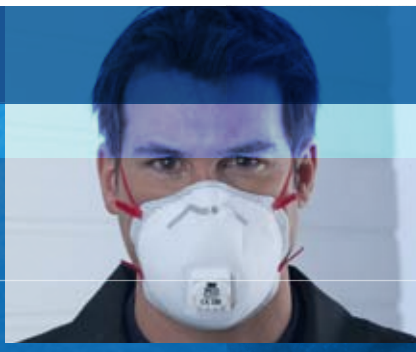


Disposable Particulate Respirators

State of the art features set 3M apart from conventional respirators in the market. 3M™ filter material combines the benefits of mechanical filtration with advanced technology filtration to capture particles and the 3M™ Cool Flow™ Valve reduces heat build up.

Combined with ergonomic design for superior comfort, our wide range of proprietary technologies help to deliver easier breathing and comfortable protection against particle hazards. All products featured in this section are exempt from record keeping requirements.

Selecting and specifying the appropriate respiratory protective equipment may appear daunting with multiple factors to consider. The equipment needs not only to provide appropriate protection for the job, but should also be comfortable enough for the individual user to wear during the whole period of exposure.

The Selection of Respiratory Protection Equipment follows a basic four-step method:

1 Identify the Hazards –
dust, metal fume, gas, vapour etc.

2 Assess the Risk – assess the hazard levels against safety standards and consider other protection – skin, eye and body

3 Select the Right Respirator – disposable, reusable, half face mask, full face mask, powered, supplied air etc.

4 Train in Fitting and Use –
to optimise respiratory protection

3M Four-Step Method

1. Identify the Hazards

Application*		Performance level	Important information
Sanding, Cutting, Drilling	Rust, Metal Particles, Filler	P1	
	Concrete, Stone	P1	P2 When quartz concentration is high
	Cement, Wood, Steel	P2	
	Paints/Varnish/Anti-rust coating	P2	P3 When Chromates are present
	Steel, Stainless Steel	P3	
	Anti-Fouling Varnish	P3	Speciality respirator maybe required
Low temp. oil spray		P2	
Welding	Mild Steel, Zinc (Autogen, MIG/MIK)	P2	3M™ 9928 or 3M™ 9925 for Ozone protection
	Stainless Steel (Electrodes)	P2	9928 or 9925 for Ozone protection
	Soldering	P2	
Work with Asbestos	Small amounts infrequent exposure	P2	P3 for additional protection
Work with Glass and Mineral fibres		P2	
Waste Sorting		P3	May need gas & vapour respirator
Spraying	Paint spray	P2	May need gas & vapour respirator
	Pesticides (water based)	P2	
Utility maintenance (e.g. filter change)		P3	
Allergies	Pollen, Animal dander	P1	
	Grain dust	P2	
Contact with:	Mold/Fungus	P2	
	Bacteria	P2	P3 With Tuberculosis
	Diesel exhaust/Smoke	P2	

* Warning: 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. Specific country legislation must be observed. Please note that the applications shown highlight some of the hazards which may be considered. Selection of the most appropriate respiratory protective equipment (RPE) 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 RPE.

2. Assess the Risk

	EN 149:2001+A1:2009 FFP1 Respirators	EN 149:2001+A1:2009 FFP2 Respirators	EN 149:2001+A1:2009 FFP3 Respirators	EN 149:2001+A1:2009 Welding Respirators
Nominal Protection Factor	NPF 4	NPF 12	NPF 50	NPF 12
Typical Applications	Low levels of fine dust (up to 4 x TLV) and oil or water based mist typically found during hand sanding, drilling and cutting	Moderate levels of fine dust (up to 12 x TLV) and oil or water based mist typically found during plastering, cement, sanding and wood dust	Higher levels of fine dust (up to 50 x TLV) and oil or water based mist typically found when handling hazardous powders found in the pharmaceutical industry or work with biological agents and fibres	Moderate levels of fine dust (up to 10 x TLV), oil and water based mist, metal fume and ozone (10 x TLV) and organic vapours below TLV typically found in welding and soldering

Nominal Protection Factor (NPF): The theoretical protection level of a respirator based on laboratory measured performance data.

3. Select the Right Respirator

Once you have selected the protection factor you require, you can then consider whether you need a cup-shaped respirator, or a foldable respirator, whether it has buckled straps and whether it is valved or not.

3M™ Cup-Shaped Respirators

+ Convex shape, nose clip and twin strap design
+ Easy to fit
+ Durable, collapse resistant shell

3M™ Buckle Strap Respirators

+ Robust and durable design provides multi-shift capability and secure feel
+ Adjustable braided headbands
+ Soft inner face-seal improves comfort

3M™ Foldable Respirators

+ Ultra soft, flexible and comfortable fit resulting from the multiple panel design
+ Comfort Series - Flat Fold only: Individually packed, foldable design prevents contamination before use and allows easy storage

3M™ Cool Flow™ Valve

+ Effective removal of heat build-up provides a cooler and more comfortable wear
+ Provides longer continuous wear time
+ Reduces risk of fogging of spectacles and eyewear

4. Train in Fitting and Use

Training Offered by 3M

Correct use and appropriate maintenance of personal protective equipment (PPE) from 3M makes a major contribution towards ensuring that it provides effective protection. Our experienced sales and technical teams will help you make the most of your products.

In compact training units, they will show you and your employees how to recognize potential hazards, suggest what measures to take and help explain how to choose the appropriate protective equipment for each particular situation.

EN 149:2001+A1:2009 Standard

3M Disposable Respirators meet the requirements of European Standard EN 149:2001 + A1:2009, filtering facepiece respirators for use against solid and non-volatile liquid particles only. Products are classified by filtering efficiency and maximum total inward leakage performance (FFP1, FFP2 and FFP3), also by usability and clogging resistance.

Performance tests in this standard include:

+ filter penetration and extended exposure (loading) test - evaluates the filtration performance when new and over time
+ breathing resistance - evaluates the ease of breathing (inhalation and exhalation) through the respirator
+ total inward leakage - evaluates the filter penetration, valve leakage (if fitted) and importantly the face seal leakage of the respirator when worn by a panel of different people whilst conducting simulated work exercises
+ clogging resistance - evaluates the ability of the respirator to continue to function effectively and provide respiratory protection in very high dust environments

Reusable products are also subjected to a cleaning cycle (specified by the manufacturer) and 24 hour storage to confirm the product performance is not affected by re-use. Clogging resistance testing is a mandatory requirement for reusable products, but is optional for single shift use only (non reusable) products. A full copy of EN 149:2001+A1:2009 can be purchased from your national standards body.

Marking designations:
R = Reusable
NR = Non reusable (single shift use only)
D = Meets the clogging resistance requirements

3M™ EVM Environmental Monitoring Series

The 3M™ EVM Series monitors both particulates and air quality in one compact instrument. From healthcare and manufacturing to construction and military applications, the EVM Series provides a lower cost of ownership by combining three instruments into one. Its user-friendly interface, patented dial-in rotary impactor, and advanced reporting and analysis features make it a particulate and IAQ area monitoring instrument of choice for industrial hygienists and safety professionals worldwide. This durable, easy to use model provides simultaneous worksite area monitoring of:

+ Particulate mass concentrations (0.1-10 µm)
+ Select volatile organic compounds
+ Temperature
+ Carbon dioxide
+ Select toxic gases

3 Models to choose from

EVM-3

Specializes in real-time direct reading of particulate concentrations. This tri-sensor instrument utilizes the built-in sampling pump and dial-in impactors for real-time mass concentration readings.

EVM-3 measures:

+ Particulate mass concentration (0.1-10 µm)
+ Temperature
+ Relative Humidity

EVM-4

Multi-sensor instrument designed for indoor air quality investigations. Simultaneously track, log and monitor multiple indoor air quality parameters including room air exchange rates and dew point.

EVM-4 measures:

+ Toxic Gas (choose from nine sensors)
+ Carbon Dioxide
+ Temperature
+ Relative Humidity

EVM-7

The EVM-7 has the features needed for many air quality and particulate concentration assessments.

+ Particulate mass concentration (0.1-10 µm)
+ Toxic Gas (choose from nine sensors)
+ Carbon Dioxide
+ Temperature
+ Relative Humidity
+ Volatile Organic Compunds

3M™ Maintenance Free Particulate 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.

Here's what to look for:

Breathing ease

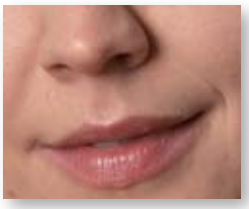
An efficient exhalation valve and high-efficiency, low breathing resistance filter material will help you to breathe comfortably.

Coolness

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

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.

Lightweight

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

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.

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™ Maintenance Free Particulate Respirators

Classic Series: Flat Fold - 3M™ VFlex™ 9100 Series

3M™ VFlex™ 9152 and 9152S respirators offer effective protection at incredible value with no compromise on quality.

The unique design unfolds into roomy, comfortable space.

VFlex™ respirators expand and flex with your face as you breathe, work and talk.

Positioning tabs, adjustable nose clip and a choice of two different sizes help achieve a custom fit across a broad range of faces.

Features and Benefits:

Adjustable Noseclip
+ Helps provide a custom fit and secure seal
+ Imbedded, metal detectable

Tabs
+ Designed for positioning the respirator on the face

Embossed Front Panel
+ Helps the respirator retain its shape, away from your mouth
+ Helps maintain spacious feel

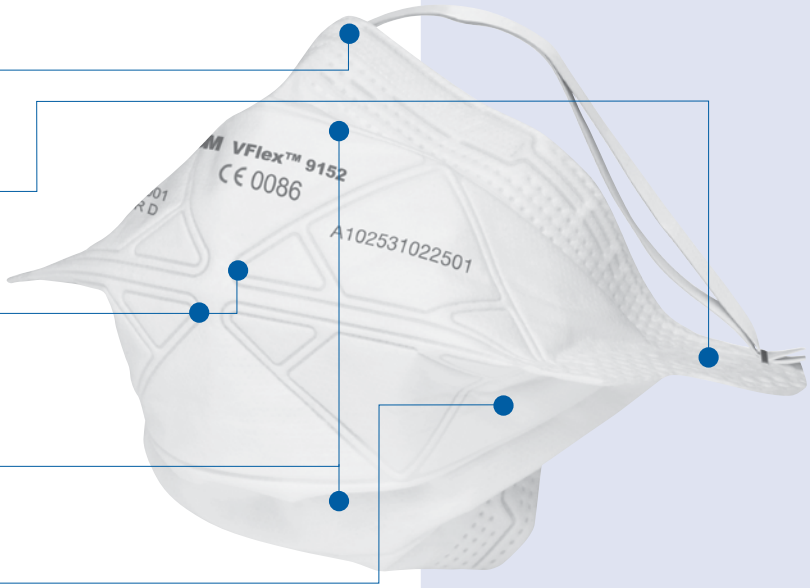
V-Shaped Pleats
+ Flex and expand with mouth movement for easier talking and breathing

Comfortable inner Layer

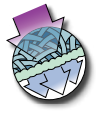
3M™ Proprietary Media
+ 3M™ high performance filter material provides effective filtration combined with low breathing resistance

Flat-Fold Convenience
+ Convenient storage prior to use

Additional Design Features
+ Elastic headbands contain no natural rubber latex components
+ Spacious feel inside, with minimal impact on field of vision
+ Compatible with a variety of eyewear and hearing protection from 3M™
+ Available in 2 sizes to fit a broad range of faces



3M™ High Performance Filter Material



FFP2

3M™ VFlex™ 9152 Particulate Respirator (Standard size)
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP2

3M™ VFlex™ 9152S Particulate Respirator (Small size)
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

Classic Series: Flat Fold - 3M™ K100 Series

Safety is priceless, but it doesn't have to be expensive. With 3M™ K100 Series Respirators, 3M have applied the best of their expertise to bring you solid, professional protection at an affordable price.

The 3M K100 flat-fold respirators are made of strong stuff, for tough work. They are designed to be wearer-friendly, with the comfort and convenience workers need to make a long and demanding shift a little easier to face. As well as removing the need for costly, time-consuming maintenance, the 3M K100 Series also removes any doubt as to quality when it comes to choosing a value product: fully tested, certified and CE marked, all 3M K100 products are also backed with the kind of responsive support, access to technical personnel, reliable advice as well as dependable quality and supply that only a brand like 3M can offer.

Features and Benefits:

Adjustable noseclip
- + Easy to check that correct protection is being worn in the workplace
- + Yellow: FFP1, blue: FFP2, red: FFP3 as per EN149:2001+A1:2009
- + Metal detectable

Synthetic headbands
- + Do not contain components made from natural rubber latex
- + Reduces risk of allergic reaction

Single loop strap
- + Allows easy adjustment for a comfortable fit
- + Staple-free

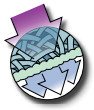
Flat-fold convenience
- + Makes the respirator easy to store away when not in use

Classic Exhalation valve
- + Reduces heat build up in hot or humid environments, or when work is hard and physical
- + Improves breathing comfort over long periods

Diamond-shaped front panel
- + Allows the respirator to retain its shape, even in hot or humid environments

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

3M™ High Performance Filter Material

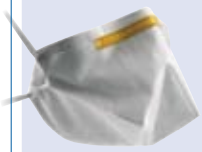


3M™ K112 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP2

3M™ K100 Series Particulate Respirators also available individually wrapped in a handy dispenser box

Unvalved



FFP1

3M™ K101 Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP2

3M™ K102 Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level:
Up to 12 x TLV

Valved

FFP1

3M™ K111 Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP3

3M™ K113 Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP3 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 50 x TLV

3M™ Disposable Particulate Respirators

Classic Series: Cup Shaped - 3M™ 8000 Series

The 3M™ 8000 Series Respirators 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 unique valve in the 3M™ 8822 and 3M™ 8812 Respirators and collapse resistant shell offers durable, comfortable protection particularly in hot and humid conditions.

These respirators are exempt from costly, time-consuming maintenance requirements. The Classic Series forms part of your basic equipment for different work environments and complies with EN 149:2001+A1:2009. The proprietary 3M™ Cool Flow™ Valve technology ensures higher wearer comfort by allowing exhaled heat and humidity from your breath to escape.

Features and Benefits:

Comfort
+ Traditional convex shape, with nose clip and twin strap design
+ Comfortable, lightweight, off-the-face design

Safety
+ Reliable, effective protection against fine particles
+ Durable, collapse resistant inner shell

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

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

3M™ 8822 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV
FFP2

Unvalved

FFP1
3M™ 8710E Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP2
3M™ 8810 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

Valved

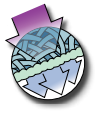
FFP1
3M™ 8812 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

3M™ 8710E, 8810 and 8822 Particulate Respirators also available in handy packs of 5

Typical Applications

+ Construction
+ Ship Building/Repair
+ Pharmaceuticals
+ Rubber/Plastics
+ Engineering
+ Iron and Steel Foundries
+ Agrochemicals
+ Pottery/Ceramics
+ Market Gardening
+ Laboratories
+ Agriculture
+ Base Metal Manufacture
+ Foodstuffs
+ Powdered Chemicals

3M™ High Performance Filter Material



3M™ Cool Flow™ Valve

Comfort Series: Flat Fold - 3M™ Aura™ 9400+ Series

3M™ Aura™ 9422+ and 9432+ respirators provide reliable and comfortable protection from a range of airborne particulate hazards while minimizing contamination risks to food or pharmaceutical production processes.

They are made without staples or small detachable parts and are metal and visually detectable.

Built on the innovative 3M™ Aura™ platform, the 9422+ and 9432+ disposable respirators fit a wide range of face shapes and sizes. Comfortable to wear and easy to breathe through they are ideal for use in hot humid environments.

Features and Benefits:

Metal Detectable
+ Embedded metal nose clip kept securely in place within the layers of the respirator to help ensure the safety of your production

NEW! Staple-free
+ To help minimise contamination risks to your production

NEW! Sculpted Nose Panel
+ Curved low profile design helps provide a good field of vision and improves compatibility with eyewear
+ Conforms well to nose and eye contours

NEW! Embossed Top Panel
+ Helps reduce the fogging of eyewear

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

3M™ Cool Flow™ Valve
+ Effectively removes heat build up provides a cooler and more comfortable wear
+ Removes exhaled air and minimises the risk of fogging eyewear

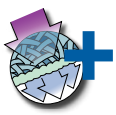
Distinguishable Non-Food Colour
+ Bright blue for quick search recognition

NEW! 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

NEW! Innovative Chin Tab
+ Improves ease of donning and adjustment, to help achieve a comfortable fit

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

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

FFP2

3M™ Aura™ 9422+ Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust / Mist
Maximum Usage Level: Up to 12 x TLV

FFP3

3M™ Aura™ 9432+ Particulate Respirator
Classification:
EN 149:2001+A1:2009 FFP3 NR D
Protection: Dust / Mist
Maximum Usage Level: Up to 50 x TLV

3M™ Disposable Particulate Respirators

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

The new 3M™ Aura™ 9300+ respirators 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 9300 series hugely popular. New 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 an innovative chin tab to improve ease of fitting.

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

NEW! 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

NEW! 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

NEW! 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

NEW! Innovative Chin Tab
+ Improves ease of donning and adjustment to help achieve a comfortable fit

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

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

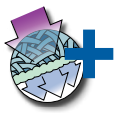
3M™ Aura™ 9322+ Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP2

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

3M™ Aura™ 9312+, 9320+, 9322+ and 9332+ particulate respirators
also available in handy packs of 5

3M™ Low Breathing Resistance Filter Technology



Foldable Three-Panel Design

3M™ Cool Flow™ Valve

3M™ Aura™ 9310+ Particulate Respirator

3M™ Aura™ 9312+ Particulate Respirator

FFP1

3M™ Aura™ 9310+ Particulate Respirator
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP1

3M™ Aura™ 9312+ Particulate Respirator
Classification: EN 149:2001+A1:2009
FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP2

3M™ Aura™ 9320+ Particulate Respirator
Classification: EN 149:2001+A1:2009
FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP3

3M™ Aura™ 9330+ Particulate Respirator
Classification: EN 149:2001+A1:2009
FFP3 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 50 x TLV

FFP3

3M™ Aura™ 9332+ Particulate Respirator
Classification: EN 149:2001+A1:2009
FFP3 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 50 x TLV

FFP3

3M™ Aura™ 1883+ Particulate Respirator 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
Maximum Usage Level: Up to 50 x TLV

3M™ Disposable Particulate Respirators

Comfort Series: Cup Shaped - 3M™ 8300 Series

The 3M™ 8300 Series Respirators are one of the latest additions to the respiratory protection range. With them, you can enjoy a comfortable 'cushion-fit', facing hard work from a soft place.

The 3M 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 3M 8300 Series Respirators 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.

Features and Benefits:

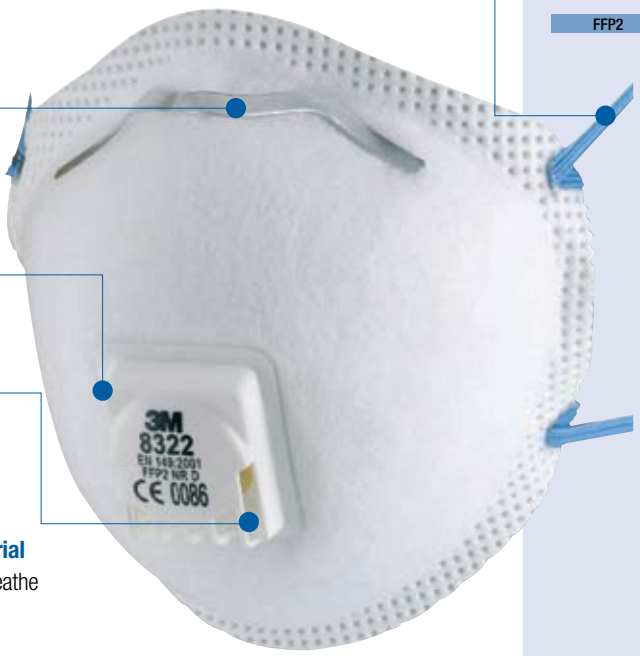
Braided Headbands
+ Materials have been selected for extra comfort and durability
+ Colour-coded headbands offer easy protection level identification

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

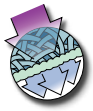
3M™ High Performance Filter Material
+ Effective filtration helps wearers to breathe easily through the respirator for more comfortable protection



'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

3M™ High Performance Filter Material



3M™ Cool Flow™ Valve

Face Seal (8833 only)

M-Shaped Noseclip

3M™ 8322 Particulate Respirator
Classification : EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP2

Typical Applications
+ Construction
+ Agriculture
+ Quarrying
+ Pottery/Ceramics
+ Engineering
+ Quarrying
+ Pharmaceuticals
+ Sawmills
+ Chemical
+ Automotive
+ Iron and steel foundries
+ Shipbuilding
+ Metalworking
+ Asbestos

3M™ 8833 particulate respirators
are also available in handy packs of 5

3M™ 8320 Particulate Respirator

3M™ 8312 Particulate Respirator

FFP1

3M™ 8310 Particulate Respirator
Classification: EN 149:2001
+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP1

3M™ 8312 Particulate Respirator
Classification: EN 149:2001
+A1:2009 FFP1 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 4 x TLV

FFP2

3M™ 8320 Particulate Respirator
Classification: EN 149:2001
+A1:2009 FFP2 NR D
Protection: Dust/Mist
Maximum Usage Level: Up to 12 x TLV

FFP3

3M™ 8833 Particulate Respirator
Classification: EN 149:2001
+A1:2009 FFP3 R D
Protection: Dust/Mist
Maximum Usage Level: Up to 50 x TLV

Braided headbands for extra comfort and durability

3M™ Disposable Particulate Respirators

Premium Series

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™ 8835 Respirator 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.

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

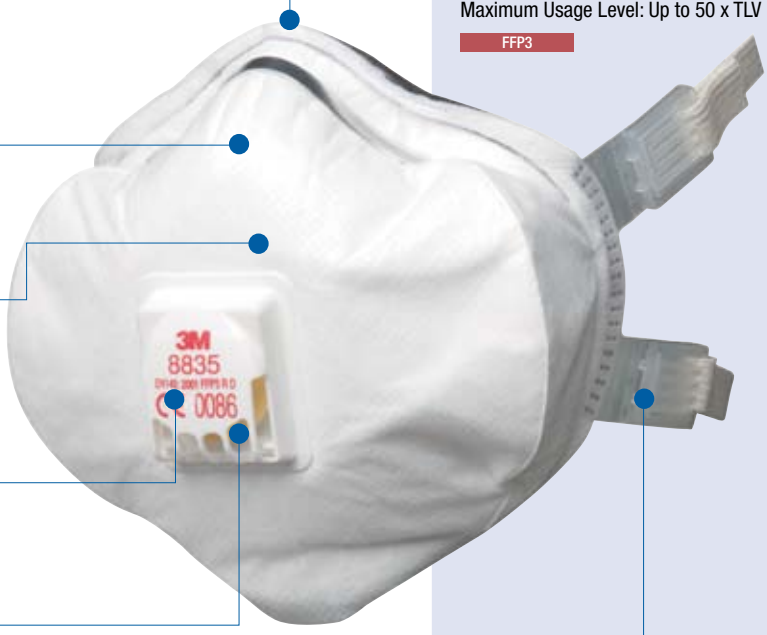
3M™ High Performance Filter Material
+ Increased filter area helps extend the life of the respirator. Higher capacity against dust
+ Effective filtration with easy breathing
+ Consistent high quality performance

Colour Coded Valve Lettering
+ Easy to recognise protection level (FFP3 for 3M 8835, FFP2 for 3M 8825 respirators) by colour coding

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

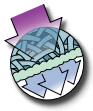


3M™ 8835 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP3 R D
Protection: Dust/Mist/Metal Fume
Maximum Usage Level: Up to 50 x TLV

FFP3

Typical Applications
+ Construction
+ Ship Building/Repair
+ Pharmaceuticals
+ Welding and Soldering
+ Chemical Processing
+ Iron and Steel Foundries
+ Battery Manufacturing

3M™ High Performance Filter Material



Adjustment Buckle Straps

3M™ Cool Flow™ Valve

Face Seal

FFP2

3M™ 8825 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 R D
Protection: Dust/Mist/Metal Fume
Maximum Usage Level: Up to 12 x TLV

FFP3

3M™ 8835 Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP3 R D
Protection: Dust/Mist/Metal Fume
Maximum Usage Level: Up to 50 x TLV

Adjustable wide straps for comfortable fit

Soft inner face-seal provides excellent wearer comfort and protection

3M™ Disposable Particulate Respirators

Welding Fume Respirators

The 3M™ 9925 and 3M™ 9928 Welding Fume Respirators 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 9925 and 9928 respirators have been designed specifically for welding applications to provide protection against ozone and welding fumes, plus relief from nuisance odours. The 3M 9925 and 9928 respirators do not require costly and time-consuming maintenance.

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

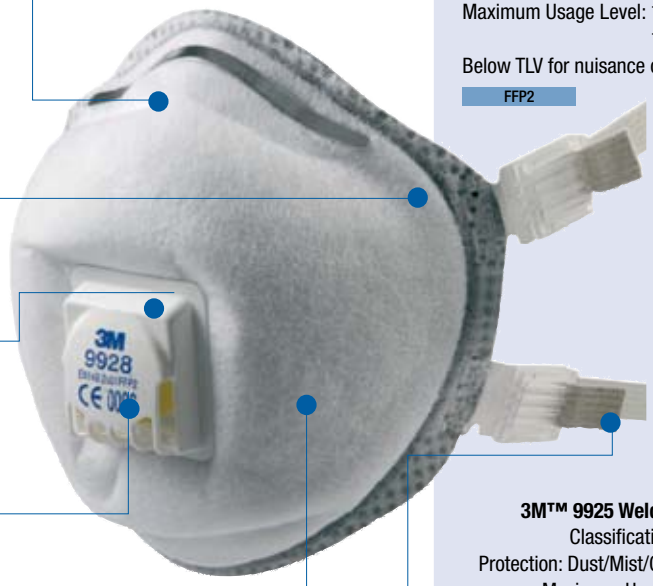
Soft Inner Face-Seal Ring (9928 only)
+ Provides secure feel
+ Improves wearer comfort
+ Can be hygienically cleaned (3M™ 105 Faceseal Cleaner)

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

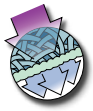
Carbon Layer
+ Provides protection against ozone gas and relief from nuisance level odours (below TLV)

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



Adjustment Buckle Straps

3M™ Cool Flow™ Valve

Face Seal (9928 only)

Activated Carbon

3M™ 9928 Welding Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 R D
Protection: Dust/Mist/Ozone/Nuisance level odours
Maximum Usage Level: 10 x TLV for Ozone
10 x TLV for Particulates
Below TLV for nuisance odours
FFP2

Other 3M™ Welding Maintenance Free Particulate Respirators available

FFP2

3M™ 9925 Welding Particulate Respirator
Classification: EN 149:2001 FFP2 NR D
Protection: Dust/Mist/Ozone/Nuisance level odours
Maximum Usage Level: 10 x TLV for Ozone
10 x TLV for Particulates

Typical Applications
+ Construction
+ Base Metal Manufacture
+ Ship Building/Repair
+ Potteries
+ Powdered Chemicals
+ Welding and Soldering
+ Iron and Steel Foundries
+ Metal Manufacture
+ Paint Manufacture

3M™ 9925 particulate respirators are also available in handy packs of 5

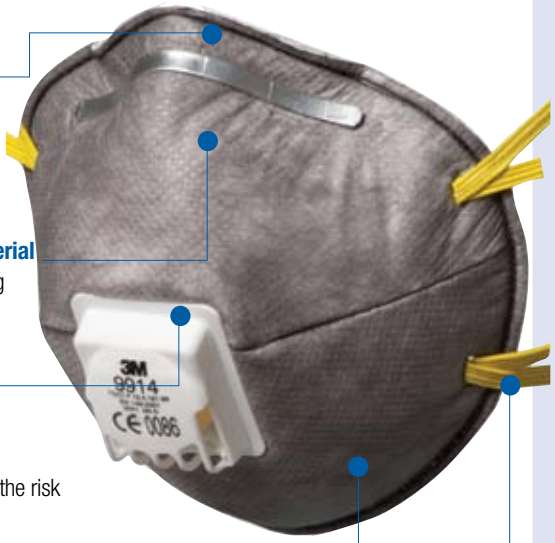
Speciality Series Respirators

The Speciality Respirators by 3M have been developed for particular working environments. These respirators feature an integrated activated carbon layer thus offering relief from nuisance odours below TLV. They can be used for a wide variety of applications ranging from welding to waste sorting.

The Speciality range by 3M provides lightweight, effective, comfortable and hygienic respiratory protection against dust and mist. It also provides additional relief from low levels of organic vapours or acid gases such as sulphur dioxide and hydrogen fluoride (depending on the product type). The convex shape, twin strap design, foam nose seal and nose clip ensures comfortable wear over a range of face sizes.

The proprietary 3M™ Cool Flow™ Valve on the 3M™ 9914, 3M™ 9922, 3M™ 9926 and 3M™ 9936 respirators and collapse resistant shell featured in all products offer both durable and comfortable protection particularly in hot humid conditions. These respirators do not require costly and time consuming maintenance.

Features and Benefits:



Robust Shell and Cup Design
+ Conforms well to most face shapes and sizes
+ Maintains its shape well during use
+ Collapse-resistant

3M™ High Performance Filter Material
+ Effective filtration with easy breathing
+ Consistent high quality performance

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

Carbon Layer
+ Provides protection against nuisance level organic vapours (below TLV)

Colour Coded Straps
+ Easy to recognise performance level by colour coded straps

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

3M™ 9914 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist/Nuisance Level Organic Vapour
Maximum Usage Level: Up to 4 x TLV for Particulates and below TLV for Organic Vapours
Also available in handy packs of 5

FFP1

Other Speciality Maintenance Free Particulate Respirators available from 3M

FFP1

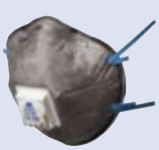
3M™ 9906 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist/Nuisance Level Hydrogen Fluoride
Maximum Usage Level: Up to 4 x TLV for Particulates, below TLV for Hydrogen Fluoride

FFP1

3M™ 9913 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist/Nuisance Level Organic Vapour
Maximum Usage Level: Up to 4 x TLV for Particulates and below TLV for Organic Vapours

FFP1

3M™ 9915 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP1 NR D
Protection: Dust/Mist/Nuisance Level Acid Gas
Maximum Usage Level: Up to 4 x TLV for Particulates and below TLV for Acid Gases



FFP2

3M™ 9922 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist/Nuisance Level Ozone
Maximum Usage Level: 10 x TLV for Ozone
10 x TLV for Particulates and below TLV for Organic Vapours

FFP2

3M™ 9926 Speciality Particulate Respirator
Classification: EN 149:2001+A1:2009 FFP2 NR D
Protection: Dust/Mist/Nuisance Level Acid Gas
Maximum Usage Level: Up to 12 x TLV for Particulates and below TLV for Acid Gases

FFP3

3M™ 9936 Speciality Particulate Respirator
Classification: EN 149:2001 +A1:2009 FFP3 R D
Protection: Dust/Mist/Nuisance Level Acid Gas
Maximum Usage Level: Up to 50 x TLV for Particulates and below TLV for Acid Gases