Technical Datasheet

3M™ 7000 Series Reusable Half Masks

Main Features

3M™ 7000 Half Face Masks are proven to be simple to handle and comfortable to the wearer. The masks have the 3M bayonet connection system allowing connection to a broad range of twin lightweight filters to protect against gases, vapours and particulates depending on your individual needs. The mask can also be used with the 3M™ S-200 Supplied-Air System for increased convenience and flexibility.

The main features include:

- Reusable, fully maintainable half mask with a range of spare parts.
- Textured rubber face mask reduces slippage and skin irritation.
- Flexible System (gas / vapour and / or particulate filters plus Supplied-Air option).
- Twin filter design provides lower breathing resistance, a more balanced fit, and improves field of vision.
- Cost effective replacement filters.
- Safe, secure Bayonet filter attachment system.
- Easy and secure fitting.
- 2 sizes (medium - 7002, large - 7003)
- Face piece weight: 119 grams.

Applications

The 7000 Series Half Face Mask Respirators can be used with a variety of different filter options:

Gas and Vapour Filters only: The filters generally protect against either single or multiple contaminant type(s).

- The **6000 Series** filters fit directly onto the respirator except for the 6098 and 6099.

Particulate filters only: These filters provide protection against solid and non-volatile liquid particles.

- The **2000 Series** particulate filters fit directly onto the respirator.
- The **5000 Series** particulate filters may be used on their own with platform 603 and 501 retainers.
- The 6035 & 6038 are encapsulated P3 filters, which fit directly onto the respirator.

Combination of Gas & Vapour and Particulate filters:

- The **5000 Series** particulate filters can be used with **6000 Series** Gas and Vapour filters using 501 retainers excluding the 6035, 6038, 6096, 6098 and 6099.
- The 6096 has Particulate filter media integrated with the Gas and Vapour cartridge.
- The 6038 is an encapsulated particulate filter with a layer of carbon for nuisance level organic vapour and acid gas protection.

Supplied-Air mode: All filters can be used with S-200 Supplied Air Regulator except for the P1 (5911) and P2 (5925, 2125 and 2128) filters, and 6098 and 6099.

Gas and Vapour Filters:

FILTER	IMAGE	STANDARD	CLASS	HAZARD	INDUSTRY
6051 (06911) 6055 (06915)		EN 14387:2004 + A1:2008	A1 A2	Organic Vapours (b. pt. > 65°C)	- Anywhere conventional paints are used (non-isocyanates, subject to usage conditions) - Vehicle manufacture - Aircraft manufacture and refurbishment - Boat Building - Ink and dye manufacture and use - Adhesive manufacture and use - Paint and varnish manufacture - Resin manufacture and use
6054		EN 14387:2004 + A1:2008	K1	Ammonia & derivatives	- Manufacture and Maintenance of refrigeration equipment - Spraying and handling Agrochemicals
6057		EN 14387:2004 + A1:2008	ABE1	Combination organic vapours (b. pt. > 65°C), inorganic & acid gases	As 6051, but including: - Electrolytic processes - Acid Cleaning - Metal Pickling - Metal Etching
6059		EN 14387:2004 + A1:2008	ABEK1	Combination organic vapours (b. pt. > 65°C), inorganic & acid gases & Ammonia	As 6057 & 6054
6075		EN 14387:2004 + A1:2008	A1 + Formaldehyde	Organic vapours (b. pt. > 65°C) & Formaldehyde	As 6051 but also: - Hospitals and Laboratories
6096		EN 14387:2004 + A1:2008	A1HgP3 R	Organic vapours (b. pt. > 65°C), mercury vapour, chlorine & particulates	- Use of Mercury & Chlorine - Particulate applications

Particulate Filters:

FILTER	IMAGE	STANDARD	CLASS	HAZARD	INDUSTRY
5911 5925(06925) 5935		EN143:2000 / A1:2006	P1 R P2 R P3 R	Particulates, (fine dusts and mists)	- Pharmaceutical / Powdered Chemicals - Construction / Quarrying - Ceramics / Refractory materials - Foundries - Agriculture - Woodworking - Food Industry
2125 2135		EN143:2000 / A1:2006	P2 R P3 R	Particulates (Fine Dusts & Mists)	- Pharmaceutical / Powdered Chemicals - Construction / Quarrying - Ceramics / Refractory materials - Foundries - Agriculture - Woodworking - Food Industry
2128 2138		EN143:2000 / A1:2006	P2 R P3 R	Particulates, Ozone & nuisance levels of Organic Vapours & Acid Gases	- Welding - Paper Industry - Brewing - Chemical Processing - Typical Smog - Inks and Dyes
6035		EN143:2000 / A1:2006	P3 R	Particulates (Fine Dusts & Mists)	- Pharmaceutical / Powdered Chemicals - Construction / Quarrying - Ceramics / Refractory materials - Foundries - Agriculture - Woodworking - Food Industry
6038		EN143:2000 / A1:2006	P3 R	Particulates, Hydrogen Fluoride at 30ppm, Nuisance levels of Organic Vapours & Acid Gases	As 6035 but also: - Aluminium smelting - Mining

Approvals

The 3M 7000 Half Face Mask and 3M 6000/5000/2000 Series Filters have been shown to meet the Basic Safety Requirements under Article 10 and 11 B of the European Community Directive 89/686/EEC, and are thus CE-marked.
Approval bodies:

- 7000 Half Face Mask: BGIA (0121)
- 6000 Filters BSI (0086)
- 5000 Filters: BSI (0086)
- 2000 Filters: BSI (0086)

Standards

These products have been tested to the relevant European Standards:

- 7000 Series Half Masks to EN140:1989
- 6000 Series Gas and Vapour filters to EN14387:2004 + A1:2008
- 2000 and 5000 Series and 6035, 6038 Particulate filters to EN143: 2000 / A1:2006.

Correct Usage

When the 7000 Series Half Mask is fitted with Gas & Vapour Filters:

- 6000 Series gas and vapour filters, may be used in concentrations of gases or vapours (types specified by 3M) up to 10 x the Threshold Limit Value (TLV) or 1000ppm (5000ppm for 6055) whichever value is lower.
- 6075 offers protection against organic vapour (as above) and 10ppm formaldehyde only.
- 6000 Series gas and vapour filters should not be used to protect the wearer against a gas or vapour that has poor warning properties (smell or taste).

When the 7000 Series Half Mask is fitted with Particulate Filters:

- 5911 filters may be used in concentrations of particulates up to 4 x TLV.
- 5925, 2125 or 2128 filters may be used in concentrations of particulates up to 10 x TLV.
- 5935, 2135, 2138 or 6035, 6038 filters may be used in concentrations of particulates up to 50 x TLV.
- 2128 and 2138 filters may be used to protect against ozone up to 10 x TLV and offers relief from acid gases and organic vapours at levels below the TLV.
- 6038 offers protection against 30ppm Hydrogen Fluoride and offers relief from ozone, acid gases and organic vapours at levels below the TLV.

Cleaning and Storage

Cleaning is recommended after each use.

1. Disassemble by removing the filters, head straps and other parts.
2. Clean and sanitize the mask (excluding filters) using 3M™ 105 Face Seal Cleaner or immersing in warm cleaning solution and scrubbing with a soft brush until clean. Parts may also be cleaned in a domestic washer.
3. Disinfect respirator by soaking in a solution of quaternary ammonium disinfectant or sodium hypochlorite (30 ML household bleach in 7.5L of water) or other disinfectant.
4. Rinse in fresh, warm water and air-dry in noncontaminated atmospheres.

⚠ **Water temperature should not exceed 50°C.**
⚠ **Do not use cleaning agents that contain lanolin or other oils.**
⚠ **Do not autoclave.**

Maintenance

The 7000 half mask must be inspected before each use to ensure it is in proper operating condition. Any damaged or defective part must be replaced before use.

The following procedure is suggested.

1. Check the face mask for cracks, tears and dirt. Examine the inhalation valves for signs of distortion, cracking or tearing.
2. Check that the head straps are intact and have good elasticity.
3. Examine all plastic parts and gaskets for signs of cracking or fatigue and replace if necessary.
4. Remove the exhalation valve cover and exhalation valve and examine for signs of dirt, distortion, cracking, or tearing. Replace the parts where necessary. Secure the valve cover prior to use.

Use Limitations

1. These respirators do not supply oxygen. Do not use in atmospheres containing less than 19.5%* oxygen.
2. 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. (The 3M S-200 Supplied-Air Respirator System can be used against contaminants with poor warning properties, subject to other use limitations).
3. Do not misuse, alter, modify or repair this product.
4. Do not use with beards or other facial hair that prevent direct contact between the face and the edge of the respirator.
5. Do not use with unknown concentrations of contaminants.
6. Do not use for escape purposes.
7. Leave the work area immediately and check the integrity of the respirator and replace face mask if:
   - Damage has occurred or is apparent.
   - Breathing becomes difficult or increased breathing resistance occurs.
   - Dizziness or other distress occurs.
   - You taste or smell the contaminant or an irritation occurs.
8. Store this device in a sealed container away from contaminated areas when not in use.
9. Use strictly in accordance with respirator and filter user instruction leaflet.
10. In case of intended use in explosive atmospheres, contact 3M technical service.

*** 3M definition minimum 19.5% by volume oxygen**

Fitting Instructions

Before assigning any respirator to be worn in a contaminated area, we recommend that a qualitative or quantitative fit check be performed before entering the workplace.

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

1. Place the respirator over the mouth and nose, then pull the harness over the crown of the head.
2. Take the bottom straps in both hands, place them at the back of the neck and hook them together.
3. Tighten the top straps first by pulling on ends to achieve a comfortable and secure fit.
4. Tighten bottom straps using either front or rear adjustments. (Strap tension may be decreased by pushing out on back side of buckles).

Fit Check

Perform a positive and/or negative pressure fit check. The positive method is recommended.

Positive pressure Face Fit check (all Filters except 3M™ 6035, 6038 / 2000 Series Filters).

1. Place the palm of the hand over the exhalation valve cover and exhale gently.
2. If the face mask bulges slightly and no air leakage between the face and the face mask is detected, a proper fit has been achieved.
3. If air leakage is detected, reposition 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.

Negative pressure face fit check (3M™ 6035, 6038 / 2000 Series Filters)

1. Push the filter cover down (6035, 6038) or press your thumbs into the central indentation of the filters (2000 series), inhale gently and hold your breath for five or ten seconds.
2. If the face mask collapses slightly, a proper fit has been achieved.
3. If air leakage is detected, reposition the respirator on the face and/or readjust the tension of the straps 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.

Materials

PART	MATERIAL
Face Mask	Rubber
Head Harness	Polyethylene
Head Strap	Polyester / cotton / natural rubber
Inhalation Valve	Silicone Rubber
Exhalation Valve	Silicone Rubber
Gasket	Silicone Rubber
6000 Filter Body	Polystyrene
6000 Filter Element	Activated / Treated Carbon
5000 / 2000 Series Filter material	Polypropylene

Spare parts

Due to the large number of spare parts available for the 7000 half masks, routine maintenance can be conducted with ease.

PART	DESCRIPTION
7281	Yoke and head harness
7282	Inhale valves
7283	Exhale valve
7284	Exhalation valve seat and guard
7386	Filter connector
501	Retainer for 5000 Series Filters
603	Particulate Filter Platform
105	Face Seal Cleaner
S-200	Supplied Air Regulator

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

3M offers advice on the selection of products, and training in the correct fitting and usage.

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

3M Occupational Health & Environmental
Safety Division
EMEA Region
3M Centre Cain Road, Bracknell, Berkshire.
England. RG12 8HT
Phone: +44 (0) 1344 858000
Internet: www.3M.eu/occsafety
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