product Services (Notified Body number 0086).

Applications

The 3M K100 Series range of filtering face pieces can be used in many industries where workers will be exposed to dusts and/or non-volatile liquid particles. These respirators are suitable for use in concentrations of solid and non-volatile liquid particles up to the following limits:

| | |
|---------------|------------------------------------|
| K101 and K111 | 4 times the threshold limit value |
| K101 and K112 | 12 times the threshold limit value |
| K113 | 50 times the threshold limit value |

Respiratory protection is only effective if it is correctly selected, fitted and worn throughout the time when the wearer is exposed to hazards.

| Model | EN 149 Classification | Valved/ Unvalved |
|-------|-----------------------|------------------|
| K101 | FFP1 D | Unvalved |
| K111 | FFP1 D | Valved |
| K102 | FFP2 D | Unvalved |
| K112 | FFP2 D | Valved |
| K113 | FFP3 D | Valved |

D = meets the clogging requirements of EN149:2001

| Application | FFP1 | FFP2 | FFP3 |
|---------------------------------|------|------|------|
| Animal culling | | | ✓ |
| Building work | | ✓ | ✓ |
| Cleaning animals sheds | | ✓ | ✓ |
| Cleaning harvesters | | ✓ | ✓ |
| Composting | | ✓ | ✓ |
| Crop spraying (water based) | | ✓ | ✓ |
| Driving tractors | | | |
| Operating machinery | | | |
| Feeding livestock | | ✓ | ✓ |
| Grain storage/silos | | ✓ | ✓ |
| Animal feed | | | ✓ |
| Handling infected animals | | ✓ | ✓ |
| Harvesting (crop dust) | | ✓ | ✓ |
| Plant and equipment maintenance | | ✓ | ✓ |
| Straw chopping and blowing | | ✓ | ✓ |
| Grooming livestock | ✓ | ✓ | ✓ |
| Cement | ✓ | ✓ | ✓ |
| Concrete chipping/drilling | | ✓ | ✓ |
| Demolition | ✓ | ✓ | |
| Groundwork | ✓ | ✓ | ✓ |
| Loft insulation | | | ✓ |
| Plastering | ✓ | ✓ | ✓ |
| Scabbling | ✓ | ✓ | ✓ |
| Shot creting | | ✓ | ✓ |
| Shovelling hardcore | ✓ | ✓ | |
| Tiling | ✓ | ✓ | |
| Woodworking | | ✓ | ✓ |
| Bulldozing | ✓ | ✓ | |
| Blasting | | ✓ | |
| Cutting / chipping | ✓ | ✓ | |
| Drilling | ✓ | ✓ | |
| Power sanding | | ✓ | ✓ |
| Tunneling | | ✓ | ✓ |
| Cleaning machinery | | ✓ | ✓ |
| Operating machinery | ✓ | ✓ | ✓ |

This selection guide is only an outline designed to focus on products which may be appropriate for typical applications - it should not be used as the only means of selecting a product. Selection of the most appropriate personal protective equipment (PPE) will depend on the particular situation and should be made only by a competent person knowledgeable of the assessed risks, actual working conditions and limitations of PPE. Details regarding performance and limitations are set out on the product packaging and user information. If in doubt, contact a safety professional or 3M.

Storage and Transportation

End of Shelf Life is marked on the product packaging. Before initial use always check that the product is within the stated shelf life (use by date). Product should be stored in clean, dry conditions within the temperature range: -20°C to $+25^{\circ}\text{C}$ with a maximum relative humidity of $<80\%$. When transporting this product use original packaging.

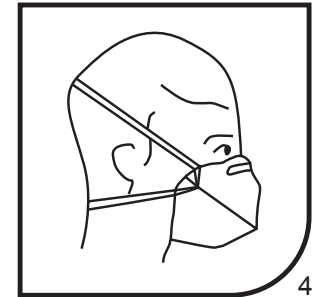
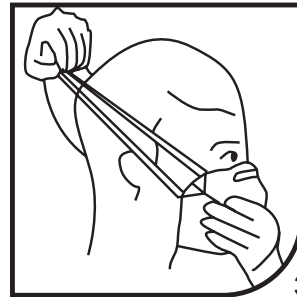
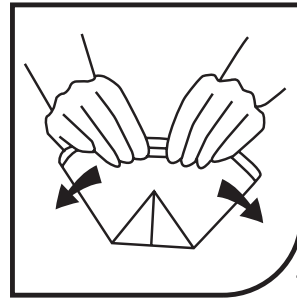
Disposal

Contaminated products should be disposed as hazardous waste in accordance with national regulations.

Fitting Instructions

Before fitting device, ensure hands are clean.

1. With the respirator closed, shape the nosepiece as shown.
2. Open respirator, press in the central front panel and pinch the two points together as shown.
3. Cup respirator in one hand with open side towards face. Take both straps in other hand. Hold respirator under chin, with nosepiece up, and pull straps over head.
4. Locate the upper strap across the crown of the head and the lower strap below the ears. Straps must not be twisted.
5. Using both hands, mould noseclip to the shape of the lower part of the nose to ensure a close fit and good seal. Pinching the noseclip using only one hand may result in less effective respirator performance.
6. The seal of the respirator on the face should be fit-checked before entering the workplace.



Fit Check

1. Cover the front of the respirator with both hands being careful not to disturb the fit of the respirator.
2. (a) UNVALVED respirator - EXHALE sharply.
(b) VALVED respirator - INHALE sharply.
3. If air leaks around the nose, re-adjust the noseclip to eliminate leakage. Repeat the above fit check.
4. If air leaks at the respirator edges, work the straps back along the sides of the head to eliminate leakage.

Repeat the above fit check. **If you CANNOT achieve a proper fit DO NOT enter the hazardous area.**

For information regarding fit testing procedures, please contact 3M.

Warnings and Use Limitations

Always be sure that the complete product is:

- Suitable for the application.
- Fitted correctly.
- Worn during all periods of exposure.
- Replaced when necessary.

Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants.

Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness or permanent disability.

For suitability and proper use, follow local regulations, refer to all information supplied or contact a safety professional/3M representative. Before use, the wearer must be trained in use of the complete product in accordance with applicable Health and Safety standards/guidance.

These products do not protect against gases/vapours.

Do not use in atmospheres containing less than 19.5% oxygen. *(3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).*

Do not use for respiratory protection against atmospheric contaminants / concentrations which are unknown or immediately dangerous to life and health (IDLH).

Do not use with beards or other facial hair that may inhibit contact between the face and the product thus preventing a good seal.

Leave the area immediately if:

- a) breathing becomes difficult or increased breathing resistance occurs;
- b) dizziness or other distress occurs.

Discard and replace the respirator if it becomes damaged, breathing resistance becomes excessive or at the end of the shift.

Never alter, modify or repair this device.

In case of intended use in explosive atmospheres, contact 3M.



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