

Occupational Health and Environmental Safety Products









Protecting People at Work, at Home, for Life





Volume 1

3M




3M™ 8000 Series Particulate Respirators

3M respirators offer users an effective way of meeting OSHA respiratory protection standards and D.O.S.H. requirements. Depending on your workplace application, 3M has a respirator with innovative features and technologies that best meets your needs.

	Product Number/ Classification	DOSH Approval no.	Suggested Applications	Time Use Limitation <small>See Page 3</small>	Featured Technologies <small>See Page 4</small>
Dusty Conditions	 8110S N95	JKKP DR 66/99	<ul style="list-style-type: none"> Grinding • Sanding • Sweeping • Bagging • Woodworking Other dusty operation Use For : <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, flour, and certain other substances. Liquid or non-oil based particles from sprays that do not emit harmful vapors. 	1	<ul style="list-style-type: none"> Advanced Electret Media
	 8210 N95	JKKP DR 65/99	<ul style="list-style-type: none"> Grinding • Sanding • Sweeping • Bagging • Woodworking • Foundries Other dusty operation Use For : <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron, ore, flour, and certain other substances. Liquid and non-oil based particles from sprays that do not emit harmful vapors. 	1	<ul style="list-style-type: none"> Advanced Electret Media
	 8511 N95	JKKP DR 67/99	<ul style="list-style-type: none"> Grinding • Sanding • Sweeping • Bagging • Other dusty operation Use For : <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron, ore, flour, and certain other substances. Liquid and non-oil based particles from sprays that do not emit harmful vapors. 	1	<ul style="list-style-type: none"> Cool Air Flow Valve M-Noseclip Advanced Electret Media
Dusty Conditions with Nuisance Odors	 8246 R95	JKKP DR 86/99	<ul style="list-style-type: none"> Glass etching • Chemical manufacturing • Paper processing Brewing operations • Aluminum smelting Use For : <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron, ore, flour, and certain other substances. Liquid and non-oil based particles from sprays that do not emit harmful vapors. Nuisance level acid gases* such as Sulfur Dioxide, Hydrogen Fluoride and/or Chlorine. 	1 & 3	<ul style="list-style-type: none"> Advanced Electret Media Odor-removing filter material
	 8247 R95	JKKP DR 87/99	<ul style="list-style-type: none"> Foundry operations • Lab settings • Agriculture Petrochemical manufacturing • Undercoating Use For : <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, cotton, flour, and certain other substances. Liquid or oil based particles from sprays that do not also emit harmful vapors. Nuisance level organic** vapor relief. 	1 & 3	<ul style="list-style-type: none"> Advanced Electret Media Odor-removing filter material
	 8576 P95	JKKP DR 73/99	<ul style="list-style-type: none"> Glass etching • Chemical processing • Paper processing Brewing operations • Aluminium Smelting Use For : <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, cotton, flour, and certain other substances. Liquid or oil based particles from sprays that do not emit harmful vapors. Nuisance level acid gas* such as Sulfur Dioxide, Hydrogen Fluoride and /or Chlorine. 	1 & 4	<ul style="list-style-type: none"> Cool Flow Exhalation Valve M-Noseclip Advanced Electret Media Odor-removing filter material P-Series Filter
	 8577 P95	JKKP DR 74/99	<ul style="list-style-type: none"> Foundry operations • Lab settings • Agriculture Petrochemical manufacturing • Undercoating Use For : <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, cotton, flour, and certain other substances. Liquid or oil based particles from sprays that do not emit harmful vapors. Nuisance level organic vapor** relief. 	1 & 4	<ul style="list-style-type: none"> Cool Flow Exhalation Valve M-Noseclip Advanced Electret Media Odor-removing filter material P- Series Filter
Class 100	 8233 N100	JKKP DR 75/99	<ul style="list-style-type: none"> OSHA substance specific particle exposures in concentrations up to 10x the OSHA PEL - Lead, Cadmium, Arsenic, 4,4' - Methyleneedianiline (MDA) Brazing • Soldering • Torch cutting • Metal pouring Pharmaceutical manufacturing Use For : <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, flour and certain other substances. Liquid or non-oil based particles from sprays that do not emit harmful vapors. Metal fumes produced from welding, cutting and other operations involving heating of metals. 	1	<ul style="list-style-type: none"> Cool Flow Exhalation Valve Advanced Electret Media Faceseal Fully Adjustable Straps

Welding and Metal Pouring	Product Number/ Classification	DOSH Approval no.	Suggested Applications	Time Use Limitation <small>See Page 3</small>	Featured Technologies <small>See Page 4</small>
	 8212 N95	JKKP DR 68/99	<ul style="list-style-type: none"> Welding • Brazing • Soldering • Torch cutting • Metal pouring Grinding • Sanding • Sweeping • Bagging • Other dusty/hot operations Use For: <ul style="list-style-type: none"> Metal fumes produced from welding, cutting and other operations involving heating of metals. Solids such as those from processing minerals, coal, iron ore, flour, and certain other substances. Liquid or non-oil based particles from sprays that do not also emit harmful vapors. 	1	<ul style="list-style-type: none"> Cool Flow Exhalation Valve Faceseal Advanced Electret Media Cake-resistant filter media Fully Adjustable Straps
	 8512 N95	JKKP DR 70/99	<ul style="list-style-type: none"> Welding • Brazing • Soldering • Torch cutting • Metal pouring • Grinding Sanding • Sweeping • Bagging • Other dusty/hot operations Use For: <ul style="list-style-type: none"> Solids such as those from processing minerals, coal, iron ore, flour, and certain other substances. Liquid or non-oil based particles from sprays that do not emit harmful vapors. Metal fumes produced from welding, cutting and other operations involving heating of metals. 	1	<ul style="list-style-type: none"> Cool Flow Exhalation Valve Advanced Electret Media Cake-resistant filter media Fully Adjustable Straps
	 8214 N95	JKKP DR 69/99	<ul style="list-style-type: none"> Welding - Galvanized Steel, Stainless Steel, Aluminium • Soldering Brazing • Torch cutting • Metal pouring • Grinding • Sanding Sweeping • Bagging • Other dusty/hot operations Use For: <ul style="list-style-type: none"> Ozone protection***. Solids from processing minerals, coal, iron ore, flour. Liquid or non-oil based particles from sprays that do not emit harmful vapors. Metal fumes produced from welding and cutting. Nuisance level organic vapor** relief. 	1 & 2	<ul style="list-style-type: none"> Cool Flow Exhalation Valve Faceseal Advanced Electret Media Odor-removing filter material Cake-resistant filter media Fully Adjustable Straps
	 8514 N95	JKKP DR 71/99	<ul style="list-style-type: none"> Welding - Galvanized Steel, Stainless Steel, Aluminium • Soldering Brazing • Torch cutting • Metal pouring • Grinding • Sanding Sweeping • Bagging • Foundry operations • Other dusty/hot operations Petrochemical Operations Use For: <ul style="list-style-type: none"> Ozone protection***. Solids from processing minerals, coal, iron ore, flour. Liquid or non-oil based particles from sprays that do not emit harmful vapors. Metal fumes produced from welding and cutting. Nuisance level organic vapor** relief. 	1 & 2	<ul style="list-style-type: none"> Cool Flow Exhalation Valve Advanced Electret Media Odor-removing filter material Cake-resistant filter media Fully Adjustable Straps

3M™ 9000 Series Particulate Respirators

Dusty Conditions	Product Number/ Classification	Suggested Applications	Featured Technologies <small>See Page 4</small>
	 9002A AS/NZS P1	<ul style="list-style-type: none"> Grinding • Sanding • Sweeping • Bagging • Woodworking • Other Dusty operation Use For: <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron ore, flour and certain substances. Liquid particles from sprays that do not emit harmful vapors. 	<ul style="list-style-type: none"> Advanced Electret Media Two-Strap design Vertical Flat-Fold Design
	 9010 N95	<ul style="list-style-type: none"> Grinding • Sanding • Sweeping • Bagging • Woodworking • Other Dusty operation Business Continuity Planning Use For: <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron ore, flour and certain substances. Liquid or non-oil based particles from sprays that do not emit harmful vapors. 	<ul style="list-style-type: none"> Advanced Electret Media Two-Strap design Vertical Flat-Fold Design
Dusty Conditions with Nuisance Odors	 9042A AS/NZS P1	<ul style="list-style-type: none"> Foundry operation • Lab setting • Agriculture • Petrochemical • Tobacco Processing Use For: <ul style="list-style-type: none"> Solid such as those from processing minerals, coal, iron ore, flour and certain substances. Liquid particles from sprays that do not emit harmful vapors. Nuisance level organic * vapor relief. 	<ul style="list-style-type: none"> Advanced Electret Media Odor-removing filter material Two-Strap design Vertical Flat-Fold Design

* 3M recommended for relief from nuisance levels of acid gas. Nuisance level refers to concentrations not exceeding the OSHA PEL, or applicable government occupational exposure limits, whichever is lower.

** 3M recommended for relief from nuisance levels of organic vapors. Nuisance level refers to concentrations not exceeding the OSHA PEL, or applicable government occupational exposure limits, whichever is lower.

*** 3M recommended for ozone protection up to 10 times the OSHA PEL, or applicable government occupational exposure limits, whichever is lower.

Time Use Limitation

- If respirator becomes damaged, soiled, or breathing becomes difficult, leave the contaminated area and replace respirator.
- If used for ozone protection, replace respirator in accordance with an established change schedule, or earlier if smell, taste, or irritation from contaminants is detected.
- If oil aerosols are present, time use may be limited to 8 hours of continuous or intermittent use.
- If used in environments containing only oil aerosols, replace respirator after 40 hours of use or 30 days, whichever is first.

See next page for Featured Technologies for 8000 Series Particulate Respirators



Each respirator helps protect against certain particles only. Misuse may result in sickness or death. For proper use, see supervisor, instructions or call 3M Technical Services. Tel: 03 7806 2888

Do Not Use For:

Gases and vapors, including those present in paint spraying operations, asbestos or sandblasting, aerosol concentrations that exceed 10 times the OSHA PEL, or applicable governmental regulations, whichever is lower. These respirator does not supply oxygen.

3M™ Featured Technologies

for 8000 Series Particulate Respirators

Thanks to direct input from safety professionals worldwide, 3M innovation is an ongoing process. The new product solutions for 42 CFR 84 not only meet, but exceed the new standards. 3M respiratory products feature long-lasting comfort, protection, and cost-effectiveness — the complete line of respirators sets the standard.

Faceseal

Soft and secure, the 3M faceseal conforms closely to the face for long-lasting comfort and protection.



Fully Adjustable Straps

For a comfortable, secure fit, a single tug on the straps is all it takes with the 3M universal buckle attachment.



Cool Flow™ Exhalation Valve

A patented one-way valve for easy exhalation and heat reduction, the new Cool Flow Valve™ from 3M provides workers with cool, dry comfort.



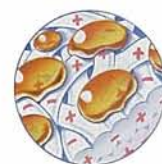
M-Nose Clip

The new 3M M-Nose Clip conforms easily around the nose bridge with fewer pressure points and greater comfort.



P-Series Filter

Features Advanced Electret Media, appropriate for prolonged use in both oil- and non-oil containing environments.



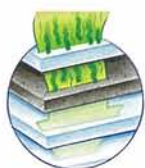
Advanced Electret Media

3M advanced electrostatically charged microfibers exceed NIOSH filtration requirements yet make breathing easier and cooler.



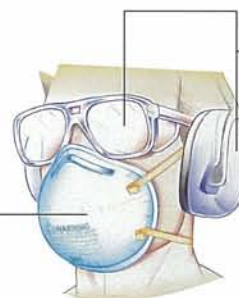
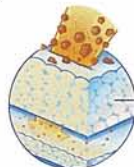
Odor Removing Filter Material

Say good-bye to nuisance odors found in many workplaces. Layers of carbon in many 3M respirators remove low level odors which workers may find objectionable.



Cake-Resistant Media

Particles are trapped throughout lofty outer layer and then by Advanced Electret Media. This layering prolongs respirator life while maintaining ease of breathing.



Compatible with Other Safety Equipment

Protective eye and ear wear and 3M respirators? No problem, innovative 3M respirator designs accommodate a wide range of safety equipment.



Vertical Flat-Fold design

Low profile for better visibility. Offers convenient storage and portability prior to use. (model 9002A, 9010 and 9042A only)

3M™ 8812 & 8822

Valved Particulate Respirators

The 8812 and 8822 respirators are ideal for use in a wide range of industrial applications particularly those with hot, humid and dusty environments.



JKKP DR 49/97

3M™ 8812 Valved Particulate Respirator, FFP1

The Comfort Factor

The new valve is integral in enhancing wearer comfort, acceptability and compliance by reducing heat and moisture build-up, thus maintaining a comfortable atmosphere within the respirator.

- Rubber/Plastics
- Manufacture
- Paint Manufacture
- Construction
- Roadworks/Repair
- Laboratories
- Mining
- Agriculture
- Quarrying
- Sawmills/Woodworking
- Powdered Chemicals
- Pharmaceuticals
- Pottery/Ceramics/Brickworks
- Engineering Works
- Foodstuffs (bagging, handling)



JKKP DR 50/97

3M™ 8822 Valved Particulate Respirator, FFP2

Collapse-resistant shell design maintains the molded shape of the respirator at all times, contributing to wearer comfort and durability of respirator. The incorporation of a soft nose-foam and molded metal clip provide a comfortable fit and good face seal over a wide range of face sizes, maximising respirator protection. This also helps prevent any fogging of safety goggles and spectacles, allowing a clear vision.

- Iron/Steel Foundries
- Ship repair/Ship building
- Metalworking Industries
- Mining/Smelting Operations
- Engineering Works
- Automotive Assemblies
- Pharmaceuticals
- Powdered Chemicals
- Foodstuffs (bagging, handling)
- Metal fumes from soldering, welding

3M™ 9300 Series Foldable Particulate Respirators

Welcome to a totally different world of comfort and style. The distinctive new 9300 series is a new generation of respirators which answer the wearers' call for comfort and style without compromising the performance Safety Professionals look for. There are four respirators in the 9300 series, designed to meet wearers' needs across a wide range of applications and industries.

Features

- 3-panel foldable design for greater comfort, easy communication and improved wearer acceptance.
- Soft cover web on inner panel ensures greater comfort against skin.
- Centrally positioned CPC valve avoids heat build-up and makes breathing easier and cooler.
- Lightweight and foldable for easy storage and portability.
- Individually packed to avoid contamination during storage.
- Foam nosebridge absorbs sweat, is comfortable and enhances face seal.



3M™ 9310 Dust Respirator

The 3M 9310 respirator is for use against dusts found in a wide variety of industrial applications and other work situations, requiring P1 dust/mist protection.

3M 9310 | Dust/Mist Respirator
Type | P1
Conforms to Standard | E149, AS/NZS 1716
Maximum use levels | 10 x WES
D.O.S.H. Approval No. | JKKP DR 60/99

Applications include :

- Rubber and plastics
- Paint manufacturing
- Construction
- Laboratories
- Market gardening
- Sawmills
- Quarrying
- Engineering
- Agrochemicals
- Pottery/chemicals
- Agriculture



3M™ 9312 Valved Dust Respirator

The 3M 9312 respirator can be used in many hot and humid environments where the application requires P1 level dust/mist protection.

3M 9312 | Valved Dust/Mist Respirator
Type | P1
Conforms to Standard | EN149, AS/NZS 1716
Maximum use levels | 10 x WES
D.O.S.H. Approval No. | JKKP DR 61/99

Applications include :

- Pharmaceuticals
- Construction
- Potteries
- Foodstuffs
- Agriculture
- Metal based manufacturing
- Ship building/repair
- Iron and steel foundries
- Brickclay/refractory materials
- Powdered chemicals



3M™ 9320 Dust/ Mist/ Fumes Respirator

The 3M 9320 respirator is designed for use against fine dusts and water-based mists found in construction, industrial and many solid chemical handling applications requiring P2 protection.

3M 9320 | Dust/Mist/Fumes Respirator
Type | P2
Conforms to Standard | EN149, AS/NZS 1716
Maximum use levels | 10 x WES
D.O.S.H. Approval No. | JKKP DR 62/99

Applications include :

- Metal based manufacturing
- Pharmaceuticals
- Laboratories
- Powdered Additives
- Foodstuff e.g. bagging
- Ship building/repair
- Powdered Chemicals
- Metal fumes from soldering, welding



3M™ 9322 Valved Dust/ Mist/Fumes Respirator

The 3M 9322 respirator is for use in hot and humid environments and where P2 protection is required.

3M 9322 | Valved Dust/Mist/Fumes Respirator
Type | P2
Conforms to Standard | EN149, AS/NZS 1716
Maximum use levels | 10 x WES
D.O.S.H. Approval No. | JKKP DR 63/99

Applications include :

- Pharmaceuticals
- Construction
- Potteries
- Foodstuffs
- Agriculture
- Ship building/repair
- Metal based manufacturing
- Iron and steel foundries
- Brickclay/refractory materials
- Powdered chemicals
- Metal fumes from soldering, welding



3M™ 9332 Valved Dust/ Mist/ Metal Fumes Respirator

The 3M 9332 respirator is for use in hot and humid environment where P3 protection is required

3M 9332 | Valved Dust/Mist/Metal Fumes Respirator
Type | P3
Conforms to Standard | EN149, AS/NZS 1716
Maximum use levels | 20 X WES
D.O.S.H. Approval No. | JKKP DR 64/99

Applications include :

- Pharmaceuticals
- Construction
- Potteries
- Foodstuffs
- Agriculture
- Ship building/repair
- Metal based manufacturing
- Iron and steel foundries
- Brickclay/refractory materials
- Powdered chemicals
- Metal fumes from soldering, welding

Elastomeric Facepiece

Respirators

Industrial Hygiene and Safety Professionals need products that enhance their respiratory protection programs at a reasonable cost. Workers want comfort and performance. 3M provides that and more with the most complete line of Elastomeric Facepiece Respirators.

*3M Elastomeric Facepiece Respirators give you
MORE Options
MORE Innovations
MORE Solutions*

More
& Versatility
Low Maintenance

Selection Overview

3000 Series
Half Facepiece Respirator



5000 / 6000 Series
Half Facepiece Respirator



6000 Series
Full Facepiece Respirator



7700 Series
Half Facepiece Respirator



7000 Series
Half Facepiece Respirator



3M™ 3000 Series

3M™ Single Cartridge Half Facepiece Respirators

- Two customised Asian size face pieces for more secure fit and seal
- Textured face piece to prevent slipping and maintain consistent seal at all times
- Compact design increases vision and safety
- Lightweight body and cradle head harness increase comfort
- Choice of 55cc organic vapor cartridges with optional built-in particulate prefilter or just particulate filter only.
- Minimal replaceable parts to save space, time and money
- Snap fit cartridges for easy assembly
- Drop-down strap for wearer convenience and acceptance

The 3M 3000 Series particulate respirator is ideal for dust/ mist/ fumes (3744 Filter) in the following application:-

- Grinding/ Sanding/ Sweeping/ Bagging
- Woodworking
- Agriculture
- Welding/ Soldering/ Metal Pouring
- Other dusty operations



3744 Particulate Filter
KOSHA/ 1st Class/ P2/
N-OV (JKKP MR 98/ 01)

The 3M 3000 Series Organic Vapor Cartridge with dust/mist filter (3011K-55) Respirator is ideal for spray painting, chemical spraying & coating, fumigation, degreasing, cleaning and maintenance in the following industries:

- Automotive - spray painting
- Agriculture - pesticide spraying, fumigation
- Pest control works
- Shipbuilding/repair
- Rubber/plastic manufacturing
- Petrochemical operations
- Woodworking
- Construction



Face Piece no.
3100 (small/ medium)
3200 (medium/ large)



Organic Vapor Cartridge
with dust/mist filter
3011K - 55

3M™ 5000 Series

The innovative design of 3M™ 5000 Series Respirators makes them an easy, economical way to help ensure worker protection. Their lightweight, well-balanced design provides greater worker comfort. They are pre-assembled, have no spare parts and require no maintenance. Workers want respirators that are lightweight, comfortable and easy to use. With expertise in filtration technologies, 3M offers a family of respirators that provides high levels of comfort and value-customer-preferred solutions.

**5101 (small), 5201 (medium),
5301 (large)**



DOSH Approval no. JKKP MR 145/02

NIOSH Approval: Certain organic vapors.
Can be used alone or combined with 2000 Series, 7000 Series or 5000 Series filters and adapters.

**5103 (small), 5203 (medium),
5303 (large)**



DOSH Approval no. JKKP MR 146/02

NIOSH Approval: Certain organic vapors, chlorine, hydrogen chloride, and sulfur dioxide or hydrogen sulfide or hydrogen fluoride

Can be used alone or combined with 2000 Series, 7000 Series or 5000 Series filters and adapters.



Maintenance-Free - Simply discard when cartridges are expended

Pre-assembled for easy use; eliminates cartridge attachment hassles. Wear repeatedly and discard when cartridges are fully expended. An economical choice for your limited-term projects.

Specifications: Adjustable cradle suspension relieves the pressure on the bridge of your nose and back of your neck giving you a secure, balanced fit.

Compliance: NIOSH & DOSH approved.

3M™ 6000 & 7000 Series

Half Facepiece Respirators



6100 (S)
6200 (M)
6300 (L)



7701K (S)
7702K (M)
7703K (L)



7771K (S)
7772K (M)
7773K (L)



7501 (S)
7502 (M)
7503 (L)

JKKP MR (150/02)

Full Facepiece Respirators



6700 (S)
6800 (M)
6900 (L)



7800S (S)
7800S (M)
7800S (L)
with 701
Cartridge Holder

3M™ Cartridges, Filters, Retainer and Adapters

Select from the following cartridges, filters, retainers and adapters for use with any of the above respirator facepieces.

6000 Series Cartridges							
	6001 ¹ Organic Vapor JKKP MR 150/02	6002 ² Acid Gas JKKP MR 151/02	6003 ³ Organic Vapor/ Acid Gas JKKP MR 152/02	6004 Ammonia/ Methylamine JKKP MR 153/02	6005 ⁴ Formaldehyde/ Organic Vapor JKKP MR 154/02	6006 ⁵ Multi Gas and Vapor JKKP MR 155/02	6009 Mercury Vapor JKKP MR 156/02
	1. Certain organic vapors. 2. Chlorine, hydrogen chloride, and sulfur dioxide or chlorine dioxide or hydrogen sulfide. 3. Certain organic vapors, chlorine, hydrogen chloride, and sulfur dioxide or hydrogen sulfide. 4. Formaldehyde and certain vapors. 5. Certain organic vapors, chlorine, hydrogen chloride, chlorine dioxide, sulfur dioxide, hydrogen sulfide ammonia/methylamine, formaldehyde or hydrogen fluoride.						To determine end-of-service life for 3M™ cartridges, use 3M Respirator Service Life Software (see page 11).
7700 Series Cartridges, Filters and Retainer							
	7701K-55 ¹ Organic Vapor	7701K-100 ¹ Organic Vapor	7707 ² Organic Vapor/ Acid Gas	7711 N95 Filter	774 Filter Retainer for use with 7711	7744 N95 Filter for use with 7771K, 7772K, and 7773K.	
	1. Certain organic vapors. 2. Certain organic vapors, chlorine, hydrogen chloride, and sulfur dioxide or hydrogen sulfide (escape only).						To determine end-of-service life for 3M™ cartridges, use 3M Respirator Service Life Software (see page 11).
2000 Series Filters							
	2071 P95 JKKP MR 157/03	2076HF ¹ P95 JKKP MR 159/03	2078 ² P95 JKKP MR 157/03	2091 P100 JKKP MR 158/03	2096 ³ P100 JKKP MR 158/03	2097 ⁴ P100 JKKP MR 158/03	
	1. Hydrogen fluoride and nuisance level acid gas relief.* ∞ 2. Nuisance level organic vapor and acid gas relief.* † 3. Nuisance level acid gas relief.* 4. Nuisance level organic vapor relief.* † *Nuisance level: below OSHA/DOSH PEL						∞ For HF, use fullface respirator with 2076HF filters for protection up to 10x OEL † For Ozone, use 6000 series respirator with 2078 or 2097 filters recommended by 3M up to 10x OEL
Filters Adapters Retainers							
	5N11 N95 Filter Requires use of 501 Retainer JKKP MR 157/03	5P71 P95 Filter Requires use of 501 Retainer JKKP MR 157/03	7093 P100 Filter JKKP MR 158/03	7093C Cartridge/Filter HF, P100, with Nuisance Level OV/AG Relief	501 Filter Retainer For use with 5N11 or 5P71	502 Filter Adapter For use with 2000 Series Filters or 7093 Filter	
							Checklist for Building a Complete Respirator Assembly <ul style="list-style-type: none"> Select full or half facepiece and determine size. Determine protection requirements. <ul style="list-style-type: none"> - Do you need filters, retainers or adapters? - Do you need cartridges? Select need accessories based on your application. For replacement parts see page 11.

3M Offers Efficient and Economical Solutions for First Response Personnel

3M™ Full Facepiece Respirators 6000DIN, Reusable May be the Best Respirators for both Negative and Positive Pressure Applications

Selecting the right products for responders is a difficult and challenging task. In addition to all the training required, first response personnel must be provided with the best available products to help protect them from many hazards encountered in performing their jobs. 3M offers solutions.

With the recent event in the U.S. and around the world, 3M has launched a program that enhances our overall quality and adds to our product line. 3M is now able to provide the ultimate in quality in an expanded line of personnel safety products... the products that deliver the confidence and protection that are needed by first response personnel.



For Negative Pressure

As a negative pressure system, the 6000DIN series reusable full facepiece can be used with 3M™ Cartridges CP3N for tear agents and FR-64 for most military and industrial materials.

- Can also be used with other industrial 3M™ Filters and Cartridges
- Available in small, medium and large sizes
- Comfortable, lightweight
- Flexible and durable silicone face seal
- Provides a wide field of vision
- Easy to adjust head straps

For Positive Pressure

This is a Rapid Response Power Air System (RRPAS) where the components are stored in a unique carrying bag that converts into a vest with the PAPR in place and ready for use with the 3M™ Canister FR-40 or Cartridge FR-57.

- Provides exceptional comfort and mobility
- Easy to don & doff
- Hook and loop fasteners allow fast and easy adjustment to individual sizes
- The power unit provides continuous flow of filtered air
- Can be used with rechargeable NiCd battery or disposable lithium battery
- Approximate weight is 10 lbs
- Also available as belt-mounted PAPR.



3M™ Full Facepiece Respirator 7800S, Ultimate Reusable

- Can be used in negative/positive pressure application
- As a negative pressure system, the 7800S full facepiece can be used with 3M Cartridges CP3N for tear agents and FR-64 for most military and industrial materials
- Can be used with other industrial 3M filters and cartridges
- 6-point adjustable head strap provides secure, comfortable fit
- Double-flange face seal for added comfort
- Designed for versatility, comfort and long life
- Available in small, medium and large sizes



3M™ Full Facepiece Respirator FR-M40

- As a negative pressure system, the FR-M40 full facepiece can be used with 3M™ Cartridges FR-64 or FR-C2A1
- Use drinking tube without removing facepiece*
- The cartridge can be mounted on either side of the facepiece
- When used with the FR-64 cartridge, the system can be used against most military and industrial materials
- When used with the FR-C2A1 cartridge, the system can be used against acid gases, CN, CS and as a P100 particulate filter
- The facepiece is made of soft, conformable silicone material for user comfort
- To protect the facepiece from chemical damage, an optional butyl rubber second skin is available
- Available in small, medium and large sizes

* Drinking tube may only be used in non-hazardous environments.



3M™ Breathe Easy™ (BE) 10 Butyl Rubber Hood Systems

- The lightweight butyl rubber hood provides protection, excellent mobility and visibility
- Butyl rubber meets MIL-C-51251A (EA) for resistance to chemical agents
- Provides a continuous flow of filtered air
- The belt-mounted power unit is lightweight and comfortable
- Can be used with rechargeable NiCd battery or disposable lithium battery
- The hood can be worn with facial hair and glasses**
- No fit testing is required prior to wearing a hood
- For use with the FR-57 cartridge
- Approximate weight is 8 lbs

** providing the facial hair does not protrude under the face seal or shroud

Respirator for General Air Pollutants

General dust, pollen, motor vehicles emission, haze etc.

It is so common to find gauze masks, surgical masks and even handkerchiefs to protect against respiratory hazard. These are all categorized as "MASK". They are not "RESPIRATORS".

What is the difference between a mask and a respirator?

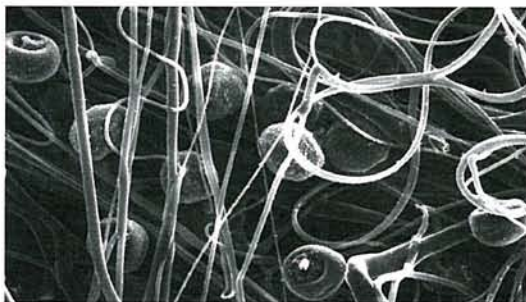
A mask merely provides protection against large nuisance particles such as household dust. It is not sufficient to protect against particulate matters less than 10 microns in size (PM10). Surgical masks are designed to protect the patient from wearer-generated microorganisms but not against any particulates.

On the other hand, respirators are designed for protection against respiratory hazards such as the airborne contaminants discussed earlier. Maintenance-free half mask respirators are the most common form of respiratory protection. They can be in "cup" type or foldable type. These half mask respirators are air-filtering devices that cover the nose and mouth to trap particulates, or gases and vapors, in the air before the air is inhaled. When properly selected and worn, the respirator enables the user to breathe in filtered clean air. Figure 1 shows how particulates are being captured and retained in the filter media, viewed under microscope.

A comparison between a mask and a respirator is shown in Table 1.

Mask (such as gauze mask, surgical mask, handkerchiefs)	Respirator
Protection against large nuisance particles (10 microns and above)	Greater protection against fine particles (10 microns and below)
Single strap / ear loops	Double elastic straps to provide a secure fit
Not approved for protection	NIOSH or other certification body approved
No filter layer	3-layered electrostatically charged filter effectively traps minute particles (see Figure 1)
Comes with basic metal nose clip or none in some models	Foam-backed nose clip for a proper seal

Table 1 : A comparison between a mask and a respirator



Pollen



Dust

Figure 1 : Electrostatic fibers attract and retain (1) pollen (2) silica dust

For protection against dust, the recommended models of respirators to use are 3M 9010 N95, 3M 8210 N95, 8110S (20% smaller than 8210, suitable for children), 9310 (foldable dust/mist respirator), 9312 (foldable dust/mist respirator with exhalation valve for comfort) and 8246 R95 (particulate respirator with protection against nuisance level of acid gases such as SO₂). See Figure 2.



Figure 2 : 3M respirator recommended for air pollutants: 9010 N95, 8210 N95, 8110S N95, 9310, 9312 and 8246 R95

6899

6897

6886

6894

6898

6892

6878

6885

7883

6895

6889

6893

Model	Description	Packaging
7883	Neck Strap Assembly	1/bag 10/case
6889	Exhalation Valve	1
6892	Center Adapter Assembly	1
6893	Inhalation Valve	4
6894	Nose Cup Assembly 1/	1
6895	Inhalation Gasket	2
6897	Head Harness Assembly	5
6898	Lens Assembly	5
6899	Lens Frame Kit	5

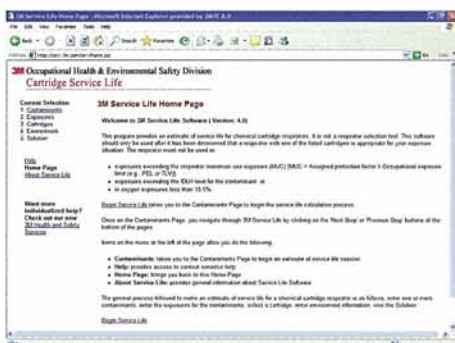
Model	Description	Packaging
6878	Spectacle Kit	1/box 1 box/case
6885	Face Shield Cover	25/bag 4 bags/case
6886	Tinted Lens Cover	25/pack

Model	Description	Packaging
6878	Exhalation Valve	10/bag 1 bag/case
6885	Inhalation Valve	40/bag 5 bags/case
6886	Inhalation Gasket	20/bag 4 bags/case

Includes FT-31 Sensitivity Solution (bitter), FT-32 Fit Test Solution (bitter), FT-14 Fit Test Hood, FT-15 Collar, FT-13 Nebulizer (2 pack)

Model	Description	Packaging
FT-10	Qualitative fit test apparatus: sweet solution	1/box 1box/case
FT-20	Training and fit testing case: sweet solution	1/box 1box/case
FT-30	Qualitative fit test apparatus: bitter solution	1/box 1box/case

Model	Description	Packaging
504	Individually packaged	500/case



- Calculates the service life of 3M cartridges.
- Handles mixture of organics and inorganics.
- Allows you to enter correction factors to account for uncertainties.
- Provides information about humidity effects.

Training Services

Training is an integral part of occupational health. Respirators and hearing protection products would not be effective if they are not used in the proper manner! At 3M, we are committed to ensuring our recommendation is based on specific requirements and just as importantly, that workers are trained in the correct use of the safety products.

We offer a comprehensive and customized training package with poster and videos. The package includes:

1. Respirator Protection
2. Hearing Protection
3. Hazardous Spill Response Training

Certificates will be issued to all participants that successfully complete the training. All training and fit-testing services are complimentary upon purchase of 3M OHES products.



To qualify for our complimentary training, all products must be purchased from a 3M Authorised Distributor.



3M Fit Testing

As part of our total product offering, 3M provides training and qualitative fit testing services to customers buying our respirators. We train employees on the proper use, fit, limitations and maintenance of 3M respirators.



New bitter solution helps test face-to-face respirator seal. If wearer cannot detect bitter taste, the respirator fits properly. Two qualitative fit test kits are available: FT 10 (sweet) and FT 30 (bitter).

3M™ Respiratory Software



Online Respirator Selection Software

This software helps make the process of selecting a respirator easier and faster. It can analyze more than 700 different chemicals and provide an audit trail of your respirator decision logic. Knowing the contaminants and their concentrations, the program can then lead you to an appropriate respirator recommendation. The software combines contaminant reference information from a variety of resources. This includes immediately dangerous to life and health (IDLH), exposure limit, odor threshold, molecular weight, and more. Just point and click and follow the prompts to help in your selection of an appropriate respirator. The interactive user's manual is on-line.

This software is made available to you at no cost, and you can run it on the web (registration is optional).

<http://rsel.3m.com/rsel/>

Air Monitoring Systems

3M™ Air Monitors are simple and effective devices that collect certain airborne contaminants using the scientific principle of diffusion. They meet or exceed 25% accuracy at a 95% confidence level for many workplace contaminants

Features/Benefits

Simple and convenient

There are no batteries, hoses, pumps or equipment to calibrate.

Easy to use

Just clip the monitor to shirt lapel, collar, or pocket.

Versatile

3M monitors can also be used for area monitoring, if sufficient air flow exists.

Product support

3M provides reference information needed to use the monitors.

Analysis options

3M monitors can be analyzed in the lab of your choice or returned to 3M for analysis.

Confidence

3M's manufacturing operation is ISO 9002 certified and our testing facilities are accredited by the American Industrial Hygiene Association.

Comfort

3M monitors are small and lightweight and will not interfere with employee activities.

Specifications

Accuracy meets current OSHA requirements for 8 hour sampling which are +/- 25% at 1.0 ppm, +/- 35% at 0.5 ppm. Samples can be stored for a maximum of 4 weeks. Shelf life is 18 months. Also meets accuracy requirements for short-term exposure limit (STEL) sampling of +/- 35% at 5.0 ppm.



Compound List

† Acetone (2) (c)	Cyclohexanone (8)	Methyl Cellosolve (8)
Acetonitrile (2) (c)	Cyclohexene (8)	Methyl Cellosolve Acetate (8)
Acrylonitrile (8)	n-Decane	Methylene Chloride (m) (3530 only)
Allyl Alcohol (8)	Diacetone Alcohol (8)	†Methyl Ethyl Ketone (MEK) (8)
Amyl Acetate (8)	o-Dichlorobenzene (8)	Methyl Isobutyl Ketone (MIBK) (8)
n-Amyl Alcohol	p-Dichlorobenzene (8)	Methyl Methacrylate (8)
s-Amyl Alcohol	Diisobutyl Ketone (DIBK) (8)	Methyl Propyl Ketone (8)
Benzene (8)	p-Dioxane (8)	Naptha (VM&P) (8)
Benzyl Chloride (8)	Enflurane (8)	n-Octane (8)
Bromoform (8)	Epichlorohydrin (8)	Perchloroethylene (8)
1-Bromopropane (m)	Ethyl Acetate (6)	Phenyl Ether (8)
n-Butyl Acetate (8)	Ethyl Acrylate (8)	n-Propyl Acetate (8)
s-Butyl Acetate (8)	Ethyl Benzene (8)	n-Propyl Alcohol (6)
t-Butyl Acetate (8)	Ethylene Chlorohydrin (8)	Propylene Dichloride (8)
Butyl Acrylate (8)	Ethylene Dichloride (EDC) (8)	Propylene Glycol Mono Methyl Ether (8)
n-Butyl Alcohol (8)	Ethyl Ether (4) (c)	Propylene Glycol Mono Methyl Ether Acetate
s-Butyl Alcohol (8)	Furfural (8)	Stoddard Solvent (8)
t-Butyl Alcohol (8)	Halothane (8)	Styrene (8)
Butyl Cellosolve (8)	n-Heptane (8)	1,1,2,2-Tetrachloroethane (8)
Butyl Glycidyl Ether (8)	n-Hexane (8)	Tetrahydrofuran (8)
p-tert Butyl Toluene (8)	iso-Amyl Acetate (8)	Toluene (8)
Camphor (8)	iso-Butyl Alcohol (8)	1,1,1-Trichloroethane (Methyl Chloroform) (m)
Carbon Tetrachloride (8)	Isoflurane (Forane)	Trichloroethylene (8)
Cellosolve (8)	Isopar G	1,1,2-Trichloro-1,2,2-trifluoroethane (1) (c)
Cellosolve Acetate (8)	Isophorone (8)	†Vinyl Acetate (8)
Chlorobenzene (8)	Isopropyl Acetate (7)	Vinyl Toluene (8)
Chloroform (8)	Isopropyl Alcohol (m) (c)	Xylene (8)
o-Chlorostyrene (8)	Mesitylene (8)	Total Hydrocarbons as n-Hexane
o-Chlorotoluene (8)	Mesityl Oxide (8)	
Cumene (8)	Methyl Acrylate (8)	
Cyclohexane (6)	Methyl t-Butyl Ether (MTBE) (8)	
Cyclohexanol (8)	Methyl Butyl Ketone (MBK) (8)	

The number in parenthesis is the recommended sampling period in hours. This time has been estimated using the capacity of the 3510 organic vapor monitor, a relative humidity of <50% and the 1998 ACGIH TLVs. Use of the 3530 allows the sampling time to increase. (c) Because of their high vapor pressures (low boiling points), the (c) compounds are best sampled initially with the 3520 or 3530 monitor (with back-up section). Subsequent sampling may be done with the 3500/3510 monitor if determined, by 3520 results, that contaminant concentrations are within the 3500/3510 capacity limits.

†NOTE: certain compounds (e.g. acetone, methyl ethyl ketone, vinyl acetate, etc.) may show a decreased recovery when sampled in high relative humidity. Refrigerate and/or expedite for analysis to help ensure accurate results. (m) See technical bulletin.



3500 Organic Vapor Monitor

Single charcoal sorbent wafer for easy collection of organic vapors. Analysis by gas chromatography. Sampling and analysis guide for over 125 vapors available. 18-month shelf life.

3500-monitor only.

3510-includes 3M analysis for up to 3 compounds per monitor, selected from a list of more than 80 vapors.



3520 Organic Vapor Monitor with Back-Up Section

Primary and back-up sorbent pads for sampling demanding environments. Especially suited for monitoring compounds like vinyl chloride, acrylonitrile, butadiene and methylene chloride for which activated carbon shows limited capacity. 18-month shelf life.

3520-monitor only.

3530-includes 3M analysis for up to 3 compounds per monitor.



3720 Formaldehyde Monitor

Monitors personnel or work areas in health care, laboratories, and in the chemical, pulp/paper, foundry and textile industries. Analysis procedure is available on request. Not acceptable for STEL monitoring. 18-month shelf life.

3720-includes 3M analysis.

3721-monitor only.



3550 Ethylene Oxide Monitor

Designed for sampling personnel or work areas in the pharmaceutical, health care and chemical industries. Analysis procedure is available on request. 18-month shelf life.

3550-includes 3M analysis.

3551-monitor only.

3M™ Hearing Protection

3M offers high-quality hearing protection products that are lightweight, comfortable, and easy to use for worker protection in a wide variety of industrial applications. 3M provides reliable solutions for hearing conservation, from a company you can trust.

Earmuffs & Banded Hearing Protector



3M™ Hardhat Mounted Ear Muffs 1427

A combination of outstanding performance and remarkable versatility. The rotating headband and adjustable head strap make it easy to secure fit in any of three different positions. Recommended for high noise situations (up to 100dBA TWA)
NRR 27dB - worn over & behind the head
NRR 26dB - worn under the chin
JKKP EM 127/02



3M™ Ear Muff 1425

This economical, easy to use, and comfortable ear muff is a good choice to start your hearing protection program.
NRR 22dB - worn over head
NRR 21dB - worn behind head
JKKP EM 120/00



3M™ Banded Hearing Protector 1310

This comfortable protector offers a unique, flexible design, allowing ease of use for a wide range of head sizes. Good for intermittent use.
NRR 20dB - worn under chin
NRR 21dB - worn behind head
JKKP EP 78/00

Disposable & Reusable Earplugs



3M™ Disposable Ear Plugs 1120

Unique Articulated Shape allows easy fit for smaller ear canals and also helps reduce inside pressure for improved comfort.
NRR 28dB
JKKP EP 81/02



3M™ Corded Disposable Ear Plugs 1130

New soft foam for everyday comfort. Braided cord drapes around the neck when not in use thus preventing loss.
NRR 28dB
JKKP EM 82/02



3M™ Corded Reusable Ear Plugs 1270

These washable, reusable ear plugs have triple flanged design to securely fit the ear canal and provide reliable protection. Available in polyester cord or PVC cord.
NRR 24dB
JKKP EP 76/00



Corded Reusable Ear Plugs with Storage Case 1271

NRR 24dB
JKKP EP 77/00



3M™ Disposable Ear Plugs 1100

These comfortable ear plugs offer a tapered shape to fit the ear canal.
NRR 29dB
JKJ EP 55/95



3M™ Disposable Ear Plugs 1110

These comfortable ear plugs offers a soft, braided cord, which drapes comfortably without twisting or binding.
NRR 29dB
JKJ EP 56/95



3M™ Corded Reusable Ear Plugs 1290

These softer reusable ear plugs provide improved wearer comfort. Now available in two corded options - braided and plastic (1290, 1292)
NRR 25dB



3M™ Corded Reusable Ear Plugs with Storage Case 1291

NRR 25dB



3M™ Corded Reusable Ear Plugs 1292

These softer reusable ear plugs provide improved wearer comfort. Now available in two corded options - braided and plastic (1290, 1292)
NRR 25dB



3M™ Corded Reusable Ear Plugs with Storage Case 1293

NRR 25dB

Important:

Research suggests that the NRR may significantly overstate the protection provided by hearing protectors in real-world, workplace conditions. 3M recommends derating the NRR by 50% before estimating workplace protection. Contact 3M Technical Services at 03-7806 2888 for more information.

3M™ Protective Eyewear



comfort &
confidence for

Security,
enhanced performance

■ Meets EN 166: 2001 Standards

Classic

Economic, cost effective, offers the wearer the correct level of protection and modern design.



2700

Clear, UV protection, Silicon free.
Can be worn over a wide
range or prescription specs
JKKP EW 150/04



2720

3M blue arm, Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 149/04



2721

3M blue arm, Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 148/04



2722

3M blue arm, Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 147/04

Comfort

Softer materials, Adjustable temple length, Temple inclination, Soft temple tips, larger lenses offer better protection and more comfortable.



2730

3M blue arm, 3M red pivots, Anti-scratch,
Anti-fog, UV protection, Silicon free.
Soft, conformable, ventilated nose bridge.
JKKP EW 151/04



2740

3M blue arm, 3M red pivots Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 152/04



2741

3M blue arm, 3M red pivots Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 153/04



2742

3M blue arm, 3M red pivots Anti-scratch,
Anti-fog, UV protection, Silicon free.
JKKP EW 154/04

Features of 3M™ Protective Eyewear:

- Meets the requirements of ANSI Z87.1-1989
- Comfortable, secure fit with sporty design

- Fashionable good looks
- Lightweight polycarbonate lenses

- Provide 99% UV protection

Sting-Rays

3M™ Sting-Rays™ Protective Eyewear has lightweight frames for side and brow protection. The lens is made of durable hard-coated polycarbonate, with 99% UV protection.



1710

3M™ Sting-Rays™
Black/Clear
JKKP EW 07/01



1711

3M™ Sting-Rays™
Blue/Clear
JKKP EW 08/01



1712

3M™ Sting-Rays™
Black/Smoke
JKKP EW 09/01

Safety Goggles & Visitor Specs



1620

3M™ Safety Goggles

Perforated, are soft and comfortable with flexible vinyl frames. These are general-use goggles and should not be worn in areas where chemical splashes may be present.
JKKP EW 02/01



1621AF

3M™ 1621AF Safety Goggles for Splash have polycarbonate lenses to protect against chemical splashes. The pliable vinyl frames provide a comfortable fit and vents enhance air circulation to prevent fogging.
JKKP EW 03/01



1611

3M™ 1611 Visitor Specs help provide eye protection for visitors and other short-term users. They can be worn alone or over prescription glasses.
JKKP EW 01/01



1623AF

3M™ 1623AF Safety Goggles feature a wrap-around design for greater peripheral vision, anti-fog coating to minimize fogging and a hard-coated polycarbonate lens offering scratch resistance and 99% reduction of ultraviolet radiation (UVA and UVB) from natural sunlight.



3M Malaysia Sdn. Bhd. (7251 V)
Bangunan 3M
No. 6, Persiaran Tropicana
47410 Petaling Jaya
Selangor, Malaysia
Tel : 03 - 7806 2888
Fax : 03 - 7806 2895/6
www.3M.com/occsafety

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