

3M Reusable Respiratory Protection




Respiratory Protection Guide

3M



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The purpose of the 3M™ Reusable Respiratory Protection Guide is to help inform you about the 3M Cartridges and Filters that you use with your 3M Reusable Respirator.

- Why you need to change cartridges and filters
- Establishing a cartridge change schedule
- What cartridges and filters are available for the different hazards you might encounter
- How to look after your reusable respirator

Your 3M Reusable Respirator

Everyone's face is unique. To make sure your 3M Reusable Respirator will work properly, a correct fit to your face is very important. A facial fit-test should be carried out to check that there are no leaks between the respirator and your face. If a seal is not obtained the respirator will offer little or no protection, as contaminants can be breathed in.

This booklet is designed to be a guide only. For specific advice on 3M Respiratory Products (e.g. choosing a 3M Respirator, Fit-Testing, and when to change your Cartridges or Filters) call the 3M TechAssist Helpline: Australia 1800 024 464, New Zealand 0800 364 357.

Why Change Your Cartridges and Filters?



If you continue to use cartridges when the material has reached their capacity, they are no longer able to protect you. Particulate filters will keep removing contaminants but will become harder and harder to breathe through, increasing discomfort.

Effects of dusts, fumes and mists

Dusts, fumes and mists can irritate your nose, throat and upper respiratory system. Some particles, depending on their size and type, can pass through to your lungs, where they can damage the lung tissue and cause more serious health hazards.

Effects of gases and vapours

Gases and vapours can pass immediately to your lungs. From there, they can be absorbed into your bloodstream, where they can damage your brain and internal organs.

Shelf life of cartridges and filters

Provided they are stored unopened in the original packaging, 3M cartridges and filters will last five years from manufacture date. Once removed from their packaging they should be replaced after six months as recommended by Australian / New Zealand Standard 1715 (even though they have not been used).

Before starting work ensure you have:

1. Checked your cartridge/filter to ensure it can capture your specific contaminant(s) (contact 3M TechAssist for assistance).
2. Checked the expiry date on the packaging
3. Inspected your respirator for any missing or damaged parts
4. Completed a fit check and the respirator fits firmly to your face

If while working you start to taste or smell the contaminant inside your respirator, leave the contaminated area. Your cartridges may be saturated and need replacing. To minimise this occurring, set up a cartridge change schedule.

How long will cartridges and filters last in use?

The life of cartridges and filters depends on a number of factors including the type, volatility and concentration of contaminants in the air, your breathing rate, humidity, temperature and how you store your respirator.

Establish a cartridge change schedule

Establishing a cartridge change schedule requires knowledge of the contaminant(s) and the levels to which you are exposed. You may be able to measure your own levels using a personal sampling device. This will provide some preliminary measurements which can be used to establish a change schedule.

Contact 3M TechAssist Helpline for further information and guidance on personal sampling.

Which Cartridge Do I Need?

Product Code

6051

6055

6057

6054

6075

6059

6096

6098

6099



Description

Organic Vapours (boiling point > 65°C)

Organic Vapours (boiling point > 65°C),
Inorganic and Acid Gases

Ammonia and Methylamine

Organic Vapours (boiling point > 65°C)
and Formaldehyde

Multi-Gas: Organic Vapours (boiling point >
65°C), Inorganic and Acid Gases, Ammonia
and Methylamine

Organic Vapours (boiling point > 65°C),
Mercury Vapours and Toxic Particulates

Low Boiling Point Organic Vapours (boiling point
<65°C) and Toxic Particulates

Multi-Gas and Particulates: Organic Vapours
(boiling point > 65°C), Inorganic and Acid Gases,
Ammonia, Methylamine and Particulates

* Not to be used when spraying isocyanate based paints

** P3 Filters used when a higher protection factor is required. P3 Protection achieved
only when worn with a 3M Full Face Respirator

Filter Rating

When You Are: (Application/Hazard)

A1 (6051)

Using or cleaning with organic solvents e.g. toluene, xylene and MEK. Also degreasing, mixing, using paint thinners, lacquers and glues. For paint and pesticide spraying* a particulate filter must be used to capture mist droplets (5925).

A2 (6055)

A1B1E1

Working with solvents and/or acid gases such as toluene, chlorine, hydrogen chloride and sulfur dioxide. Degreasing, using paint thinners, acid cleaning, etching and electroplating, acid and fertiliser manufacturing.

K1

Working with ammonia and methylamine used in the manufacture of fertilisers, refrigeration systems, synthetic fibres and dyes.

A1 Form

Working with solvents and formaldehyde such as chemical processing, plastic production, fibreboard manufacturing, fighting bush fires, healthcare and laboratory work.

A1B1E1K1

Working with a variety of chemicals such as solvents (boiling point > 65°C), chlorine, hydrogen chloride, sulfur dioxide, hydrogen fluoride, hydrogen sulfide and ammonia.

A1HgP3**

Oil and gas refining, healthcare when removing amalgam or wherever mercury vapours may exist e.g. spillages.

AXP3**

Working with highly volatile solvents such as methanol, 1,3-Butadiene or Acetaldehyde in chemical plants, composites manufacturing or coatings. Filter is single use only and must be worn with a 3M Full Face Respirator.

A2B2E2K2P3**
Multi-Gas Class 2

Exposed to higher concentrations where Class 2 protection is required. Working with a variety of chemicals (refer to 6059) as well as particulates. Must be worn with a 3M Full Face Respirator.

Which Filter Do I Need?

Product Code

2125

2128

2135

2138

2076

6035

6038

5925

501

Description

Particulates

Particulates, Ozone and Nuisance Level*
Acid Gas and Organic Vapours with Low
Vapour Gases

Toxic Particulates

Toxic Particulates, Nuisance Level* Acid
Gases and Organic Vapours with Low
Vapour Pressure

Particulates and Hydrogen Fluoride

Toxic Particulates

Toxic Particulates and Hydrogen Fluoride

Particulates

Particulate Filter Retainer



* Nuisance Levels are those levels below the Workplace Exposure Standard (WES)

** P3 Filters used when a higher protection factor is required. P3 Protection achieved only when worn with a 3M Full Face Respirator

*** Refer to Australian State OHS regulations or New Zealand Dept. of Labour guidelines





Filter Rating	When You Are: (Application/Hazard)
P2	Creating certain dusts, mists and fumes such as sanding, grinding, cutting, drilling metal, masonry, wood and concrete.
GP2	Creating welding fume, ozone, polishing and grinding particles when welding or fabricating. Also for spraying pesticides or herbicides with vapour pressure < 1.3 Pa @ 25°C.
P2/P3**	Working with toxic particulates such as asbestos (refer to Government guidelines***) and beryllium.
GP2/GP3**	Working with toxic particulates such as mould remediation. Also for nuisance level* acid gases and spraying pesticides or herbicides with vapour pressure < 1.3 Pa @ 25°C.
P2(HF)	Working with hydrogen fluoride and creating particulates such as dust and mist. Applications include working in certain chemical and fertiliser plants.
P2/P3**	Carrying out lead or mould remediation. Also for certain asbestos tasks (refer to Government guidelines***). Ideal if requiring a protective casing to deflect sparks and splashes.
P3(HF)**	Working with hydrogen fluoride and creating toxic particulates. Applications include working in certain chemical and fertiliser plants. Ideal if requiring a protective casing to deflect sparks and splashes.
P2	Needing protection against dusts, mists and fumes when fitted to 6000 series cartridge with the 501 retainer.

Attaching 5925 filter to 6000 series cartridges





Replacement Spare Parts

A range of spare parts or components is available for all of the 3M Reusable Respirators. Regularly checking your respirator and replacing worn or broken components will prolong the life of your respirator, help achieve a good fit and maintain respiratory protection.


6000 Half Face Respirator

	Product Code	Description	Replace When:
	6889	Exhalation Valve - Blue	The valve becomes warped or torn.
	6893	Inhalation Valve - White	The valve becomes warped or torn.
	6895	Inhalation Gasket - Orange	The gasket becomes warped, torn or cracked.
	6281	Head Harness Assembly	The harness becomes overstretched, losing elasticity. This will effect fit.

7500 Half Face Respirator

	Product Code	Description	Replace When:
	7582	Inhalation Valve - Blue	The valve becomes warped or torn.
	7583	Exhalation Valve - Blue	The valve becomes warped or torn.
	7580	Replacement Harness Straps	The straps become overstretched, losing elasticity. This will effect fit.
	7581	Head Harness Assembly	The harness shows signs of cracking or tearing.

These pages list the most common spare parts for each of the respirators.
Additional spare parts are also available.

6000 Full Face Respirator			
	Product Code	Description	Replace When:
	6893	Inhalation Valve - White	The valve becomes warped or torn.
	6895	Inhalation Gasket - Orange	The gasket becomes warped, torn or cracked.
	6896	Centre Adaptor Gasket	The gasket becomes warped, torn or cracked.
	7583	Exhalation Valve - Blue	The valve becomes warped or torn.
	6885	Lens Cover - Clear	Cover becomes difficult to see through. This may impair vision and become a safety issue.
	6897	Head Harness Assembly	The harness tears or the ridges become worn.
	6898	Lens Assembly	Vision becomes impaired e.g. lens is scratched or cracked.

Cleaning Reusable Respirators

Proper cleaning and maintenance of respirators is an important area that is commonly overlooked. All respiratory protection equipment needs to be in good condition to work effectively and safely.

Quick Guide to Cleaning

- Step 1** Remove cartridges or filters.
- Step 2** Immerse the respirator in warm water less than 50°C. You may also use a neutral detergent.
- Step 3** Wipe or scrub with a soft brush until clean.
- Step 4** Disinfect the respirator by soaking in household bleach for two minutes (30ml of bleach in 7.5L of water).
- Step 5** Rinse in fresh warm water and air dry in a clean area.
- Step 6** Check the respirator components prior to reassembly. A respirator with any damaged or deteriorated components must be repaired or discarded. Refer to the Replacement Spare Parts Guide on the previous page.
- Step 7** Store the respirator and cartridges or filters in an airtight container to avoid further moisture and contaminant exposure.

Frequently Asked Questions



When should I be using a particle filter on top of my cartridges?

When you are exposed to a combination of gases/vapours and particles. For example, spray painting produces solvent vapours and mist droplets. It is these mist droplets that create particles.

Gas/Vapour cartridges do not filter these particles and particle filters do not filter vapours. Therefore you need to consider if a combination is required for your task.

For example



Can I wear a respirator with a beard?

Facial hair has the potential to break the seal between the respirator and your face, exposing you to the contaminant(s). To ensure the respirator has a good seal against the face, we recommend the wearer is clean shaven.

How should I store my respirator?

When not in use, cartridges can continue to adsorb gases and vapours from the air and can be affected by humidity. By storing cartridges in an airtight container their life may be extended. This is particularly important for organic vapour cartridges.

3M Help & Advice

- **TechAssist Helpline**

For further advice on 3M Reusable Respirators and changing 3M Cartridges and Filters (or any of our other 3M Safety Products) phone our TechAssist Helpline: **Australia 1800 024 464, New Zealand 0800 364 357.**

- **3M Occupational Health & Environmental Safety Website**

Australia: www.3m.com/au/PPESafety

New Zealand: www.3m.com/nz/PPESafety

- **3M Respirator Selection and Service Life Software**

The software is designed to assist you in respirator selection and in estimating the life of selected 3M Gas and Vapour cartridges.

Visit our website:

Australia: www.3m.com/au/PPESafety

New Zealand: www.3m.com/nz/PPESafety

Cartridge Change Record

Name:

Date Changed	Next Due Date to be Changed	Comments

For more information about 3M Safety products or solutions please contact us:

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