3M Science.
Applied to Life.™

Personal Safety
Product Catalogue

www.3mgulf.com/ppesafety

Personal Safety Division

3M helps keep everyone safer in a changing world. Across diverse industries and applications our technology, expertise and energy drive innovative solutions to help you control your environment so you can focus on the job at hand.

3M provides safety solutions that improve comfort while helping employers increase compliance, with personal protective equipment for everything from your eyes and head to hearing and respiratory system.
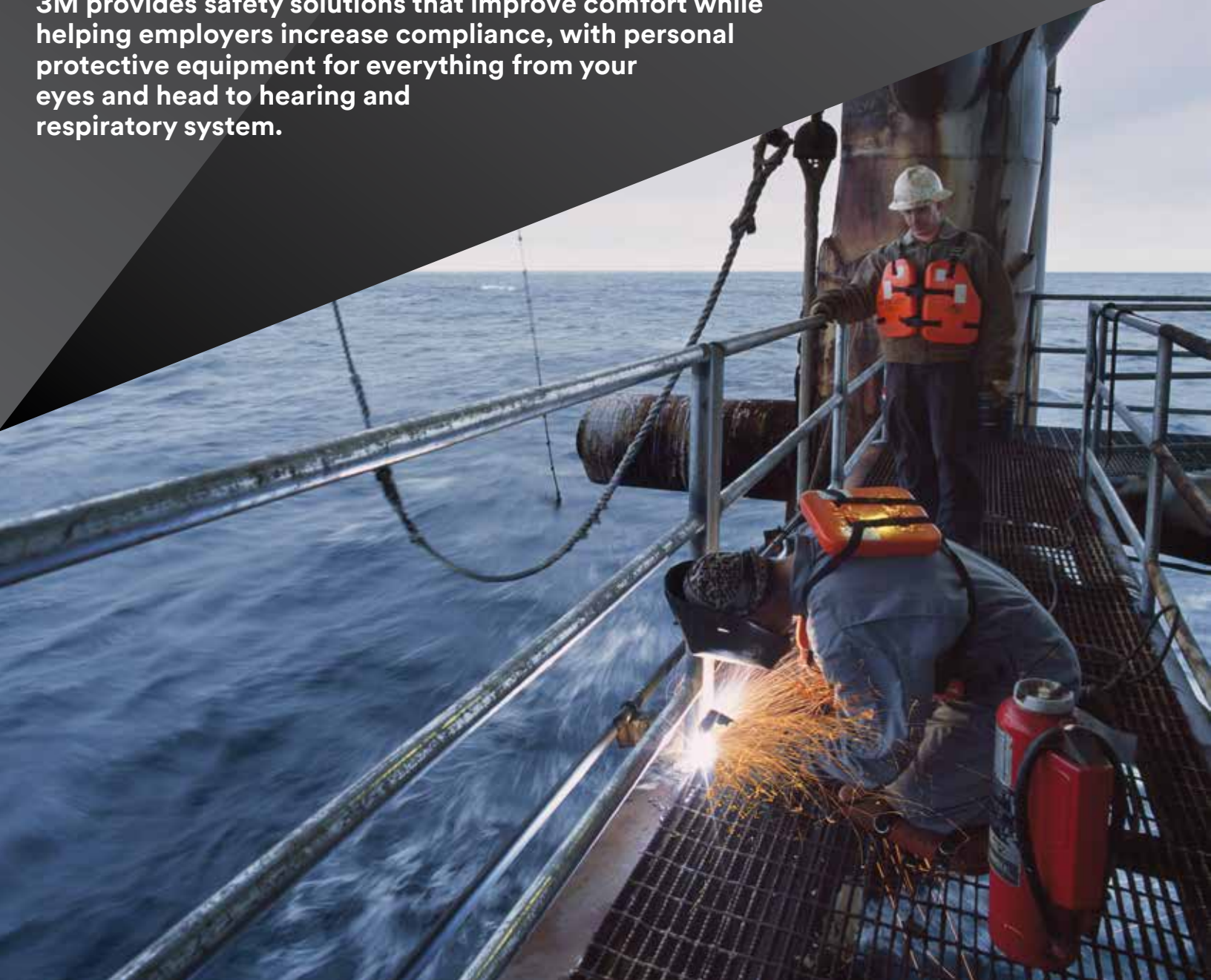
Who we are

Our vision

3M Technology Advancing Every Company
3M Products Enhancing Every Home
3M Innovation Improving Every Life

Our strengths

It starts with technology. And it is not just that we have technology; it's how we share, combine, and leverage technology across the company to produce unique products to solve the challenges our customers face.

Our manufacturing footprint and capability in many key areas allows us to produce higher performing products at lower costs, so we can help our customers keep their costs down.

Finally, the 3M brand and other strategic brands form the basis of the promise we offer our customers in terms of quality and performance of 3M products.

Our global presence isn't just about selling; we develop, adapt and manufacture products around the world as well. So we can meet customer needs on a local, regional, and global basis.

In the personal Safety Division, we serve a variety of market sectors, so our products are designed to suit the specialised needs of these environments. Key industries for us include construction, metal working, pharmaceuticals, healthcare, chemicals, military and oil and gas. Some of these industries have their own division within our 3M business, giving us increased industry knowledge. We also have greater flexibility in research and development through our 46 core technologies, available across our entire business. This means our scientific advancements can be shared from one tiny creation, such as the foam used to create 3M™ E-A-R™ Classic Earplugs, to larger applications, such as noise insulation in the exterior of aeroplanes.

Ab Abrasives										Pm Polymer Melt Processing	Se Sensors
Ac Acoustic Control	Bi Biotechnology							Nt Nanotechnology	Po Porous Materials & Membranes	Sm Specialty Materials
Ad Adhesives	Ce Ceramics	Ec Energy Components	Fi Films			Mi Microbial Detection & Control	Nw Nonwovens	Pp Precision Processing	Su Surface Modification
Am Advanced Materials	Dd Drug Delivery	Em Electronic Materials	Fl Fluorinated Materials	In Inspection & Measurement	Md Medical Data Management	Mo Moulding	Op Optical Communications	Pr Process Design & Control	Vp Vapour Processing
An Analytical Science & Technology	Di Display	Fc Flexible Converting & Packaging	Fs Filtration, Separation & Purification	Is Integrated Systems Design	Me Metal Matrix Composites	Mr Microreplication	Pd Particle & Dispersion Processing	Rf Radio Frequency Identification	We Accelerated Weathering
As Application Software	Do Dental & Orthodontic Materials	Fe Flexible Electronics	Im Imaging	Lm Light Management	Mf Mechanical Fasteners		Pe Predictive Engineering & Modeling	Rp Radiation Processing	Wo Wound Management

Using our technologies 3M has continued to grow and develop, continuously innovating and in May 2014 we reached our 100,000th patent.

Table of Contents

Disposable Respirators

3M™ Advanced Electret Filter increases performance without adding material. That means lower breathing resistance while getting the same great coverage.

Disposable Respirators
3M™ Filtering Facepiece Respirators

Features of 3M™ Filtering Facepiece Respirators
From foundries to woodworking, workers in many industries require protection from airborne particles such as dust, fibre, mist, fume and biological aerosols. Sweeping, sanding, grinding, sawing, bagging, welding – each creates a unique set of conditions, especially given environmental considerations such as heat and humidity. 3M's wide selection of filtering facepiece respirators helps you match the respirator to your environment. 3M uses a variety of innovative technologies and features to help you meet your protection and comfort needs. They are either NIOSH 42CFR84 or EN 149 approved and include the following features:

- Lightweight and comfortable
- Adjustable noseclips
- Variety of strap and attachment types
- Some available with carbon filter material for nuisance level relief[1]
- Soft inner materials
- Compatible with most eye and hearing protection
- All maintenance free respirators are constructed with advanced electret media

Featured Technologies

Cool Flow Exhalation Valve. Patented one-way valve for easy exhalation and cool, dry comfort.
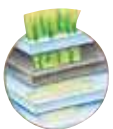
M-noseclip. Patented noseclip adjusts easily for fewer pressure points and greater comfort.

Faceseal. Soft and secure, conforms closely to face for additional comfort.

Advanced Electret Media. Patented filter media with electrostatically charged microfibers help make breathing easier and cooler.

Carbon filter material. Carbon filter media provides relief against odours, vapour and other gaseous contaminants for greater wearer comfort. For nuisance level relief only[1].

Cake-resistant filter media. Patented filter media with specifically designed filter layers for welding applications provide longer respirator life and easier breathing.

Welding Web. Unique filter media incorporating protective layers designed to be flame resistant as demonstrated per ASTM D2859-96. (Not a substitute for a faceshield)
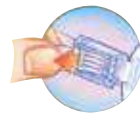
Adjustable buckle straps. A single tug helps provide a comfortable, secure fit.
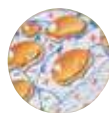
P-Series filter. Patented Advanced Electret Media, appropriate for prolonged use in both oil and non-oil containing environments.

[1] **3M recommended for relief against nuisance level acid gas or organic vapours. Nuisance level organic vapour and acid gas refers to concentrations not exceeding applicable government occupational exposure limits.**

Advanced Electrostatic Media allowing you to breathe easier

At 3M we're developing respirators with unique filter media technology that are highly effective and comfortable to wear. Workers value this 3M advantage. In fact, in a 2012 blind study, workers rated 3M™ respirators as easier to breathe through when compared to others.[*]

Our same manufacturing process injects a high level of electrostatic charge into microfibers arranged in an open formation that allows for the greater passage of air through the media. These highly charged microfibers greatly enhance the capture of airborne particles and enable 3M to design respirators with reduced breathing resistance.
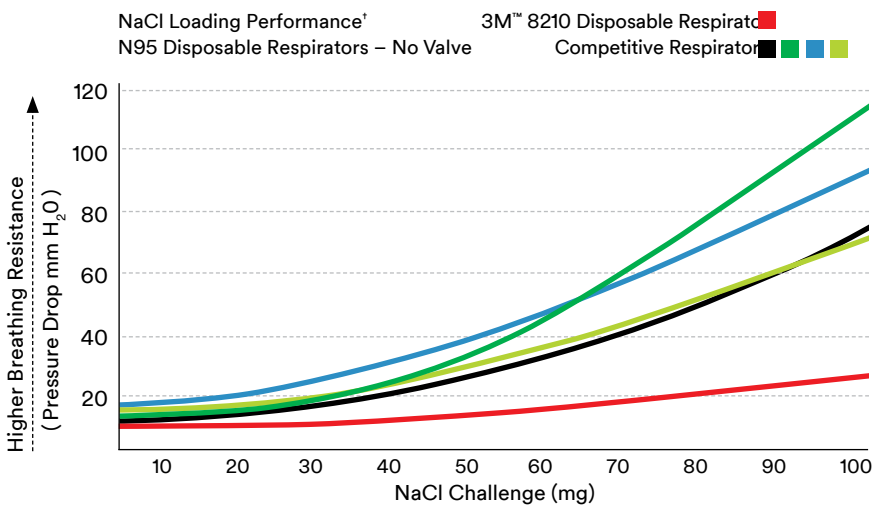
Meeting the challenge

Highly charged microfibers enhance the capture of airborne particles while allowing you to breathe easier.

Illustration of 10,000x magnified electrostatically charged microfibers.

Experience greater comfort

The chart below demonstrates that 3M's Advanced Electrostatic Media (AEM), tested in the 8210 respirator, continues to have the lowest breathing resistance when compared to several competitive respirators.

NaCl Loading Performance[†]   3M™ 8210 Disposable Respirator
N95 Disposable Respirators – No Valve   Competitive Respirators

†Loading with sodium chloride (NaCl) aerosol meeting NIOSH specifications at 85 L/min to 100 mg.
Source: Representative loading performance from internal testing July 2012. The testing performed by 3M is not a part of the testing and certification conducted by NIOSH. Selection of respirator models, testing protocol, data generation and conclusions were reviewed and approved by an expert from the University of Minnesota.

*Based on research study by Burke, Inc. 2/2012 of 200 Safety Managers that used both 3M brand and other respirators.

The importance of comfort

To make sure that the respirator protects you, it must be worn during all periods of exposure. Make sure that you choose a respirator that you can wear comfortably for your entire shift.

Face and head comfort
The respirator's edge should be flexible and the shape and size should cover the nose, mouth and chin without causing excessive pressure. A headband material which provides a good, even tension across the head can ensure a comfortable, secure fit for a range of head sizes.
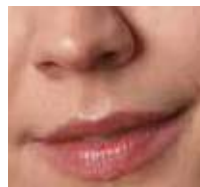
Skin comfort
Skin comfort will be affected by the smoothness and softness of the inner material in contact with the skin - especially over a long period of time. A soft inner face seal and sweat absorbent nose foam will provide greater comfort. Rough or hard materials, coupled with a high temperature inside the respirator may be itchy and unpleasant.

Coolness
An efficient exhalation valve minimises heat build up, particularly in hot and humid work conditions.

Lightweight
Take advantage of technological innovation and choose a lightweight respirator for optimal comfort.

Breathing ease
An efficient exhalation valve and high-efficiency, low breathing resistance filter material will help you to breathe comfortably.

Compatibility with other PPE
Make sure that the respirator you select fits well with the other PPE required for your work such as eyewear and hearing protection to ensure maximum comfort.

The importance of fit

Disposable respirators are most effective when there is a good seal between the edges of the respirator and your face. The instant this seal is broken, protection is compromised as contaminated air can leak in through any gaps.

Here's what to look for:

- Upper strap should be positioned on the crown of the head. Strap should not be twisted

- Noseclip should be moulded around nose and cheeks to give a good seal

- Respirator should be correctly positioned on your face and head

- For flat fold respirators make sure the panels are fully unfolded

- Lower strap should be positioned below the ears. Strap should not be twisted

The face should be clean shaven as beards or other facial hair can prevent a good seal.

Long hair should be tied back.

Using both hands, mould noseclip to the shape of the lower part of the nose to ensure a close fit and good seal. Do not pinch the noseclip with only one hand as this may not give a good fit.

Stock #	Description
70070121515	FT-10 Fit Test Kit- Sweet
70070709640	FT-30 Fit Test Kit- Bitter

Fit Check

- A pre-use fit check must be conducted every time you fit your respirator
- Cover the front of the respirator with both hands, being careful not to disturb the fit of the respirator
- Unvalved respirator – exhale sharply, Valved respirator – inhale sharply
  - If air leaks around the nose, re-adjust the noseclip to eliminate leakage
  - If air leaks at the respirator edges, work the straps back along the sides of the head or adjust the tension to eliminate leakage

Repeat the above fit check.
If you cannot achieve a proper fit do not enter the hazardous area - see your supervisor.

One model of respirator may not fit everyone. Users should be fit tested in accordance with national requirements. For information on fit testing procedures, contact your safety officer or 3M.

3M™ Disposable Respirators
Comfort

Non-valved N95 Respirators: Suggested Applications: Sweeping, sanding, grinding, sawing and bagging in a non-oil environment. Also suggested for pandemic stockpiling/business continuity planning.

3M™ Aura 9210+ Disposable Respirator (N95)
- Designed to direct exhaled air away from the nose panel, helping reduce eyewear fogging
- Comfortable braided headbands help keep respirator securely in place and minimize pulling of hair
- Individually packaged

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9210+	GT500072985	20	12	240

3M™ 8110S Disposable Respirator (N95)
- Is designed for people with smaller faces
- It helps provide worker protection against certain non-oil based particles
- It is comfortable and easy to use which helps promote greater worker acceptance and increased wear time

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8110S	70070757078	20	8	160

3M™ 8210+ Disposable Respirator (N95)
- Builds on all of the features that have made the 8210 one of the most widely used N95s in industry
- The PLUS offers comfortable braided headbands and that won't tangle in hair

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8210+	70071091899	20	8	160

3M™ 8200 Disposable Respirator (N95)
- Designed to help provide reliable protection against certain non-oil based particles

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8200	7000052787	20	8	160

3M™ 8210 Disposable Respirator (N95)
- Features welded strap attachment, soft nose foam and adjustable noseclip to help provide a custom fit and secure seal

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8210	GT500036519	20	8	160

3M™ VFlex™ Disposable Respirators
9105/9105S (N95)
- Adjustable Noseclip to provide custom fit
- V-shaped Pleats for easier breathing and talking
- 3M Patented Filter Media for easier breathing
- Flat-fold Convenience
- N95 approved
- 9105S designed for people with smaller faces

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9105	70071563897	50	8	400
9105S	700071563889	50	8	400

*Tested according to ASTM F1862. 8510 is approved by NIOSH but is not approved by the FDA as a surgical mask.

Comfort Series: 3M™ Cup Shaped 8000 Series

The 3M™ Respirators 8000 Series provide lightweight, comfortable and effective respiratory protection against dust and mist. The convex shape, twin strap design, nose foam and nose clip ensure comfortable wear over a range of face sizes.

The collapse resistant shell and 3M™ Cool Flow™ Valve in the 8822 and 8812 respirators offer durable, comfortable protection particularly in hot and humid conditions.

Typical Applications

- Construction
- Ship building/repair
- Pharmaceuticals/ laboratories
- Rubber/plastics
- Iron and steel foundries
- Agrochemicals
- Agriculture
- Base metal manufacture
- Powdered chemicals
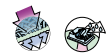
3M™ Particulate Respirator 8822
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12
FFP2
Unvalved

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8822	GT500075202	24	10	240
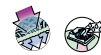
3M™ Particulate Respirator 8710E
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4
FFP1

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8710E	GT500075178	20	12	240
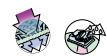
3M™ Particulate Respirator 8810
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12
FFP2
Valved

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8810	GT500075186	24	10	240
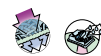
3M™ Particulate Respirator 8812
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4
FFP1

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8812	GT500075194	24	10	240
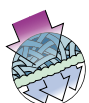
3M™ High Performance Filter Material

3M™ Cool Flow™ Valve

Disposable Respirators

Comfort Plus

3M™ N95 Respirators: Suggested Applications: Grinding, bagging, sanding and sweeping. Also suggested for extended wear time, hot/humid conditions, other dusty operations and pandemic stockpiling/business continuity planning. Comfort Plus respirators all feature the patented 3M™ Cool Flow™ Exhalation Valve.

3M™ Aura 9211+ Disposable Respirator (N95)
- Designed to direct exhaled air away from the nose panel, helping to reduce eyewear fogging 3M™ CoolFlow™ Valve keeps wearer cool
- Comfortable braided headbands help keep respirator securely in place and minimizes pulling of hair
- Individually packaged

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9211+	GT500072993	10	12	120

3M™ 8511 Disposable Respirator (N95)
- Is uniquely designed to help provide protection against certain non-oil based particles
- Designed to help deliver classic N95 respiratory protection with the addition of the proprietary 3M™ Cool Flow™ Valve

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8511	70070757557	10	8	80

3M™ 8210V Disposable Respirator (N95)
- Designed to help deliver classic N95 respiratory protection with the addition of the proprietary 3M™ Cool Flow™ Valve
- An economical choice for hot/humid work settings or longer periods of wear

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8210V	70071606589	10	8	80

100 Class Respirators: Ideal when local regulatory agencies require a class 100 filter. Appropriate for pharmaceutical manufacturing.

3M™ 8293 Disposable Respirator (P100)
- Is well suited for those who want NIOSH's highest rated filtration efficiency in a maintenance free respirator
- It provides a minimum filter efficiency of 99.97% against oil base particles
- Individually packaged

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8293	70070757474	1	20	20

3M™ 8233 Disposable Respirator (N100)
- Is well suited for those who want NIOSH's highest rated filtration efficiency in a maintenance free respirator
- It provides a minimum filter efficiency of 99.97% against non-oil based particles
- Individually packaged

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8233	70070709012	1	20	20

Comfort Plus Series: 3M™ Aura™ Flat Fold 9300+ Series

The 3M™ Aura™ Disposable Respirators 9300+ are the result of 3M's continuous drive to improve comfort. They are packed with ground-breaking ideas, technologies and materials and have also retained many of the features that helped make the original 9300 series hugely popular.

Features include low breathing resistance filter technology for easier breathing throughout your shift, an embossed top panel to reduce fogging of eyewear, a sculpted edge for improved compatibility with eyewear and a chin tab to improve ease of fitting.

Typical Applications

- Construction
- Metal working
- Agriculture
- General manufacturing
- Automotive
- Woodworking
- Maintenance
- Chemical/ petrochemical
- Pharmaceuticals/ laboratory

Features and Benefits:

Foldable – Proprietary 3-Panel Design
- Ingenious 3-panel design fits a wide range of face shapes and sizes
- Accommodates your facial movements
- Collapse resistant: ideal for work in hot humid environments

Sculpted Nose Panel
- Curved, low profile design
- Conforms well to nose and eye contours
- Helps provide a good field of vision and improves compatibility with eyewear

Low Breathing Resistance Filter Technology
- Combines the benefits of 3M's electret particulate filter material with advanced low breathing resistance filter technology
- Improved breathing ease and comfort

Embossed Top Panel
- Helps reduce fogging of eyewear

3M™ Cool Flow™ Valve
- Effective removal of heat build up provides a cooler and more comfortable wear
- Removes exhaled air and minimises the risk of fogging eyewear
- Shrouded valve to remove risk of cross contamination in clinical environments (1883+ only)

Chin Tab
- Improves ease of donning and adjustment to help achieve a comfortable fit

Face and Head Comfort
- Large soft nose foam material and smooth inner cover web both feel incredibly soft on the skin and help to create a comfortable environment for the face

Compatible with
- Eyewear from 3M
- Hearing Protection from 3M
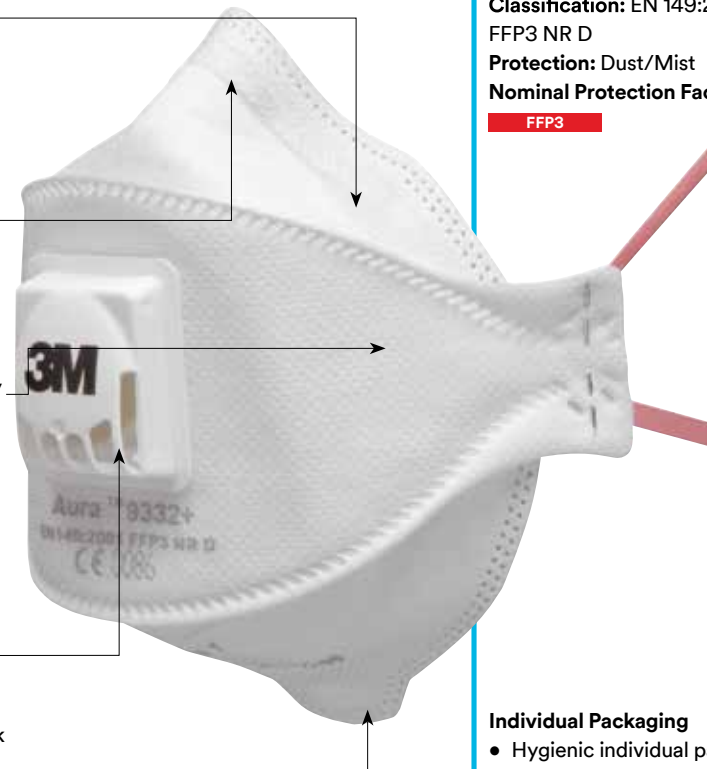
3M™ Aura™ Particulate Respirator 9332+
Classification: EN 149:2001+A1:2009 FFP3 NR D
Protection: Dust/Mist
Nominal Protection Factor: 50

FFP3

3M™ Low Breathing Resistance Filter Technology

Foldable Three-Panel Design

3M™ Cool Flow™ Valve

Individual Packaging
- Hygienic individual packaging helps protect the respirator from contamination before use
- Allows practical storage and dispensing in the workplace

3M™ Aura™ Particulate Respirator 9310+

3M™ Aura™ Particulate Respirator 9312+

FFP1

3M™ Aura™ Particulate Respirator 9310+
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9310+	GT500073207	20	12	240

FFP1

3M™ Aura™ Particulate Respirator 9312+
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9312+	GT500073181	10	12	120

FFP2

3M™ Aura™ Particulate Respirator 9320+
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9320+	GT500073165	20	12	240

FFP2

3M™ Aura™ Particulate Respirator 9322+
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9322+	GT500073439	10	12	120

FFP3

3M™ Aura™ Particulate Respirator 9330+
Classification: EN 149:2001+A1:2009
FFP3 NR D
Protection: Dust/Mist
Nominal Protection Factor: 50

Product #	Stock #	Qty/Box	Box/Case	Case Qty
9330+	GT500078974	20	12	240

FFP3

3M™ Aura™ Particulate Respirator 1883+ with Shrouded Valve
Classification: Meets the requirements of EN 149:2001+A1:2009 FFP3 NR D and EN14683:2005 Type IIR (Surgical Masks-Requirements and Test Methods)
Protection: Solid and Non-volatile Liquid Particles
Nominal Protection Factor: 50

Product #	Stock #	Qty/Box	Box/Case	Case Qty
1883+	GT500073405	12	4	48

3M™ Cup Shaped 8825 and 8835

With this premium respirator series 3M offers ultimate safety, meeting the particular requirements of the clogging test for FFP (filtering face piece) respirators which may be used for more than one shift.

The 3M™ Respirator 8835 has exceptional comfort because of its lightweight, off-the-face design; a soft inner face-seal ring; a large surface area providing maximum filtration and ease of breathing; an exhalation valve to reduce heat build up in certain work conditions; 4-point adjustable straps and an adjustable nose clip to ensure a comfortable fit.

Typical Applications
- Construction
- Ship building/repair
- Pharmaceuticals
- Welding and soldering
- Chemical processing
- Iron and steel foundries
- Battery manufacturing

Features and Benefits:

Soft Inner Face-Seal Ring
- Improves seal to face
- Increases wearer comfort
- Can be cleaned for wearer hygiene if used for longer than one shift (3M™ 105 Face Seal Cleaner)

Robust Shell and Cup Design
- Robust and durable design provides multi-shift capability and a secure feel

3M™ High Performance Filter Material
- Increased filter area helps extend the life of the respirator. Higher capacity against dust
- Effective filtration with easy breathing
- Consistent high quality performance

Colour Coded Valve Lettering
- Easy to recognise protection level by colour coding (red for FFP3 and blue for FFP2 respirators)

3M™ Cool Flow™ Valve
- Effective removal of heat build up provides a cooler and more comfortable wear
- Removes exhaled air and minimises the risk of misting eyewear

Adjustable Braided Headbands
- Help achieve a more secure feel and provide comfort to face, head and neck

Compatible with
- Eyewear from 3M
- Hearing Protection from 3M

3M™ Particulate Respirator 8835
Classification: EN 149:2001+A1:2009 FFP3 R D
Protection: Dust/Mist/Metal Fume
Nominal Protection Factor: 50

`FFP3`

3M™ Particulate Respirator 8825
Classification: EN 149:2001+A1:2009 FFP2 R D
Protection: Dust/Mist/Metal Fume
Nominal Protection Factor: 12

`FFP2`

3M™ High Performance Filter Material

Face Seal

3M™ Cool Flow™ Valve

Adjustment Buckle Straps

Comfort Series: 3M™ Cup Shaped 8300 Series

The 3M™ Respirators 8300 Series enable you to enjoy a comfortable 'cushion-fit', facing hard work from a soft place.

The 8300 Series respirators have been designed with comfort in mind. The super-soft, cushioned lining provides instant yet lasting comfort; whilst the robust design makes the 8300 Series tough and durable – all this helps to increase user wearabilty. 3M offers a comprehensive range of respiratory protection – you can choose from different protection levels and styles that best suit your needs.

Typical Applications

- Construction
- Quarrying
- Pottery/Ceramics
- Engineering
- Pharmaceuticals
- Sawmills
- Iron and steel foundries
- Shipbuilding
- Metalworking

Features and Benefits:

Braided Headbands
- Materials have been selected for extra comfort and durability
- Colour-coded headbands offer easy protection level identification

M-Noseclip
- The noseclip is quick and easy for wearers to mould around the nose offering greater comfort

Robust Outer Shell
- The shell construction offers users added durability

3M™ Cool Flow™ Valve
- The Cool Flow valve reduces heat build-up to offer workers comfortable protection – even in hot humid conditions

3M™ High Performance Filter Material
- Effective filtration helps wearers to breathe easily through the respirator for more comfortable protection

'Cushion-Fit' Lining
- The super-soft, cushioned inner lining helps workers stay comfortable

Soft Waffle Edge
- The flexible, textured edge offers a comfortable and secure feel on the face

Soft Inner Face Seal (8833 only)
- Gives a secure, conforming fit for added comfort
- Can be cleaned for wearer hygiene if used for longer than one shift

3M™ Particulate Respirator 8322
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12

FFP2

3M™ High Performance Filter Material

3M™ Cool Flow™ Valve

Face Seal (8833 only)

M-Shaped Noseclip

3M™ Particulate Respirator 8320

FFP1

3M™ Particulate Respirator 8310
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4
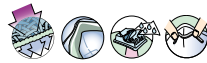
Product #	Stock #	Qty/Box	Box/Case	Case Qty
8310	70071534005	10	8	80

FFP2

3M™ Particulate Respirator 8320
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Nominal Protection Factor: 12

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8320	70071534047	10	8	80

Braided headbands for extra comfort and durability

3M™ Particulate Respirator 8312

FFP1

3M™ Particulate Respirator 8312
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Nominal Protection Factor: 4

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8312	70071534021	10	8	80

FFP3

3M™ Particulate Respirator 8833
Classification: EN 149:2001+A1:2009
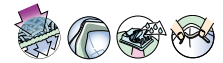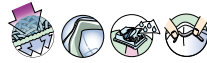FFP3 R D
Protection: Dust/Mist
Nominal Protection Factor: 50

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8833	7007163170	10	8	80

Disposable Respirators

3M™ Disposable Respirators
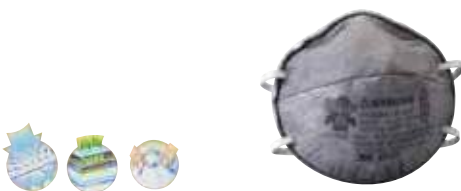
Speciality Series Respirators

Designed to help provide comfortable protection against certain oil and non-oil based particles including those present with nuisance levels of organic vapours*, such as solvents, degreasers and resins

Additional Applications: Foundry operations, lab settings, agriculture, petrochemical manufacturing and undercoating where particles and nuisance levels of organic vapours* may be present

Non-valved Specialty Respirators: Suggested Applications: Grinding, bagging, sanding, sweeping in oil and non-oil environments and other dusty operations.

Valved Specialty Respirators: Features the patented 3M™ Cool Flow™ Exhalation Valve. Suggested for extended wear time, hot/humid conditions.

3M™ 8247 Disposable Respirator (R95)

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8247	70070757722	20	6	120

3M™ 8577 Disposable Respirator (P95)

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8577	70070757946	10	8	80

Helps provide protection against certain oil and non-oil based particles including those present with nuisance levels of acid gases* such as sulphur dioxide, hydrogen fluoride, and/or chlorine

Additional Applications: Glass etching, chemical processing, paper processing, aluminum smelting and brewing operations where particles and nuisance levels of acid gases* may be present

3M™ 8246 Disposable Respirator (R95)

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8246	70070757714	20	6	120

3M™ 8576 Disposable Respirator (P95)
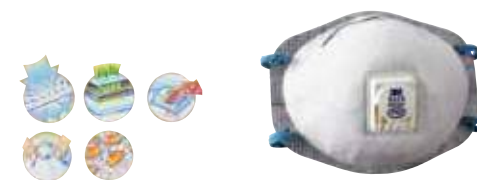
Product #	Stock #	Qty/Box	Box/Case	Case Qty
8576	700707579461	10	8	80

*3M recommended for relief against nuisance level acid gas or organic vapours. Nuisance level organic vapour and acid gas refers to concentrations not exceeding applicable government occupational exposure limits.

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Welding Fume Respirators

The 3M™ Welding Fume Respirators 9925 and 9928 provide lightweight, effective, comfortable and hygienic respiratory protection against dust, mist and metal fumes and resist clogging for extended use against welding fume. The convex shape enhances wearer comfort; the 3M™ Cool Flow™ Exhalation Valve reduces heat build up, particularly in hot humid work conditions. The 4-point adjustable straps and adjustable nose clip help achieve a comfortable fit. The 3M respirators 9925 and 9928 have been designed specifically for welding applications to provide protection against ozone and welding fumes, plus relief from nuisance odours.

Typical Applications
- Construction
- Base metal manufacture
- Ship building/repair
- Potteries
- Powdered chemicals
- Welding and soldering
- Iron and steel foundries
- Metal manufacture
- Paint manufacture

Features and Benefits:

Robust Shell and Cup Design
- Flame retardant outer surface minimises the effect of welding splatter
- Conforms well to most face shapes and sizes
- Collapse-resistant

Soft Inner Face-Seal Ring (9928 only)
- Provides secure feel
- Improves wearer comfort
- Can be hygienically cleaned if used for longer than one shift (3M™ Faceseal Cleaner 105)

3M™ Cool Flow™ Valve
- Effective removal of heat build up provides a cooler and more comfortable wear
- Removes exhaled air and minimises the risk of misting eyewear

Colour Coded Valve Lettering
- Easy to recognise protection level (FFP2) by colour coding

Carbon Layer
- Provides protection against ozone gas and relief from nuisance level odours

Adjustable Braided Headbands
- Help provide comfort to face, head and neck

Compatible with
- Eyewear from 3M
- Hearing Protection from 3M
- 3M™ Speedglas™ Welding Headtop
- Welding shields – low profile design for compatibility with welding shields
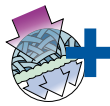
3M™ High Performance Filter Material

Face Seal (9928 only)

3M™ Cool Flow™ Valve

Adjustment Buckle Straps

Activated Carbon

3M™ Welding Particulate Respirator 9928
Classification: EN 149:2001+A1:2009 FFP2 R D
Protection: Dust/Mist/Ozone/Nuisance level odours
Nominal Protection Factor: 10 for Ozone and Particulates
Below NPF for Nuisance Odours

FFP2

3M™ Welding Particulate Respirator 9925
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist/Ozone/Nuisance level odours
Nominal Protection Factor: 10 for Ozone and Particulates

FFP2

3M™ Particulate Respirators 9925 are also available in handy packs of 5

Product Preference Selector

Use the selector below to identify which respirator may be preferred for increased worker comfort.

What type of particles are in your environment?

Oil and Non-oil

| NIOSH | R- or P-Series Respirators | EN-P2/P3 |

Does your local Regulatory Agency require the use of a class 100 or P3 filter ?

Yes

9332+

8293

No

Is the environment hot and humid or is additional worker comfort desired?

No

Is nuisance level OV/AG reduction preferred?

Yes

| AG | OV |

8246

8247

Yes

Is nuisance level OV/AG reduction preferred?

Yes

| AG | OV |

8576

9926

8577

Non-oil

| NIOSH | N-Series Respirators | EN-P1/P2/P3 |

Will the respirator be used in a substance specific or welding application?

No

Will the respirator be used for light duty or short duration work?

Yes

8200

9010

No

Is the environment hot and humid or is additional worker comfort desired?

No

Is a folded product preferred?

No

8210/8110s

8210+

8710E

8810

Is a face seal preferred?

8825

8835

Yes

9210+

9105
9105S

9310

Yes

Is a folded product preferred?

No

8511

8210V

8822

Yes

9211+

9010

9312+

9322+

9332+

9320+

Yes

Class 100 or P3 filter required?

8233

Welding

Is ozone* or nuisance level OV reduction preferred?

No

Yes

Is a face seal preferred?

Yes

8214

No

8514

9925

Yes

8212

No

8512

8515

*3M recommended for ozone protection up to 10X OSHA PEL or applicable government occupational exposure limits, whichever is lower. Not NIOSH approved for ozone.

Welding

Welding and Metal Pouring: Suggested Applications: Welding, torch cutting, brazing, soldering. Welding respirators all feature the patented 3M™ Cool Flow™ Exhalation Valve.

3M™ 8214 Disposable Respirator (N95)

- Is designed for applications such as welding, soldering and other operations where metal fumes may be present including those with ozone* and nuisance level organic vapours**
- Includes faceseal
- Additional Applications: Metal pouring, working with stainless steel, galvanized or aluminium

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8214	70070799534	10	8	80

3M™ 8212 Disposable Respirator (N95)

- Features the 3M™ Cool Flow™ Exhalation Valve, cake-resistant filter media and fully adjustable straps
- Includes faceseal
- Additional Applications: Metal pouring

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8212	70070798998	10	8	80

3M™ Disposable Respirator 8514 (N95)

- Is designed for applications such as welding, soldering and other operations where metal fumes are present including those with ozone* and nuisance level organic vapours**
- Additional Applications: Metal pouring, working with stainless steel, galvanized or aluminium

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8514	70070843886	10	8	80

3M™ Disposable Respirator 8512 (N95)

- Features the 3M™ Cool Flow™ Exhalation Valve, cake-resistant filter media, nose foam and fully adjustable noseclip and straps
- Additional Applications: Metal pouring

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8512	70070843878	10	8	80

3M™ Disposable Respirator 8515 (N95)

- An economical option for welders featuring the 3M™ Cool Flow™ Exhalation Valve, adjustable M-noseclip, and braided headband to help provide a custom fit and secure seal

Product #	Stock #	Qty/Box	Box/Case	Case Qty
8515	70070890028	10	8	80

*   3M recommended for ozone protection up to 10X OSHA PEL or applicable government occupational exposure limits, whichever is lower. Not NIOSH approved for ozone.
** 3M recommended for relief against nuisance level acid gas or organic vapours. Nuisance level organic vapour and acid gas refers to concentrations not exceeding applicable government occupational exposure limits.

Disposable Respirators

3M™ Disposable Particulate Respirators (N95)

Product#	Classification/ Packaging	Suggested Applications	3M™ Cool Flow™ Valve	M-Noseclip	Face-Seal	Advanced Electret Media	Carbon Filter Material	Cake Resistant Media	Adjustable Straps	Welding Web	APF*
Comfort	**Dusty Conditions**										
9210+	N95 20 each/box 25 box/case	Sweeping, sanding, grinding, sawing, bagging				X					10
8210+	N95 20 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging with comfort braided headbands				X					10
8210 8110S (Sm)	N95 20 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging, available in small 8110S				X					10
8200	N95 20 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging				X					10
9105 9105S	N95 50 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging				X					10
8240	R95 20 each/box 8 box/case	Grinding, sanding and other dusty/oily operations				X					10
8246	R95 20 each/box 8 box/case	Glass etching, chemical processing, paper processing, brewing, aluminum smelting[1]				X	AG				10
8710	FFP1 NR D	Sweeping,sanding,grinding,sawing,bagging,				X					NPF 4
8810	FFP2 NR D	Sweeping,sanding,grinding,sawing,bagging,				X					12
8822	FFP2 NR D	Sweeping,sanding,grinding,sawing,bagging,	X			X					12
9010	FFP2 NR D	Sweeping,sanding,grinding,sawing,bagging,				X					10
Comfort Plus											
9010V	FFP2 NR D	Sweeping,sanding,grinding,sawing,bagging,	X			X					10
8825	FFP2 NR D	grinding,sanding,machining,and other dusty / oily operations	X			X					10
8835	FFP3 R D	grinding,sanding,machining,and other dusty / oily operations	X		X	X			X		NPF 12
9310+	FFP1 NR D	Sweeping,sanding, grinding,sawing, bagging,				X					NPF 4
9312+	FFP1 NR D	Sweeping,sanding, grinding,sawing,bagging, hot/dusty operations	X			X					NPF 4
9320+	FFP1 NR D	Sweeping,sanding, grinding,sawing,bagging, hot/dusty operations	X			X					NPF 4
9322+	FFP2 NR D	Sweeping,sanding, grinding,sawing, bagging,				X					NPF 12
9330+	FFP3 NR D	Sweeping,sanding, grinding,sawing, bagging,				X					NPF 50
9332+	FFP3 NR D	Sweeping,sanding, grinding,sawing,bagging, hot/dusty operations	X			X					NPF 50

Important

All 3M™ Filtering Facepieces are NIOSH approved respirators. Before using, you must determine the following:

I.   The types of contaminants for which the respirator is being selected and exposure time.

II.   The concentration level of the contaminant(s). Do not use for particle concentrations that exceed 10 times the applicable government occupational exposure limits.

III.   Whether the respirator can be properly fitted to the wearer's face. Do not use with beards, or other conditions that prevent a good seal between the face and the sealing surface of the respirator.

IV.   Before required use of filtering facepiece respirators, a written respiratory protection program must be implemented, meeting all the requirements of the authority having jurisdiction in your region and/or CSA standard Z94.4 including medical evaluation, training, and fit testing.

3M Worldwide, World Class

3M develops, manufactures and markets over 60,000 different consumer, commercial, industrial and health care products. We have manufacturing operations in 60 countries and do business in more than 200 countries. 3M can help you achieve corporate goals, meet and exceed government standards, simplify and improve the lives of your employees, and contribute to a safe, healthy and sustainable work environment.

3M™ Disposable Respirators

Product#	Classification/Packaging	Suggested Applications	3M™ Cool Flow™ Valve	M-Noseclip	Face-Seal	Advanced Electret Media	Carbon Filter Material	Cake Resistant Media	Adjustable Straps	Welding Web	APF*
9211+	N95 10 each/box 12 box/case	Sweeping, sanding, grinding, sawing, bagging, hot/dusty operations	X			X					10
8511	N95 10 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging, hot/dusty operations	X	X		X					10
8210V	N95 20 each/box 8 box/case	Sweeping, sanding, grinding, sawing, bagging, available in small 8110S	X			X					10
8271	P95 10 each/box 8 box/case	Grinding, sanding, machining and other dusty/oily operations	X	X		X					10
Dusty Conditions/Nuisance Odours											
8247	R95 20 each/box 6 box/case	Foundry operations, labs, agriculture, petrochemical, undercoating[2]				X	OV				10
8576	P95 10 each/box 8 box/case	Same as 8246, plus hot operations[1]	X	X		X	AG				10
8577	P95 10 each/box 8 box/case	Same as 8247, plus hot operations[2]	X	X		X	OV				10
9926	FFP2 NR D	Welding,soldering, metal manufacturing				X	AG				NPF 12
Welding and Metal Pouring											
8212	N95 10 each/box 8 box/case	Welding, metal cutting/pouring, grinding, sanding, and other dusty/	X		X	X		X	X	X	10
8214	N95 10 each/box 8 box/case	Welding, metal cutting/pouring, grinding, sanding, foundry, labs, petrochemical, undercoating[3]	X		X	X	OV OZ	X	X	X	10
8512	N95 10 each/box 8 box/case	Welding, metal cutting/pouring, grinding, sanding, and other dusty/hot operations	X			X		X	X	X	10
8514	N95 10 each/box 8 box/case	Welding, metal cutting/pouring, grinding, sanding, foundry, labs, petrochemical, undercoating[3]	X			X	OV OZ	X	X	X	10
8515	N95 10 each/box 8 box/case	Welding, metal cutting/pouring, grinding, sanding, and other dusty/hot operations	X	X		X				X	10
9925	FFP2 NR D	weldnig,metal cutting, pouring,grinding	X			X	OV OZ		X	X	NPF 10
Class 100											
8233	N100 1 each/bag 20 bag/case	Appropriate for pharmaceutical manufacturing	X	X	X				X		10
8293	P100 1 each/bag 20 bag/case	Appropriate for pharmaceutical manufacturing	X	X	X				X		10

*APF = Assigned Protection Factor.

[†] 3M recommended for relief against nuisance level acid gas or organic vapours. Nuisance levels are less than the applicable government occupational exposure limits.

[1] 3M recommended for nuisance level acid gas relief.

[2] 3M recommended for nuisance level organic vapour relief.

[3] 3M recommended for up to 10X OSHA PEL of ozone or applicable government occupational exposure limits, which ever is lowest, and nuisance level organic vapour relief.

Warning

These respirators help reduce exposures to certain airborne particulates. Before use, the wearer must read and understand the User Instructions provided as a part of the product packaging. A written respiratory protection program must be implemented meeting all the requirements of the authority having jurisdiction in your region and/or CSA Standard Z94.4 including training, fit testing and medical evaluation. Misuse may result in sickness or death. For proper use, see package instructions.

Reusable Respirators

Charcoal-bonded cartridges help remove harmful elements from the air you breathe on the worksite. Comfortable, adaptable, and dependable, 3M has your face covered.

3M

Science.
Applied to Life.™

Introducing
**3M™ Rugged Comfort
Half Facepiece
Reusable Respirator
6500QL Series**

Comfort and convenience in harsh environments

3M™ Rugged Comfort Half Facepiece 6500 Series

When shifts are long and conditions are challenging, your people will appreciate having the 3M™ Rugged Comfort Half Facepiece Reusable Respirator 6500 Series. With 3M's Quick Latch drop-down mechanism and Cool Flow™ valve, it's easy on, easy off and comfortable.

reddot award 2015
best of the best

▶ Convenient Quick Latch Drop-Down Mechanism

- Easy on and off as you move in and out of contaminated areas
- No need to remove hard hats or faceshields when lowering and raising the respirator

QUICK LATCH CLOSED   PULL UP ON LATCH   QUICK LATCH OPEN   PULL DOWN ON LATCH

To open Quick Latch: Grasp the latch at chin level and pull up. To close Quick Latch: Grasp the facepiece with your thumb on the bottom of the facepiece and your first two fingers on top of the latch. Place the facepiece over your nose and mouth while pushing down on the latch.

▶ Comfortable, Durable Silicone Faceseal

- 3M's lightest silicone facepiece, the 6500 Respirator Series provides comfort and stability with a soft, stable faceseal
- Resilient silicone material keeps its shape in high-heat environments, which can help extend product life

▶ 3M™ Bayonet Connection

Compatible with all 3M™ bayonet-style cartridges and filters (see back for listing of products)

▶ Adjustable Head Harness Assembly

- Optimum fit and comfort with three-size adjustable head cradle
- Long-lasting polyester/spandex straps

▶ Low-Profile Design for Compatability

- Compatible with most welding/grinding shields
- Advanced half facepiece design for wide field of view
- Siplified cleaning and maintenance with fewer parts and crevices

▶ Cool Flow™ Valve

- Enhanced comfort by reducing heat and moisture build-up
- Easier breathing with unique valve design
- Valve cover design directs exhaled breath and moisture downward

6500 QL Respirator, shown

Reusable Respirators

Standard models

6501	Small
6502	Medium
6503	Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6501 (Small)	70071668100	10	1	10
6502 (Medium)	70071668118	10	1	10
6503 (Large)	70071668126	10	1	10

Quick Latch models

6501QL	Small
6502QL	Medium
6503QL	Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6501QL (Small)	70071621828	10	1	10
6502QL (Medium)	70071621844	10	1	10
6503QL (Large)	70071621869	10	1	10

3M™ Ultimate FX Full Facepiece Respirator FF-400 Series

Comfortable, durable protection for demanding, X-treme conditions
As 3M's latest advancement in respiratory protection, the lightweight Ultimate FX FF-400 was developed to provide maximum comfort and durability with unique features that make it the optimal choice for a variety of industrial applications:

FF401 (Small)
FF402 (Medium)
FF403 (Large)

Large Lens Featuring Scotchgard™ Protector
- Paint and stain-resistant lens—3M's exclusive Scotchgard™ coating causes some paints and stains to bead up on the surface so they can be wiped off easily
- Helps lens stay clearer during some spray applications
- Provides a wide field of view

Passive Speaking Diaphragm
- Optimally positioned for clearer and easier communications

Bonded Silicone Gaskets
- Eliminates loose gaskets that can be lost

Easy to Use
- Respirator attachments twist on and off easily for quick assembly and disassembly

Durable, Long-lasting Head Harness
- Features a six-strap configuration for a secure fit
- Harness straps pulled over one million times in development durability testing

Comfort Cradle
- Positions the respirator more comfortably on the head

Soft, Silicone Nose Cup and Faceseal
- Engineered for maximum durability, comfort and resilience
- Three sizes help the respirator fit a broad range of face shapes and sizes

Patented 3M™ Cool Flow™ Valve
- Allows for easier breathing
- Reduces heat and moisture buildup for cool, dry comfort

Product #	Stock #	Qty/Box	Box/Case	Case Qty
FF401 (Small)	70071510773	1	1	1
FF402 (Medium)	70071510807	1	1	1
FF403 (Large)	70071510831	1	1	10

3M™ Full Facepiece Respirator 6000 Series

Reliable, convenient, compatible protection

6700 (Small)
6800 (Medium)
6900 (Large)

Features and Benefits:

Full Face Piece

+ Soft, non-allergenic elastomeric face piece

+ Extremely lightweight (400 grams) for high comfort

Full Face Lens

+ Broad field of vision

+ Polycarbonate lens, scratch and impact resistant to EN166:2001 B

4 Strap Head Suspension

+ Easy to put on and take off

+ Well balanced

3M™ Cool Flow™ Exhalation Valve

+ Less exhalation resistance

+ Easier breathing

+ Less heat and sweat build-up

+ Reduces valve vibration

+ Downwards flow of exhaled air

+ Minimised dirt-traps to stay clean

+ Sleek look and feel

Filter Connection

+ Twin filter design provides lower breathing resistance

+ Better weight distribution and more balanced fit

+ Improved peripheral vision

+ Safe and secure fit

+ Optical marking of attachment point

+ Flexible System for gas, vapour, particulate filters

+ Optional supplied-air connection
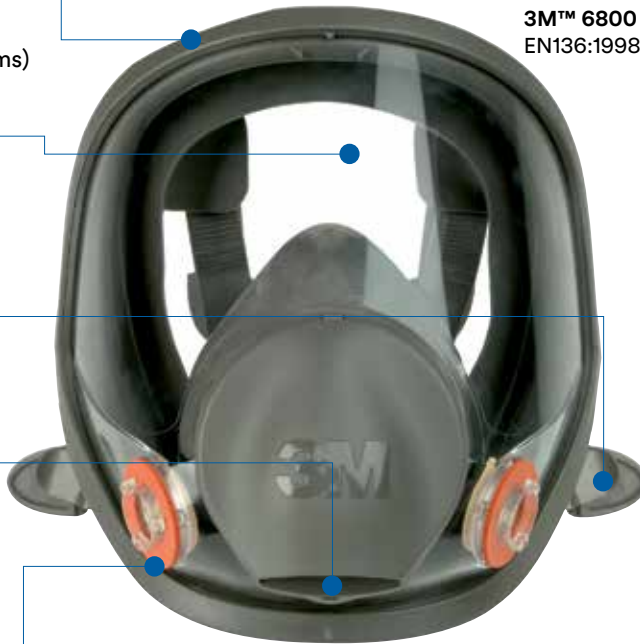
3M™ 6800 Full Face Mask (M)
EN136:1998 (Class 1) / **NIOSH**

Compatible with
+ Hearing Protection from 3M

- Unique center adapter directs exhaled breath and moisture downward, and helps reduce debris from depositing in the valve. Smooth surface allows for quick and easy cleaning

- Large lens provides wide field of view and excellent visibility

- 3M™ Cool Flow™ Valve helps provide cool, dry comfort

- Meets requirements of ANSI Z87.1-2003 for high impact (Z87+)

- Lightweight, well-balanced design with silicone faceseal for enhanced comfort and durability

- Available in air purifying respirator (APR), supplied air and powered air purifying respirator (PAPR) modes

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6700 (Small)	XA007708234	4	1	4
6800 (Medium)	XA007708242	4	1	4
6900 (Large)	XA007708259	4	1	4

Reusable Respirators

3M™ Half Facepiece Respirators

3M™ Reusable Respirator 7500 Series
3M™ Half Facepiece Respirators 7500 Series, Reusable
Provides Comfortable, Soft Silicone Faceseal

- Made of silicone for greater comfort and helps provide a softer feel on the face
- 3M™ Cool Flow™ Exhalation Valve for easy exhalation for cool, dry comfort; and designed to be long lasting
- Can be used in a drop down suspension by positioning the straps over the locking tabs
- Can be used with a variety of cartridges and filters that help protect against both dust and/or gas and vapour
- 7501 Small / 7502 Medium / 7503 Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
7501 (Small)	70071042777	10	1	10
7502 (Medium)	70071042785	10	1	10
7503 (Large)	70071042793	10	1	10

3M™ Full Facepiece Reusable Respirator 7800S Series
- Silicone facepiece enhances fit and improves durability
- Double-flange faceseal and six adjustable straps help provide a secure fit
- Can be used with a passive or electronic clip-on welding lens
- Available in air purifying respirator (APR), supplied air and powered air purifying respirator (PAPR) modes
- FR-7800B (First Responder) version available
- Butyl rubber seal to minimize permeation
- CBRN approved with FR-15-CBRN
- 7800S-S Small / 7800S-M Medium / 7800S-L Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
7800S (Small)	70070710259	1	1	1
7800S (Medium)	70070710267	1	1	1
7800S (Large)	70070710275	1	1	1

3M™ 6500 Series Reusable Respirator
- Adjustable Head Harness Assembly
- 3M™ Bayonet Connection
- Overmolded / Low-Profile Design
- Optimum fit and comfort with three-size-adjustable head cradle
- Silicone Faceseal Provides comfort and stability with a soft but firm faceseal
- 3M™ Cool Flow™ Valve for Easier breathing
- Valve Cover Design
- 6501 Small / 6502 Medium / 6503 Large
- Available with Quick Latch Drop Down Feature:
6501QL Small / 6502QL Medium / 6503QL Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6501 (Small)	70071668100	10	1	10
6502 (Medium)	70071668118	10	1	10
6503 (Large)	70071668126	10	1	10

3M™ 6000 Series Reusable Respirator
Provides Lightweight, Easy-to-use, Economical Protection
- An economical choice
- Facepiece is made from soft, lightweight thermoplastic elastomer
- Head harness assembly and spare parts available
- 6100 Small / 6200 Medium / 6300 Large

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6100 (Small)	XA007702633	24	1	24
6200 (Medium)	XA007702658	24	1	24
6300 (Large)	XA007702674	24	1	24

Introducing

3M™ Organic Vapor Service Life Indicator
Cartridges 6000i Series

When safety is on the line, change is critical

3M™ Organic Vapor Service Life Indicator Cartridges incorporate
a revolutionary end-of-service-life indicator (ESLI) technology to help answer the
question that every respirator user must answer — "when should I change
my cartridges?"

In appropriate environments,* the 3M™ Service Life Indicator can:

3M™ Organic Vapor Service Life Indicator Cartridges 6000i Series
When safety is on the line, change is critical

3M™ Organic Vapor Service Life Indicator Cartridges incorporate a revolutionary end-of-service-life indicator (ESLI) technology to help answer the question that every respirator user must answer — "when should I change my cartridges?"

In appropriate environments,* the 3M™ Service Life Indicator can:

Provide confidence in protection
- The 3M Service Life Indicator can help provide added peace of mind as a complement to your current change-out schedule, and in some cases replace your current practices.

- This technology can help increase compliance with your company's respiratory policy and industry requirements.

- These cartridges are NIOSH approved as 6001i and 60921i organic vapor cartridges against certain organic gases and vapors, **plus** they have all of the features you would find in standard 3M Organic Vapor cartridges.

Optimize cartridge use
It's designed to indicate service life based on individual exposure and respiratory use patterns.

Engage your workforce in safety
This simple, visual tool can help users determine when to change cartridges.

Product #	Stock #	Qty/Box	Box/Case	Case Qty
6001I OV ESLI	70071624053	60	1	60
60921I OV ESLI /P100	70071624061	60	1	60

How the 3M™ Service Life Indicator works

3M™ Organic Vapor Cartridges 6001i and 60921i contain the 3M Service Life Indicator, a visual ESLI for certain organic vapors and exposure levels. The ESLI is located inside the cartridge, next to the activated carbon. As organic vapors travel through the cartridge, they are also adsorbed into the ESLI. The clear cartridge wall allows you to monitor the developing indicator bar. When the cartridge is exposed to specific vapor concentrations, you will notice a change in the indicator.

When used properly in appropriate environments, an indicator bar will develop to help determine the remaining cartridge service life.

Simple indicator bar

Removable label
The peel-back label helps to protect the indicator from overspray and debris

Activated Carbon

3M Service Life Indicator

Clear Cartridge Wall
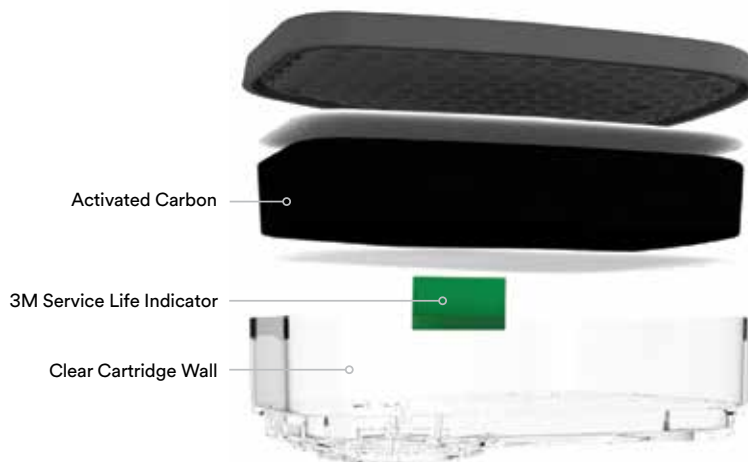
*See "Using the indicator" on the next page.

Using the indicator

The 3M Service Life Indicator can be used to complement your current cartridge change schedule. You must change your cartridge at the normally scheduled interval or when the ESLI indicates, whichever occurs first.

In some cases you can use the ESLI as a primary method to determine cartridge change, replacing your current change schedule method.

To find out if the 3M Service Life Indicator may be used as the primary method for determining your cartridge change-out schedule:

1) Perform exposure monitoring to quantify the organic vapor exposure levels in your workplace. Visit 3M.com/PPESafety for information on 3M™ Organic Vapor Monitors.

2) Enter the monitoring results in the 3M™ Select and Service Life Software (3M.com/ServiceLifeSoftware). If the ESLI is not applicable as a primary method, it may still be used to complement your current cartridge change schedule.

Common Organic Vapors and Minimum Indication Level (MIL)

NOTE: This is NOT a list of what the 6001i and 60921i may be used for. In order to rely on the 3M ™ Service Life Indicator as a primary method for determining when to change cartridges, both of the following conditions must be met: Worker exposure levels ≥ MIL, AND MIL ≤ occupational exposure limit. Please refer to the 3M ESLI software at 3M.com/servicelifesoftware to help determine if you can rely on the indicator.

Compound	CAS #	MIL in parts per million (ppm)
Ethylbenzene	100-41-4	2
Styrene	100-42-5	1
Propyl bromide	106-94-5	147
1,2-Dichloroethane	107-06-2	145
Methyl propyl ketone	107-87-9	23
Propyleneglycol methylether	107-98-2	24
Methyl isobutyl ketone	108-10-1	5
Isopropyl acetate	108-21-4	30
Methoxypropyl acetate (propylene glycol monomethyl ether acetate)	108-65-6	3
Diisobutyl ketone	108-83-8	10
Toluene	108-88-3	8
4-methyl pyridine	108-89-4	2
Chlorobenzene	108-90-7	4
Cyclohexanone	108-94-1	11
3-methyl pyridine	108-99-6	2
n-Propyl acetate	109-60-4	25
2-Methoxyethanol	109-86-4	59
Tetrahydrofuran	109-99-9	280
Isobutyl acetate	110-19-0	5
Methyl amyl ketone	110-43-0	3
n-Hexane	110-54-3	93
2-Ethoxyethanol	110-80-5	20
Ethoxyethyl acetate	111-15-9	2
n-Octane	111-65-9	2
2-Butoxyethanol	111-76-2	1
n-Nonane	111-84-2	1
Isoamyl alcohol	123-51-3	5
n-Butyl acetate	123-86-4	2
1,4-Dioxane	123-91-1	60
Isoamyl acetate	123-92-2	2
Tetrachloroethylene	127-18-4	20
Xylenes	1330-20-7	2
Limonene (d-)	138-86-3	2
Ethyl acetate	141-78-6	161
n-Heptane	142-82-5	12
Trimethylbenzene (mixture)	25551-13-7	2
3-methyl 2-butanone	563-80-4	46
Propionic acid n-butyl ester	590-01-2	3
2-Hexanone	591-78-6	3
1-Hexene	592-41-6	92
n-Pentyl acetate	628-63-7	3
Isopropanol	67-63-0	650
1-Propanol	71-23-8	300
n-Butyl alcohol	71-36-3	34
Benzene	71-43-2	65
Isobutanol	78-83-1	64
sec-Butyl alcohol	78-92-2	83
Methyl ethyl ketone	78-93-3	175
Trichloroethylene	79-01-6	66
Methyl acetate	79-20-9	950
Stoddard solvent	8052-41-3	1
Methyl methacrylate	80-62-6	16
Diethyl ketone	96-22-0	26
Methyl acrylate	96-33-3	104
Chlorobenzotrifluoride (4-)	98-56-6	5
Isopropyl benzene (cumene)	98-82-8	3

3M
Science.
Applied to Life.™

How an Organic Vapour Respirator Cartridge Works

3M makes organic vapour respirator cartridges to help reduce user exposure to many different organic vapours. To achieve this objective, respirator cartridges are filled with a material called activated carbon. Activated carbon is typically made from coal or renewable resources like wood or coconut shells. It is "activated" by heating the material in nitrogen or steam at approximate temperatures of 800 – 900°C. The resulting material has a significant number of micropores that help adsorb various organic vapours. These micropores can be measured and optimized for specific product needs and performance.

Coal or renewable resources, such as coconut shells

Coal or renewable resources are heated without oxygen

High-temperature steam or nitrogen activation

High-grade activated carbon
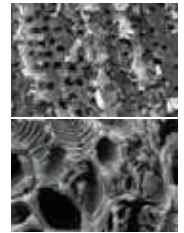
Electron micrographs of activated carbon pores

Activated carbon by itself cannot adsorb other types of gases or vapours such as acid gases, ammonia, formaldehyde, etc. In some cases, additional metals and salts are added to the carbon to selectively remove these compounds. For this reason, 3M offers a variety of cartridges and facepieces to help protect workers in different environments and satisfy personal preferences.

When organic vapours are drawn through an organic vapour cartridge, the air is filtered as vapours condense into the carbon pores. Vapours move through the cartridge from one pore to the next. This occurs more quickly for small volatile vapours with lower boiling points (e.g., acetone). Some migration of organic vapours can even occur during storage, so care must be taken before reusing the cartridge. The effective service life is the time until vapours begin to exit the cartridge.

Unlike particle filters, service life is not indicated by change in breathing resistance. Instead, cartridges must be changed according to local regulations; end-of-service-life indicator; taste, smell, or irritation from the contaminant; or according to 3M™ Service Life Software calculation, whichever comes first.
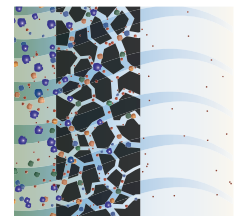
3M is committed to develop quality safety products to help protect workers. For more information about 3M organic vapour cartridges, or to establish a cartridge change schedule, please visit **3M.ca/Safety**.
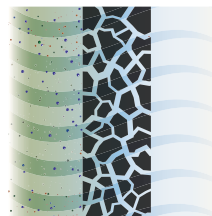
Unfiltered organic vapours are drawn into the cartridge.
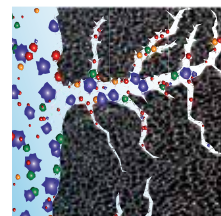
Activated carbon adsorbs organic vapours on molecular level.

Service life continues until vapours begin to escape the cartridge.

Factors that influence service life:
- Exposure concentration
- Temperature
- Humidity (water vapour takes up space in carbon pores)
- Breathing rate

3M™ Particulate Filters and Gas/Vapor Cartridges

All 3M Particulate Filters and Gas/Vapor Cartridges can be used interchangeably with 3M™ Reusable Respirators 6000, 6500, 7000 and FF-400 Series.

3M™ Particulate Filters 2000 Series

- Lightweight and easy to breathe through
- Assortment of filters available for a wide range of applications
- Easier breathing through new 3-layer advanced Electret Filter Media in 2200 Series Filters

Part Number	Description
2071	Particulate Filter, P95
2076HF	Particulate Filter, Hydrogen Fluoride/P95, with Nuisance Level Acid Gas Relief*
2078	Particulate Filter, P95, with Nuisance Level Organic Vapor/Acid Gas Relief*
2091	Particulate Filter, P100
2096	Particulate Filter, P100, with Nuisance Level Acid Gas Relief*
2097	Particulate Filter, P100, with Nuisance Level Organic Vapor Relief*
2291	Advanced Particulate Filter, P100
2296	Advanced Particulate Filter, P100, with Nuisance Level Acid Gas Relief*
2297	Advanced Particulate Filter, P100, with Nuisance Level Organic Vapor Relief*

3M™ Particulate Filter 7093, P100

- Unique, spring-loaded filter cover design simplifies negative pressure user seal checks
- Swept-back design provides enhanced field of view and greater comfort
- 7093C offers a lightweight, low profile design that combines P100 filtration with carbon-loaded features found in heavier combination cartridge products

Part Number	Description
7093	Particulate Filter, P100
7093B	Particulate Filter, P100, Bulk
7093C	Cartridge/Filter, Hydrogen Fluoride, P100 with Nuisance Level Organic Vapor and Acid Gas Relief*

3M™ Gas/Vapor Cartridges 6000, 6001i Series

- Low-profile design helps maintain good field of vision
- Full range of cartridges to meet your needs

Part Number	Description
6001	Cartridge, Organic Vapor
6002	Cartridge, Acid Gas**
6003	Cartridge, Organic Vapor/Acid Gas**
6004	Cartridge, Ammonia/Methylamine
6005	Cartridge, Formaldehyde/Organic Vapor
6006	Cartridge, Multi Gas/Vapor**
6009	Cartridge, Mercury Vapor or Chlorine

3M™ Combination Cartridges/P100 Particulate Filters 6000, 60921i Series

- Particulate filter is permanently attached to cartridge for easy, one-step assembly
- Unique design for enhanced comfort and visibility

Part Number	Description
60921	Cartridge/Filter, Organic Vapor/P100
60922	Cartridge/Filter, Acid Gas/P100**
60923	Cartridge/Filter, Organic Vapor/Acid Gas/P100**
60924	Cartridge/Filter, Ammonia/Methylamine/P100
60925	Cartridge/Filter, Formaldehyde/Organic Vapor/P100
60926	Cartridge/Filter, Multi-Gas/Vapor/P100**
60928	Cartridge/Filter, Organic Vapor/Acid Gas/P100**†
60929	Cartridge/Filter, Mercury Vapor/Chlorine Gas/P100

* 3M recommended for relief against nuisance levels of organic vapors and acid gases. Nuisance level organic vapor and acid gas refers to concentrations not exceeding OSHA PEL or applicable government occupational exposure limits, whichever is lower. Do not use for respiratory protection against acid gases or organic vapors (except hydrogen fluoride).

** Reminder: These cartridges are approved for respiratory protection from hydrogen sulfide gas up to 10 times the permissible exposure limit (PEL) with half facepiece respirators and full facepiece respirators when qualitatively fit tested, or up to less than 300 parts per million (ppm) with full facepiece respirators when quantitatively fit tested or according to specific OSHA standards or applicable government regulations, whichever is lower. 300 ppm is the concentration considered Immediately Dangerous to Life or Health (IDLH) for hydrogen sulfide.

† As recommended by the California Department of Pesticide Regulation No. 01-009-Methyl Bromide Field Fumigation. 3M recommended for use against radioiodine and methylbromide. Note: not NIOSH approved for methylbromide or radioiodine.

Applications and Hazards

Applications and Industries	Potential Hazards	Cartridge/Filter Options*
Spray Painting, Varnishing, Staining & Coating	Solvent-based	OV/P95
	Water-based Latex	Nuisance OV**/P95
Sanding & Grinding	Particulate	N95
Welding	Weld Fume	N95
	Stainless Steel & Galvanized	Nuisance OV**/P95
Abatement	Lead & Asbestos	P100
	Mold	N95 - P100/ Nuisance OV**
Cement Work	Silica/Dust	N95
Cleaning & Janitorial	Bleach	AG/P95
	Ammonia	AM/MA/P95
	General Cleaning Products	OV/P95
Agriculture	Pesticides & Insecticides	OV/AG/P95 - P100
Construction	Particulate	N95
Manufacturing	Solvents	OV
	Particulate	N95
Pharmaceutical Manufacturing	Particulate	N95/P100
Chemical Manufacturing	Sulfur Dioxide, Chlorine	AG/P95
	Ammonia	AM/MA/P95

*Respirator facepiece or system must be chosen based on the contaminant, airborne concentration and the necessary assigned protection factor.
**Nuisance level refers to concentrations below the Occupational Exposure Limit (OEL) or other applicable government regulations, whichever is lower.
If you are uncertain of the concentration levels of contaminants or recommended levels of respiratory protection, contact the 3M Technical Service Helpline at 1-800-243-4630.
This guide is only an outline. It should not be used as the only means for selecting a respirator. Details regarding performance and limitations are set out on the respirator package and *User Instructions*.
Before using any of these respirators, the wearer must read and understand the User Instructions for each product.

3M™ Reusable Respirators

Select the Right Respirator

	6000 HF	6500	6500QL	7500	6000 FF	FF-400	7800S
Enhanced Durability		■	■	■		■	■
Enhanced Comfort		■	■	■	■	■	
Drop-down Feature	■*		■	■			
3M™ Cool Flow™ Valve		■	■	■	■	■	
Compatible with 3M™ Supplied Air System	■	■	■	■	■	■	■
Compatible with 3M™ PAPR Systems					■		■
Eye Protection					■	■	■
Speaking Diaphragm						■	■
Accessories					■	■	■
Spare Parts	■	■	■	■	■	■	■
Six-point Head Harness						■	■
Silicone Faceseal		■	■	■	■	■	■
Compatible with Welding Shield	■	■	■				
Clip-on Welding Shield							■

*6000DD Version.

Find a Combination that Works Best for You

6000 HF

7500

6000 FF

Ultimate FX FF-400

Particulate Protection

Gas and Vapor Protection

Combines Particulate and Gas and Vapor Protection

For all 6000, 7000 and FF-400 Series Respirators

Dual Airline Supplied Air Respirator

3M™ Half and Full Facepiece Respirators
6000, 6500, 7000 & FF-400 Series

S- Small
M- Medium
L- Large

Facepieces

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

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

6501 (S), 6501QL (S)
6502 (M), 6502QL (M)
6503 (L), 6503QL (L)

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

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

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

FF-401 (S)
FF-402 (M)
FF-403 (L)

7800S (S)
7800S (M)
7800S (L)

Cartridges and Filters

2071 P95 Filter

2076* HF/P95 Filter

2078** P95 Filter

2091 P100 Filter

2096*** P100 Filter

2097**** P100 Filter

2291 P100 Filter

2296*** P100 Filter

2297**** P100 Filter

7093 P100 Filter

Filter Retainer and Adapter

502 Filter Adapter[1]

501 Filter Retainer

5N11 N95 Filter

5P71 P95 Filter

6001 OV

6002 AG

6003 OV/AG

6004 AM/MA

6005 Form

6006 Multi Gas

6009S Merc/SO₂

603 Filter Adapter

60921 P100/OV

60922 P100/AG

60923 P100/OV/AG

60924 P100/AM/MA

60925 P100/Form

60926 P100/Multi Gas

60929S P100/Merc/SO₂

7093C***** P100/HF

* P95 filter with hydrogen fluoride and nuisance level acid gas relief. (Nuisance levels are less than OSHA PEL.)[2]

** P95 filter with nuisance level organic vapour/acid gas relief. (Nuisance levels are less than OSHA PEL.)[2]

*** P100 filter with nuisance level acid gas relief. (Nuisance levels are less than OSHA PEL.)[2]

**** P100 filter with nuisance level organic vapour relief. (Nuisance levels are less than OSHA PEL.)[2]

***** P100 cartridge filter with hydrogen fluoride and nuisance level organic vapour and acid gas relief. (Nuisance levels are less than OSHA PEL.)[2]

[1] Do not reuse.

[2] 3M recommended for relief against nuisance level acid gas or organic vapours. Nuisance levels are less than OSHA PEL or applicable government occupational exposure limits, whichever is lower. Do not use for respiratory protection against gases or vapours.

OV = NIOSH approval: Certain organic vapours.

AG = NIOSH approval: Chlorine, hydrogen chloride, and sulfur dioxide or chlorine dioxide or hydrogen sulfide.

OV/AG = NIOSH approval: Certain organic vapours, chlorine, hydrogen chloride, and sulfur dioxide or hydrogen sulfide or hydrogen fluoride.

AM/MA = NIOSH approval: Ammonia and methylamine.

Form = NIOSH approval: Formaldehyde and certain organic vapours

Multi-Gas/Vapour = NIOSH approval: Certain organic vapours, chlorine, hydrogen chloride, chlorine dioxide, sulfur dioxide, hydrogen sulfide ammonia/methylamine, formaldehyde or hydrogen fluoride.

Merc = NIOSH approval: Mercury vapour or chlorine gas.

Accessories

3M™ Full Face Respirator Accessories 6000

Product #	Stock #	Description	Case Qty
6864/37000(AAD)	7000002178	Center Adapter Assembly	5
6878/07141(AAD)	7000002031	Spectacle Kit	1
6885/07142(AAD)	7000002033	Faceshield Covers	100
6886	7000052088	Tinted Faceshield Covers	25
6889/07143(AAD)	7000002057	Exhalation Valve	10
6893	7000002049	Inhalation Valve	200
6894/37004(AAD)	7000002034	Nose Cup Assembly	5
6895/07145(AAD)	7000002050	Inhalation Gasket	80
6896	7000052122	Center Adapter Gasket	20
6897/37005(AAD)	7000002035	Head Harness Assembly	5
6898/37006(AAD)	7000002036	Lens Assembly	5
6899	7100001832	Lens/Frame Kit	5

3M™ Half Face Respirator Accessories 6000

Product #	Stock #	Description	Case Qty
6281	7000029677	Half Facepiece Head Strap Assembly	20

3M™ Half Facepiece Respirator Accessories 6500

Product #	Stock #	Description	Case Qty
6581/55886	7000128251	3M™ Rugged Comfort 6581/55886 Head Harness Assembly, Respiratory Protection System Component	20
6582QL/55887	7000128252	3M™ Rugged Comfort 6582QL/55887 Head Harness Assembly, Respiratory Protection System Component	20
6583/55888	7000128253	3M™ Rugged Comfort Exhalation Valve, 6583/55888 Respiratory Protection System Component	20

3M™ Full Facepiece Respirator Accessories FF-400

Product #	Stock #	Description	Case Qty
FF-400-01	7000052734	Buckle	30
FF-400-02	7000052735	Button	30
FF-400-03	7100009686	Lens Replacement	5
FF-400-04	7100003369	Head Harness	5
FF-400-05	7000052736	Lens Frame Assembly	5
FF-400-06	7000052737	Comfort Cradle Head Harness Attachment	5
FF-400-07	7000052738	Exhalation Valve Assembly	5
FF-400-09	7000052740	Exhalation Valve Cover	5
FF-400-10	7000029957	Solid Exhalation Valve Cover	5
FF-400-11	7000052741	Nose Cup Assembly	5
FF-400-13	7000052742	Speaking Diaphragm Assembly	5
FF-400-15	7000029958	Lens Cover	100
FF-400-17	7000029959	Semi-Permanent Lens Protector	20
FF-400-25	7000052878	Storage Bag	10

3M™ Half Face Respirator Accessories 7500

Product #	Stock #	Description	Case Qty
7581	7000002157	Head Harness Assembly	20
7582	7000002158	5/Bag	20
7583	7000002159	Inhalation Valve	10

3M™ Respirator Cleaning Wipe 504

Product #	Stock #	Description	Case Qty
504	7000001938	Respirator Cleaning Wipe, Alcohol-Free	500

Powered and Supplied Air

Ergonomic design providing comfort and ease of use over extended periods of time. We've got your back, but you won't feel it.

3M™ High Pressure Loose Fitting Supplied Air Respirators (NIOSH)

Headgear

Respiratory Faceshields

☐ M-105 ☐ M-107

Respiratory Hard Hats

☐ M-305 ☐ M-307

Respiratory Helmets

☐ M-405 ☐ M-407

Integrated Suspension

☐ S-103S White, S/M
☐ S-103L White, M/L

☐ S-133S White, S/M
☐ S-133L White, M/L
☐ S-133SB Blue, S/M
☐ S-133LB Blue, M/L

☐ S-403S White, S/M
☐ S-403L White, M/L

☐ S-433S White, S/M
☐ S-433L White, M/L
☐ S-533S
☐ High Durability, S/M
☐ S-533L High Durability, M/L

Premium Suspension

☐ S-655 Hood Assembly w/inner collar
☐ S-657 Hood Assembly w/inner shroud
☐ S-757 Painter's Hood Assembly w/inner shroud
☐ S-855 Sealed Seam Hood Assembly w/collar
☐ S-857 Sealed Seam Hood Assembly w/inner shroud

☐ W-8100B

Breathing Tube

QRS Connection

☐ BT-20S* / 37309 Small/Medium

☐ V-199* Adapter 37069

☐ BT-20L* / 37310 Medium/Large

☐ BT-30, BT-40

☐ S-955 Adapter

☐ GVP-122

*One V-199 Adapter is included with each BT Breathing Tube

Air Control Device

☐ V-100 Vortex Cooling Heating Assembly

☐ V-200 Vortemp Heating Assembly

☐ V-300 Air Regulating Valve Assembly

Supplied Air Hose

☐ W-9435 – 3/8" High Pressure Hose (25, 50 or 100 ft.)

☐ W-2929 – 3/8" High Pressure Hose (25, 50 or 100 ft.)

Portable Air Purification Panels

☐ 256-02-00 with CO Removal and CO Monitor (50 CFM)

☐ W-2806 (50 CFM) without CO Monitor

☐ W-2808 CO Monitor Retrofit Kit Available

⚠ **WARNING** Note: Headgear, breathing tube, air control valve, and compressed air supply hose are required parts in a NIOSH-approved system. Any NIOSH certification appearing on 3M components is strictly limited to use in an approved air system and only in full accordance with the specifications and limitations under said approval. NIOSH certifies complete assemblies only, not sub-assemblies. *It is the employer's responsibility to ensure that the compressed air used with any supplied air system meets the requirements of the CSA Standard Z180.1.

These respirators help reduce exposure to certain airborne contaminants. Positive pressure respirators are to be used only by qualified persons who are properly trained in their use and maintenance. Use only in accordance with operating and maintenance manuals and the requirements of the authority having jurisdiction in your area. Use of 3M™ Positive Pressure Respirators by untrained or unqualified persons may adversely affect product performance and result in sickness or death. For proper use, each person must first read and understand the operator's manual. For assistance call the 3M Canada Technical Service Centre at 1-800-267-4414.

Experience maximum flexibility as you move from one job to the next

New Levels of Comfort and Simplicity

3M offers an extensive and flexible range of powered and supplied air respirators developed for a wide range of environments, applications and hazards.

These respiratory protective systems offer comfortable, integrated protection against multiple hazards providing respiratory, head, face, eye and hearing protection. Their ease-of-use can improve productivity in the workplace.

1. All 3M™ Versaflo™ Brand Products are light-weight, compact and well-balanced

2. Two-position adjustable airflow feature distributes air where the user wants

3. Multiple size adjustment options allow for a comfortable fit

4. Equipped with automatic flow control, low battery alarm, and low flow alarm

5. QRS (Quick Release Swivel) breathing tubes allow fast and easy connection

6. Provides excellent peripheral and downward vision

7. Easily removable parts allow simple cleaning, maintenance and replacement

8. The air inlet draws air from the bottom of the unit, allowing the wearer to sit without blocking the airflow intake

Powered Air | **Supplied Air**

Powered and Supplied Air

PAPR and Supplied Air respirator assemblies are designed to be used with the components listed on the approval label to form a complete National Institute of Occupational Safety and Health (NIOSH) approved respiratory system or the European System

3M™ Versaflo™ Powered Air Purifying Respirators TR-300

Lighter and Smaller

The 3M™ Versaflo™ PAPR TR-300 is significantly lighter and thinner than past generations of 3M™ Belt-Mounted PAPR units. It also keeps its light weight close to the user's back, reducing the leverage effect that can cause PAPRs to feel heavier. The slim profile is designed for use in tight spaces, and its smooth, contoured outer surfaces are less prone to snagging on nearby objects.

Easy to Use

- Simple, one-button operation
- Two types of alarms — one audible and one LED— alert the user to either a low battery or low airflow, such as when a particle filter is fully loaded

Straightforward Maintenance

- The battery and filter can be changed quickly and easily by hand without the use of tools
- The belt and blower unit have smooth outer surfaces, facilitating fast wipe downs for easier cleaning

Reliable Protection

- Sophisticated electronics keep the factory-calibrated airflow at a nominal 190 lpm (6.7 cfm)

Intelligent Power
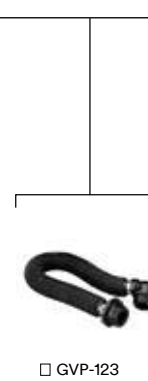
- The lightweight lithium ion battery quickly charges and has no memory effect or heavy metals
- Intelligent chargers help maintain the optimum battery performance and are available in single-station or four-station configurations

Designed for Optimal Usability

- The air inlet design helps make sitting possible without compromising the airflow intake
- A window on the filter cover allows easy identification of the installed filter
- LED lights on the battery itself indicate its charge status on and off the charger
- Intuitive user interface — blue components represent user interface points (i.e. power button, filter cover, battery release)
- Several belt or backpack options available

3M™ Versaflo™ Belt-Mounted Combinations TR-300

Headgear

Respiratory Faceshields
☐ M-105　　☐ M-107

Respiratory Hard Hats
☐ M-305　　☐ M-307

Respiratory Helmets
☐ M-405　　☐ M-407

Full Facepieces
☐ 6700DIN (S)　☐ 7800S (S)**
☐ 6800DIN (M)　☐ 7800S (M)**
☐ 6900DIN (L)　☐ 7800S (L)**

Integrated Suspension
☐ S-103S White, S/M　☐ S-133S White, S/M　☐ S-403S White, S/M　☐ S-433S White, S/M
☐ S-103L White, M/L　☐ S-133L White, M/L　☐ S-403L White, M/L　☐ S-433L White, M/L
　　　　　　　　　　　　　　　　　　　　　　　　　　　☐ S-533S High Durability, S/M
　　　　　　　　　　　　　　　　　　　　　　　　　　　☐ S-533L High Durability, M/L

Premium Suspension
☐ S-655 Hood Assembly w/inner collar
☐ S-657 Hood Assembly w/inner shroud
☐ S-757 Painter's Hood Assembly w/inner shroud
☐ S-855 Sealed Seam Hood Assembly w/collar
☐ S-857 Sealed Seam Hood Assembly w/inner shroud

☐ GVP-123

Breathing Tube

QRS Connection
☐ BT-20S* / 37309 Small/Medium　　☐ V-199* Adapter 37069　　☐ BT-20L* / 37310 Medium/Large　　☐ BT-30, BT-40　　☐ S-955 Adapter Premium Head Suspension

*One V-199 Adapter is included with each BT Breathing Tube.　　**Clip-on Welding Shield also available.

Powered and Supplied Air

TR-300 Particulate PAPR		Filters		Batteries & Chargers	
☐ **TR-300-HIK**	TR-306N, BT-40 Breathing Tube & M-307 Respiratory Hard Hat	☐ **TR-3712N**	Particulate Filter	☐ **TR-330**	Economy Battery
☐ **TR-300-ECK**	TR-307N, BT-30 Breathing Tube and S-655 Hood	☐ **TR-3600**	Optional Prefilter, S-Series, H-Series Hoods/Headcovers only	☐ **TR-332**	High Capacity Battery
☐ **TR-300-HKL**	TR-307N, BT-30 Breathing Tube and S-133L Hood and Storage Bag	☐ **TR-362**	Spark Arrestor/Prefilter, M-Series, L-SG Only	☐ **TR-341N**	Single Station Battery Charger Kit
☐ **TR-300-HKL**	TR-307N, BT-30 Breathing Tube and S-133S Hood and Storage Bag	☐ **TR-3600**	Prefilter	☐ **TR-344N**	4-Station Battery Charger Kit
		☐ **TR-362**	Spark Arrestor	☐ **TR-340**	Battery Charger Cradle
		☐ **TR-325**	Standard Belt	☐ **TR-941N**	Single Station Power Supply
		☐ **TR-326**	High Durability Belt	☐ **TR-944N**	4-Station Power Supply
		☐ **TR-327**	Easy Clean Belt		
		☐ **TR-371**	Filter Cover		
		☐ **TR-970**	Air Flow Indicator		
		☐ **BPK-01**	Backpack		
		☐ **BT-926**	High Temperature Breathing Tube Cover		
		☐ **BT-922**	Clear Breathing Tube Cover		

Modular Respirator Systems European

3M™ Versaflo™ Headcovers and Hoods S-Series

Integrated Suspension	Premium Reusable Suspension

☐ S-133 S/L
☐ S-333G S/L

☐ S-433 S/L
☐ S-533 S/L

☐ S-655
☐ S-657
☐ S-757

☐ S-855E

3M™ Versaflo™ Headtops M-Series

Faceshields	Helmets	Helmets with Shrouds

☐ M-106
☐ M-107

☐ M-306
☐ M-307

☐ M-406
☐ M-407

Breathing Tubes

BT-20 S/L: Lightweight (in two lengths)
BT-30: Self-adjusting
BT-40: Heavy-duty rubber

☐ BT-20 S/L

☐ BT-30*

☐ BT-40

* BT-30 not approved for use with M-400 Headtop/TR-600 Powered Air Turbo combinations. BT-20S/L or BT-40 Breathing Tube should be used.

Powered Air Turbos

Particulate only (nuisance level organic vapour and acid gas options available)	Particulate + Gas & Vapour	Particulate + Gas & Vapour	Intrinsically Safe Particulate + Gas & Vapour

Coming Soon

☐ 3M™ Versaflo™ Powered Air Turbo TR-300

☐ 3M™ Versaflo™ Powered Air Turbo TR-600

☐ 3M™ Jupiter™ Powered Air Turbo

☐ 3M™ Jupiter™ Powered Air Turbo with IS Kit

Filter
☐ Spark Arrestor
☐ Prefilter
☐ P Filter
☐ P/Nuisance Level
☐ Organic Filter
☐ P/Nuisance Level
   Acid Gas (HF up to 10 x
   Thereshold Limit Value)

Battery
☐ Standard battery
☐ High capacity battery

Charger
☐ Single Station Battery
   Charger
☐ 4 Station Battery
   Charger Kit

Filter
☐ Spark Arrestor
☐ Prefilter
   P Filter
☐ P/Nuisance Level
☐ Organic vapour/Acid Gas
☐ A1P Filter
☐ A2P Filter
☐ ABE2K1HgP Filter

Battery
☐ Standard Battery
☐ High Capacity Battery

Charger
☐ Single Station Bat. Charger
☐ 4-Station Bat. Charger Kit

Filter
☐ Prefilter Pads
☐ Particulate P Filters
☐ A1P Filters
☐ ABE2K1 P Filters
☐ ABE1P Filters

Battery
☐ 4 hour Battery
☐ 8 hour Battery
☐ 4 hour IS Battery

Charger
☐ Single Station
   Battery Charger
☐ 10-Station Multi Battery
   Charger

3M Supplied Air Components

Breathing Tube Accessories

◻ BT-922: Disposable Cover
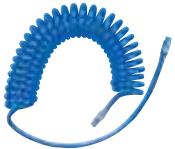◻ BT-926: Flame-resistant Cover

BT-922

Supplied Air Regulators

Air Cooling

◻ 3M™ Versaflo™ Supplied
Air Unit V-100E

Air Heating

◻ 3M™ Versaflo™ Supplied
Air Unit V-200E

Flow Controlled

◻ 3M™ Versaflo™ Supplied
Air Regulator V-500E

Belt unit coupling

◻ 1/4" Rectus   ◻ 1/4" CEJN

Air Supply Tube

◻ Coiled 7.5m   ◻ Standard 10m   ◻ Antistatic 10m   ◻ Standard 20m

Air supply tube coupling set

◻ 3/8" CEJN coupling set

3M™ Aircare™ Filtration Units
(Wall Mounted or Freestanding)

◻ 3/8" Rectus coupling set

◻ ACU03
Wall Mounted

◻ ACU04
Free Standing

3M™ Versaflo™ Powered Air Purifying Respirators TR-600

Protection
The evolutionary 3M™ Versaflo™ Powered Air Purifying Respirator TR-600 reaches new heights of performance with a lithium-ion battery, adjustable airflow options, and an expanded range of NIOSH approved filters and cartridges to help protect against hazards like particulates, organic vapours and acid gases. All this, with the compatibility of 3M™ Versaflo™ Respirator Systems family of products offering available integrated protection for eye, head, hearing, face, skin and respiratory protection.

Versatility
Since every work environment presents a unique set of needs and challenges, customized solutions are a must. The TR-600 is designed to be compatible with multiple configurations of headtops, breathing tubes, batteries, filters, cartridges and more. Choose a system configuration that meets your prioritized needs addressing comfort, cost and performance.

Endurance
The 3M™ Versaflo™ Powered Air Purifying Respirator TR-600 is available with two battery options designed to be both efficient and intuitive. With battery performance lasting between 7 and 19 hours, TR-600 users have long run time. This ultimately results in reduced downtime and increased productivity. Along with power, the battery's on-board fuel gauge helps you to make sure you are always prepared and getting the most out of the battery while on the job.

- LED indicators on the turbo indicate battery charge level, particulate filter loading status and airflow setting
- Low flow and low battery alarms:
  - Visual, Audible and Vibratory
- On-battery fuel gauge
- Vibratory, audible and visual alarms assure you can hear, see and feel when your PAPR has low-charge or low-flow

Comfort
Our powered air purifying respirator systems are designed to endure heavy use and long wear. Workers need a system that keeps them comfortable and protected for their entire day on the job. The robust, lightweight designed 3M™ Versaflo™ Powered Air Purifying Respirator TR-600 has been thoughtfully engineered for comfort – even for the longest shifts.

- Multiple airflow rate options for user comfort (6.5, 7.2 or 8 CFM)
- Ergonomically designed to fit close to the body and allow for greater movement in tight work spaces
- Multiple belt size adjustments and extenders for proper fit and comfort
- Belt designed with flexible air channels to help minimize heat build-up and provide wide, comfortable support

Ease of Use
The 3M™ Versaflo™ Powered Air Purifying Respirator TR-600 features a user-friendly design with intuitive, coloured interactive touch points and visual, vibratory and audible low-flow and low-battery indicators. This lightweight, product features a smooth surface design that's quick and easy to clean and decontaminate.

- Easy tool-free maintenance
- Versaflo blue touch points throughout
- Low-flow and low-battery alarms
- Battery charge and particulate filter loading status indicators
- Meets IP53 rating while in use in decontamination shower. Filter cover must be installed
- Meets IP67 rating with the TR-653 cleaning and storage plugs installed. Use of the TR-653 allows the blower and batteries to be rinsed or submerged for cleaning

3M™ Versaflo™ Headtops M-Series

3M™ Versaflo™ Headtops M-Series offers dependable protection, exceptional comfort and ease of use. The headgear is lightweight, compact, and easy to maintain while helping to provide the wearer with protection from a range of hazards. Their versatility makes them suitable for many applications.

Adjustable Airflow

A built-in air deflector allows users to direct the location of the airflow inside the headgear for increased control and comfort.

Easily Adjustable Suspension

Featuring an articulating ratchet suspension, M-Series products can be easily adjusted for the comfort of each individual user. The smooth ratchet mechanism allows for precise tightening control.

Modern, Well-Balanced, Comfortable Design

Versaflo™ M-Series headgear is lightweight with excellent balance. The suspension includes six-point textile straps (four-point straps for 3M™ Versaflo™ Faceshield M-100) for optimal fit and weight distribution.

Easy Maintenance

Easily removable parts allow simple cleaning, maintenance and replacement.

Clear Visor

Our latest visor design combines excellent peripheral and downward vision with good optical clarity. The coated visor option provides added chemical and scratch resistance. Peel-offs are available to extend the life of the visor.

Versatility

To suit a wide range of needs, industries and applications, Versaflo M-Series headgear offers faceseals, covers and shrouds in a variety of fabrics. Accessories include earmuffs, peel-offs, and a chin strap.

Powered and Supplied Air

3M™ Versaflo Hoods and Headcovers S-Series-Advantages

Easier To Breathe
With powered and supplied air respirators, the breathing effort increases wearer comfort at all times but is especially important during periods of strenuous labour.

Excellent Airflow
S-Series hoods and headcovers direct a comfortable stream of air into the headgear. The moving airflow may make hot environments more tolerable while reducing visor fogging. When used with an approved 3M™ Supplied Air Regulator, the compressed air can be made cooler or warmer by up to 28°C (50°F) for additional comfort.

Sleek Shape
The design of the hoods and headcovers more closely profiles the wearer's head for a more streamlined appearance as compared to other designs that tend to "peak."

Fast Assembly
All S-Series compatible breathing tubes feature the innovative 3M™ Quick Release Swivel (QRS) connection. Simply push the QRS end of the breathing tube into the air inlet of the headgear until it snaps into place. The breathing tube can be quickly removed with only one hand by squeezing the breathing tube clips.

Assigned Protection Factor – APF
The Assigned Protection Factor (APF) is the level of respiratory protection that a respirator or class of respirators is expected to provide. Loose-fitting facepieces/visors have an APF of 25 while hoods/helmets have an APF of 1000. Respirator manufacturers are required to complete testing and provide evidence where an APF of 1000 is claimed. This is accomplished by performing a Workplace Protection Factor Study (WPFS) or Simulated WPFS or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting facepiece/visor respirators, and receive an APF of 25.

Economy

Integrated suspension hoods and headcovers feature wide faceseals with soft elastic for improved comfort and reduced air flow noise. Choose the ready-to-use integrated suspension models for applications where assembly would be too time consuming or impractical.

Premium Reusable Suspension Hoods

Premium reusable suspension hoods can be a very cost-effective choice for some high disposal rate environments — just the soiled hood fabric is replaced, while the suspension and air ducting can be reused. Based on a computer modeling of a worldwide sampling of head sizes, the S-Series suspensions, through their sizing and adjustment options, will comfortably fit more wearers than previous models.

Premium-Only Features:
- The reusable suspension's rigid ducting provides a consistent air path
- An externally-adjustable airflow control allows wearers to modify the airflow distribution to suit personal comfort needs
- While wearing the reusable hood, the airflow may be directed primarily to the front visor or split to provide more airflow to the top of the head
- The suspension has independent adjustments for the crown and head circumference, allowing a comfortable, custom fit for a wide range of head sizes
- An optional size-reducing comfort pad is provided to further extend the range of compatible head sizes

Note: please refer to 3M Tech Data Bulletin 189 for information on liquid permeation.

3M™ Tight Fitting Supplied Air Respirators (NIOSH)

Facepieces

Adapter Kits

Supplied Air Hose

Portable Air Purification Panels

Tight-Fitting Facepieces

☐ 6000 Series Full Facepiece

☐ FF-400 Series Full Facepiece

☐ 7000 Series Half Facepiece

☐ 6000 Series Half Facepiece

☐ 6500QL Series

Standard Kits

Combination Kits

Back-Mounted Adapter Kits
☐ SA-2000 (High Pressure)
☐ SA-2000LP (Low Pressure)

Combination Back-Mounted Adapter Kits
☐ SA-2100 (High Pressure)
☐ SA-2100LP (Low Pressure)

☐ W-9435 – 3/8" High Pressure Hose (25, 50 or 100 ft.)

☐ W-2929 – 3/8" High Pressure Hose (25, 50 or 100 ft.)

☐ 256-02-00 with CO Removal and CO Monitor (50 CFM)

☐ W-2806 (50 CFM) without CO Monitor

☐ Note: W-2808 CO Monitor Retrofit Kit Available

To meet the NIOSH requirement in 42 CFR 84, subpart 84.150 for minimum and maximum airflow (6 to 15 scfm, 170 to 425 lpm), the air control devices approved for use with 3M headgear must be operated within the supply pressure ranges and hose lengths stated in the Use Instructions. Refer to the user instructions for the supply air pressure requirements.

W-2929 high pressure coiled airlines can be used in single lengths of 25, 50, or 100 feet only. No connections are allowed. Refer to the user instructions for the supply air pressure requirements.

W-9435 airline combination options are based on the headtop model selected.

3M™ Supplied Air Respirator System approvals allow you to combine up to three 100-foot lengths of W-9435 or W-9445 hoses. The total combined hose length not to exceed 300 feet (91.4 meters). You may not combine 25 or 50-foot (7.6 or 15.2 meter) lengths of W-9435 and W-9445 hoses. Refer to the user instructions for the supply air pressure requirements.

For all other approved headtops:

3M™ Supplied Air Respirator System approvals allow you to combine up to three W-9435 or W-9445 hoses (25, 50, 100 feet or 7.6, 15.2, 30.5 meters) in any combination not to exceed 300 feet (91.4 meters). Refer to the user instructions for the supply air pressure requirements.

⚠ WARNING Note: Headgear, breathing tube, air control valve, and compressed air supply hose are required parts in a NIOSH-approved system. Any NIOSH certification appearing on 3M components is strictly limited to use in an approved air system and only in full accordance with the specifications and limitations under said approval. NIOSH certifies complete assemblies only, not sub-assemblies.
*It is the employer's responsibility to ensure that the compressed air used with any supplied air system meets the requirements of the CSA Standard Z180.1.

These respirators help reduce exposure to certain airborne contaminants. Positive pressure respirators are to be used only by qualified persons who are properly trained in their use and maintenance. Use only in accordance with operating and maintenance manuals and the requirements of the authority having jurisdiction in your area. Use of 3M™ Positive Pressure Respirators by untrained or unqualified persons may adversely affect product performance and result in sickness or death. For proper use, each person must first read and understand the operator's manual. For assistance call the 3M Canada Technical Service Centre at 1-800-267-4414.

Breathe
IN THE FUTURE

HEADTOP OPTIONS

Providing a multitude of headtop options with more coming.

QUICK RELEASE SWIVEL

Connects quickly to the headgear and swivels to minimize loops and kinks in the breathing tube.

3M™ QUICK RELEASE SWIVEL CONNECTION

ERGONOMICALLY DESIGNED

The unit is thin and close to the body.

SLIM

USER INTERFACE

Easily shows battery status, filter loading and airflow level. Visual, audible and vibratory alarms for low flow, low battery.

CARTRIDGE OPTIONS

Broad range of gas/vapour cartridge options. Can also be used with or without a filter cover.

BATTERY LIFE

Run-time of 7-19 hours depending on setup and air speed.

3M

Welding

Polarized liquid crystals applied to glass darkens at a fraction of a millisecond. Protecting your precious eyesight without compromising the ability to admire your masterpiece.

More than 35 years ago, we went to the shipyards of Sweden to study welders working conditions. We found skilled craftsmen blindly striking arcs as they continually nodded their shields down. From that point on, we committed ourselves to developing tools that would forever improve the world of the welder. From the first groundbreaking auto-darkening welding helmet in 1981 to our current lineup of state-of-the-art welding safety products, we continue to revolutionize your world.

Inspired by your reality

We have a passion for welding and we know the challenges of your profession. We share the passion and pride you put into your welding. So it is natural for us to want to address the ergonomic, safety, and health challenges facing your every day. Your thoughts and opinions are the bottom line in our continuous search for innovation. Inspired by your reality, we shape the future of welding so you can get on with the job of shaping ours.

3M™ Speedglas™ Welding Helmet 9100

3M™ Speedglas™ Welding Helmet Series 9100
– our top-of-the-line safety platform for professional welders

In the product development process for our 4th generation of 3M™ Speedglas™ Welding Helmets, we systematically studied welders to identify global customer needs of a welding helmet. The result was a long list of welding helmet concerns important to the welder, where the three highest ranked became key factors applied in each model within the 3M™ Speedglas™ Welding Helmet Series 9100.

Project start

welders voices

Voice of customer summary
① **Protection** against radiation
② **Comfortable** to wear
③ **Reliable** performance

① **Protection**

① Coverage is key!
Helmet coverage is a concern among many welders. So we made the 9100 series welding helmets deeper and wider, improving coverage of ears, neck and sides of the head from heat and welding sparks. In addition there are several accessories available to extend coverage.

② More comfort, less fog
Less pressure and stable fit means improved comfort: The 9100 high-comfort headband is designed to avoid pressure on vulnerable areas of the head. It also provides several adjustment combinations for maximum personal tailoring and helmet stability.

The 9100 series helmets' improved exhaust vents help reduce heat, humidity and fogging of the welding filter.

3 Reliable performance!

The key to remember with 3M™ Speedglas™ Auto-darkening Welding Filters is consistency. They enable consistent, comfortable viewing and provide protection from ultraviolet (UV) and infrared (IR) radiation, at all times, in all states. They consistently auto-switch from light state to dark state, and back again, to help increase productivity while you weld.

Field trials and quality verifications

Real-world validation of design concepts and international field trials of prototypes are used to verify our products before they are released. Multiple rigourous objective tests are made to ensure all products meet or exceed international safety standards and requirements well before they reach end-users.

2 Comfort

3 Reliability
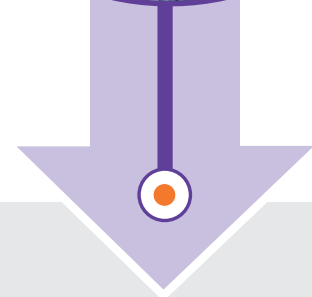
High-performing products for high-performing people

The 3M™ Speedglas™ Welding Helmet Series 9100 includes six welding helmet models offering many options, including flip-up welding shields, safety helmets, and respiratory systems. If you haven't experienced these innovations in welding protection, call your local 3M reseller for a hands-on demonstration.

3M™ Speedglas™ Welding Filter Series 9100

Excellent optics, bigger views

The 3M™ Speedglas™ Welding Filter Series 9100 continues our tradition of outstanding optical quality, including uniform shading and minimal distortion across the entire filter viewing area. By selecting just the right setting for each task, you reduce eye strain and improve the quality of every weld.

- Seven dark shades, including 9–13 (variable), 5 for gas welding/cutting, and 8 for micro-plasma or low-amp TIG.

- Outstanding low-amp TIG performance, even on settings as low as 1 amp.

- Any shade can be "locked-in." For example, you can lock-in the light state shade 3 for grinding.

- Exclusive, innovative tack welding comfort mode which can help reduce eye strain.

Magnification made easy. The magnifying lens holder is built into the welding filter, making lens installation easier and more secure.

Seven user selectable dark shades for most types of arc welding.

Conforms to European Standard EN 379 (Personal Eye-Protection – Automatic Welding Filters) as well as other national standards in USA, Canada, Australia – to name a few.

The 9100 series auto-darkening welding filters include three sizes of viewing areas: regular, large, and extra-large.

The tack welding comfort mode uses an intermediate shade 5 light state to help minimize eye strain during extended tack welding applications.

The Delay function allows you to set the dark-to-light switching time.

You can adjust the sensitivity of the arc detection for unsurpassed switching reliability.

3M™ Speedglas™ Welding Filter 9100XXi

An entire suite of improvements – putting the "i" in 9100XXi

Introducing our new top-of-the-line filter! The 3M™ Speedglas™ Auto-Darkening Welding Filter 9100XXi offers the same extra-large viewing area as our 9100XX welding filter, plus:

- More natural colours

- With a push of an external button, switch between your two memory settings – each with their own dark shade, switching sensitivity, and dark-to-light delay

- On the silver front, external controls for grinding and memory modes

- Auto ON/OFF

- New user interface

- Dark shades 5, 8, 9-13

Watch the video at
www.youtube.com/3MSpeedglas

Or scan this QR-code:

More natural colours
The difference is easy to see. Yes, the light state is still shade 3! But what you see through the filter seems lighter, more detailed and colourful. In fact, the improved welding filter optics can make your entire viewing experience feel more natural.

External controls and memory function
The newly redesigned silver front included in the 3M™ Speedglas™ Welding Filter Kit 9100XXi houses external controls, enabling fast and easy access to the grinding and memory modes. A new motion-sensor instantly turns ON the welding filter when you pick up the helmet.

3M™ Speedglas™ Welding Helmets and Welding Filters

Best***
Better***
Good***
Not Recommended***

Technical specification	3M™ Speedglas™ Welding Helmets 9100, 9100 Air and 9100-QR				3M™ Speedglas™ Welding Helmet 9100 MP	
3M™ Speedglas™ Welding Filter	9100XXi	9100XX	9100X	9100V	9100XXi	9100XX
MMAW (Electrode)						
MIG/MAG						
TIG (>20A)						
TIG (1A-20A)						
Plasma (welding and cutting)						
Risk for hidden arc						
Tack welding						
Grinding (welding filter)						
Grinding (clear visor)	N/A					
Viewing area (welding filter)	73x107 mm		54x107 mm	45x93 mm	73x107 mm	
Battery lifetime	1 800 hours	2 000 hours	2 500 hours	2 800 hours	1 800 hours	2 000 hours
Solar cell	No		Yes		No	
Safety Helmet options	Yes (non air version)				Yes	
Classification	1 / 1 / 1 / 2				1 / 1 / 1 / 2	
Dark state	Shade 5, 8, 9–13				Shade 5, 8, 9–13	
Light state	Shade 3				Shade 3	
UV/IR Protection	Shade 13 (permanent)				Shade 13 (permanent)	
Auto ON	Yes	No			Yes	No
Switching time, light -dark	0,1 ms (+23° C)				0,1 ms (+23° C)	
Memory mode	Yes	No			No	
Delay (switching time, dark-light)	40–800 ms	40–1 300 ms			40–800 ms	40–1 300 ms
SideWindows option	Yes				Yes	
Exhaust vents	Yes (non air version)				N/A	
Number of sensors (arc detection)	3				3	
Approvals Eye and Face protection 　Welding helmet 　Welding filter 　Protection plates 　Visor plate	EN175:B EN 379 EN166:BT* N/A				EN175:B, EN 166 B EN 379 EN166:BT* EN166:BT*	
Approval Head protection 　Safety helmet	440 Vac (3M™ Safety Helmet H-701)				EN 397 440 Vac, LD	
Approval Respiratory Protection / NPF** 　Adflo Powered Air Respirator 　Versaflo V-500 Supplied Air Regulator	with Speedglas welding helmet 9100 Air EN 12941 (TH2) / NPF 50 EN 14594 (3B)/ NPF 200				EN12941(TH3) /NPF 500 EN14594 (3B)/ NPF 200	

	3M™ Speedglas™ Welding Helmet 9100 MP		3M™ Speedglas™ Welding Helmets 9100 FX and 9100 FX Air				3M™ Speedglas™ Welding Helmet Series 100 and 100-QR	
	9100X	9100V	9100XXi	9100XX	9100X	9100V	100V	100S
							N/A	
	54x107 mm	45x93 mm	73x107 mm	73x107 mm	54x107 mm	45x93 mm	44 x 93 mm	
	2 500 hours	2 800 hours	1 800 hours	2 000 hours	2 500 hours	2 800 hours	1 500 hours	
	Yes		No		Yes		No	
	Yes		Yes (non air version)				Yes	
	1 / 1 / 1 / 2		1 / 1 / 1 / 2				1 / 2 / 2 / 2	
	Shade 5, 8, 9–13		Shade 5, 8, 9–13				Shade 8–12	Shade 10 or 11
	Shade 3		Shade 3				Shade 3	
	Shade 13 (permanent)		Shade 13 (permanent)				Shade 12 (permanent)	
	No		Yes	No			No	
	0,1 ms (+23° C)		0,1 ms (+23° C)				0,1 ms (+23° C)	
	No		No				No	
	40–1 300 ms		40–800 ms	40–1 300 ms			40–250 ms	150 or 250 ms
	Yes		Yes				No	
	N/A		Yes (non air version)				No	
	3		3				2	
	EN175:B, EN 166 B EN 379 EN166:BT* EN166:BT*		EN175:B, EN 166:B EN 379 EN166:BT* EN166:BT*				EN 175:B EN 379 EN 166:BT* N/A	
	EN 397 440 Vac, LD		440 Vac (3M™ Safety Helmet H-701)				440 Vac (3M™ Safety Helmet H-701)	
	EN12941(TH3) /NPF 500 EN14594 (3B)/ NPF 200		with Speedglas welding helmet 9100 FX Air EN 12941 (TH3) / NPF 500 EN 14594 (3B)/ NPF 200				N/A	

3M™ Speedglas™ Welding Helmet 9100 MP

Multiple protection features

We've seamlessly integrated five levels of welder protection: head, eye, face, respiratory and hearing into one extraordinarily comfortable and easy-to-use system. The 3M™ Speedglas™ Welding Helmet 9100 MP: uncompromising, all-in-one, welding protection for highly demanding environments.

Speedglas welding filter series 9100 with superior optical performance for continuous viewing comfort.

Two shade 5 passive SideWindows add peripheral welding vision.

A deflector allows users to direct the airflow inside the headtop for increased control and comfort.

A big (17×10 cm), curved, protective visor with excellent views up, down and peripherally. Meets EN 166:BT for high speed particle protection*

Respiratory protection - TH3**

The top shell is made from heat resistance polycarbonate and meets the standard EN 397 for industrial safety helmets. An optional, high-visibility, aluminum fabric reflects hot sunlight and welding heat.

Fully-adjustable suspension that includes textile straps for optimal fit and weight distribution.

The innovative 3M™ Quick Release Swivel (QRS) enables onehanded breathing tube connection and release.

Designed from inception to accept 3M™ Peltor™ Earmuffs.

* European Standards classify this helmet as "B," with resistance to high speed particles at medium energy impact (120 m/s).
** When used with 3M™ Adflo™ Powered Air Respirator.

Designed for ultimate protection

Protecting your eyes and face from radiation, heat and sparks – while providing a precise view of your work
– makes your Speedglas welding helmet 9100 one of your most important welding tools.

reddot design award
best of the best 2009

iF
product
design
award

2009

A selection of welding filters with superior optical performance for continuous viewing comfort. Arc detection down to 1 amp TIG.

High-comfort Speedglas Headband 9100.

Large coverage for ear and side of head.

Ultraviolet (UV) and infrared (IR) protection at all times, in all states.

SideWindows: Shade 5 filters that widen your field of vision.

Exhaled air is channelled out via side exhaust vents.

Meets the requirements of mechanical resistance to high speed particles according to EN 175 class B.

Welding

Exhaust vents readily direct your exhaled air out of the helmet and reduces the likelihood of a foggy welding filter.

61

3M™ Speedglas™ Welding Helmet 9100 Air

Respiratory welding helmet

All of the benefits of the 9100 welding helmets can be used in combination with powered or supplied air respiratory protection.

Speedglas welding filter series 9100 with superior optical performance for continuous viewing comfort.

An airduct that is an integral part of the helmet, providing a refreshing airflow across your entire breathing zone.

High-comfort Speedglas Headband 9100.

Meets the requirements of mechanical resistance to high speed particles according to EN 175 class B.

SideWindows: Shade 5 filters that widen your field of vision.

The new face seal follows the contours of both the helmet and your face.

The innovative 3M™ Quick Release Swivel (QRS) enables one-handed breathing tube connection and release.

Extended protection: A flame-retardant headcover (used in this application) and an ear/neck protection are available as accessories.

Airflow: The middle channel keeps the filter virtually fog-free, while two side channels provide smoothly distributed air to the area of your mouth and nose.

Wider field of view with flip-up front

Speedglas welding helmet 9100 FX, a flip-up combination of an auto-darkening welding helmet and a protective visor. Not only is the viewing area larger compared to previous models, we totally redesigned the geometry of the helmet for a wider field of view in all directions.

SideWindows: Shade 5 filters that widen your field of vision.

Spark- and spatter-retardant fabric head cover.

High-comfort Speedglas headband 9100.

Exhaled air is channelled out via side exhaust vents.

INTERNATIONAL DESIGN EXCELLENCE AWARDS '12
SILVER

reddot design award
winner 2012

100% compatible with our top-of-the-line series of Speedglas welding filter series 9100.

The big, 17×10 cm clear protective visor is curved, increasing your peripherial vision.

Meets the requirements of mechanical resistance to high speed particles according to EN 175:B and EN 166:B.

Welding

Using the safety helmet adapter, you can easily fit many of the industry´s safety helmets with the Speedglas welding helmet 9100 FX.

As additional head and neck coverage there are flame-retardant accessories for protection of molten metal, sparks and flames.

3M™ Speedglas™ Welding Helmet 9100 FX Air

Excellent view and respiratory protection!

For constant TH3-rated respiratory protection and excellent vision in a flip-up model – meet the Speedglas welding helmet 9100 FX Air.

It readily connects both to powered and supplied air respirator systems. See further details of respirator compatibility on page 52.

Meets the requirements of mechanical resistance to high speed particles according to EN 175:B and EN 166:B.

Speedglas welding filter series 9100 with superior optical performance for continuous viewing comfort.

SideWindows: Shade 5 filters that widen your field of vision.

Respiratory protection – TH3*. Low inward leakage means better breathing air quality.

Spark- and spatter-retardant fabric head cover.

High-comfort Speedglas headband 9100.

Secure and stable attachment of breathing tube.

The innovative 3M™ Quick Release Swivel (QRS) enables one-handed breathing tube connection and release.

* When used with 3M™ Adflo™ Powered Air Respirator.

A diffuser spreads out the airflow for your maximum comfort.

A quick lift of the silver front and you get a big, 17×10 cm, clear view – perfect for precision grinding in low light conditions, while maintaining respiratory protection.

High-end features, low-end price

Speedglas welding helmet series 100 allow you to take advantage of excellent optical quality and reliable light-to-dark switching at a highly affordable price.

In addition to the black model, you can choose from several highly expressive graphic helmet designs.

Appropriate for most arc welding processes, including MMA and MIG/MAG. The Speedglas welding filter 100V is also appropriate for high amp TIG welding.

For grinding, lock-in shade 3 light state, only applicable for the Speedglas welding filter 100V.

High impact rating according to the requirements of the European Standard EN 175:B.

The Speedglas welding helmets series 100 is compatible with most 3M™ Disposable Particulate Respirators.

Switching speed (light to dark) of 0.1 ms. The Delay function also allows you to set the dark-to-light opening time.

Speedglas welding filter 100V: five adjustable dark shades 8-12 and a light shade of 3. Three sensitivity settings.

Magnification made easy. The magnifying lens holder is built into the welding filter, making lens installation easier and more secure.

Speedglas welding filters 100S-10 and 100S-11 have single dark shades of 10 and 11, respectively, and a light shade of 3.

Using shades +1 or +2 inner plate covers, you can increase your dark shades accordingly.

Welding

Flexible head protection

The easy-to-use Speedglas welding helmet 100 is the ideal auto-darkening helmet for the occasional welder. We can now offer a new option for head protection with the 3M™ Speedglas™ Quick Release Welding Helmets (QR): The rail swiftly clasps onto your safety helmet via a releasable ratcheting mechanism. With the rail installed, you can easily detach the welding visor so your safety helmet remains in place for non-welding tasks. No more welding without head protection. And no more wearing a welding helmet when you do not need it.

3M™ Speedglas™ Welding Helmet 100-QR

3M™ Adflo™ Powered Air Respirator

Cooler, cleaner and more comfortable welding

Since its launch, 3M™ Adflo™ Powered Air Respirator has become one of the most popular powered air respirators in the world. The Adflo powered air respirator is specifically designed to meet your welding needs. Its continuous airflow provides filtered air that takes much of the heat and sweat out of welding. By using the Adflo respirator, you get both increased protection and comfort all day long.

Full mobility

The slim profile and ergonomic design makes it easier to go into tight welding spaces and offers the quality and functions you should expect from a robust and easy-to-use respiratory protection. The new Li-ion batteries makes it even more lightweight and balanced for even greater comfort during the full shift.

An adaptable system that saves money

With the right type of filter, the Adflo respirator effectively protects you against both particles and gases – all in one system. And you can selectively replace either the particle or the gas filter as needed: you don't need to change both filters at the same time.

Constant flow of clean air

The airflow is always a constant nominal rate of 170 litres per minute, regardless of the battery's charge or the particle loading of the filter. For hot, humid jobs, you can increase the airflow to 200 litres per minute by simply pushing the ON button a second time.

Higher altitudes

For welders working in higher altitude locations, where the regular Adflo respirator might not work properly, there is a special respirator version that adjusts for changes in air density; 3M™ Adflo™ High Altitude Powered Air Respirator. With this version you can work at altitudes between 0–3000 meters above sea level (0–1500 meters with gas filter).

A **Filter cover:** holds the different available Adflo filters

B **Spark arrestor.**

C **Prefilter:** increases the service life of the particle filter.

D **Particle filter:** high efficiency particulate filtration.

E **Gas filter:** (A1B1E1 or A2) captures organic, inorganic and acid gases and vapours. Gas filters sold separately.

F **Odour filter:** removes unpleasant smells (not needed if a gas filter is installed); sold separately.

G **Li-ion battery:** fully charges in 4,5 hours. Expected operating time is 7-9 hours with new particle filter, new fully-charged battery and a standard airflow.

H **Brushless motor:** with an average life three times longer than conventional motors.

I **Filter Indicator:** indicates the status of the particle filter.

Shown here: 3M™ Adflo™ Powered Air Respirator with 3M™ Speedglas™ Welding Helmet 9100 FX Air.

J **Airflow Plus:** for hot, humid jobs, you can increase the airflow from 170 l/min to 200 l/min with the push of a button.

K **Breathing tube:** different options available

L **Exclusive airflow pattern:** evenly distributes filtered air throughout the entire breathing zone of the helmet. The intelligent turbo unit keeps the airflow rate at a constant, preset level. A diffuser spreads out the airflow pattern for your maximum comfort.

M **Soft, flexible face seal (removed here for clarity):** creates a positive pressure environment within the helmet, keeping the surrounding pollutants at bay.

3M™ Speedglas™ Welding Helmet 9100 Air with 3M™ Adflo™ Powered Air Respirator

Ergonomic auto-darkening welding protection with optimal mobility and ease-of-use.

Part no* – Speedglas welding helmet 9100 Air and Adflo respirator, with particle filter:

56 77 05   with Speedglas welding filter 9100V (45 × 93 mm)
56 77 15   with Speedglas welding filter 9100X (54 × 107 mm)
56 77 25   with Speedglas welding filter 9100XX (73 × 107 mm)
56 77 26   with Speedglas welding filter 9100XXi (73 × 107 mm)
56 77 00   without welding filter
50 00 01   Speedglas passive welding filter 9100, shade 11
            (order welding helmet system separately).**

3M™ Speedglas™ Welding Helmet 9100 FX Air with 3M™ Adflo™ Powered Air Respirator

A flip-up combination of an auto-darkening welding helmet and a 17 × 10 cm clear visor for weld preparations. Excellent for low-light conditions and continuous eye, face, TH3-rated respiratory protection.

Part no* – Speedglas welding helmet 9100 FX Air and Adflo respirator with particle filter:

54 77 05   with Speedglas welding filter 9100V (45 × 93 mm)
54 77 15   with Speedglas welding filter 9100X (54 × 107 mm)
54 77 25   with Speedglas welding filter 9100XX (73 × 107 mm)
54 77 00   without welding filter
50 00 01   Speedglas passive welding filter 9100, shade 11
            (order welding helmet system separately). **

3M™ Speedglas™ Welding Helmet 9100 MP with 3M™ Adflo™ Powered Air Respirator

Welding and safety helmet with auto-darkening welding filter and a 17 × 10 cm clear visor for weld preparations. Five levels of welder protection: head, eye, face, respiratory and hearing into one comfortable and easy-to-use system.

Part no* – Speedglas welding helmet 9100 MP and Adflo respirator with particle filter:

57 77 05   with Speedglas welding filter 9100V (45 × 93 mm)
57 77 15   with Speedglas welding filter 9100X (54 × 107 mm)
57 77 25   with Speedglas welding filter 9100XX (73 × 107 mm)
57 77 00   without welding filter
50 00 01   Speedglas passive welding filter 9100, shade 11
            (order welding helmet system separately).**

* For gas protection add any of these part numbers to your order: 83 72 42 for gas filter A1B1E1, or 83 75 42 for gas filter A2. These filters require a breathing tube with silencer (83 40 08) and the heavy-duty battery (83 76 31).
  ** Passive welding filters can work well for welders that perform long continuous welds rather than tack welds. Further details on page 48.

3M™ Versaflo™ Supplied Air Regulator V-500E

Light in weight, with higher airflows

3M™ Versaflo™ Supplied Air Regulator V-500E is a balanced, belt-worn, easy-to-adjust regulator that consistently delivers the airflow level you set – from 170 l/m to 305 l/m. An integrated silencer keeps the noise level equivalent to a typical conversation. The regulator's warning whistle sounds if there is low airflow from the regulator. Air tools can be connected to a port on the regulator without reducing the airflow to your helmet.

The Versaflo regulator V-500E, combined with the 3M™ Speedglas™ Welding Helmets 9100 Air, 9100 FX Air or 9100 MP helmet air delivery system achieves a Nominal Protection Factor (NPF) of 200.

Quick Connections

The belt-mounted regulator connects to an approved breathing tube with a quick release connector system. The airline supply to the regulator must be air of breathable quality meeting the requirement of EN 12021. Oil mist, water vapour, or non-toxic, unpleasant odours in the air supply can be removed with an air cleaning station, such as the 3M™ Filtration Systems ACU-1 and ACU-2.

Welding

3M™ Speedglas™ Welding Helmet 9100 Air with 3M™ Versaflo™ Regulator V-500E

Welding Helmet with auto-darkening welding filter combined with a supplied air regulator.

Part no – Speedglas welding helmet 9100 Air with Versaflo regulator V-500E:

56 85 05 with Speedglas welding filter 9100V (45 × 93 mm).
56 85 15 with Speedglas welding filter 9100X (54 × 107 mm).
56 85 25 with Speedglas welding filter 9100XX (73 × 107 mm).
56 85 26 with Speedglas welding filter 9100XXi (73 × 107 mm).

3M™ Speedglas™ Welding Helmet 9100 FX Air with 3M™ Versaflo™ Regulator V-500E

Welding helmet with auto-darkening welding filter and a 17 × 10 cm clear visor for weld preparations. Excellent for low-light conditions and continuous eye, face and respiratory protection.

Part no – Speedglas welding helmet 9100 FX Air with Versaflo regulator V-500E:

54 88 05 with Speedglas welding filter 9100V (45 × 93 mm).
54 88 15 with Speedglas welding filter 9100X (54 × 107 mm).
54 88 25 with Speedglas welding filter 9100XX (73 × 107 mm).

3M™ Speedglas™ Welding Helmet 9100 MP with 3M™ Versaflo™ Regulator V-500E

Welding helmet with auto-darkening welding filter and a 17 × 10 cm clear visor for weld preparations. Five levels of welder protection: head, eye, face, respiratory and hearing into one system.

Part no – Speedglas welding helmet 9100 MP with Versaflo regulator V-500E:

57 88 00 without welding filter.
57 88 05 with Speedglas welding filter 9100V (45 × 93 mm).
57 88 15 with Speedglas welding filter 9100X (54 × 107 mm).
57 88 25 with Speedglas welding filter 9100XX (73 × 107 mm).

A general guide to respiratory protection

3M offers a wide range of personal respiratory protection, providing unequalled comfort and protection in the toughest conditions.

How to use this guide:

Identify the material to be welded and the welding process to be used. The concentration levels of the pollutants are affected by the ventilation conditions in the workplace. Choose the appropriate description of the working environment to determine the most suitable type of respiratory protection.*

Material to be welded	Welding method	Ventilation conditions of your working environment			
		Good environment, with forced ventilation	Limited ventilation	Restricted space	Classified as IDLH
Aluminium	MIG	P	P / P + A B E	S	Powered and supplied air respirators must never be used in atmospheres Immediately Dangerous to Life or Health (IDLH). Always consult your Safety Engineer.
	TIG	P	P / P + A B E	S	
	STICK WELDING	P	P / P + A B E	S	
Stainless steel	MIG	P	P / P + A B E	S	
	TIG	P	P / P + A B E	S	
	STICK WELDING	P	P / P + A B E	S	
	PLASMA (Welding and Cutting)	P	P + A B E / S	S	
Steel not coated or painted	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel painted (lead based paints)	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel galvanised	MIG/MAG	P	P	S	
	STICK WELDING	P	P	S	
	PLASMA (Welding and Cutting)	P	P / S	S	
Steel coated with 2-component paints or insulated with 2-part polyurethanes (risk of isocyanates)	MIG/MAG	S	S	S	
	STICK WELDING	S	S	S	
	PLASMA (Welding and Cutting)	S	S	S	
Material cleaned with trichloroethylene	MIG	S	S	S	
	TIG	S	S	S	
	STICK WELDING	S	S	S	
	PLASMA (Welding and Cutting)	S	S	S	

* 3M accepts no liability for the incorrect choice of respiratory protective equipment. This chart is only an outline. It is designed to help focus on the most appropriate respirators in the 3M range for particular applications. It should not be used as the only means of selecting a respirator. Details regarding performance and limitations are set out on the respirator packaging and user instructions.

Respiratory filter guide

Code   Type of filter

E   Acid gases.

A   Organic gases, boiling point >65°C.

AX   Organic gases, boiling point <65°C.

P   Particle filter.

B   Inorganic gases.

Remarks

H =   The chemical can be absorbed through the skin.

K =   The chemical can be cancer-inducing.

S =   The chemical can be a sensitizer.

1. Argon and helium are inert gases which are not generally absorbed by canister type filters. These gases are not in themselves hazardous but can displaceoxygen from the air when present in confined spaces.

2. Ozone cannot be filtered from the atmosphere but relies on being converted back to oxygen. Activated carbon of any sort is effective at decomposing ozone. Using gas filter together with particle filter will decompose ozone efficiently. For further information please contact 3M Technical Service at your local 3M office.

3. Chemical constituents of a welding fume with very low Occupational Exposure Limits can pose special hazards and are sometimes best protected against by using a Supplied Air Regulator System. If in doubt, always seek professional advice from your Safety Engineer.

Occupational Exposure Limits (OELs) are given in each individual country's national safety requirements.

Get information for the UK on www.hse.gov.uk

Suggested Filter Type				
Chemical	**Particle**	**Gas**	**Supplied Air**	**Remarks**
Aluminium	P			
Argon			Supplied Air	1
Beryllium	P		Supplied Air	K, S 3
Bromine		B		
Cadmium	P			K
Carbon Dioxide			Supplied Air	
Carbon Monoxide			Supplied Air	
Chlorine		B		H
Chlorine Dioxide		B		
Chromium Hexavalent	P			K
Chromium Trivalent	P			
Copper	P			
Fluorides	P			
Fluorine			Supplied Air	
Helium			Supplied Air	1
Isocyanates			Supplied Air	S
Hydrogen Chloride		B	Supplied Air	3
Hydrogen Cyanide		B	Supplied Air	H3
Hydrogen Fluoride		B	Supplied Air	3
Hydrogen Sulphide		B		
Iron Oxide	P			
Lead	P			
Magnesium	P			
Manganese	P			
Nickel	P			S
Nitrogen Dioxide			Supplied Air	
Nitric Oxide			Supplied Air	
Ozone	P	ABE	Supplied Air	2, K
Phosgene			Supplied Air	3
Phosphine			Supplied Air	
Silicon Dioxide	P			
Sulphur Dioxide		E		
Trichloroethylene		A		K
Vanadium Oxide	P			
White Spirit		A		
Zinc	P			
Zinc Chloride	P			
Zinc Oxide	P			

How ADFs Work

Before:
With the helmet in the safe down position, you have a clear view through the welding filter. Both of your hands are free and the electrode can be precisely positioned.

During:
Within 0,1 milliseconds of the arc strike, the filter has switched to the dark state.

After:
The filter automatically returns to the clear state after welding is complete, allowing your immediate and safe inspection of the weld pool, as well as preparation for the next weld.

Eye protection that increases your performance

The key to remember with 3M™ Speedglas™ Auto Darkening Welding Filters (or ADFs) is consistency. They enable constant, comfortable vision. They provide constant protection from ultraviolet and infrared (UV/IR) radiation. And they consistently auto-switch from clear to dark, and back again, in just the way you want.

Awkward made easier

Speedglas Welding Filters also eliminate the neck-strain of "helmet flipping," while greatly increasing the accuracy of electrode placement. This, in turn, reduces the need for grinding and rework. In addition, you can get into tight, cramped spaces with your eye and face protection already in place. The filters' constant, clear views make even extremely awkward welds a lot easier.
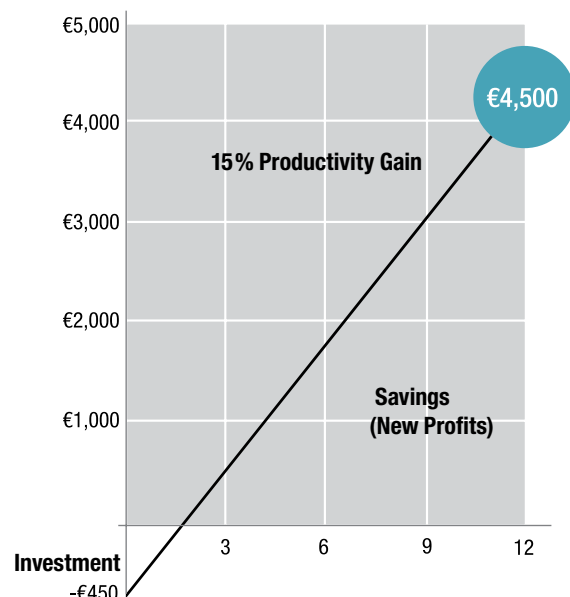
How fast does a 3M™ Speedglas™ Welding Helmet pay for itself?

If profitability is defined in terms of protection, one day is enough. But while "protection" sometimes can be difficult to measure, efficiency and weld quality are much easier to gauge. Studies show that you can increase efficiency substantially when using Speedglas ADFs. Not only can you work faster when you can always see, but you move more efficiently, placing electrodes more precisely.

Most "bad weld starts" can be eliminated. Fewer bad welds mean less grinding and higher overall quality levels.

For example:

Productivity gains are, of course, dependent on the application. If you do lots of tack welds, you will have much greater productivity gains than a welder doing long seam welds. With that said, this example uses a conservative 15% gain in productivity. If cost for salary is € 20 per hour, the welding helmet will pay for itself in two months. In one year, the productivity gain will be € 4500 in savings (also known as new profits).
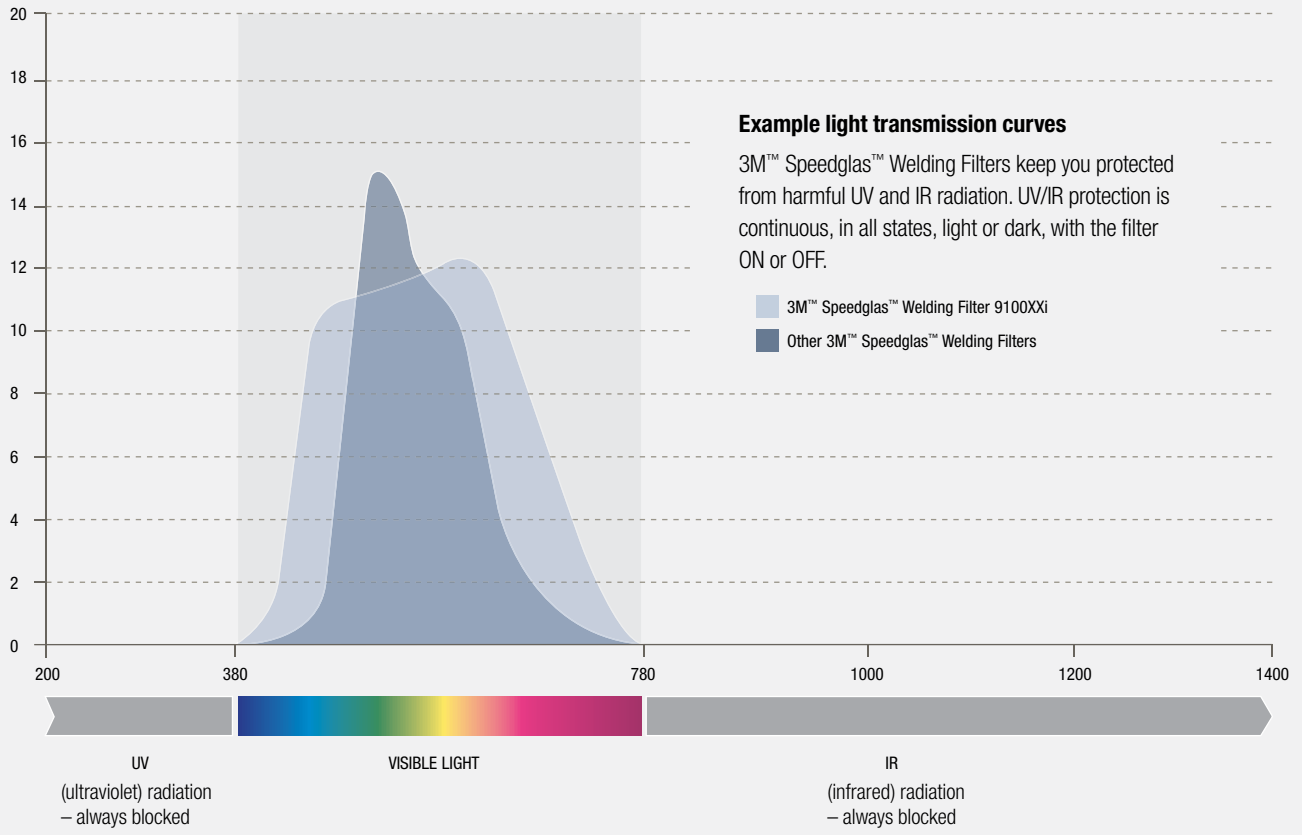
Welding

€4,500

15% Productivity Gain

Savings (New Profits)

€5,000
€4,000
€3,000
€2,000
€1,000

3   6   9   12

Investment
-€450

73

Recommended shad e
numbers according to EN 379:2003

Welding process	Current in amperes A																				
	1.5	6	10	15	30	40	60	70	100	125	150	175	200	225	250	300	350	400	450	500	600
MMA (covered electrodes)			8					9		10		11		12			13			14	
MAG				8					9	10		11			12				13		
TIG				8		9			10			11		12		13					
MIG								9			10		11		12		13		14		
MIG with light alloys											10		11		12		13		14		
Air-arc gouging						10							11	12		13		14		15	
Plasma jet cutting									9	10	11		12			13					
Microplasma arc welding		4	5		6		7	8	9		10		11		12						
	1.5	6	10	15	30	40	60	70	100	125	150	175	200	225	250	300	350	400	450	500	600

The table recommends best dark shade of welding filter for various working applications.
According to the conditions of use, the next greater or the next smaller scale number can be used.

Transmittance (%)

Example light transmission curves

3M™ Speedglas™ Welding Filters keep you protected from harmful UV and IR radiation. UV/IR protection is continuous, in all states, light or dark, with the filter ON or OFF.

- 3M™ Speedglas™ Welding Filter 9100XXi
- Other 3M™ Speedglas™ Welding Filters

UV	VISIBLE LIGHT	IR
(ultraviolet) radiation – always blocked		(infrared) radiation – always blocked

![3M Science. Applied to Life.™]

Hearing Protection

Noise-induced hearing loss is 100% preventable. We recognize that the right fit makes a difference which is why the 3M™ E-A-Rfit Dual-Ear Validation system uses unique dual element microphones to give a precise evaluation of your ears' needs.

Hearing Protection

The Real World Concerns of Hearing Protection

Variable Noise Levels: Every environment is different, and workers can face a wide range of sound levels throughout the day and in different areas at the same facility.

The Human Factor: Each person is physically unique. The key to achieving optimal protection is selecting devices capable of providing a good fit without sacrificing comfort.

Employee Communication: Many employees need to be able to communicate easily with co-workers and listen for workplace warning sounds, while being protected from potentially hazardous noise levels.

What Types of Sounds Require Hearing Protection?

At home and work, it's important to understand which sounds may cause hearing loss and require hearing protection:

Home Scale Decibels (dBA)*

12-Gauge Shotgun	165 dB Peak
Basketball Game Crowd Noise	120
Chainsaw	110
Rock Concert	105
Motorcycle	100
Lawn Mower	90
Vacuum Cleaner	80
Mid-Sized Auto Interior	70
Conversation	60
Floor Fan	50
Refrigerator Hum	40
Rustling Leaves	30
Watch Ticking	20

Scale: 160, 150, 140, 130, 120, 110, 100, 90, 80, 70, 60, 50, 40, 30, 20, 10

Work Scale Decibels (dBA)*

Jet Takeoff	140
Jackhammer	135
Pneumatic Riveter	124
Hammer Drill	114
Tractor / Hand Drill	97
Belt Sander	93
City Traffic	78
Air Conditioning Unit	60
Electrical Transformer	45

Information from 3M Noise Navigator™ Sound Level Database www.3M.com/hearing and National Institute for Occupational Safety and Health (NIOSH) www.cdc.gov/niosh/topics/noise/noisemeter.html

The Solution

3M Detection, Protection and Validation

As a global leader in sound and noise detection, hearing protection and fit test validation, 3M delivers easy and comprehensive tools to help employers solve complex hearing protection challenges.

detection

Accurate Noise Detection. The first step in solving the hearing protection challenge is to measure the noise levels facing your workers. 3M™ Detection Solutions make it easy to measure noise hazards, so you can select the appropriate hearing protection for the application. Our detection instruments deliver accurate and reliable measurements, and 3M™ Detection Management Software makes it easy to report and share data.

Complying with regulations, selecting appropriate hearing protection and analyzing noise control options are all easier with 3M™ Detection Solutions for exposure assessment, noise analysis and employee engagement. 3M's accurate, reliable, and flexible instrumentation coupled with powerful software is the innovative solution for your noise measurement challenge.

protection

Adaptable Hearing Protection. Once you have completed the first step, detecting and monitoring employee noise exposures, it is critical to select hearing protectors that your employees are motivated to wear. 3M has a broad selection of hearing protectors for a wide range of environments. Trouble fitting your earplugs? Need to communicate in noise? Dirty hands? Hot, humid conditions? These are just a few of the many challenges that 3M's innovative products can help you solve. 3M global hearing experts are available for consultation on your specific hearing protection challenge.

3M delivers an unmatched variety of innovative hearing protectors, making it easy for employers to select the right solution for the job. A variety of sizes and materials are available, helping your team determine the right fit for each person, and the right protection for the application. Our innovative products are designed for comfortable, extended wear, and can help your team comply with your hearing protection program.

validation

Fit Test Validation. You have offered hearing protection to your workers. Now, how do you gain confidence they are receiving the hearing protection intended? The 3M™

E-A-Rfit™ Dual-Ear Validation System makes it easier to fit, train and motivate workers and to assess and manage the long-term performance of your hearing conservation program.

The E-A-Rfit Dual-Ear validation system utilizes F-MIRE technology to measure and obtain an objective, quantitative level of employee hearing protection in less than 10 seconds per ear. Workers receive their own personal attenuation rating (PAR) and learn how correctly fitting their hearing protection increases their level of protection. Integrating hearing protector fit testing into your hearing conversation program benefits everyone from new hires to high-risk workers.

Hearing Protection

Detection Products

3M™ Sound Detector SD-200

The 3M™ Sound Detector SD-200 is a compact, lightweight sound level meter designed for measurement of workplace noise levels. Its intuitive design makes it easy for users to measure sound levels and helps determine the attenuation of hearing protection that may be required. The integrating feature computes the average sound pressure level, allowing for more accurate assessment of intermittent sound levels.

- Simple, user-friendly interface; green, yellow and/or red LEDs flash when preset noise levels are reached
- A rechargeable lithium polymer battery operates up to 50 hours between charges
- Average sound pressure level delivers a steady reading where noise levels are highly variable
- Features a Class/Type 2 microphone
- Measures Sound Pressure Level (SPL), Average value (L_{EQ}/L_{AVG}), LED alert Maximum value (MAX), Minimum value (MIN), Run-Time, Overload (OL) and Under-Range (UR)
- Display range is 40 to 130 dB (Dynamic Range)

Stock Number	Abbreviated General Description	Case Qty
70071565520	Sound Detector Kit, USB Cable, Windscreen	1 EA

3M™ Sound Examiner SE-400 Series

The 3M™ Sound Examiner SE-400 series of sound meters is engineered to accurately measure noise levels in highly variable environments. These advanced instruments compute the average sound pressure level (LEQ/LAVG) over the run time and feature user-selectable data logging intervals, helping you to more accurately assess occupational and environmental noise levels.

- Intuitive interface allows for out-of-box use with little training
- Intrinsically Safe models available
- User selectable data logging intervals for download and analysis with 3M™ Detection Management Software
- Averaging functionality allows for easy measurement in variable environments
- Printing capability with optional digital printer provides hard copy documentation in the field
- Choose from models with Class/Type 1 or Class/Type 2 microphones
- SE-401 and SE-402-R models include removable preamp for environmental noise applications

Stock Number	Abbreviated General Description	Case Qty
70071607959	SE-401 Sound Examiner, Type 1 Microphone, Removable preamp	1 EA
70071607942	SE-402 Sound Examiner, Type 2 Microphone	1 EA
70071607954	SE-401-IS Intrinsically Safe Sound Examiner, Type 1 Microphone	1 EA
70071607967	SE-402-IS Intrinsically Safe Sound Examiner, Type 2 Microphone	1 EA

Detection Products

3M™ Edge™ Dosimeters

The 3M™ Edge Dosimeter is a personal noise dosimeter series offers advanced technology packaged in an intrinsically safe, cable-free, compact frame for a lighter, more ergonomic way to monitor noise exposures.

- Comfortable, compact 3-ounce (85 grams) unit mounts easily to the shoulder
- Large display with intuitive easy-to-use interface provides crucial information at a glance
- Edge 5 model offers three independent dosimeters that can simultaneously measure against separate industry standards, all in one compact unit
- LCD display with visual warnings and option to lock out screen
- MSHA, SIRA (ATEX), CSA (U.S./Canada) and Simtars (IECEx) Intrinsic Safety Approvals

Stock Number	Abbreviated General Description	Case Qty
70071579307	Edge 5 Noise Dosimeter with Single Edge Dock	1 EA
70071579273	Edge 4 Noise Dosimeter with Single Edge Dock	1 EA
70071624467	5-Pack Edge 5 Noise Dosimeter and AC-300 Calibrator	1 Kt/Case

3M™ AcoustiCal AC-300 Calibrator

- Type 1 calibrator for use with 3M™ Sound Level Meters and Noise Dosimeters
- Produces two signals: 250 Hz or 1,000 Hz at a sound pressure level of 114 dB
- Fast, simple operation for calibrating in the filed
- Conforms to sound calibrator requirements of IEC 60942 (2003-01) and ANSI S1.40-2006 (R2011)

Stock Number	Abbreviated General Description	Case Qty
70071608296	AcoustiCal AC-300 Calibrator	1 EA

3M™ Detection Management Software (DMS)

DMS works with 3M Detection Solutions Data Logging Instruments to allow for recording, reporting, charting and analyzing exposures to a variety of occupational and environmental hazards. Easy to learn with icon-driven navigation, DMS provides a simplified user experience and a powerful, consistent software platform across multiple sites.

Stock Number	Abbreviated General Description	Case Qty
7007160821	Detection Management Software (DMS)	1 EA

3M™ E-A-Rfit™ Dual-Ear Validation System

Fit testing is key, so make sure you get results you can trust. The 3M™ E-A-Rfit™ Dual-Ear Validation System measures the effectiveness of the earplug from inside the ear, providing accurate quantitative results. And because you can simultaneously test both ears, you'll have more time to educate employees on the importance of fit and compliance.

Features:

- Dual-ear testing
- Fast, clear accurate results
- Earmuff testing capability
- Tests all 7 frequencies
- Seamless software integtration
- Science-based, quantitative testing
- Compact design

3M™ E-A-Rfit™
Dual-Ear Validation System

The E-N-Rfit Dual-Ear validation system is a comprehensive way to test the actual noise reduction workers might receive from their hearing protectors. For more information on this service, please contact your 3M PSD Sales Representative.

NOTE: If your customers wish to have someone at their company trained to become an E-A-Rfit Technician so they can test their own employees, please contact a 3M PSD Sales Representative for more information including kits and training.

These earplug styles cover fit validation testing for more than 80 different 3M earplug products.

E-A-Rsoft™ Yellow Neons™

UltraFit™

Classic™

1100

E-A-Rfit Kit – Validation System includes the Software, Speaker and Impact-Resistant Carrying Case

Product Number	Abbreviated General Description	Case Qty
70071529484	E-A-Rfit Kit-Validation System includes the Software, Speaker and Impact-Resistant Carrying Case	1 KIT
70071562741	E-A-Rsoft Yellow Neons Probed Test Plugs	50 PR
70071562758	UltraFit Probed Test Plugs	50 PR
70071562766	Push-Ins Probed Test Plugs	50 PR
70071562774	Classic Probed Test Plugs	50 PR
7007157772	Model 1100 Probed Test Plugs	50 PR

3M™ E-A-R™ Classic™ Earplugs

Classic earplugs were the industry's first foam earplugs, virtually revolutionizing hearing protection. Today, the revolution continues. It meets more wearer and environmental needs with its proprietary foams, preferred cylindrical shape and proven in-ear comfort.

Dispenser Available

Available with Cord	✓
Moisture Resistant	✓
Reusable	
Metal Detectable	
Slow-Recovery Foam	✓
No Roll-Down Required	

NRR 29 dB*
SNR 28 dB

Stock Number	Abbreviated General Description	Case Qty
70071514940	Classic Earplug Corded	2,000 PR
70071514932	Classic Earplug Uncorded, Poly Bag	2,000 PR

3M™ Foam Earplugs

Get the protection you need from the brand you can trust at an affordable price with 3M 1100 and 1110 earplugs. Soft, hypoallergenic foam and a tapered design help provide a noise-reducing seal in the ear canal. 3M 1100 and 1110 earplugs are easy to roll down, and once inserted in the ear, soften with body temperature for comfortable extended wear.

Available with Cord	✓
Moisture Resistant	
Reusable	
Metal Detectable	
Slow Recovery Foam	✓
No Roll-Down Required	

NRR 29 dB*
SNR 37

Product Number	Abbreviated General Description	Case Qty
70076406312	Foam Earplug Corded	500 PR
70071614104	Foam Earplug One Touch Refill	2,000 PR
70070406304	Foam Earplug Uncorded	1,000 PR

3M™ E-A-Rsoft™ Yellow Neons™ Earplugs

Dispenser Available

E-A-Rsoft Yellow Neons earplugs have a smooth texture for in-ear comfort and are made of an advanced foam formulation for all-day wearabillity. Offered in two sizes to comfortably fit in a wide range of ears, these high attenuation earplugs are good for many different noisy applications. Brightly colored for hearing protection compliance sighting, E-A-Rsoft Yellow Neons earplugs are an excellent choice for any hearing conservation program.

Available with Cord	✓
Moisture Resistant	
Reusable	
Metal-Detectable (311-4106 only)	✓
Slow-Recovery Foam	✓
No Roll-Down Required	

NRR 33 dB*
SNR 36 dB

Stock Number	Abbreviated General Description	Case Qty
70071515129	E-A-Rsoft Yellow Neons Regular Earplug Corded	2,000 PR
70071515020	E-A-Rsoft Yellow Neons Regular Earplug Uncorded	2,000 PR
70071515087	E-A-Rsoft Yellow Neons One Touch Refill	2,000 PR

Disposable Foam Earplugs

3M™ E-A-R™ Metal Detectable Earplugs

All metal detectable earplugs have an integral stainless steel bead encased in the earplug. Ideal for use in food manufacturing industries, when contamination prevention is critical. Available in a variety of comfortable earplug styles to meet most wearer preferences and environmental needs.
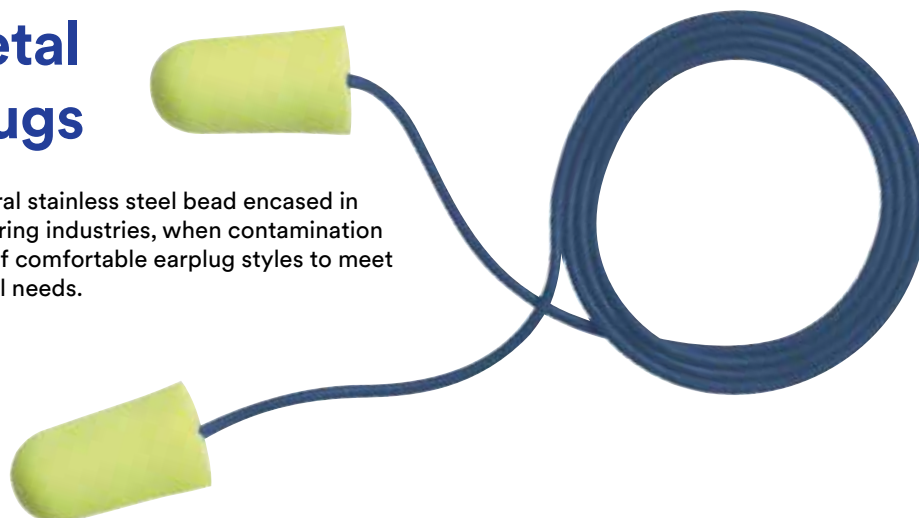
Available with Cord	✓
Moisture Resistant	
Reusable	✓
Metal Detectable	✓
Slow-Recovery Foam	✓
No Roll-Down Required	✓**

NRR & SNR values included in the description box below.

Stock Number	Abbreviated General Description	Case Qty
70071515749	Reusable UltraFit Metal Detectable Earplug with Metal Detectable Cord, NRR 25 dB**, SNR 25 dB	400 PR
70071515731	Reusable UltraFit Metal Detectable Earplug Econopack	2,000 PR

3M™ E-A-R™ Dispensers

3M™ E-A-R™ One Touch™ Pro Earplug Dispenser

Conveniently provide hearing protection where employees need it. The 3M™ One Touch™ Pro Earplug Dispenser dispenses one earplug at a time with a simple twist. No more expense and waste of individually wrapped plugs. Made from ABS plastic with a powder-coated steel-back plate, it's designed for challenging environments — indoors and outdoors.

REFILL BOTTLES

Classic™   Yellow Neons™

1100

Stock Number	Abbreviated General Description	Case Qty
70071674207	One Touch Pro Dispenser	1 EA
70071514882	E-A-R Classic One Touch Refill	2,000 PR
70071515087	E-A-Rsoft Yellow Neons Regular One Touch Refill	2,000 PR
70071614104	3M 1100 Foam Earplug One Touch Refill	2,000 PR

3M™ E-A-R™
Push-to-Fit Earplugs

3M™ E-A-R™ Push-Ins™ Earplugs

No roll-down is required with these earplugs. A gentle push is all it takes for easy, consistent insertion. Blue stem makes insertion and removal easy and helps keep the tips clean when the wearer's hands are dirty. The unique, soft 3M™ E-A-Rform™ Foam Tip is shaped and sized to mold comfortably for most ears.
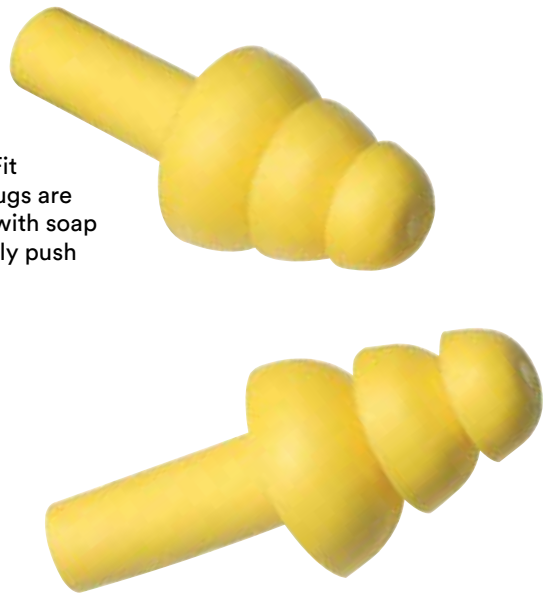
Available with Cord	✓
Moisture Resistant	
Reusable	
Metal Detectable (318-3000 only)	✓
Slow-Recovery Foam	✓
No Roll-Down Required	✓

NRR 28 dB*
SNR 38 dB

Stock Number	Abbreviated General Description	Case Qty
70071520947	Push-Ins Earplug Corded	400 PR
70071515707	Push-Ins Earplug Corded	2,000 PR

3M™ E-A-R™ UltraFit™ Earplugs

A proven triple-flange design and pliable, premolded material make UltraFit earplugs a good option for most ear canals. These durable, reusable earplugs are easy to use again and again, reducing waste. They can be cleaned easily with soap and water. Since there is no need to roll them down before inserting, simply push them into the ears for clean and comfortable noise reduction.

Available with Cord	✓
Moisture Resistant	✓
Reusable	✓
Metal Detectable	✓
Slow-Recovery Foam	
No Roll-Down Required	✓

NRR 25 dB*
SNR 29 dB

Product Number	Abbreviated General Description	Case Qty
70071515798	UltraFit Earplug Corded, with Case	200 PR
70071515772	UltraFit Earplug Corded	400 PR
70071515780	UltraFit Earplug Uncorded	400 PR
70071515749	UltraFit Metal Detectable Earplug Corded, no Case	400 PR

3M™ E-A-R™
Reusable Earplugs

3M™ E-A-R™ Combat Arms™ Reusable Earplugs (CAE) Version 4.1

The 3M E-A-R Combat Arms Reusable earplugs are ideal for highpeak impulse noise in its open mode, and for hazardous levels of of continuous steady-state noise in its closed mode. These products are specially designed for military application for situational awareness and for protection against hazardous continuous noise levels.

Available with Cord	✓
Moisture Resistant	✓
Reusable	✓
Metal Detectable	
Slow-Recovery Foam	
No Roll-Down Required	✓

Product Number	Abbreviated General Description	Case Qty
70071655628	Combat Arms Earplugs 4.1, Small	500 PR
70071655636	Combat Arms Earplugs 4.1, Medium	500 PR
70071655644	Combat Arms Earplugs 4.1, Large	500 PR

Hearing Protection

3M™ E-A-R™
Banded Hearing Protectors

3M™ E-A-Rflex™
Hearing Protectors

A comfortable, effective, lightweight alternative to earmuffs; helps provide excellent noise reduction. Great for people who fit and remove their hearing protection frequently. Soft tips pivot to help maintain a comfortable, noise-blocking seal. Band may be worn in multiple positions.

Moisture Resistant	
Reusable	✓
Metal Detectable	
Slow-Recovery Foam	✓
No Roll-Down Required	✓
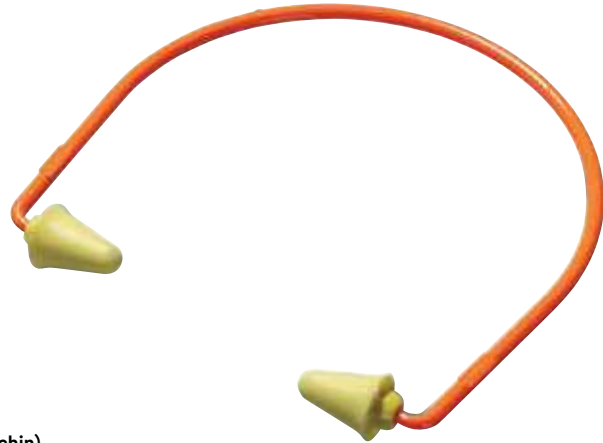
E-A-Rflex 28 Hearing Protector
NRR 28 dB* (band worn under the chin)

E-A-Rflex Hearing Protector with foam Tips
NRR 25 dB* (band worn under the chin, over the head or behind the head)

E-A-Rflex Hearing Protector with UltraFit Tips
NRR 27 dB* (band worn under the chin)
NRR 24 dB* (band worn over the head or behind the head)

Replacement Tips Available

Stock Number	Abbreviated General Description	Case Qty
7007154858	E-A-Rflex Hearing Protector with Foam Tips	100 EA

3M™ E-A-R™ Caboflex™
Hearing Protectors

This lightweight, banded hearing protector is great when moving in and out of high noise areas, fitting comfortably around the neck when not in use. Each cone-shaped tip pivots to align with the ear, providing comfortable hearing protection against noise. Band may be worn under the chin or behind the head.

Replacement Tips Available

Moisture Resistant	✓
Reusable	✓
Metal Detectable	
Slow-Recovery Foam	✓
No Roll-Down Required	✓
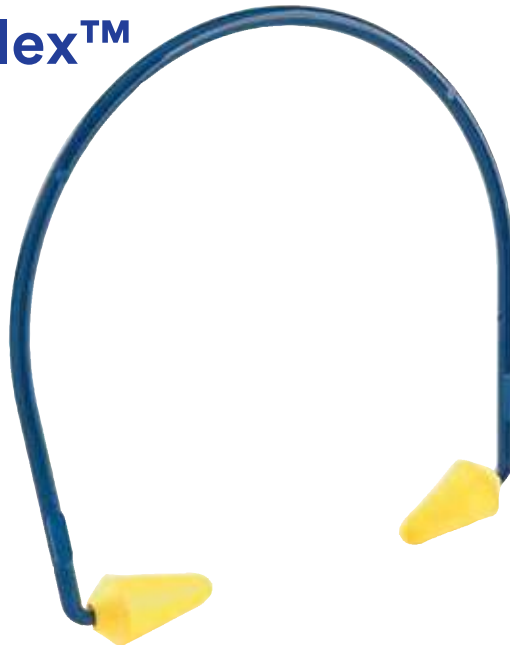
NRR 17 dB*
SNR 21 dB
(behind-the-head)

NRR 20 dB*
SNR 21 dB
(under-the-chin)

Stock Number	Abbreviated General Description	Case Qty
70071514817	Caboflex Model 600 Hearing Protector	100 EA

3M™ E-A-R™
Banded Hearing Protectors

3M™ E-A-Rcaps™ Hearing Protectors

One of the lightest banded hearing protectors on the market, E-A-Rcaps banded hearing protectors feature comfortable foam caps on a flexible band to block the ear canal opening. Great for visitors to a noisy facility or people who need hearing protection for short periods of time.
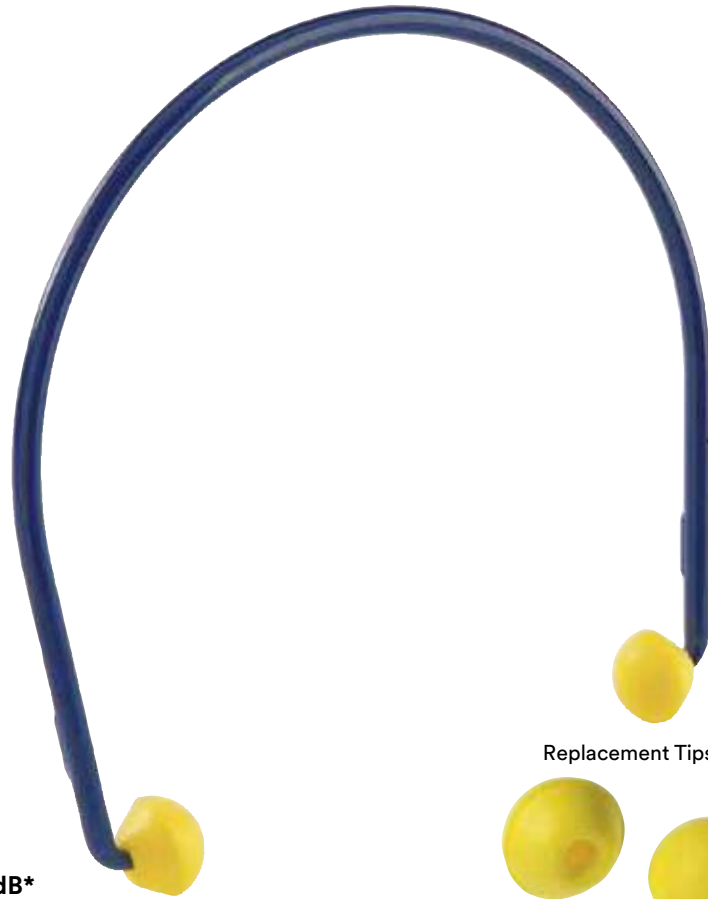
Replacement Tips Available

Moisture Resistant	
Reusable	
Metal Detectable	
Slow-Recovery Foam	✓
No Roll-Down Required	✓

NRR 17 dB*
SNR 23 dB
(band worn under the chin)

Stock Number	Abbreviated General Description	Case Qty
70071514833	E-A-Rcaps Model 200 Hearing Protector	100 EA

3M™ PELTOR™ Earmuffs X Series

X Series earmuffs combine 3M PELTOR's legendary hearing protection knowledge with our most advanced technologies, creating our most comfortable, durable earmuff. A broad range of protection levels make it easier to find the correct level of protection.

Comfort: Internal stainless steel wire headband helps maintain consistent pressure over an 8-hour period for a consistent comfortable fit

Comfort: Twin headband design helps lessen heat build up on top of head

Comfort: Carefully molded plastic guides help make the cup easy to adjust while the earmuff is on the head

Durability: Soft outer cup coating helps protect from abrasion and bumps

Durability: ABS plastic cups are rigid, high strength, and impact resistant

Design: : Modern, sleek design helps promote users to wear them

Protection: Electrically insulated headband** with no exposed wires helps protect from low voltage electrical hazards

Durability: Stainless steel wire core reinforced with hard plastic helps make headband the most durable 3M has to offer

Comfort: Flat, wide headband with soft plastic coating helps provide stable pressure on top of the head for enhanced comfort

Comfort: Designed to optimize weight distribution and balance for outstanding comfort

Comfort: Large space inside ear cups allows for a comfortable fit over a wide range of ear sizes

Comfort: Wide, soft foam ear cushions designed for high comfort and an effective seal with the head

X1-X3 offers a unique color coding system to visually identify the level of protection being worn

NRR 22 dB
SNR 27 dB

NRR 21 dB
SNR 26 dB

X1 - Green
Ultra slim earmuffs for
low noise level environments

NRR 24 dB
SNR 31 dB

NRR 24 dB
SNR 30 dB

X2 - Yellow
Lightweight earmuffs for
low - moderate noise level environments

NRR 28 dB
SNR 33 dB

NRR 25 dB
SNR 32 dB

X3 – Red
High protection earmuffs for
moderate - high noise level environments

Stock Number	Abbreviated General Description	Case Qty
XA007707830	Over-the-Head Earmuff - X1	10 EA
XA007707889	Hard Hat-Attached Earmuff - X1 P3E	10 EA
XA007707574	Replacement Hygiene Kit, 1 Pr	10 EA
XA007707848	Over-the-Head Earmuff - X2	10 EA
XA007707897	Hard Hat-Attached Earmuff - X2 P3E	10 EA
XA007707582	Replacement Hygiene Kit, 1 Pr	10 EA
XA007707855	Over-the-Head Earmuff - X3	10 EA
XA007707905	Hard Hat-Attached Earmuff - X3 P3E	10 EA
XA007707590	Replacement Hygiene Kit, 1 Pr	10 EA
UU007831710	X1P5E Electrically Insulated Hard Hat Mounted Ear Muffs	10 EA
UU007831728	X2P5E Electrically Insulated Hard Hat Mounted Ear Muffs	10 EA
UU007830977	X3P5E Electrically Insulated Hard Hat Mounted Ear Muffs	10 EA

3M™ PELTOR™ Earmuffs X4

The X4 combines high attenuation with a sleek, low-profile and light weight design. The fluorescent yellow-green color provides high visibility, while the innovative foam earcup inserts and spacers help boost attenuation while adding little bulk or weight.

- Model X4A features an electrically insulated (dielectric) wire headband**
- Lighter and smaller cup profile than the X3 with nearly the same level of attenuation
- ABS plastic spacer helps increase the level of attenuation while adding little bulk
- Proprietary high density, slow recovery 3M™ E-A-R™ CONFOR™ foam ear cushion helps create higher levels of comfort and attenuation
- Color coded fluorescent yellow-green for ecellent visibility

3M™ PELTOR™ Earmuffs X5

The X5 offers highest earmuff Noise Reduction Rating (NRR) in the market today for very high noise situations. The high attenuation provided by these earmuffs is a result of the combination of specially-formulated foam in the earcups and cushions and the innovative spacer and cup design.

- Model X5A features an electrically insulated (dielectric) wire headband**
- Twin headband design helps reduce heat buildup with good fit and balance
- Combination of new technologies allows for more room inside the earcup, helping provide a more comfortable fit over a wide range of ear sizes
- Despite larger earcups, X5 is lightweight with excellent balance and comfort
- High noise attenuation, NRR 31 dB* in both headband and hard hat-attached models

Stock Number	Abbreviated General Description	Case Qty
XA007707863	Over-the-Head Earmuff - X4	10 EA
XA007707913	Hard Hat-Attached Earmuff - X4 P3E	10 EA
XA007707608	Replacement Hygiene Kit, 1 Pr	10 EA
XA007707871	Over-the-Head Earmuff - X5	10 EA
XA007707921	Hard Hat-Attached Earmuff - X5 P3E	10 EA
XA007707616	Replacement Hygiene Kit, 1 Pr	10 EA
UU007831736	X4P5E Electrically Insulated Hard Hat Mounted Ear Muffs	10 EA
UU007831769	X5P5E Electrically Insulated Hard Hat Mounted Ear Muffs	10 EA

**Electrically-Insulated Headband. The metal components of the X Series standard headband models have been covered by non-conductive material for use in a low voltage electrical hazard (less than 440 V ac). As there are no applicable standards for testing earmuffs against electrical insulating properties, the product has been evaluated at an external laboratory against a modified test method based on EN397:1995. During assessment, the leakage current did not exceed 1.2mA when the external surface of the product made contact with an electrical source. The user must determine the overall suitability of this product for the intended application taking into account any hazards other than noise for which this product is tested.

3M™ PELTOR™ Optime™ 1/95 Earmuff

Optime I/95 Earmuffs offer versatile protection and are very lightweight providing high wearer comfort. They combine a low profile with generous inner depth which makes them easy to combine with other equipment, allowing the ear to rest comfortably.

Electrically Insulated (Dielectric)	✓
Neckband	✓
Folding Headband	✓
Hard Hat Attached	✓
Hi-Viz	✓
Liquid/Foam-Filled Cushions	✓
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001650411	Optime I Earmuff Headband, Yellow, SNR 27 dB	10 EA
XH001650460	Optime I Earmuff Helmet Mounted, Yellow, SNR 26 dB	10 EA
XH001651229	Optime 95 Earmuff Low Profile Over-the-Head Beige Earmuff NRR 21 dB*	10 EA
70071517133	Optime 95 Low Profile Folding Beige Earmuff NRR 21 dB*	10 EA
70071517075	Optime 95 Low Profile Hard Hat Attached Beige Earmuff NRR 21 dB*	10 EA

3M™ PELTOR™ Optime™ 11/101 Earmuff

PELTOR Optime II/101 Earmuff is a suitable choice for environments with substantial industrial noise or construction machinery, airports and agricultural work. The product is also available in a dielectric version without visible metal parts and in Hi-Viz green for workers who need hearing protection and to be extra visible – on road construction sites, airports or other high-risk workplaces.

Electrically Insulated (Dielectric)	✓
Neckband	✓
Folding Headband	✓
Hard Hat Attached	✓
Hi-Viz	✓
Liquid/Foam-Filled Cushions	✓
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001650627	Optime II Earmuff Headband, Green, SNR 31 dB	10 EA
XH001651260	Optime 101 Over-the-Head Green Earmuff NRR 27 dB*	10 EA
XH001651245	Optime 101 Hard Hat Attached Green Earmuff NRR 24 dB*	10 EA
XH001651062	Optime 101 Replacement Hygiene Kit for H7 Type Hearing Protectors	20 KITS

3M™ PELTOR™ Optime™ 111/105 Earmuff

Optime III/105 Earmuff is a high performance hearing protector and has been developed for use in extremely noisy environments. The protection is based on a technology with a double casing minimising resonance in the holder casing resulting in maximum high-frequency attenuation.

Electrically Insulated (Dielectric)	
Neckband	✓
Folding Headband	
Hard Hat Attached	✓
Hi-Viz	✓
Liquid/Foam-Filled Cushions	
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001650833	Optime III Earmuff Headband, Black/Red, SNR 35 dB	10 EA
XH001650841	Optime III Earmuff Neckband, Black/Red, SNR 35 dB	10 EA
XH001650858	Optime III Earmuff Helmet Mounted, Black/Red, SNR 34 dB	10 EA
XH001651187	Over-the-Head Dual Cup Earmuff NRR 30 dB*	10 EA
70071517083	Hi-Viz Over-the-Head Green Dual Cup Earmuff NRR 30 dB*	10 EA
XH001651179	Behind-the-Head Dual Cup Earmuff NRR 29 dB*	10 EA
70071517067	Hard Hat Attached Dual Cup Earmuff NRR 27 dB*	10 EA
XH001651369	Hygiene Kit 1 Pr Cushions/1 Pr Foam Inserts for H10 Series	20 KITS

Hearing Protection

3M

Science.
Applied to Life.™

Communication Solutions

**Sound attenuation with UHF radio transmission to reduce
ear-damaging noise while leaving two-way communications open.
Keeping you protected but accessible.**

3M™ PELTOR™
Communication Headsets

3M™ PELTOR™
Tactical Earplug, TEP-100

The 3M™ PELTOR™ Tactical Earplug helps protect your hearing, helps improve situational awareness, and helps improve communications in challenging environments. Integrated with state-of-the-art level dependent technology the TEP-100 earplug helps provide hearing protection in elevated sound pressure level applications and situational awareness in quiet environments.

- Charging contacts recharge the unit while in the case and provide up to 16 hours of continuous operation
- Intuitive one button operation turns unit on, off, and selects between two amplification settings
- Replaceable communications eartip helps provide hearing protection in noisy environments
- Microphone port is covered and flush to help minimize wind noise disturbances

Level-Dependent Technology	✓
Neckband	
Folding Headband	
Hard Hat Attachment	
Listen Only	✓
Bluetooth® Compatible	
Hygiene Kit	

Stock Number	Abbreviated General Description	Case Qty
70071674389	Tactical Earplug Kit, NRR 23 dB, SNR 30 dB	1 EA

3M™ PELTOR™
PROTAC™ Headsets

This headset helps provide clear, environmental sound and helps make communication easier in noisy environments. The headset amplifies low-level sounbds while suppressing dangerous impulse noise*.

- Ability to be used with portable radios
- Uses deep earcup design and soft ear cushions for extended wear comfort

Level-Dependent Technology	✓
Neckband	✓
Folding Headband	✓
Hard Hat Attachment	✓
Listen Only/Lightweight	
Bluetooth® Compatible	
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
70071523404	PROTAC Communications Headset, Headband NRR 26 dB*, SNR	1 EA

* CAUTION! When worn according to the User Instructions, this hearing protector helps reduce exposure to both continuous noises, such as industrial noises and noises from vehicles and aircraft, as well as very loud impulse noises, such as gunfire. It is difficult to predict the required and/or actual hearing protection obtained during exposure to impulse noises. For gunfire, the weapon type, number of rounds fired, proper selection, fit and use of hearing protection, proper care of hearing protection, and other variables will impact performance. If your hearing seems dulled or you hear a ringing or buzzing during or after any noise exposure (including gunfire), or for any other reason you suspect a hearing problem, your hearing may be at risk. To learn more about hearing protection for impulse noise, visit www.3M.com/hearing.

3M™ PELTOR™ SportTac™ Headsets

Tactical Sport headsets help provide a natural, realistic sound, giving users the fastest shut-off and recovery time of any shooter earmuff we've ever made. Our sound amplification boosts your ability to hear low level environmental sounds, while still instantly limiting dangerous noises, like gunfire, to lower listening levels.

● Contoured cups for better stock-weld and sight picture
● Automatic shut-off (2 hour) to conserve battery life
● Extra set of orange cups (on the 479 version)
● Amplifies low level environmental sounds
● Digital Sound Suppression technology

Level-Dependent Technology	✓
Neckband	
Folding Headband	✓
Hard Hat Attachment	
Listen Only/Lightweight	✓
Bluetooth® Compatible	
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001650049	Tactical Sport Electronic Headset NRR 20 dB*, SNR (Orange Cups also included)	1 EA

3M™ PELTOR™ SportTac™ WS Headset

The WS Tactical Sport headset allows you to better control what you hear – and don't hear. You can easily adjust the volume of surrounding sounds, filter out certain unwanted frequencies and still be protected from harmful noise levels.* The Bluetooth® solution makes it possible for wireless connection to a mobile phone or other device for instant and discreet communication.

● Microphone built into front of right earcup for operational
    use without using the boom microphone
● Environmental listening cup microphone technology
● 2 AAA rechargeable batteries and charger included
● Input sound control and audio limiting technology
    to 82 dB (SPL)

Level-Dependent Technology	✓
Neckband	
Folding Headband	✓
Hard Hat Attachment	
Listen Only/Lightweight	
Bluetooth® Compatible	✓
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH00167684	WS Tactical Sport Communications Headset NRR 20 dB*, SNR	1 EA

3M™ PELTOR™
Lite-Com Plus Headsets

Communication Simplicity, All-in-One Productivity

Enhance employee safety and communication in noisy environments with a 3M PELTOR Lite-Com Two-Way Headsets. It features UHF two-way radio technology integrated into the headset for an all-in-one design simplifying communications between workgroup members. An efficient alternative to conventional portable radios.

Level-Dependent Technology	✓
Neckband	✓
Folding Headband	
Hard Hat Attached	✓
In-Ear	
Liquid/Foam-Filled Cushions	✓
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001680632	Lite-Com Plus Headset Headband Model (NRR 25 dB)	1 EA
XH001680657	Lite-Com Plus Headset Neckband Model (NRR 24 dB)	1 EA
XH001680509	LiteCom Plus, LPD 433, Helmet Attachment (NRR 33 dB)	1 EA
XH001680541	Rechargeable Battery Pack	1 EA
XH001651047	Hygiene Kit	1 KIT
XH001676069	Gel Ear Seals Only - Non Military	1 PR

3M™ PELTOR™
Lite-Com Pro II Headsets

Intrinsically Safe and Programmable

The 3M PELTOR Lite-Com Pro II UHF radio headset offers an intrinsically safe and convenient way to help your team communicate in noisy environments. It features software programmability in order to tailor settings to your specific workplace needs.

Level-Dependent Technology	✓
Neckband	✓
Folding Headband	
Hard Hat Attachment	✓
Listen Only/Lightweight	
Bluetooth® Compatible	
Hygiene Kit	✓

Stock Number	Abbreviated General Description	Case Qty
XH001679923	Lite-Com Pro II Headband Model (NRR 25 dB)	1 EA
XH001679931	Lite-Com Pro II Neckband Model (NRR 26 dB)	1 EA
XH001679949	Lite-Com Pro II Hard Hat Mount Model (NRR 25 dB)	1 EA
XH001680186	Rechargeable Lithium-ion Battery	1 EA
XH001651047	Hygiene Kit	1 KIT
XH001676069	Gel Ear Seals Only - Non Military	1 PR

*Intrinsically safe, Class I, II, III, Division 1, applicable Groups A through G, T4, -20°C≤Ta≤50°C; Intrinsically safe, Class I, Zone 0, AEx ia IIC, T4, -20°C≤Ta≤50°C, hazardous locations.

The safe way to be heard, and get things done

Work never sounded this good

There was a time when wearing hearing protectors meant being isolated and out of contact. Those days are over. Today, the 3M™ Peltor™ Brand of Products offers communication solutions that not only make your working day safer and more efficient, but also much smarter.

To be effective, a hearing protector should be used 100% of the time in noisy environments. Even taking it off for a short time dramatically reduces its effectiveness and greatly increases the risk of hearing damage. 3M™ Communication Solutions Products make it possible for your team to communicate more easily in high-noise areas.

Communication devices are key to both safety and productivity. Integrating a 3M Communication Solution in your work environment will help you communicate more clearly with co-workers while reducing your exposure to potential hazardous noise. Feel free to contact us to discuss a solution to meet your specific needs.

Just what you want to hear

Active control of incoming sounds from your surroundings lets you hear alarm signals and machines, while harmful levels of noise are filtered out by smart electronics.

Music to your ears

Communication with people around you involves using our level-dependent function for ambient listening systems. For longer distances, you have built-in two-way radios and Bluetooth® Connections to mobile phones. Meanwhile all communication options can also be combined with a sound system so you can listen to your favourite streamed music or pod radio, with first-class sound quality.

Function Symbols

To help you understand the functionality of the products you will find below on each product.

 Hearing protection with built-in AM/FM radio

 Hearing protection for communicating with external two-way radio
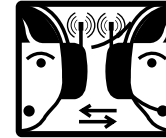
 Hearing protection with built in two-way radio

 Hearing protection with level-dependent function for environmental listening limited to max 82 dB

 Hearing protection with external audio input

 Bluetooth® Technology

3M™ Peltor™ HT Series Listen-Only Headsets

High Performance Protection for High-Noise Environments
The 3M™ Peltor™ HT Series Listen-Only Headset offers clear sound reproduction and communication in high-noise environments. Its durable design provides comfortable, long-term use under tough conditions. A wide selection of connectors enables it to be used with speaker microphones, VHF/UHF radios or personal entertainment devices.

Features and Benefits

- Wide softly-padded headband for all-day comfort
- Deep earcup design for increased ear room
- Earcups with liquid and foam-filled comfort cushions
- Standard 3.5 mm plug connects to a variety of devices including shoulder mics and MP3 players

Product #	Stock #	Description	NRR	Case Qty
HTM79A	7000107776	Headband	25 dB	1
HTM79B	7000107816	Neckband	24 dB	1
HTM79P3E	7000107818	Hard Hat Attached	23 dB	1

*Cables sold separately, refer to accessories page for list of listen-only cable options

3M™ Peltor™ MT Series Two-Way Headsets

An Ideal Choice for Clear, Crisp Two-Way Communication in High Noise Areas
Designed for industrial users working in high noise environments, 3M™ Peltor™ MT Series Two-Way Headsets offer versatility along with hearing protection, durability and comfort.

Features and Benefits

● Soft foam ear cushions

● Noise-canceling boom microphone

● Deep earcup design for extended wear comfort

● FL5000 Series Push-to-Talk (PTT) radio adaptor sold separately

● Direct radio plug in models are available with cup mounted Push-to-Talk (PTT) button

Product #	Stock #	Description	NRR	Case Qty
MT7H79A	7000128200	Headband	25 dB	1
MT7H79B	7000141090	Neckband	24 dB	1
MT7H79P3E	7000128198	Hard Hat Attached	21 dB	1

3M™ Peltor™ TacticalPRO Electronic Headsets

Face-to-face Communication and Hearing Protection for the Workplace
The 3M™ Peltor™ TacticalPRO Electronic Headset features earcup microphone technology for enhanced ambient situational awareness and face-to-face communication in high noise environments. The integrated electronics are designed with a frequency response that amplifies signals, voices and warning sirens while at the same time suppressing potentially hazardous impulse noises.

Features and Benefits

● Power saving feature

● 3-button touchpad configuration

● Rechargeable battery pack sold separately

● Low battery power indicator tones

Product #	Stock #	Description	NRR	Case Qty
MT15H7F SV	7000127260	Headband	26	1
MT15H7B SV	7000127258	Neckband	25	1
MT15HP3E SV	7000127261	Hard Hat Attached	22	1

Mic

3M™ Peltor™ Ora-Tac In-Ear Tactical Communication Headsets

Intelligent Hearing Protection for Improved Situational Awareness
3M Peltor Ora-Tac is the ideal solution for users that need to maintain their ability to hear while wearing an in-ear hearing protection headset. External microphones are powered by talk-thru technology that electronically reproduces sounds and conversations so users don't need to remove the earbuds to communicate. An in-ear microphone transmits voice commands back over the radio when the Push-to-Talk (PTT) button on the ORA-BASE is activated.

Features and Benefits

● Lightweight, compact design can be worn with eyewear, respirators, hard hats, welding helmets and other PPE

● Soft and comfortable earplug tips available

● 2 radio Push-to-Talk (PTT) buttons and talk-thru volume

● Communicate without compromised hearing protection

Product #	Stock #	Description	Case Qty
ORA-BASE-BB	7000128207	In-Ear Headset	1
CON-HT750	7000128152	Motorola HT750 Radios and similar Connector	1
CON-HT1000	7000128151	Motorola HT1000 Radios and similar Connector	1
CON-TRB0	7000128153	Motorola HTRBO Radios (XPR,APX) and similar Connector	1
CON-SDBB	7000128208	Remote Big Button Push-To-Talk (PTT)	1
CON-KNWTK	7000128155	Kenwood Multi-Pin Radio Connector	1
CON-CP200	7000128156	Motorola CP200 Radios and Similar Connector	1
CON-KNWTK	7000128155	Kenwood 2-prong Radio Connector	1

Product #	Stock #	Description	NRR	Case Qty
370-1019-10	7000128201	3M™ Skull Screws Replacement Tips	29 dB	1
420-2097-50	7000128157	3M™ Yellow Classics Replacement Tips	31 dB	1
420-2096-25A	7000128143	3M™ UltraFit Tips Replacement Tips	20 dB	1

3M™ Peltor™ ORA TAC Radio Connector Assemblies and Accessories

Radio Connectors

Replacement Tips,

Remote Big Button

Remote Finger Push-to-Talk (PTT)

3M™ Peltor™ Lite-Com Plus Headsets

Features and Benefits

● Ghost voice menu prompts for easy mode selections

● Operates on a Lithium Ion battery pack.

● Push-to-Talk (PTT) or hands-free Voice-Activated (VOX) transmit functions

● Includes earcup microphone level-dependent function for environmental listening

Product #	Stock #	Description	NRR	Case Qty
MT7H7A4610-NA	7000108560	Headband	25 dB	1
MT7H7B4610-NA	7000108561	Neckband	24 dB	1
MT7H7P3E4310-NA	7000108562	Hard Hat Attached	33 dB	1

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3M™ Peltor™ Lite-Com Pro II Headsets

Intrinsically Safe and Programmable
The 3M™ Peltor™ Lite-Com Pro II Headset Radio offers an intrinsically safe and convenient way to help your team communicate in high noise environments. It features software programmability in order to tailor settings to your specific workplace needs.

Features and Benefits

- Factory Mutual (FM) Approvals certified intrinsically safe*

- Ghost voice menu prompts for easy mode selections

- Push-to-Talk (PTT) or hands-free Voice-Activated (VOX) transmit functions

- Rechargeable lithium-ion battery included

- External earcup microphones offer level-dependent function for environmental listening to max 82 dB

Product #	Stock #	Description	NRR	Case Qty
MT7H7F4010-NA-50	7000108478	Headband	25 dB	1
MT7H7B4010-NA-50	7000108479	Neckband	25 dB	1
MT7H7P3E4010-NA-50	7000108480	Hard Hat Attached	24 dB	1

*Intrinsically safe, Class I, II, III, Division 1, applicable Groups A through G, T4, -20°C≤Ta≤50°C; Intrinsically safe, Class I, Zone 0, AEx ia IIC, T4, -20°C≤Ta≤50°C, hazardous locations.

3M™ Peltor™ Communication Solutions

If there is a need to use mobile phones, 3M™ Peltor™ Products also have headsets with Bluetooth® technology. This feature enables a wireless connection between the headset and mobile phones, or communication radios.

3M™ Peltor™ WS Series ProTac XP Headsets

The 3M Peltor™ WS Series ProTac XP Headsets is an active-hearing protector that features Bluetooth® technology. The Bluetooth® function enables work with both hands free while taking calls via DECT – or mobile phones. The ambient listening function lets the user hear surrounding noise and converse with colleagues. The headset provides effective noise attenuation when sound level is high.

3M™ Peltor™ WS Series XP Headsets

Product #	Stock #	Description	NRR	Case Qty
MT53H7AWS5	7000043582	Headband	31	1
MT53H7BWS5	7000108511	Neckband	30	1
MT53H7P3EWS5	7000108510	Hard Hat Attached	26	1

Product #	Stock #	Description	NRR	Case Qty
MT15H7AWS5	7000147316	Headband	31	1
MT15H7BWS5	7100005691	Neckband	30	1
MT15H7P3EWS5	710005686	Hard Hat Attached	31	1

![3M Science. Applied to Life.™]

Detection Solutions

Area heat stress monitoring using Wet Bulb Globe Temperature (WBGT) sensing technology helps establish work/rest ratios. Protect your workers by understanding your surroundings and worker limitations.

Monitoring Systems

3M™ WIBGET™ Heat Stress Monitor WB-300

The WIBGET monitor's portable and rugged design readily withstands the rigors of the workplace, and its suite of standard heat stress detection features and simple functionality make it a well-suited selection for area heat monitoring.

The WIBGET heat stress monitor performs dry and wet bulb monitoring of outdoor and indoor temperatures, and features a large wet bulb reservoir, shielded dry bulb, and a large LCD display for viewing parameters, including Celsius (C°) and Fahrenheit (F°) scales. The WIBGET heat stress monitor offers long battery operation using a 9-volt disposable battery or the rechargeable Nickel Metal Hydride (NiMH) battery pack option.

Product #	Stock #	Description
WB-300	7000053133	3M™ WIBGET™ Heat Stress Monitor Kit, includes 9V Alkaline Battery, Replacement Wicks, Water Bottle, Verification Module, and Storage Case

Easy, Durable Noise Level Detection

3M™ Noise Indicator NI-100

- Red Flashing LED when noise level exceeds 85 dB

- Green Flashing LED when noise level is below 85 dB

- Rechargeable LI-Poly battery with approx. 200 hours operation before recharge

- Mini-USB cable (sold separately) for recharge

- Small, lightweight, durable with clip – ideal for workers to wear

Product #	Stock #	Description
NI-100	7100010223	3M™ Noise Indicator

Entry Level Sound Meter

3M™ Sound Detector SD-200

- Compact, lightweight sound level meter designed for measurement of workplace noise levels

- Offers an integration feature that computes the average sound pressure level.

- Simple, user-friendly interface

- User selectable LED Alert screen provides visual reference of sound levels with green, yellow and/or red LEDs at preset noise levels

- Rechargeable battery, with up to 50 hours between charges

Product #	Stock #	Description
SD-200	7000002405	3M™ Sound Detector, USB Cable, Windscreen

Science.
Applied to Life.™

Protective Eyewear

Self-adjusting Pressure Diffusion Temple (PDT) Technology diffuses pressure over the ear while securely covering gaps and spaces around the eyes. Weighing in at less than 1 oz., 3M™ SecureFit Safety Eyewear has you protected.

Protective Eyewear

Polycarbonate Lens Selection Guide

This Polycarbonate Lens Selection Guide will help you understand the need for different colour lenses and lens types for industrial applications. It will also help you determine what type of lens is best for your application and environment. There are many lens options other than Clear, Grey and Mirror. When choosing a lens, the basic "rule of thumb" is to consider colour opposites.

Lens Colour/Type	Lens Properties/Use	Suggested Applications/Environments
Clear	Maximum amount of light reaches the eye for good vision and acuity.	General everyday eye protection.
Grey, Bronze	Reduces brightness and glare from the sun.	Mainly for outdoor daytime use as in typical sunglass use.
Mirror & Coloured Mirror	Reduces brightness and glare from the sun.	Mainly for outdoor daytime use as in typical sunglass use.
Indoor/Outdoor	Reduces brightness and glare when working both indoors and outdoors.	For tasks requiring frequent movement indoor to/from outdoor. Loading docks, forklift drivers, construction or similar jobs.
Photochromic	Reduces brightness and glare from the sun and indoor lighting.	Lens darkens when outside and lightens when inside. Do not use for frequent indoor to/from outdoor movement.
Polarized	Reduces brightness and glare from the sun.	Exceptional for reducing reflective glare. Mainly for outdoor use.
Yellow/Amber	Increases contrast, reduces haze from blue lighting, excellent UV protection.	Good for inspection tasks and hazy, overcast or foggy days. Never use for night driving.
Blue	Reduces brightness and glare from indoor lighting.	Very useful to reduce glare, eye stress and fatigue in yellow light environments.
Filter Shades, Green & Grey	Reduces ultraviolet, visible and infrared radiation.	Predominately used for gas welding, cutting, brazing and soldering, metal making, furnace work and open flames.
3M™ MinimIzeR	Reduces ultraviolet, visible and infrared radiation.	Provides good visual sight and acuity while absorbing UV and some IR. Excellent in welding environments.

Mirror & Coloured Mirror   Indoor/Outdoor   Photochromic   Yellow/Amber

Blue   Polarized   Filter Shades Grey & Green   MinimIzeR

Clear   Grey, Bronze

3M has a mission to help you protect your vision

When it comes to eyewear, a comfortable, well-fitted workforce is likely to be more effective – and certainly more compliant with eyewear protection standards. Uncomfortable and improperly fitting eyewear is less likely to be worn, thereby increasing the risk of exposure to eye-related injuries. The Eyewear Fit System, a simple 6-step method designed to help select the best fitting eyewear, can be conducted at your work site on a worker-by-worker basis.

Your Safety in Sight

- Designed to help compare different styles/models of protective eyewear to help select the best fit for a specific individual
- Quick & easy – should only take 10-15 minutes per employee
- Elevates workforce compliance
- Developed exclusively by 3M

4 Elements for optimum fit:

{ Visual Assessment }

1. View
Assessment to ensure the wearer can see in all directions of eye rotation without major obstruction to the field of view that would interfere with visibility to required work tasks.

2. Security
Assessment to ensure the eyewear stays in place on the wearer's head and does not fall off with head movement.

{ Measured Assessment }

3. Coverage
The Coverage Gauge assesses how well the eyewear covers the soft tissue area around the eyes.

4. Gaps
The Gap Gauges help to identify excessive gaps between the eyewear and the face. Large gaps can provide a clear path for flying debris.

6-Step method:

Step 1: Style Protection

Step 2: Ergonomic

Step 3: Assessment

Step 4: Worker Education

Step 5: Ergonomic Re-check

Step 6: Record Keeping

With 3M, there's so much to see – and we don't want you to miss a thing. Contact your 3M Distributor Manager for your 3M™ Eyewear Fit System.

Prescription Eyewear

3M™ Maxim GT Safety Eyewear
Protective eyewear with a lightweight frame and cushioned browguard for added comfort. Metallic grey frame colour, soft black rubber accents and adjustable dual-injected temples with 3-position lens adjustment for day-long comfort.
Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
14246-00000-20	7000052869	Black	Clear Anti-Fog	20
14247-00000-20	7000052870	Black	Grey Anti-Fog	20
14248-00000-20	7000052871	Black	I/O Mirror	20

3M™ Maxim Safety Eyewear
Tough by design, but with a weight of less than an ounce, Maxim safety eyewear has the style, comfort and fit you want and features DuoForm mold processing, elastomeric browguard and temple accents. Dual-aspheric lens provides distortion-free vision.
Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
13250-00000-20	7000052822	Black Adjustable	Clear	20
13251-00000-20	7000052823	Black Adjustable	Bronze	20
13252-00000-20	7000052824	Black Adjustable	I/O Mirror	20

3M™ BX Safety Eyewear and Readers
Adjusts to the workers, instead of workers having to adjust to it. With many adjustable features, BX eyewear helps provide a better fit, which can help workers have a better attitude towards wearing their eyewear. BX readers feature lenses with built-in bifocals available in three different magnification diopters for workers who have difficulty reading small print or who engage in small detail work.
Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Diopter	Case Qty
11380-00000-20	7000052795	Silver/Black	Clear	N/A	20
11381-00000-20	7000052796	Silver/Black	Grey	N/A	20
11471-00000-20	7000052800	Ocean Blue	Clear	N/A	20
11472-00000-20	7000127503	Ocean Blue	I/O Mirror	N/A	20
11523-00000-20	7000127514	Ocean Blue	Light Blue	N/A	20
11524-00000-20	7000127515	Ocean Blue	Light Amber	N/A	20
11525-00000-20	7000052804	Ocean Blue	Grey	N/A	20
Readers					
11374-00000-20	7000127490	Silver/Black	Clear	+1.5	20
11375-00000-20	7000052794	Silver/Black	Clear	+2.0	20
11376-00000-20	7000127491	Silver/Black	Clear	+2.5	20
11377-00000-20	7000127492	Silver/Black	Grey	+1.5	20
11378-00000-20	7000127493	Silver/Black	Grey	+2.0	20
11379-00000-20	7000127494	Silver/Black	Grey	+2.5	20
11473-00000-20	7000127504	Ocean Blue	I/O Mirror	+1.5	20
11474-00000-20	7000052801	Ocean Blue	I/O Mirror	+2.0	20
11475-00000-20	7000127505	Ocean Blue	I/O Mirror	+2.5	20

3M™ Virtua AP Safety Eyewear

3M™ Virtua AP protective eyewear offers sleek, unisex styling, lightweight comfort and exceptional value. It is designed with high-wrap polycarbonate lenses and integrated sideshields to provide comfortable fit and ultimate protection.

Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
11815-00000-20	7000030050	Clear	Grey	20
11816-00000-20	7000030051	Clear	Light Blue	20
11817-00000-20	7000030052	Clear	Amber	20
11818-00000-20	7000030053	Clear	Clear	20
11819-00000-20	7000030054	Clear	Clear	20
11847-00000-20	7000030055	Clear	I/O Mirror	20

3M™ Virtua Protective Eyewear V10

Sport styling look. Adjustable temple lengths. Soft, adjustable nose bridge.

Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
11724-00000-20	7000127524	Grey	Clear	20

3M™ Virtua Cord Control System (CCS) Protective Eyewear with Foam Gasket

Comfortable, lightweight frame features the Cord Control System (CCS) with optional foam gasket attachment. Features a comfortable seal that helps limit eye exposure to nuisance dust while providing additional cushioning.

Compliance: Meets CSA Z94.3-07 and
ANSI Z87.1-2010 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
11872-00000-20	7000128259	Clear Blue	Clear Anti-Fog	20
11873-00000-20	7000128260	Clear Blue	Grey Anti-Fog	20
11874-00000-20	7000128261	Clear Blue	I/O Anti-Fog	20
Readers				
VC215AF	7100046796	Clear Blue	Clear Anti-Fog	20
VC220AF	7100046672	Clear Blue	Clear Anti-Fog	20
VC225AF	7100046673	Clear Blue	Clear Anti-Fog	20

Features Selection Guide

	Lens Tints or Shades								
	Clear	Grey	Bronze	I/O Mirror	Red Mirror	Amber	MinimlzeR	Photochromic	
SAFETY EYEWEAR									
2720	●	●							
2730	●					●			
2740	●	●							
2750	●	●				●			
2820	●	●							
2840	●	●		●		●			
Maxim	●		●	●		●			
Maxim Plus	●								
Maxim Gt		●		●					
2890 Goggles	●								
2800	●					●			
QX	●	●					●		
Maxium Ballistic		●				●			
3M Fahrenheit	●	●				●			
Senitel	●	●				●			
Tour Guard	●								
Seepro Plus	●								
BX	●	●		●		●			
Virtua AP	●	●		●		●			
Virtua	●	●							
Virtua V4	●	●	●	●					
Virtua V6	●		●	●					
Virtua V8	●		●	●					
3M Metaliks		●							
Smart Lense	●								
Secure Fit	●					●	●	●	
Virtua CCS	●	●							
SAFETY GOGGLES									
332 & 334	●								
Centurion	●								
3M Goggle Gear 500	●								
3M Solus 1000	●								
3M Fuel					●				
3M Light Vision 2	●								

PREMIUM · **VALUE PLUS** · **VALUE** · **ECONOMY**

Protective Eyewear

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3M™ OX Safety Eyewear

Over-the-glass" eyewear extends the view, increases" comfort and provides custom fitting and adjustability for .prescription eyewear wearers

Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
12159-00000-20	7000002372	Black	Clear	20
12163-00000-20	7000042891	Black	Clear DX	20
12166-00000-20	7000002373	Black Secure Grip	Clear DX	20

NEW

3M™ SecureFit Protective Eyewear, 400 Series

3M™ SecureFit Protective Eyewear, 400 Series enhances comfort and security of fit with soft adjustable nose pads .and dual injected temples

Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Diopter	Case Qty
SF401AF-CA	7100025848	Clear/Black	Clear Anti-Fog	N/A	20
SF403AF-CA	7100025849	Clear/Black	Amber Anti-Fog	N/A	20
SF404AF-CA	7100025850	Clear/Black	Light Blue Anti-Fog	N/A	20
SF410AS-CA	7100025851	Clear/Black	I/O Anti-Scratch	N/A	20
SF402AF-CA	7000128259	Clear/Black	Grey Anti-Fog	N/A	20
Readers					
SF415AF	7100064146	Clear/Black	Clear Anti-Fog	+1.5	20
SF420AF	7100064148	Clear/Black	Clear Anti-Fog	+2.0	20
SF425AF	7100064147	Clear/Black	Clear Anti-Fog	+2.5	20

3M™ SecureFit Protective Eyewear, 200 Series

3M™ SecureFit Protective Eyewear features proprietary self-adjusting 3M's Pressure Diffusion Temple Technology – a scientific advancement that helps diffuse pressure over the ear, enhancing frame comfort while at the same .time ensuring a secure fit across diverse workforces

Compliance: Meets CSA Z94.3 and ANSI Z87.1 Standards

Product #	Stock #	Frame Colour	Lens Colour	Case Qty
SF201AF-CA	7000128307	Clear	Clear AF	20
SF202AF-CA	7000128308	Grey	Clear AF	20
SF203AF-CA	7000128309	Amber	Amber AF	20
SF201AS-CA	7000128262	Clear	Clear AS	20

3M™ SecureFit™ Comfort Line Spectacles

Sourcing eyewear to securely fit a diverse workforce can be a challenge. 3M Pressure Diffusion Temple Technology enhances fit as temples naturally adjusts to individual head sizes. This can result in enhanced comfort due to less pressure over the ears without compromising security of fit.

This lightweight eyewear weighs just 19g and offers improved features for comfort and style, combatting two of the largest barriers to compliance.

Features and Benefits:

Style
- Sleek, streamline design
- The robust temple design gives great performance and make adjustable features redundant
- Motion inspired, contoured piping in a bold, modern colour palette for an added infusion of style

Premium Protection
- Provides complete impact protection for the orbital region of the eye
- Exceeds the requirements of EN166 clause 7.2.8 Lateral Protection
- Integrated side-shield provides additional protection for surrounding tissues
- Polycarbonate lenses absorb 99.9% of UVA and UVB and meet the requirements of EN166:2001

Comfort
- Features 3M™ Pressure Diffusion Temple Technology
- Constant temple force even with different head sizes
- Reduced frame slippage during workplace head movements
- Self adjusting temples for a secure fit
- Weighs only 19g
- Dual-injected padded temple touchpoints for added comfort over the ears
- Soft, adjustable nosepads for even greater personalisation of fit

3M™ SecureFit™ Comfort Line Spectacles SF402AF-EU
Colour: grey
Lens material: polycarbonate
Optical Class 1
5C-3.1 lens provides UV protection and glare reduction

3M™ SecureFit™ Comfort Line Spectacles SF403AF-EU
Lens colour: amber
Lens material: polycarbonate
Optical Class 1
2C-1.2 lens provides UV protection and good colour recognition and contrast enhancement

3M™ SecureFit™ Comfort Line Spectacles SF401AF-EU
Lens colour: clear
Lens material: polycarbonate
Optical Class 1
2C-1.2 lens provides UV protection and good colour recognition

3M™ SecureFit™ Comfort Line Spectacles SF408AS-EU
Lens colour: Blue Mirror
Lens material: polycarbonate
Optical Class 1 5-3.1 lens provides UV protection and glare reduction

3M™ SecureFit™ Comfort Line Spectacles SF410AS-EU
Lens colour: indoor/outdoor
Lens material: polycarbonate
Optical Class 1
5-1.7 lens provides UV protection and good colour recognition

Protective Eyewear

3M™ Solus™ 1000 Series with 3M™ Scotchgard™ Anti-Fog Coating

NEW

A fogged lens can be frustrating and dangerous. Removing eyewear to wipe away fog can expose eyes to potentially dangerous workplace impact hazards and debris. The Scotchgard™ Anti-Fog Coating resists fogging longer than traditional anti-fog coatings, even after washing multiple times. Try the Solus™ 1000 Series with Scotchgard™ Anti-Fog Coating and see clearly, longer.

Features and Benefits:

Style
- Slim frame
- Colour accented soft temple components for a stylish and modern look

Premium Protection
- Strong PC lenses

3M™ Scotchgard™ Anti-Fog Coating
- Provides scratch resistance and durability
- Provides superior anti-fog and anti-scratch properties, complying with K & N marking requirements of EN166
- Can be disinfected with diluted bleach soaking or alcohol wipes without losing its anti-fog performance

Comfort
- Lightweight
- Soft cushioning on nose bridge
- Inner padding on temples for increased comfort and stability when worn

3M™ Solus™ 1201
Lens colour: clear
Also available in: 3M™ Solus™ 1202 grey
3M™ Solus™ 1203 amber
Lens material: polycarbonate
Frame colour: green/black

3M™ Solus™ 1101
Lens colour: clear
Also available in:
3M™ Solus™ 1102 grey
3M™ Solus™ 1103 amber
Lens material: polycarbonate
Frame Colour: blue/black

3M™ Solus™ 1101 Kit

3M™ Solus™ 1201 Kit

Kits available with clear lens in each frame type. These include a headband and foam insert.

3M™ Goggle Gear 500 Series with 3M™ Scotchgard™ Anti-Fog Coating

NEW

3M™ Goggle Gear 501 has a low profile design, an adjustable headband and optional prescription insert. The goggle is available with a Scotchgard™ Anti-Fog coating which resists fogging longer than traditional anti-fog coatings.

Features and Benefits:

Style
- Modern, slim-line and lightweight design for an excellent fit

Premium Protection
- Optical class 1 lens suitable for prolonged use
- Coating retains its effectiveness even after multiple washings
- Offers excellent protection against UV radiation
- Designed to be worn with 3M Goggle Gear prescription inserts

3M™ Scotchgard™ Anti-Fog Coating
- Provides scratch resistance and durability
- Provides superior anti-fog and anti-scratch properties, complying with K & N marking requirements of EN166
- Can be disinfected with diluted bleach soaking or alcohol wipes without losing its anti-fog performance

Comfort
- Easy-to-adjust elastic Nylon headband for stable and comfortable wear
- Pivoting ratchet for convenient personal adjustment

3M™ Goggle Gear Protective Eyewear 500
Lens colour: clear
Lens material: polycarbonate

Prescription insert
Lens colour: clear
Lens material: polycarbonate

3M™ Maxim™ Hybrid Goggles

The 3M™ Maxim™ Hybrid goggle is a very lightweight, low profile form of eyewear protection that provides the same protection as traditionally styled goggles. It provides high comfort and unsurpassed protection against liquid droplets and mechanical hazards. The slim design offers improved comfort and wearer acceptance.

Features and Benefits:

Style
- Modern and slim design

Premium Protection
- Patented aspherical lens for excellent field of view and superior eye coverage
- High performance ventilation system

Compatible with
- Special design for improved compatibility with other PPE

3M™ Maxim™ Hybrid Goggles
Colour: clear
Lens material: polycarbonate

Available in the following colors

![3M Science. Applied to Life.™]

Head & Face Protection

Lightweight High Density Polyethylene (HDPE) & ABS used to create durable hardhats. Making sure you're covered under any circumstances.

3M™ Hard Hats are available in several colours.

- **Non-Vented hard hats meet the requirements of CSA Z94.1 Approved, ANSI/ISEA Z89.1, Type I, Class C, G, and E.**

- **Vented hard hats meet the requirements of CSA Z94.1 Approved 1ANSI/ISEA Z89.1, Type I, Class C.**

H-701R H-701R-UV H-701V H-701V-UV	H-702R H-702R-UV H-702V H-702V-UV	H-703R H-703R-UV H-703V H-703V-UV	H-704R H-704R-UV H-704V H-704V-UV
WHITE	**YELLOW**	**BLUE**	**GREEN**
H-705R	H-706R	H-708R	H-707R
RED	**ORANGE**	**GREY**	**HI VIS ORANGE**
H-709R	H-710R		
HI VIS YELLOW	**NAVY**		

Product Codes Explained

H-701R code stands for Standard Ratchet Headgear. To add Uvicator to the hard hat add UV to the end of the code. **Example: H-701R-UV**

For a vented hard hat remove the 'R' and add a 'V' to the product code. **Example: H-702V (Yellow vented hard hat)**

For a vented and Uvicator add a VUV to the product code. **Example: H-703V-UV**

3M™ Hard Hats H-700 Series HDPE

- Comfortable 4-point Ratchet or Pinlock suspension system with height adjustment

- Low-profile, short brim design for balance, stability and upward visibility

- Vented and non-vented versions

- Meets the requirements of ANSI 289-1-2009 Type 1, Class C, G and E. (Vented versions are class C only)

- Optional 3M™ UVicator Sensor changes colour from red to white as the hard hat is exposed to UV light, alerting the wearer that it's time for a replacement

- Custom Logo available

3M™ Hard Hats H-800 Series HDPE

- Comfortable suspension sits lower on head to reduce pressure points and increase security, especially when looking up and bending down

- Optimized comfort with 3 levels of adjustment

- Smooth, easy turning ratchet suspension

- 4 and 6-point suspension combinations

- Absorbent brow pad provides comfort and ventilation

- Meets the requirements of ANSI Z89-1-2009 Type 1, Class C, G and E. (Vented versions are class C only)

- Optional 3M™ UVicator Sensor changes colour from red to white as the hard hat is exposed to UV light, alerting the wearer that it's time for a replacement

- Custom Logo available

3M
Science.
Applied to Life.™

Advanced protection from a leader in safety.

The 3M™ Brand is synonymous with innovation and technical precision. We're at the leading edge of head and face protection because we have our ear to the ground. We understand the nuanced needs of different market segments, and we're constantly elevating the standards of personal safety for a wide range of industries.

We design and produce hard hats, Faceshields, combination systems and accessories to meet a diverse spectrum of needs. We're committed to producing consistently reliable, user-friendly products – and that commitment is demonstrated by each offering in our varied catalogue.

Our head and face products help deliver protection, comfort and performance.

3M offers complete solutions for head and face protection. Components can be combined to accommodate the needs of your application or environment.

3M™ Hard Hats

Engineered for extended comfort and durability, cap-style brim and full-brim hard hats work as hard as the people who wear them.

3M™ Faceshields

Designed for industries requiring face coverage, our Faceshields offer reliable protection with versatile features.

Head & Face Protection

**3M™ Peltor™ Visors & Components for
Hard Hat Assembly**

- Snaps easily into any hard hat with universal slots

- Brimless, lightweight protection against particles and liquids

- Unique linkage system for working and standby positions

Product #	Stock #	Description	Case Qty
P3EV/2-10P	7000103847	Hard Hat Attachment	5
V1A	7000103808	Black Matte Metal Visor	10
V1B	7000103809	Black Nylon Mesh Visor	10
V2A	7000103810	Clear Acetate Visor	10
V2B	7000103811	Green Polycarbonate Visor	10
V2C	7000103812	Clear Polycarbonate Visor	10
V4D	7000103816	Multivisor System – Clear Acetate Anti-Fog Visor	10
V4F	7000103817	Multivisor System – Clear Polycarbonate Visor	10
B7F	7000104032	Clear Polycarbonate Visor	10

3M offers versatile headgear-and-visor combinations for reliable everyday protection.

3M™ Headgear for Replaceable Faceshields

- Complete headgear and faceshield unit
- Meets ANSI Z87.1 and CSA Z94.3

Product #	Stock #	Description	Case Qty
82501-00000	7000002290	H8A Deluxe Ratchet Headgear	10
82502-00000	7000002291	H18 Cap Mount Headgear	10
82516-00000	7000052751	H10 Ratchet Headgear With Crown	10

3M™ Headgear System & Cap Mount Headgear

- Say goodbye to metal snaps, cams or bands
- Features a patented, unique system that allows window replacement in seconds
- Meets ANSI Z87.1 and CSA Z94.3
- Moulded replacement stock

Product #	Stock #	Description	Case Qty
82700-00000	7100000260	W96 Clear Propionate Window	10
82701-00000	7000002339	WP96 Clear Polycarbonate Window	10
82702-00000	7000002340	WP96C Dark Green Polycarbonate	10
82525-00000	7000127232	WP96B Medium Green Polycarbonate	10
82543-00000	7000002337	WP98 Clear Polycarbonate, fits HCP8 Clear Chin Protector	10
82582-00000	7000127236	WP96X Clear Large Polycarbonate Window	25

3M™ Headgear and Faceshields Combinations H-Series

Advanced protection from a leader in safety.

The 3M line of headgear and visors are the first line of head and eye defense against heat, debris and chemicals. We designed innovative headgear and visors to be durable and comfortable. The line features several interchangeable pieces for customization. Available features include ratchet suspension, anti-fog coating, multiple Faceshield tint and material options, and easy assembly.

3M™ Headgear and Faceshields

Choose from a range of headgear and visor combinations to build a faceshield that fits your needs. Using headgear H8A, H10, H18, H18P and H24M allows you to choose from multiple styles of Faceshield attachments that work with your working environment. Contact your local 3M Sales Representative or Distribution Relationship Manager.

Visor (Clear, Mesh or Green)
Clear Mesh: W96M, W96MW
Green: WP96BAL, WP96XBAL,
WP96B, WP96C

Impact
WP98, WP96R, WP96X,
WP96, WCP96

Chemical
WA96R, WE96S, WE96X, W96

Specialized
WCP96G, WCP96BG, WCP96CG,
WCP96, WCP96B, WP96IR3,
WP96IR5

3M™ Hard Hat V-Series
Product Combinations

P3EV/2

P3E Ear Muffs

3M™ Hard Hat H-700 Series

The trusted 3M name and our adherence to rigorous safety standards mean that this versatile hard hat is designed to give you superior protection.

Using the 3M™ Hard Hat H-700 and one of the visor and hearing protection attachments allows you to choose from multiple styles of Faceshields that fit your working environment.

Combinations that are versatile, adaptable and durable.
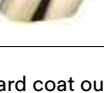
We design and produce hard hats, Faceshields, combination systems and accessories to meet a diverse spectrum of needs.

We're committed to producing consistently reliable, user-friendly products – and that commitment is demonstrated by each offering in our varied catalogue.

Our head, face and hearing products help deliver protection, comfort and performance.

Product H-Series

Technical Details - Faceshields

	Product #	Stock #	Faceshield Material	High Impact	Chemical Resistance	Anti-Glare	Heat Resistance	Size	Case Qty
	82700-00000	7100000260	Clear Propionate		■		210°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82701-00000	7000002339	Clear Polycarbonate	■			266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82582-00000	7000127236	Clear Polycarbonate, Wide	■			266°F	22 cm x 46 cm x 0.1 cm (9" x 18.25" x 0.04")	25
	82581-00000	7000127235	Clear PETG, Wide		■		176°F	22 cm x 46 cm x 0.1 cm (9" x 18.25" x 0.04")	25
	82580-00000	7000127234	Clear PETG, Short		■		266°F	19 cm x 46 cm x 0.1 cm (7.5" x 14.5" x 0.04")	50
	82525-00000	7000127232	Med Green Polycarbonate	■		■	266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82702-00000	7000002340	Dark Green Polycarbonate	■		■	266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82518-00000	7000052706	Med Green Aluminized Polycarbonate	■			266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82600-00000	7000052753	Dual Coated Clear Polycarbonate	■			266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82602-00000	7000127238	Dual Coated Gold Plated Clear Polycarbonate	■			266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10

*Hard coat outside, anti-fog inside. High-heat headgear and aluminized or gold-plated Faceshields reflect heat, with gold being the most reflective.

*Protective safety eyewear must be used with all liftable headgear visors as required by ANSI 287.1 and CSA Z94.3 Eye and Face Protection Standard.

3M offers versatile headgear-and-visor combinations for reliable everyday protection.

Technical Details - Faceshields

	Product #	Stock #	Faceshield Material	High Impact	Chemical Resistance	Anti-Glare	Heat Resistance	Size	Case Qty
	82604-00000	7000127239	Dual Coated Gold Plated Dark Green Polycarbonate	■		■	266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82543-00000	7000002337	Clear Polycarbonate for HCP8 or with CP8 in any Headgear	■			266°F	18 cm x 46 cm x 0.1 cm (7" x 18" x 0.04")	10
	82506-00000	7000127168	Steel Mesh Screen					22 cm x 36 cm (9" x 14.5")	10
	82511-00000	7000127231	Steel Mesh Screen with Clear Acetate Eye Shield					22 cm x 36 cm (9" x 14.5")	10
	82705-10000	7000127240	Impact-Resistant Polycarbonate	■		■	266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10
	82706-10000	7000127241	Impact-Resistant Polycarbonate	■		■	266°F	22 cm x 36 cm x 0.2 cm (9" x 14.5" x 0.08")	10

Accessories – 3M™ Chin Protector

	Product #	Stock #	Faceshield Material	High Impact	Chemical Resistance	Anti-Glare	Heat Resistance	Size	Case Qty
	82542-00000	7000127233	Clear Polycarbonate Chin Protector	■			266°F	N/A	10

*CP8 must be used in conjunction with WP98

*Hard coat outside, anti-fog inside. High-heat headgear and aluminized or gold-plated Faceshields reflect heat, with gold being the most reflective.

*Protective safety eyewear must be used with all liftable headgear visors as required by ANSI 287.1 and CSA Z94.3 Eye and Face Protection Standard.

Head & Face Protection

3M offers versatile headgear-and-visor combinations for reliable everyday protection.

3M™ Safety Helmet G3000 Series (ABS)

The G3000 helmet has been developed and designed in close collaboration with industrial and forestry workers. It is intended for use in harsh environments with tough demands for effective protection. The G3000 has excellent ventilation, good field of vision and is one of few lightweight helmets available on the market today.

Features and Benefits:

3M™ Uvicator™ Sensor
- The disc tells you when it's time to replace your helmet

Ventilation
- Optimised ventilation with lots of ventilation holes

Slim design
- Softly rounded design, which helps to avoid helmet parts snagging on branches etc.

Reversible lining
- Lining that can be rotated 180° allows the helmet to be worn back-to-front which is ideal, for example, when working in tight spaces or climbing

Ratchet headband
- For easier and quicker adjustment

Accessories
- Attachment point for accessories

Sweatband
- Easy to replace for increased comfort Available in plastic or leather

Space for company name
- Surface for printing a logo, brand name, etc.

Short brim
- Short brim giving a broader field of view

3M™ G3000 Series Helmets
Available in 7 colours, with ratchet or pin-lock suspension
Material: UV-stabilised ABS
Colours: yellow, white, orange, red, blue, green and Hi-Viz
Weight: 310g (pin-lock)
334g (ratchet)
Size: 54-62cm for pin-lock version
53-62cm for ratchet version

3M™ Forestry Helmet Combination
Ready-to-use combination for forestry workers
Includes: G3000 helmet, V4CK mesh visor, H31P3E ear muffs, GR3C rain protection

The characteristics of the G3000 helmet are:
Offers excellent protection and approved against EN 397, with the following additional approvals:
- **G3000**
  low temperature, −30°C, and molten metal, MM
- **G3001**
  (unventilated): low temperature, −30°C, molten metal, MM, and electrical insulation 440Vac,
- **G3001 1000V**
  (unventilated): same as G3001 with additional approval according to EN 50365, for electrical insulation at 1000Vac
- **G3000-10**
  (with lamp and cord holder) low temperature, −30°C and molten metal, MM

Protective Apparel

Differential Permeation. Applied to returning you home safely.

At 3M we have a select and high quality range of CE Certified products from CE simple coveralls to PPE Directive Category III Coveralls, which provide protection against many hazards.

The 3M range of Protective Apparel offers a variety of features, from the use of fabrics with specialist treatments for enhanced wear and added protection, to breathable back panels for increased comfort.
Our experts can work closely with you, to help you identify hazards and best protect your workers against them.

Standards

There are many tests and standards that apply to protective coveralls and selection can be a daunting task.
The following section outlines the different options available to help you select the right product for your employees.

Protection Types

Depending on the materials and construction protective coveralls can be designed for either hazardous applications (certified to CE Category III) or non-hazardous applications (approved as CE Simple Category 1). Products for hazardous applications can be tested and certified to any of six different "Type" standards providing guidance on suitability of use:

Category	Symbol	Protection Type	Standard	3M Products
CE Category III		1 – Gas Tight	EN 943-1	N/A
		2 – Non-gas tight	EN 943-1	N/A
		3 – Liquid Jet Protection	EN 14605 + A1	4570
		4 – Liquid Spray Protection	EN 14605 + A1	4570, 4565
		5 – Hazardous Particulate Protection	EN ISO 13982	4570, 4565, 4545, 4540+, 4535, 4532+, 4530, 4520, 4515, 4510
		6 – Liquid Splash Protection	EN 13034 + A1	
CE Category I	CE	CE Simple		4500, 4505

Additional Standards

Some 3M™ Protective Coveralls and their materials are approved to additional standards for specialist applications.

Symbol/Standard	Protection Type
	Protection against micro-organisms or infective agents (EN 14126:2003)
	Protection against nuclear particles (EN 1073-2:2002)
	Anti-static (EN 1149-5:2008)
ISO 15025 / ISO 14116	Limited Flame Spread Resistance
⚠	Where added to the above symbols please refer to the appropriate user instructions for further information on the compliance of this product

Materials

The following is a guide that offers a brief description and comparison of the materials used in 3M's protective coverall range. Base materials can be treated, for instance, with an anti-static treatment, to enhance the total protection offered.

Non-woven Polypropylene
Offers comfortable light-duty protection against nonhazardous liquids and dust.
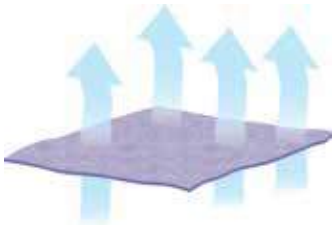
Spunbond-Meltblown Polypropylene (SMS)
'SMS' can be layered differently to adjust the protective and physical properties of the material. Standard SMS-material is very breathable and offers a good barrier against dusts and limited liquid splashes. If treated, as 3M's Protective Coverall 4532+, an enhanced level of splash protection can be achieved.
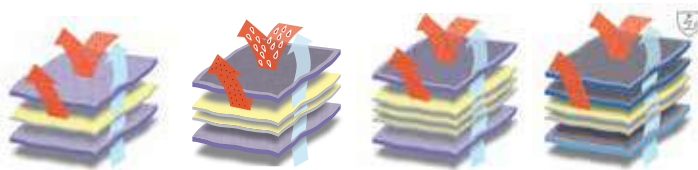
Microporous Laminates
'Microporous laminates' offer a higher level of liquid splash protection, while the micropores allow for some breathability.

Non-microporous Laminates
'Non-microporous laminates' can offer an even higher level of liquid protection. Adding multiple layers of the laminate can also increase robustness and chemical hold.

Design Features
3M™ Protective Coveralls can offer a variety of features depending on your needs. The illustration below highlights some of the features available:

Three panel hood design on most models for compatibility with complementary PPE

Contains no components made from natural rubber latex

Seamless shoulder and sleeve tops for fewer entry points for contaminants and increased comfort

Two-way zipper for on/off convenience

Storm flap on all coveralls to help provide additional protection

Anatomical design and fit for optimal wear, coverage and comfort

Available in a variety of sizes (S-4XL).

Elasticized waist and ankles and knit or elastic cuffs on all models for increased comfort and mobility

- Backed by 3M global technical capabilities and support
- Opportunities for customisation
- 2015 3M Protective Apparel sizing enhancement implemented globally

3M™ Coverall 4500 and 3M™ Coverall 4505

The 3M™ Coverall 4500 and 3M™ Coverall 4505 are CE simple suits designed and suitable for non-hazardous applications.

Whether it is for domestic DIY use, light duty industrial cleaning and maintenance applications or environments where hygiene and cleanliness are important, the 3M™ Coverall 4500 and 3M™ Coverall 4505 are excellent economic solutions to keep the wearer clean or dry.

3M™ Coverall 4500

Key Features:

- Breathable and light duty protection
- Strong, durable 45gsm polypropylene fabric
- Storm flap over zip
- Elasticated hood, cuffs, ankles and waist
- Available in blue and white
- Serged seams

Colour: White, Blue
Protection: CE Simple, Category I
Sizes: S-4XL

Typical Applications: Popular Choice

- Light duty cleaning
- Warehousing
- Janitorial
- Domestic DIY

3M™ Coverall 4505

Key Features:

- Light duty non-hazardous liquid protection
- Thick, laminated material for extra robustness
- Repels water and some non-hazardous oils
- Elasticated hood, cuffs, ankles and waist
- 2-way zip with storm flap
- Serged seams

Colour: White
Protection: CE Simple, Category I
Sizes: M-2XL
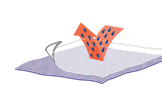
Typical Applications: Popular Choice

- Light duty cleaning
- Warehousing
- Janitorial
- Domestic DIY
- Water-based applications

3M™ Protective Coverall 4510

The 3M™ Protective Coverall 4510 is an economic solution which offers quality and protection from limited chemical splashes such as those from paint spraying and is certified to the PPE Directive Category III, Type 5/6 protection standard. The material is microporous, allowing air and moisture to escape from within the suit, while helping to protect from the hazard on the outside.

Typical Applications

Popular Choice
- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Coating & resin applications
- Crime scene investigation

Suitable for Consideration
- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing & handling toxic powders
- Cleanrooms

Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Laminated microporous material
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Elastic cuffs, waist and ankles for a better fit and freedom of movement
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Biological protection tested to EN 14126

3M™ Protective Coverall 4510 Type 5/6
Colour: White
CE Category III
Sizes: S-4XL

Fabric material
The anti-static treated 3M protective coverall 4510 material is made using a layer of soft, spunbond polypropylene and a layer of light, but high quality anti-static treated polyethylene laminate film giving good levels of barrier efficiency and protection.
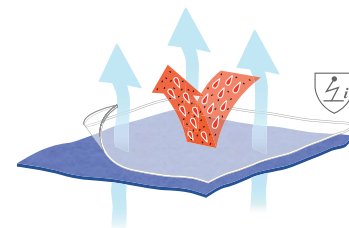
Seam Technology
Seams are serged for Type 5/6 and certain seams bound for extra protection.

3M™ Protective Coverall 4515

Low cost hazardous dust protection
The 3M™ Protective Coverall 4515 is an economic solution to protect from hazardous dusts such as asbestos fibres exposed to during site inspection. While protecting on the outside, the breathable material allows air to escape from the inside to reduce heat build-up and discomfort. Available in white, blue, red and orange, the range is certified to PPE Directive Category III, Type 5/6 protection for both hazardous dusts and liquid splashes.

Typical Applications

Popular Choice
- Asbestos inspection
- Site preparation, insulation
- Construction

Suitable for Consideration
- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance

Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Robust, highly breathable 50gsm SMS material
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Elastic cuffs, waist and ankles for a better fit and freedom of movement
- Low-linting
- Available in white, blue, red and orange

3M™ Protective Coverall 4515 Type 5/6
**Colour:** White, blue, red and orange
CE Category III
Sizes: S-4XL
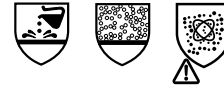
Fabric material
The material used in the 3M protective coverall 4515 sandwiches a single thick filtering layer of melt-blown polypropylene between two thinner layers of softer spun bond polypropylene delivering a finished durable, breathable 50gsm protective material that aides air flow to reduce heat stress and improve comfort.
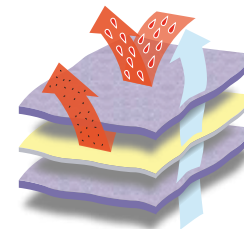
Seam Technology
Seams are serged for Type 5/6 protection.

3M™ Protective Coverall 4520

Made using the latest lightweight, breathable material technology 3M presents the 3M™ Protective Coverall 4520, a PPE Directive Category III, Type 5/6 protective garment.

Typical Applications

Popular Choice
- Asbestos inspection
- Site preparation, insulation
- Pharmaceutical processing and handling toxic powders

Suitable for Consideration
- Asbestos removal
- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance
- Construction work
- Light paint spraying/powder coating

Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- SMMMS material technology for reduced heat stress and breathable comfort all day
- Low-linting
- Extremely lightweight and comfortable compared to many certified coveralls available in the marketplace
- 3-panel elasticated hood for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- 2-way zipper with sealable tab on stormflap for added convenience and extra protection
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

3M™ Protective Coverall 4520 Type 5/6
**Colour:** White with green back panel
CE Category III
Sizes: S-4XL

Latest Material Technology
With 3 layers of melt-blown polypropylene in-between 2 layers of spunbound polypropylene, the 3M protective coverall 4520 fabric has been specifically designed to improve air flow and breathabilty, thereby reducing heat stress and enhancing comfort levels. The middle 3 layers act as a filter to effectively protect against hazardous dust and splash and the outer 2 layers offer strength and durability whilst maintaining a soft, comfortable feel.
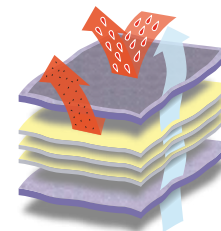
Seam Technology
Seams are serged for Type 5/6 protection.

3M™ Protective Coverall 4520CS

Made using the latest lightweight, breathable material technology 3M presents the 3M™ Protective Coverall 4520CS, a PPE Directive Category III, Type 5/6 protective garment.

With the same premium comfort and protection as the standard 3M protective coverall 4520, but with a standard collar for greater compatibility with Powered and Supplied Air Respirators.

Typical Applications

Popular Choice
- Asbestos inspection
- Site preparation, insulation
- Pharmaceutical processing and handling toxic powders

Suitable for Consideration
- Asbestos removal
- Cement manufacturing
- Grinding & polishing
- Light industrial cleaning
- Machine maintenance
- Construction work
- Light paint spraying/powder coating

Features and Benefits:

- Excellent barrier against dry particles and limited liquid splash (CE Type 5/6)
- SMMMS material technology for reduced heat stress and breathable comfort all day
- Extremely lightweight and comfortable compared to many certified coveralls available in the marketplace
- Low-linting
- Collar standard neck finish for when a hood is not required or interferes with alternative head, face or respiratory protection
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- 2-way zipper with sealable tab on stormflap for added convenience and extra protection
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

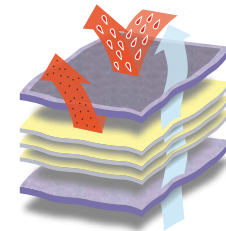**3M™ Protective Coverall 4520CS Type 5/6**
Colour: White with green back panel
CE Category III
Sizes: M-2XL

Latest Material Technology
With 3 layers of melt-blown polypropylene in-between 2 layers of spunbound polypropylene, the 3M protective coverall 4520 fabric has been specifically designed to improve air flow and breathabilty, thereby reducing heat stress and enhancing comfort levels. The middle 3 layers act as a filter to effectively protect against hazardous dust and splash and the outer 2 layers offer strength and durability whilst maintaining a soft, comfortable feel.

Seam Technology
Seams are serged for Type 5/6 protection.

3M™ Protective Coverall 4532+

The 3M™ Protective Coverall 4532+ range is made from a highly breathable and lightweight 5 layered SSMMS material, providing the wearer with CE Category III, Type 5/6 protection with specialist treatments providing anti-static protection and an enhanced liquid repellency.

Typical Applications

Popular Choice
- Metal grinding and polishing
- Oil/greasy environments
- Painting and coating
- Cement manufacturing

Suitable for Consideration
- Light industrial cleaning
- Machine maintenance
- Pharmaceutical processing
- Handling toxic powders
- Resin applications

Features and Benefits:

- Specialist coatings enable this product to be used in many applications not usually suitable for SMS Based coveralls
- SSMMS material, see Fabric Material
- 3-panel elasticated hood for enhanced compatibility with complimentary PPE
- Knitted cuffs and elasticated waist and ankles
- 2-way zipper for added convenience and a storm flap with full sealable tape for extra protection
- Enhanced and reinforced triangular gusset panel to increase product durability
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Low linting
- Available in blue (with a light blue triangle back panel) and Cool white

3M™ Protective Coverall 4532+ Type 5/6
Colour: Blue with with a light blue back panel and Cool white
CE Category III
Sizes: S-4XL

Fabric Material
The 3M protective coverall 4532+ is made using a 52gsm SSMMS, which consists of two outer layers of spunbond polypropylene (SS) encasing two layers of melt-blown polypropylene (MM) and a third layer of spunbond (S) on the underside. The fabric has been specifically designed to be durable whilst enabling air flow thereby reducing heat stress and enhancing wearer comfort. The middle 2 layers act as a filter to effectively protect against noxious dust and splash whilst the outer layers offer strength and increased liquid hold out from the alcohol and oil repellence treatment.

Unique treatment encourages the oil to bead rather than soak through.

Seam Technology
Seams are serged for Type 5/6 and certain seams bound for extra protection.

3M™ Protective Coverall 4535

If you're looking for a balance of protection, durability and additional comfort, look no further than the 3M™ Protective Coverall 4535. Certified to PPE Directive Category III, Type 5/6 protection, it utilises a dual material design with added comfort features to optimise wearer acceptance.

Typical Applications

Popular Choice
- Coating & resin applications
- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Forensics

Suitable for Consideration
- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders

Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Robust, super low-linting laminated microporous material
- Extra large breathable back panel for improved air circulation and reduced heat stress
- 2-way zipper with storm flap for added on-off convenience and extra protection
- Knitted cuffs with elasticated waist and ankles for increased comfort and freedom of movement
- Low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

3M™ Protective Coverall 4535 Type 5/6
**Colour:** White with blue back panel
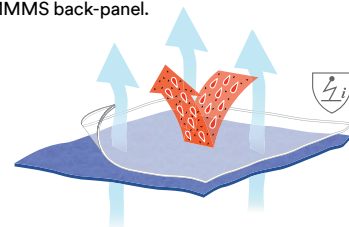CE Category III
Sizes: S-3XL

Fabric Material
The front of the 3M protective coverall 4535 combines a high quality polyethylene laminate providing an excellent barrier, on top of a layer of soft, spunbond polypropylene fibres creating a robust, yet comfortable 55gsm protective fabric. The large blue back panel is made from 5 layers of spunbond and meltblown polypropylene giving excellent breathability, whilst maintaining the Type 5/6 level of protection.
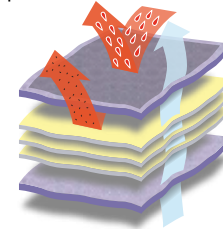
SMMMS back-panel.

Microporous laminate fabric.

Seam Technology
Seams are serged for Type 5/6 and certain seams bound for extra protection.

3M™ Protective Coverall 4540+

With premium dual material technology and offering CE Category III, Type 5/6 protection, the 3M™ Protective Coverall 4540+ is ideal for applications where both high levels of protective performance and comfort are desired.

Typical Applications

Popular Choice
- Paint spraying & powder coating
- Coating & resin applications
- Light industrial cleaning
- Machine maintenance

Suitable for Consideration
- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders

Features and Benefits:

- Excellent barrier against dry particles and certain liquid chemical splash (CE Type 5/6)
- Soft and light, super low-linting laminated microporous material that drapes and hangs well over the body facilitating ease of movement
- Back panel made of breathable SMMMS material for improved air circulation and reduced heat stress
- 2-way zipper with fully sealable storm flap for added on-off convenience and extra protection
- 3-panel hood design for enhanced compatability with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- Enhanced and reinforced triangular gusset panel to increase product durability
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN1073-2 for protection against nuclear particles
- Low linting

3M™ Protective Coverall 4540+ Type 5/6
**Colour:** White with blue back panel
CE Category III
Sizes: S-4XL

Fabric Material
The 3M protective coverall 4540+ material is made using a composite layer of soft, spunbond fibres and a layer of light, but high quality polyethylene laminate film giving excellent levels of barrier efficiency and protection. Compared with many other laminates it has a particularly soft feel and drapes well over the body The blue back panel is made from 5 layers of spunbond and meltblown polypropylene giving excellent breathability, whilst maintaining the Type 5/6 level of protection.
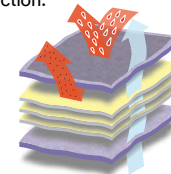
SMMMS back-panel.
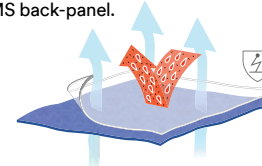
Microporous laminate fabric.

Seam Technology
Seams are serged for Type 5/6 and certain seams bound for extra protection.

3M™ Protective Coverall 4545

The 3M™ Protective Coverall 4545 uses the same laminate material as that on the 3M™ Protective Coverall 4540+. The suit is designed to be comfortable but highly protective to PPE Directive Category III, Type 5/6 standards.

It is certified to protect against radioactive particles and biological agents and reduce build up of static charge whilst also being super low-linting - all making it suitable for a wide range of applications, including in many cleanrooms.

Typical Applications

Popular Choice
- Light industrial cleaning
- Machine maintenance
- Paint spraying & powder coating
- Coating & resin applications
- Cleanrooms
- Forensics

Suitable for Consideration
- Asbestos inspection and removal
- Site preparation, insulation.
- Cement manufacturing
- Grinding & polishing
- Pharmaceutical processing and handling toxic powders
- Metallurgy

Features and Benefits:

- Excellent barrier against dry particles and certain limited liquid chemical splash (CE Type 5/6)
- Biological protection tested to EN 14126
- Soft, well-draping, laminated microporous material
- 3-panel hood design for enhanced compatibility with complimentary PPE
- 2-way zipper with sealable storm flap for added on-off convenience and extra protection
- Knitted cuffs with elasticated waist and ankles for increased comfort and freedom of movement
- Enhanced and reinforced triangular gusset panel to increase product durability
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles
- Supplied in space saving vacuum packaging
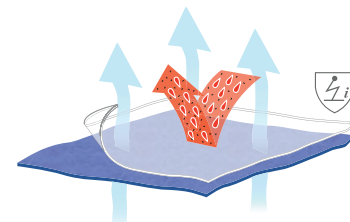
3M™ Protective Coverall 4545 Type 5/6
Colour: White
CE Category III
Size: S-4XL

Fabric Material
The 3M protective coverall 4545 material is up to 20% lighter than previous 3M polyethylene laminate materials and made using a composite layer of soft, spunbond fibres and a layer of light, but high quality polyethylene laminate film with an antistatic treatment, giving excellent levels of barrier efficiency and liquid protection.

Seam Technology
Seams are serged for Type 5/6 and certain seams bound for extra protection.

3M™ Protective Coverall 4565

Offering CE Category III, Type 4/5/6 protection, the 3M™ Protective Coverall 4565 has an impressive level of liquid barrier protection whilst maintaining its unique soft feel and well-fitting drape. With tape applied over the seams a greater level of total protection and seam durability is offered versus Type 5/6 products.

Typical Applications

Popular Choice
- Asbestos removal
- Pharmaceutical processing
- Handling toxic powders
- Cleanrooms
- Pesticide Spraying

Suitable for Consideration
- Asbestos inspection
- Site preparation, insulation
- Cement manufacturing
- Grinding & polishing
- Industrial cleaning and maintenance
- Painting & coating, resins

Features and Benefits:

- Excellent barrier against dry particles, liquid certain chemical splash and spray (CE Type 4/5/6)
- Taped seams across the suit for better protection and increased durability
- Soft, well-draping laminated material
- Biological protection tested to EN 14126
- 2-way zipper with fully sealable storm flap for added on-off convenience and extra protection
- 3-panel hood design for enhanced compatability with complimentary PPE
- Knitted cuffs and elasticated waist and ankles for increased comfort and freedom of movement
- Anti-static treatment to EN 1149 to reduce charge build up
- Super low-linting
- Supplied in space saving vacuum packaging
- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

CE Type 4:
Testing to Type 4 standards requires the coverall material to be put through additional testing. A whole body suit test is conducted with a higher volume of liquid than the equivalent Type 6 test. More importantly, the material and the seams have permeation tests conducted with a minimum of one chemical to assess whether the chemical/s can get through the material at a molecular level. The construction of the laminate used in the 3M protective coverall 4565 offers a superior performance in this area compared to many other Type 4 products.
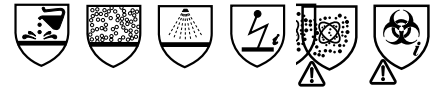
3M™ Protective Coverall 4565 Type 4/5/6
**Colour:** White with red taped seams
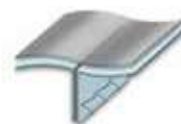CE Category III
Sizes: S-4XL

Fabric Material
20% lighter than previous 3M polyethylene laminate materials, the 3M protective coverall 4565 combines a composite base of nonwoven fibres and a polyethylene film giving good barrier efficiency against many hazardous liquids. The laminate is also ultra-low linting and anti-static treated making it suitable for a wide variety of potentially hazardous applications.
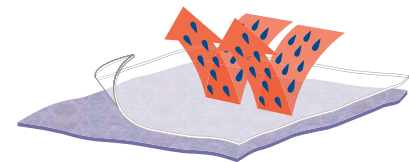
Seam Technology
Seams are stitched and overtaped with a red protective tape to offer increased seam strength and an effective barrier to liquids and particulates.

3M™ Protective Coverall 4570

The 3M™ Protective Coverall 4570 is a high performance chemical protective suit, certified to PPE Directive Category III, Type 3/4/5/6 levels of protection, making it suitable to protect against a range of chemical jets and sprays. With additional design features including an enlarged zip and finger loops, a double-closing storm flap system and chin flap, convenience of use can be offered without compromising the high level of protection given.

Typical Applications

Popular Choice
- Chemical mixing and handling
- Chemical/oil spills and clean up
- Metal Refining
- Metal Etching
- Hazardous waste remediation
- Decontamination/Site Decommissioning
- Tank cleaning
- Infective agents/Biological Hazards
- Handling Toxic Powders

Suitable for Consideration
- Light industrial cleaning
- Machine maintenance
- Pharmaceutical processing
- Handling toxic powders
- Resin applications

Features and Benefits:

- Excellent barrier for jet spray and liquid tight chemical protection (CE Type 3/4)
- Biological / infective agent protection (EN 14126) to the maximum class
- Seams are taped with a multi layer coextruded clear tape, giving a discreet finish and a consistent seal and barrier
- 3-panel hood design for enhanced compatibility with complimentary PPE
- Two stormflaps combined with double colourcoded zips to create a double seal for added convenience and extra protection
- Large zip for ease of use
- Elasticated cuffs with thumb loops for secure fit during overhead work
- Elasticated waist and ankles for increased comfort and freedom of movement
- Glued in waist elastic and seam free shoulders to minimise entry points etc
- Adhesive chin flap
- Super low-linting
- Anti-static treatment to EN 1149 to reduce charge build up
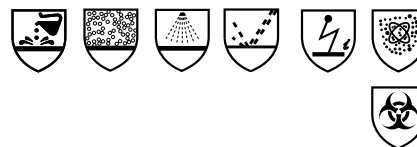- Meets inward leakage requirements of EN 1073-2 for protection against nuclear particles

For technical information and chemical permeation data, please request a Technical Datasheet.

3M™ Protective Coverall 4570 Type 3/4/5/6
Colour: Grey
CE Category III
Size: S-4XL

Fabric Material
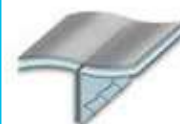The 3M™ Protective Coverall 4570 uses a heavy-duty material blending a soft inner layer of spun bond fibres with multiple outer layers of a high performance anti-static treated polyethylene laminate, to offer a high level of liquid protection.
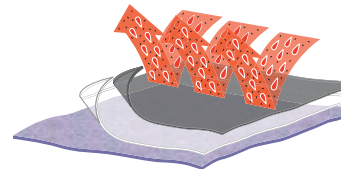
Seam Technology
Seams are stitched and overtaped with a clear heat applied multi-layer chemically protective tape to offer increased strength and an effective articulates.

Accessories

From head to toe, we've got you covered with a full range of add-on options to give your workers the body protection they need.

Coats

3M™ Lab Coat 4440
- Made of the same laminated material as the Type 5/6 3M Protective Coverall 4535
- Anti-static treated
- Knitted cuffs
- Zip fastener
- Available in white

3M™ Lab Coat 4432+
- Made of the same SSMMS material as the Type 5/6 3M Protective Coverall 4532+
- Anti-static treated
- Internal pocket
- Knitted cuffs
- Zip fastener
- Available in cool white

3M™ Visitor Coat 4400
- Made of the same material as the 3M Coverall 4500
- 100% soft, breathable and lightweight polypropylene
- Zip fastener
- Internal pocket
- Available in blue and white

Overboots

3M™ Overboot 450

Slip Resistant Sole

3M™ Overboot 440

Standard Sole

- Elastic at the calf
- Universal size with ties to help provide a good fit
- Made of the same laminated material as the Type 5/6 3M™ Protective Coverall 4535
- 3M overboot 450 has a PVC sole to help reduce the risk of slipping
- Laminated material ties to minimise particle shed and contamination in particle restricted environments such as cleanrooms

Overshoes

3M™ Overshoe 442

- Made of the same laminated material used in the Type 5/6 3M™ Protective Coverall 4535
- Elastic at ankle
- Anti-static treated
- General non-hazardous

3M™ Overshoe 402

  substance protection
- Sole has printed pattern to help reduce the risk of slipping
- Elastic at ankle

Oversleeves

3M™ Oversleeve 444

3M™ Oversleeve 445

- Made of the same laminated material as the Type 5/6 3M Protective Coverall 4510
- 16 inch length covering wrist to top of arm
- Elastic finish on top end for secure fit
- 3M™ Oversleeve 445 features knitted cuffs
- Anti-static treated

Head Wear

3M™ Overhood 446

- Made of the same microporous laminated material as the Type 5/6 3M™ Protective Coverall 4510
- Anti-static treated
- Drapes over the shoulders offering excellent coverage
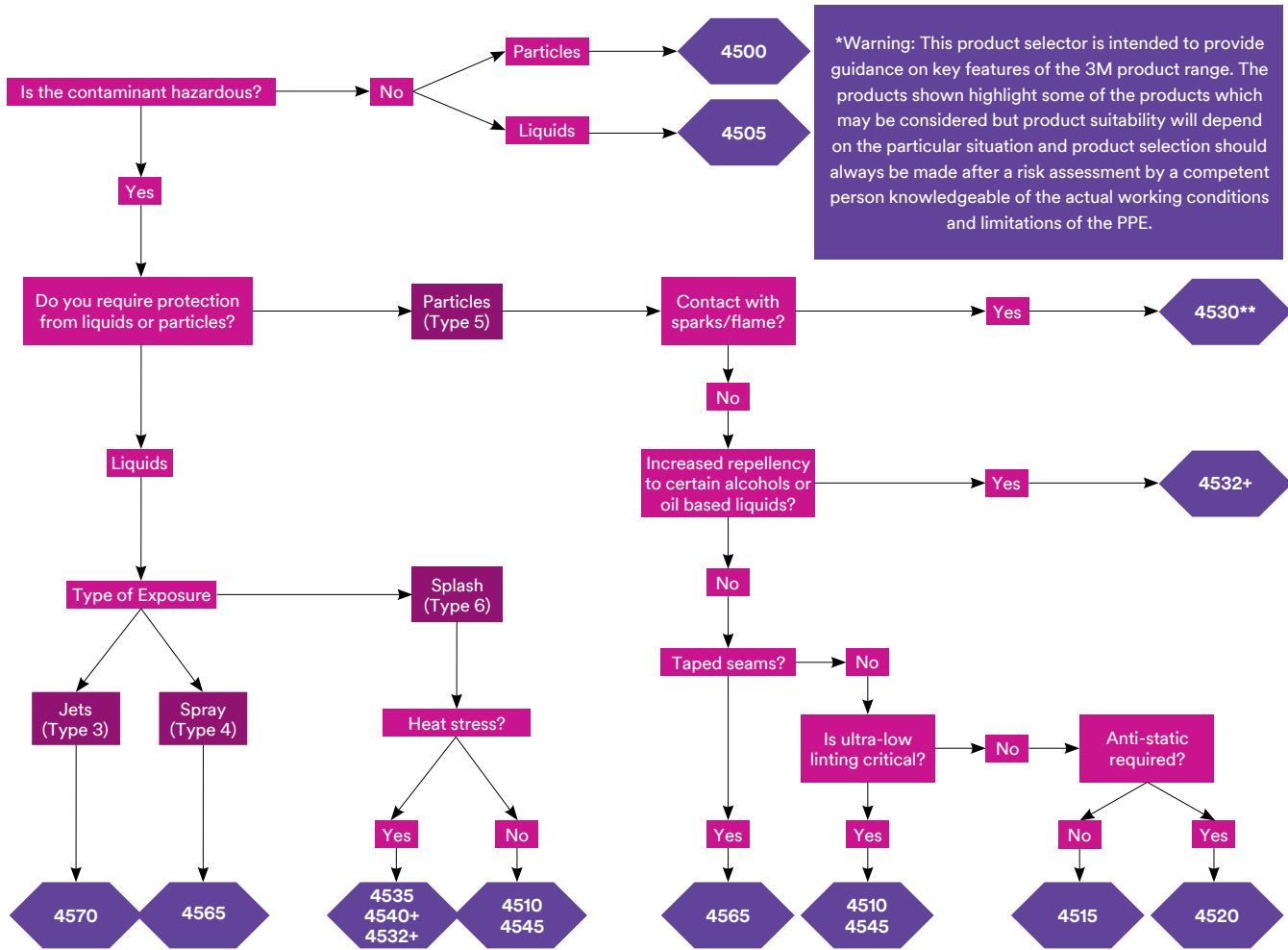- Hygiene protection

3M™ Mob Cap 407

  preventing contamination from hair in the working environment
- Universal size
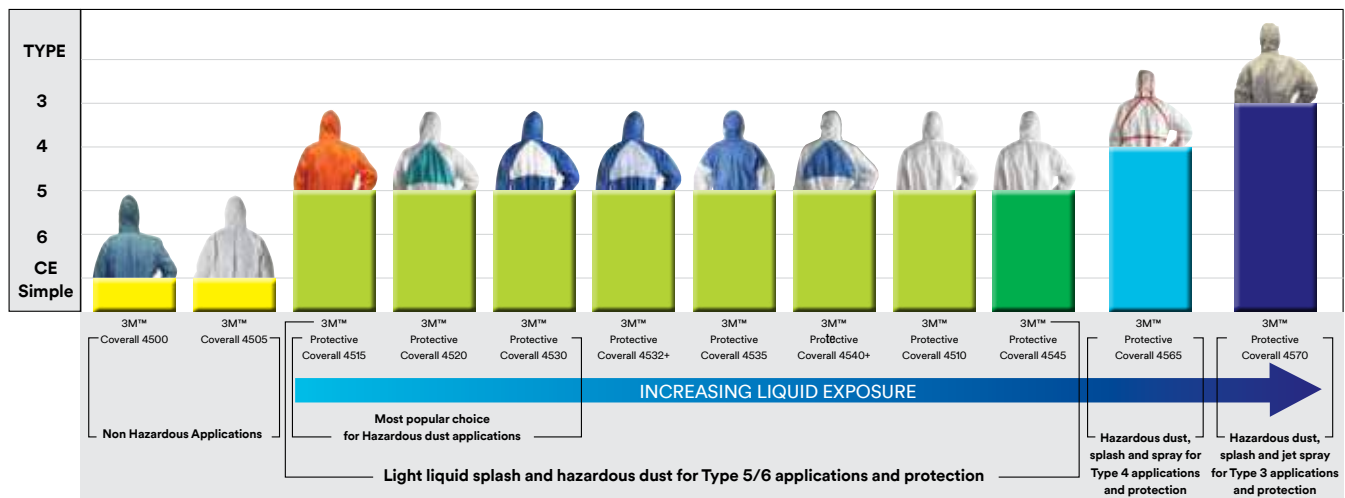- Made from soft and breathable polypropylene

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Product selector diagram*

Flowchart:

Is the contaminant hazardous?
- **No** → Particles → **4500**
- **No** → Liquids → **4505**
- **Yes** ↓

Do you require protection from liquids or particles?
- Particles (Type 5) → Contact with sparks/flame?
  - **Yes** → **4530****
  - **No** ↓
- Increased repellency to certain alcohols or oil based liquids?
  - **Yes** → **4532+**
  - **No** ↓
- Taped seams?
  - **No** → Is ultra-low linting critical?
    - **No** → Anti-static required?
      - **No** → **4515**
      - **Yes** → **4520**
    - **Yes** → **4510 / 4545**
  - **Yes** → **4565**

- Liquids ↓

Type of Exposure
- Jets (Type 3) → **4570**
- Spray (Type 4) → **4565**

Splash (Type 6)
- Heat stress?
  - **Yes** → **4535 / 4540+ / 4532+**
  - **No** → **4510 / 4545**

*Warning: This product selector is intended to provide guidance on key features of the 3M product range. The products shown highlight some of the products which may be considered but product suitability will depend on the particular situation and product selection should always be made after a risk assessment by a competent person knowledgeable of the actual working conditions and limitations of the PPE.

**Not suitable for flame protection, to be used in conjunction with an Index 2/3 garment only

3M™ Protective Coveralls Protection Types

TYPE
3
4
5
6
CE
Simple

3M™ Coverall 4500	3M™ Coverall 4505	3M™ Protective Coverall 4515	3M™ Protective Coverall 4520	3M™ Protective Coverall 4530	3M™ Protective Coverall 4532+	3M™ Protective Coverall 4535	3M™ Protective Coverall 4540+	3M™ Protective Coverall 4510	3M™ Protective Coverall 4545	3M™ Protective Coverall 4565	3M™ Protective Coverall 4570

Non Hazardous Applications

Most popular choice for Hazardous dust applications

INCREASING LIQUID EXPOSURE

Light liquid splash and hazardous dust for Type 5/6 applications and protection

Hazardous dust, splash and spray for Type 4 applications and protection

Hazardous dust, splash and jet spray for Type 3 applications and protection

This guide is only an outline. It should not be used as the only means for selecting protective clothing. Always read and follow all user instructions supplied with your 3M™ Protective Coveralls in order to ensure correct operation. Final determination as to the suitability of these products for a particular situation is the employers responsibility. If in doubt contact a safety professional. For further information on the performance data of these garments or for any other questions contact your local 3M representative. LIMITATION OF LIABILITY: Except as provided above, 3M shall not be liable or responsible for any loss or damage, whether direct, indirect, incidental, special or consequential arising out of the sale, use or misuse of 3M PSD products, or the user's inability to use such products.

Product selector table*

Legend for application cells: **P** = Popular choice (magenta) · **S** = Suitable for consideration (purple)

3M	4500	4505	4510	4515	4520	4530	4532+	4535	4540+	4545	4565	4570
	Category 1	Category 1	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3	Category 3
CE Certification**	CE	CE	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)	(pictograms)
Material Weight	45gsm	67gsm	47gsm	50gsm	43gsm	54gsm	52gsm	55gsm	49gsm	49gsm	49gsm	92gsm
Size	S-4XL	M-XXL	S-4XL	S-4XL	S-4XL	S-4XL	S-4XL	S-3XL	S-4XL	S-4XL	S-4XL	S-4XL
Colours	●●	●	●	●●●●	●	●●	●●	●	●	●	●	●
Light-duty cleaning, warehousing, janitorial	P	P		S								
Asbestos Inspection, site preparation, insulation			S	P	P	S	S	S	S	S	S	
Asbestos removal			S	S	S	S	S	S	S	S	P	
Cement manufacturing, metal grinding & polishing			S	S	S	P	P	S	S	S	S	
Light industrial cleaning, machine maintenance			P	S	S	S	P	P	P	P	S	
Pharmaceutical processing, handling toxic powders			S		S	S	S	S	S	S	P	
Painting & coating, resins			P				S	P	P	P	S	
Cleanrooms			S							P	P	
Pesticide spraying											P	S
Chemical mixing and handling											S	P
Chemical spills, emergency response, decontamination, tank cleaning												P

● Popular choice ● Suitable for consideration

* In all cases, product selection should be based on a full risk assessment. Always read product user information. Use limitations and performance data should be considered to ascertain the protection required. If in doubt, contact a safety professional. This guide is only an outline. It should not be used as the only means for selecting protective clothing. Details regarding performance and limitations are set out on the packaging and user instructions. Before using any protective clothing, the wearer must read and understand the user instructions for each product. Specific country legislation must be observed. If in doubt, contact a safety professional or 3M – www.3M.eu/safety. Always check the compatibility of the suit material before selection. Please note that the personal protective equipment (PPE) shown highlight some of the products which may be considered. Sections of the most appropriate PPE will depend on the particular situation and should be made only by a competent person knowledgable of the actual working conditions and the limitations of PPE.

** See user instructions or technical datasheets for full details.

*** Material meets standard requirements.