

3M™ Full Face Respirator FF-400 Series

Technical Data Sheet

Description

The 3M™ FF-400 Series Full Face Masks are engineered to deliver maximum comfort and a wide field of view.

Available in three sizes, all 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.

Features

- Reusable, low maintenance respirator.
- Large polycarbonate lens with a wide field of vision featuring 3M™ Scotchgard Protector coating to resist dirt, paint and stains and provides for easier cleaning and maintenance.
- Lightweight, well-balanced with soft silicone nose cup and faceseal for maximum comfort and durability.
- Six point Head harness for a secure, durable fit
- Head harness with Comfort Cradle positions the mask more comfortably on the head
- Passive speaking diaphragm for clearer communication
- 3M™ Cool Flow™ valve helps reduce heat and moisture build up inside the facepiece
- Flexible – wide range of gas & vapour and / or particulate filters available
- Twin filter design provides lower breathing resistance, a more balanced fit, and improves field of vision.
- Safe, secure bayonet filter attachment system with bonded silicone gaskets
- 3 sizes (small – FF-401, medium – FF-402, large – FF-403)
- Spectacle kit and a range of spare parts available.
- Weight: Approx. 570 grams.

Standards

These products have been tested and are compliant with the relevant Australian/New Zealand Standard AS/NZS 1716:2012 for use with:

- 6000 Series Gas and Vapour filters,
- 2000 and 5000 Series and 6035, 6038 Particulate filters



Applications

The FF-400 Series 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 3M™ Gas and Vapour Filters 6000 Series filters fit directly onto the respirator.

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

- The 3M™ Particulate Disc Filters 2000 series fit directly onto the respirator.
- The 6035 & 6038 are encapsulated P3 filters, which fit directly onto the respirator.

Combination of Gas & Vapour and Particulate filters:

- The **3M™ Particle Filters 5000 Series** can be used with 6000 Series Gas and Vapour filters using 501 retainers excluding the 6035, 6038, 6096, 6098 and 6099.
- The 6096, 6098 and 6099 have Particulate filter media integrated with the Gas and Vapour cartridge.
- The 6038 is an encapsulated particulate filter with a layer of carbon for low capacity gas protection

Specifications

Component	Material
Face seal	Silicone
Nose cup	Silicone/polybutylene terephthalate
Inhalation valve	Silicone/nylon
Exhalation valve	Silicone/polybutylene terephthalate, polycarbonates
Head harness	Silicone
Buckles	Nylon
Head cradle	Acrylonitrile butadiene styrene, or polybutylene terephthalate, polycarbonates
Buttons	Nylon
Lens	Polycarbonate
Exhalation valve cover	Nylon, or polybutylene terephthalate, polycarbonates

Correct Usage

When the FF-400 Series Full Face 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 50x the Exposure Standard (ES) or 1000ppm (100x ES or 5000ppm for 6055 and 6099) whichever value is lower.
- 6075 offers protection against organic vapours (as above) and 10ppm formaldehyde only.
- 6098 filters please see Instructions for Use or contact 3M for further information.
- 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 6000 Series Full Face Mask is fitted with Particulate Filters:

- 5925, 2125 or 2128 filters may be used in concentrations of particulates up to 50x ES.
- 5935, 2135, 2138 or 6035, 6038 may be used in concentrations of particulates up to 100x ES.
- 2128 and 2138 filters may be used to protect against ozone up to 10x ES and offers relief from acid gases and organic vapours at nuisance levels i.e. below the ES.
- 6038 offers protection against 30ppm Hydrogen Fluoride and offers relief from ozone, acid gases and organic vapours at levels below the ES.

Cleaning and Storage

Cleaning is recommended after each use.

1. Remove cartridges, filters and/or breathing tubes, and nose cup. The exhalation valve cover, exhalation valve assembly, speaking diaphragm, bayonet assembly, lens and face seal can also be disassembled if necessary.
2. The lens is polycarbonate with an abrasion resistant coating but abrasive cleaners and some solvents may damage it. Avoid using acetone, methyl ethyl ketone, toluene, methylene chloride and other strong solvents.
3. Clean facepiece (excluding filters and cartridges), by immersing in warm cleaning solution, water temperature not to exceed 49°C, and scrub with soft brush until clean. Add neutral detergent if necessary. Do not use cleaners containing lanolin or other oils. Do not autoclave
4. Disinfect facepiece by soaking in a solution of quaternary ammonia disinfectant or sodium hypochlorite 30 mL household bleach in 7.5 L of water, or other disinfectant.
5. Rinse in fresh, warm water and air dry in non-contaminated atmosphere. Do not replace nose cup until facepiece is completely dry.
6. Respirator components must be inspected prior to each use. A respirator with any damaged or deteriorated components should be repaired or discarded.
7. The cleaned respirator should be stored away from contaminated areas when not in use.

Limitations

1. These respirators do not supply oxygen. Do not use in oxygen deficient areas.*
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.
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.

* 3M definition minimum 19.5% by volume oxygen

Particulate Filters

Filter	Standard	Class	Hazard	Suggested Industry Examples
5925 5935	AS/NZS 1716:2012	P2 P3	Particulates	<ul style="list-style-type: none"> • Pharmaceutical / Powdered Chemicals • Construction / Quarrying • Ceramics / Refractory materials • Foundries • Agriculture • Woodworking • Food Industry
2125 2135	AS/NZS 1716:2012	P2 P3	Particulates	<ul style="list-style-type: none"> • Pharmaceutical / Powdered Chemicals • Construction / Quarrying • Ceramics / Refractory materials • Foundries • Agriculture • Woodworking • Food Industry
2128 2138	AS/NZS 1716:2012	GP2 GP3	Particulates, Low vapour pressure (<1.3Pa @ 25 degrees Celsius) organic compounds, Ozone & nuisance levels of Organic Vapours & Acid Gases	<ul style="list-style-type: none"> • Welding • Paper Industry • Brewing • Chemical Processing • Agriculture • Inks and Dyes
6035	AS/NZS 1716:2012	P3	Particulates	<ul style="list-style-type: none"> • Pharmaceutical / Powdered Chemicals • Construction / Quarrying • Ceramics / Refractory materials • Foundries • Agriculture • Woodworking • Food Industry
6038	AS/NZS 1716:2012	P3HF	Particulates, Hydrogen Fluoride to 30ppm, Nuisance levels of Organic Vapours & Acid Gases	<ul style="list-style-type: none"> • Aluminium smelting • Mining

Gas and Vapour Filters

Filter	Standard	Class	Hazard	Suggested Industry Examples
6051 6055	AS/NZS 1716:2012	A1 A2	Organic Vapours (b.pt. > 65°C)	<ul style="list-style-type: none"> 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	AS/NZS 1716:2012	K1	Ammonia & derivatives	<ul style="list-style-type: none"> Manufacture and Maintenance of refrigeration equipment Spraying and handling Agrochemicals
6057	AS/NZS 1716:2012	ABE1	Combination organic vapours (b.pt. > 65°C), inorganic & acid gases	As for 6051, but including: <ul style="list-style-type: none"> Electrolytic processes Acid Cleaning Metal Pickling Metal Etching
6059	AS/NZS 1716:2012	ABEK1	Combination organic vapours (b.pt. > 65° C), inorganic & acid gases & Ammonia	As for 6057 & 6054
6075	AS/NZS 1716:2012	A1 + Formaldehyde	Organic Vapours (b.pt. > 65°C) & Formaldehyde	As for 6051 but also: <ul style="list-style-type: none"> Hospitals and Laboratories MDF manufacturing
6096	AS/NZS 1716:2012	A1E1HgP3	Organic Vapours (b.pt. > 65°C) Mercury vapour, Chlorine & Particulates	<ul style="list-style-type: none"> Oil & Gas processing Use of Mercury & Chlorine
6098	AS/NZS 1716:2012	AXP3	Low boiling point Organic Vapours (b.pt. < 65°C) & Particulates	<ul style="list-style-type: none"> Chemical Industry Particulate applications
6099	AS/NZS 1716:2012	A2B2E2K2HgP3 + Formaldehyde	Organic Vapours (b.pt. > 65°C), Inorganic Gases, Acid Gases, Ammonia, Mercury, Formaldehyde & Particulates.	As 6059 but also: <ul style="list-style-type: none"> Particulate applications

Fitting Instructions

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

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

1. Fully loosen all four head straps, and then place the harness at back of head and position respirator over the face.
2. Pull the ends of the four straps to adjust tightness, starting with the neck straps first, then the forehead straps.



Do not over tighten the head straps.

Fit Check

Perform a positive and/or negative pressure fit check each time the respirator is worn.

Positive pressure face fit check.

1. Place the palm of the hand over the exhalation valve cover and exhale gently.
2. 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, reposition the respirator on the face and/or re-adjust 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 respirator collapses slightly, a proper fit has been achieved.
3. If air leakage is detected, reposition the respirator on the face and/or re-adjust 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.

Ordering Information

3M Code	Model #	Description
70071510773	FF-401	Full Facepiece, Small 4/Case
70071510807	FF-402	Full Facepiece, Medium 4/Case
70071510831	FF-403	Full Facepiece, Large 4/Case

Parts & Accessories

3M Code	Model #	Description
70071516846	FF-400-01	Buckle 30/Case
70071516853	FF-400-02	Button 30/Case
70071516861	FF-400-03	Lens Replacement 5/Case
70071516879	FF-400-04	Head Harness 5/Case
70071516887	FF-400-05	Lens Frame Assembly 5/Case
70071516895	FF-400-06	Comfort Cradle Head Harness Attach 5/C
70071516903	FF-400-07	Exhalation Valve Assembly 5/Cs
70071516911	FF-400-08	Bayonet Assembly 10/Case
70071516929	FF-400-09	Exhalation Valve Cover 5/Case
70071516960	FF-400-13	Speaking Diaphragm Assembly 5/Cs
70071516986	FF-400-17	Semi-Perm. Lens Protector 20/Cs
70071517018	FF-400-20	Spectacle Kit 1/Case

Important Notice

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