Technical Datasheet



3M[™] 4000 Series Half Mask Respirators

Main Features

The 3M[™] 4000 Series Respirators are a range of ready-to-use, maintenance-free half masks, designed for effective and comfortable protection against many gases, vapours and combination particulate hazards found throughout industry.

The main features include:

- Disposable, maintenance free half mask.
- Soft, textured face seal to provide a more comfortable fit to the face.
- Lightweight and well balanced to ensure comfort during long periods of work.
- Twin inhalation valves and large, bonded carbon filters to reduce breathing resistance, complimented by a low resistance parabolic exhalation valve to reduce heat build-up.
- Low profile design allows for better peripheral vision.
- Easy to use as no need for assembly, maintenance or record keeping.
- Easy and secure fitting of neck strap and adjustment of head cradle.
- Optional overspray guard prolongs the life of the particulate filter when paint spraying.
- · Maximum product weight of 320 grams.

Approvals

The 3M[™] 4000 Series Respirators have met the requirements of the European Community Directive 89/686/ EEC (Personal Protective Equipment Directive) and are thus CE marked. Certification under Article 10, EC Type-Examination, has been issued for these products by INSPEC International Limited, 56 Leslie Hough Way, Salford, Greater Manchester M6 6AJ, UK (Notified Body number 0194). Certification under Article 11, EC quality control, has been issued by BSI Product Services (Notified Body number 0086).

Standards

The 3M[™] 4000 Series Respirators meet the performance requirements of the European Standard EN 405:2001+A1:2009 for valved filtering half-mask respirators for gases, vapours and particulate combinations.

Product Options

The 4000 Series Respirators are available in four different models:

- 3MTM 4251 (FFA1P2 R D) provides protection against organic vapours (with good warning properties and b.pt. > 65°C), up to 10 x Workplace Exposure Limit (WEL) or 1000 parts per million (ppm), whichever is lower, and 10 x WEL for particulates.
- 3M[™] 4255 (FFA2P3 R D) provides protection against organic vapours (with good warning properties and b.pt.
 65°C), up to 10 x WEL or 5000 ppm, whichever is lower and 20 x WEL for particulates.

- 3MTM 4277 (FFABE1P3 R D) provides protection against organic vapours (with good warning properties and b.pt. > 65°C), inorganic and acid gases up to 10 x WEL or 1000 ppm, whichever is lower and 20 x WEL for particulates.
- 3MTM 4279 (FFABEK1P3 R D) provides protection against organic vapours (with good warning properties and b.pt. > 65°C), inorganic and acid gases and ammonia, up to 10 x WEL or 1000 ppm, whichever is lower and 20 x WEL for particulates.

Use Limitations

This respirator does not supply oxygen. Do not use in atmospheres containing less than 19.5% oxygen.

- Do not use for respiratory protection against atmospheric contaminants that have poor warning properties or are unknown or immediately dangerous to life and health (IDLH) or against contaminants which generate high heats of reaction with chemical filters.
- 2. Do not misuse, alter, modify or repair this product.
- 3. Do not use with beards or other facial hair that prevent direct contact between face and edge of the respirator.
- 4. Do not use with unknown concentrations of contaminants.
- 5. Do not use for escape purposes.
- 6. Leave the work area immediately and check the integrity of the respirator and replace face mask if:
 - i. Damage has occurred or is apparent.
 - ii. Breathing becomes difficult or increased breathing resistance occurs.
 - iii. Dizziness or other distress occurs.
 - iv. You taste or smell the contaminant or an irritation occurs.
- 7. Store this device in a sealed container or its reusable bag away from contaminated areas when not in use.
- 8. Use strictly in accordance with respirator user instruction leaflet.
- 9. In case of intended use in explosive atmospheres, contact 3M technical service.

Materials

Component	MATERIAL
Face Mask	Thermoplastic elastomer
Head Harness	Polypropylene
Head Strap	Polypropylene/cotton
Inhalation Valve	Polyisoprene
Exhalation Valve	Silicone Rubber
Gas and Vapour Filter Body	Activated Carbon
Particulate Filter Element	Polypropylene

Fitting Instructions

Before initial use a qualitative or quantitative fit test should be performed.

Fitting instructions must be followed each time the respirator is worn.

- Assemble/adjust head cradle by feeding the perforated strip through the buckle and pressing down on the stud at the required length. Repeat for second strip.
- 2. Place the respirator over the face, fitting it comfortably on bridge of the nose, then pull the head harness over the crown of the head.
- 3. If necessary remove the respirator and readjust the head cradle to a comfortable fit and repeat step 2.





- Take a bottom strap in each hand, place them at the back of the neck and hook the straps together
- Tighten the top head harness first by pulling on the ends to achieve a comfortable and secure fit.
 Tighten bottom straps in a similar manner. Strap tension may be decreased by pushing out on the back of the buckles.





6. After tightening the head harness (see 5), slide the 4 plastic rings over the 4 buckles, to lock the head straps in place

3M Health & Safety Helpline

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3M Occupational Health & Environmental Safety Group

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Fit Check

Perform a positive pressure fit check each time the respirator is donned.



- 1. Place the palm of the hand over the exhalation valve cover and exhale gently.
- If the respirator bulges slightly and no air leakage between the face and the respirator is detected, a proper fit has been achieved.
- 3. If air leakage is detected, re-position the respirator on the face and/or readjust the tension of the strap to eliminate the leakage.
- 4. Repeat the above face fit check
- 5. If you cannot achieve a proper fit, do not enter the contaminated area. See your supervisor

Cleaning and Storage

If the respirator is to be used for more than one shift it should be cleaned at the end of each shift and stored in the original packaging. To clean the respirator, the faceseal should be wiped with a cloth moistened in warm soapy water (the water temperature should be below 40°C) and dried at room temperature. The product MUST NOT be immersed in water during cleaning. Alternatively, faceseal may be cleaned using the 3MTM 105 Face Seal Cleaner. Always check that the product has not exceeded the use by date before use.

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

For more information on 3M products and services please call the 3M Health & Safety Helpline.