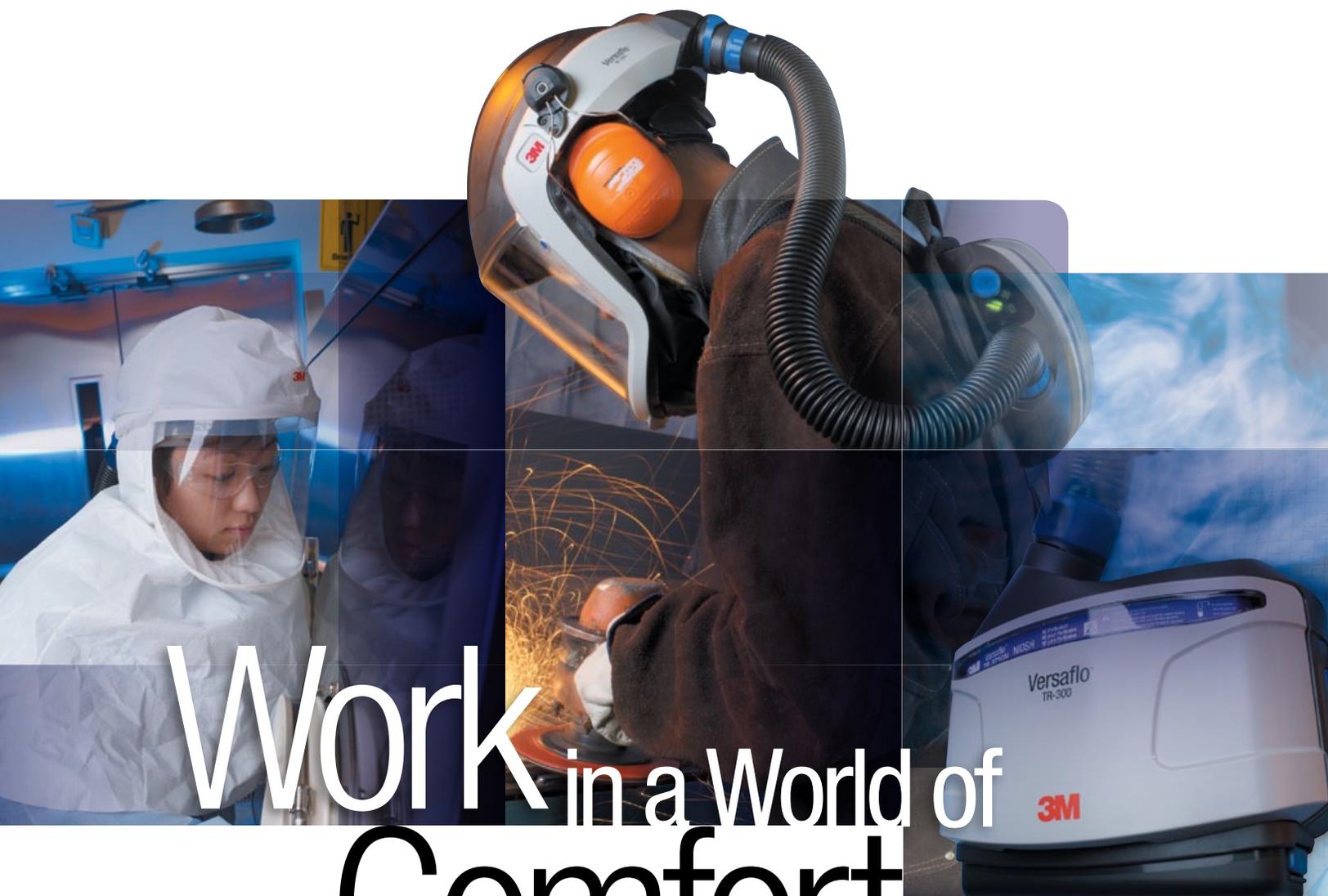


3M™ Versaflo™ Respirator Systems



Work in a World of Comfort

Highly Versatile Systems for Respiratory Protection

3M™ Versaflo™ Respirator Systems are a comfortable, comprehensive approach to worker protection. Each system has three easy-to-select modules — headgear, breathing tubes and air sources — that can be combined into dozens of system configurations. This allows Versaflo system users to experience maximum flexibility as they move from one environment to another, or from one application to the next.

3M

New Levels of Comfort and Simplicity

- 1 All 3M™ Versaflo™ products are light-weight, compact and well-balanced
- 2 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
- 9 TR-300 PAPR available with backpack accessory



Protection Against Multiple Hazards

Now you can configure 3M™ Versaflo™ systems to help protect users from a variety of combined hazards.



Respiratory Protection



Head Protection



Eye and Face Protection



Hearing Protection

Introducing a Highly Versatile Range of 3M™ Versaflo™ Respirator Systems*

3M™ Versaflo™ Respirator Systems are a comprehensive approach to worker protection systems based on comfortable-to-wear modules.

INTEGRATED PROTECTION

Safety managers can configure modules and accessories to help protect users from a variety of combined hazards.



EASY IN MANY WAYS

Easy-to-select.
Easy-to-use.
Easy-to-maintain.
For instance, most replacement parts can be installed by hand or with common tools (like a screwdriver) in a matter of moments. You can also breathe easier with 3M Versaflo Respirators. Flowing air is provided to the user, reducing the additional breathing effort required for half and full facepiece respirators. This increases user comfort at all times, but is especially important during periods of strenuous labor.



FLEXIBILITY

Each system has three easy-to-select modules – an air delivery unit, headcover and breathing tube – that can be combined into dozens of system configurations. It is the ultimate in flexibility for handling changing user environments, needs and comfort preferences.



EXCELLENT AIRFLOW

3M Versaflo Headcovers direct a comfortable stream of flowing air to where workers need it most: the head and face. The moving airflow can make hot environments more tolerable while greatly reducing visor fogging. And, when using the appropriate 3M Versaflo Supplied Air Regulator, the airflow can also be made cooler or warmer when working in hot or cold environments.



ALL-DAY COMFORT

With 3M Versaflo Respirator Systems, pressure on the face, breathing resistance, and heat build-up are all greatly reduced when compared to non-powered and supplied air tight-fitting facepieces, creating all-day comfort for the user.



*Pictures represent the variety of system kit options available. You may also tailor your own system to meet your needs.



3M™ Versaflo™ Systems are Easy to Select

Choosing a Versaflo™ system is as easy as 1, 2, 3. Just choose headgear, a breathing tube, and an air source that fits your needs from the product matrix below. All Versaflo components are interchangeable, giving you the flexibility to find different Versaflo solutions for different exposures, applications, locations, or tasks.

1 Choose Your Headgear

3M™ VERSAFLO™ S-SERIES HOODS AND HEADCOVERS



S-Series Integrated Suspension Headcovers



S-Series Integrated Suspension Hoods



S-Series Premium Suspension Hoods

2 Choose Your Breathing Tube

3M™ VERSAFLO™ BT-SERIES BREATHING TUBES

All BT-Series breathing tubes feature the QRS (Quick Release Swivel) connection for maximum comfort and ease of use.



BT-20S/BT-20L
Light Duty Breathing Tube

V-199 Adapter shown with tube is only needed for some NIOSH-approved products.



BT-30
Length Adjusting Breathing Tube



BT-40
Heavy Duty Breathing Tube

3 Choose Your Air Supply Source

3M™ VERSAFLO™ TR-SERIES POWERED AIR PURIFYING RESPIRATORS (PAPRS)

TR-300 Particulate PAPR
Particulate Filter
Particulate + Nuisance
Organic Vapors*



*CE-approved filter only.

3M™ VERSAFLO™ V-SERIES SUPPLIED AIR VALVES

V-Series Valves

- V-100 Vortex Cooling Assembly
- V-200 Vortemp™ Heating Assembly
- V-300 Air Regulating Valve Assembly
- V-400 Low Pressure Connector Assembly
- V-500 Air Regulator Assembly

V-300/V-400 only NIOSH portfolio.
V-500 only CE portfolio.



3M™ VERSAFLO™ M-SERIES FACESHIELDS, HARD HATS AND HELMETS

M-100 Series Faceshields



M-300 Series Hard Hats



M-400 Series Helmets



Want an even easier way to select a system?

3M™ AIR DELIVERY UNIT STARTER KITS

This three-step selection process can be made even easier by choosing 3M's Air Delivery Unit Starter Kits which include everything apart from your headgear.



3M™ GVP-SERIES POWERED AIR PURIFYING RESPIRATORS (PAPRS)

GVP PAPR Series

The GVP PAPR Series is available with many filter and cartridge options, sold separately.

GVP is a NIOSH-approved PAPR only.



3M™ JUPITER™-SERIES POWERED AIR PURIFYING RESPIRATORS (PAPRS)

Jupiter PAPR Series

The Jupiter™ Turbo Series is available with many filter and cartridge options, sold separately.

Jupiter is a CE-approved PAPR only.



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

Lighter and Smaller

The Versaflo TR-300 PAPR is significantly lighter and thinner than 3M's existing 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.

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.



Straightforward Maintenance

- The battery and filter can be changed quickly and easily by hand.
- The belt and blower unit have smooth outer surfaces, facilitating fast wipe downs for easier cleaning.



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).
- Available with backpack option.



Technical Specifications	TR-332 High Capacity Battery	TR-330 Economy Battery
Battery Life (with new filter and fully charged battery)*	8-12 hours	4-6 hours
Charging Time	<3.5 hours	<3.0 hours
Flow Rate	Nominal 190 LPM (6.7 CFM)	Nominal 190 LPM (6.7 CFM)
Weight (includes belt, filter, battery, and filter cover)	Approx. 2.4 lbs (1077 g)	Approx. 2.0 lbs (918 g)
Size	Approx. 7 7/8 x 8 1/4 x 3 3/8 inches (197 x 210 x 85 mm)	Approx. 7 7/8 x 7 1/2 x 3 3/8 inches (197 x 190 x 85 mm)
Operating Altitude	For altitudes above 2,600 feet (800m), contact 3M.	
Regulatory Approvals	Available in both NIOSH or CE approval. Headgear must match approval of turbo to keep certification.	

* Estimated system run time based on testing with a new battery and a new clean filter at 68° F (20° C). Actual system run time may be extended or shortened depending on system configuration and environment.

Options For Diverse Environments

Filters:

- Pre-filter
- Particulate filter
- Particulate filter that also reduces nuisance-level organic vapors*

Spark Arrestor:

- For welding and grinding applications, a spark arrestor reduces the risk of sparks and other hot materials contacting the filter and motor

Belts:

- Standard webbing belt
- Coated, easy-clean belt
- Spark-resistant, leather belt for heavy-duty applications
- Braces and a backpack also available

Batteries:

- Economy battery
- High-capacity battery

Chargers:

- Single charger
- 4-station battery charger kit



3M™ Versaflo™ TR-302 Turbo Unit

The Versaflo TR-302 Turbo Unit comes with a filter cover and an airflow indicator only.

3M™ Versaflo™ TR-300 Starter Kit

This Versaflo TR-300 Starter Kit (photo) includes the TR-300 turbo unit, particulate filter, pre-filter, standard belt, high capacity battery pack, battery charger kit (not shown), airflow indicator and self-adjusting breathing tube (only available in CE-approved version).



*Nuisance level refers to concentrations below occupational exposure limit (OEL). This filter is only available for CE-approved products.

3M™ Powered and Supplied Air Delivery Units

3M™ JUPITER™ POWERED AIR RESPIRATOR

Protection from Particulates and/or Gases and Vapors

The existing 3M™ Jupiter™ Powered Air Respirator is fully compatible with all 3M™ Versaflo™ Headgear and Breathing Tubes. The Jupiter respirator provides respiratory protection against particulate and gaseous contaminants (particulate only and combined particulate/gas and vapor filters are available).

Ergonomically designed to sit at the base of the user's back, the unit's low weight is carried mostly on the user's hips via the padded comfort belt. As a result, the Jupiter respirator is comfortable enough to wear for entire work shifts. Includes decontamination belt, airflow indicator and calibration tube.

User Benefits:

- Modern, ergonomic design
- 5 filters for wide range of applications
- Decontamination comfort belt for improved fitting and easy cleaning
- IP53 rating; can be worn during shower decontamination
- 3M™ Jupiter™ Intrinsically Safe Kit option
- Optional braces
- Audible and visual alarms
- Intelligent 10-station battery charger available
- Economy (4 hours) or high-capacity (8 hours) batteries
- EN12941 TH2/TH3



3M™ Jupiter™ Powered Air Turbo Unit

3M Jupiter turbo unit includes decontamination belt and clip, air flow indicator and calibration tube.

3M™ Jupiter™ Starter Kit

3M Jupiter starter kit (see photo) includes a standard 3M Jupiter turbo including decontamination belt and clip, filter gaskets, air flow indicator and calibration tube, as well as a pair of organic vapor and particulate (A2P) filters, pre-filters, self-adjusting breathing tube, 8-hour rechargeable battery (NiMH) and battery charger.



Jupiter™ is a CE-approved respirator only.

3M™ VERSAFLO™ V-SERIES SUPPLIED AIR REGULATORS

V-100 Air Cooling and V-200 Air Heating Regulators

3M Versaflo V-100 and V-200 Regulators allow users to either cool (V-100) or heat (V-200) the air by as much as 28°, making them a good choice for workers exposed to either uncomfortably hot or cold temperatures.

- V-100/200 available in NIOSH- or CE-approved portfolio
- V-300/400 available only in NIOSH-approved portfolio
(For more details on these valves, please contact your 3M Representative.)

V-500 Regulator

3M Versaflo V-500 Regulator ensures an individually-adjustable, consistently-controlled airflow. The regulator requires a working pressure of 3.5-8 bar and is extremely quiet due to the integrated silencer (<65 dBA). An integrated warning whistle warns the user of low airflow into the headgear.

- Meets latest standard (EN14594)
- Airflow: 170-305 liters/minute
- Weight: 550 g
- V-500 valve available only in CE-approved portfolio

Please see the data on the headgear used with the unit for information on protection factors.





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

Many wearers of half and full facepiece respirators are taking a second look at powered and supplied air respirators for reasons that go beyond compliance.

All-Day Comfort

New 3M™ Versaflo™ S-Series Hoods and Headcovers have been designed to provide users with the optimal level of comfort. Easily adjustable suspensions (most models) and soft comfort pads help provide excellent fit, stability and tracking. Comfort suspension hoods and headcovers feature wide face seals with soft elastic for improved comfort and reduced air flow noise. The premium reusable suspension allows wearers to modify the airflow distribution inside the hood to suit personal comfort needs. All of these improvements combine to help workers stay more comfortable throughout the day.

Versatility

As a part of Versaflo respirator systems, S-Series hoods and headcovers can be used in dozens of different Powered Air Purifying Respirator and Supplied Air Respirator combinations.

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 50°F (28°C) for additional comfort.

High Performance—APF

3M has conducted research to document an Assigned Protection Factor (APF) of 1000 for the S-Series hoods when used as part of a NIOSH-approved powered or supplied air respirator system. An APF of 1000 is the highest level allowed under the Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard (29 CFR 1910.134) for this class of respirator. S-Series headcovers have an APF of 25, making them suitable for a wide range of applications and working environments.

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.

Simple Maintenance

Choose the ready-to-use integrated suspension models for applications where assembly would be too time-consuming or impractical. Or select the premium reusable suspension hoods for quick, highly cost-effective replacement of outer fabrics.

ALL-NEW BENEFITS

Comfortably Worn By More Users

Based on a computer modeling of a worldwide sampling of head sizes, the new S-Series suspensions, through their sizing options, will comfortably fit more wearers than previous models.

Improved Visibility

S-Series visors have an excellent field of view with reduced curvature for decreased reflections and glare. Their new design, plus their protective shipping cartons, minimize the potential for visor creasing and visual distortion.

Sleek New Shape

The design of the premium suspension and comfort suspension hoods and headcovers more closely profiles the wearer's head for a more streamlined, less bulky appearance.

Excellent Airflow

S-Series wearers benefit from excellent airflow distribution for improved comfort.



3M™ Versaflo™ S-Series Hoods and Headcovers

Integrated Suspension Hoods and Headcovers

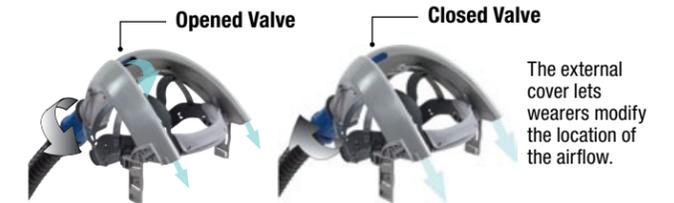
Available with two different suspensions, comfort and fabric, integrated suspension hoods and headcovers offer the advantage of being fully assembled and ready to use straight out of the box. They can be suitable for applications that require frequent replacement of the entire headgear assembly, such as pharmaceutical manufacturing, or in situations where there is less soiling of the outer fabric. Integrated suspension headgear is available in two sizes to comfortably fit more wearers: S/M and M/L.



Premium Reusable Suspension Hoods

These 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. The new design permits significantly faster user assembly of the entire headgear.

The suspension's new 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 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.

NIOSH-APPROVED PRODUCT PORTFOLIO



3M™ Versaflo™ Economy Headcover S-103

Head and face coverage. Fabric suspension.



3M™ Versaflo™ Headcover S-133

Head and face coverage. Comfort suspension. General purpose fabric.



3M™ Versaflo™ Headcover S-133B

Head and face coverage. Comfort suspension, blue Tychem™ QC fabric.



3M™ Versaflo™ Economy Hood S-403

Head, face, neck, and shoulder coverage. Fabric suspension, inner shroud.



3M™ Versaflo™ Hood S-533

Head, face, neck, and shoulder coverage. Comfort suspension. Durable, soft, quiet, low-linting fabric that drapes more comfortably over the wearer.



3M™ Versaflo™ Hood Assembly S-655

Head, face, neck and shoulder coverage. Its respiratory seal is a comfortable, knitted inner collar that is shorter and thinner than previous models. General purpose, cost-effective fabric.



3M™ Versaflo™ Hood Assembly S-657

Similar to S-655. The S-657 uses a double shroud design for its respiratory seal; wearers can select their preferred seal design. The S-657 is worn by tucking the inner shroud into a shirt or protective coverall, allowing excess air to be channeled over the body.



3M™ Versaflo™ Hood Assembly S-757

Similar to S-657 but with a fabric specifically intended to help capture paint overspray, minimizing the potential for paint to flake off the wearer and onto the work piece. Fabric has an internal film barrier to help prevent paint contact with skin or clothes.



3M™ Versaflo™ Hood Assembly S-855

Similar to S-655 but made with Kappler™ Zytron™ 200, a polypropylene fabric with a multi-layer barrier film. Features sealed seams, making it suitable for environments where certain liquid splash hazards may be present. Includes a comfortable inner collar.



3M™ Versaflo™ Hood Assembly S-857

Similar to S-657 but made with Kappler™ Zytron™ 200 and sealed seams. Features a double shroud design for its respiratory seal. Both the S-855 and S-857 hood assemblies include ties to help keep the shroud in place.

CE-APPROVED PRODUCT PORTFOLIO



3M™ Versaflo™ S-133 Headcover

General purpose, cost-effective fabric. Fabric material: Polypropylene coated non-woven polypropylene. Visor material: PETG.



3M™ Versaflo™ S-333G Headcover

Soft, quiet, more durable low-linting fabric. Fabric material: Polyurethane coated knitted polyamide. Visor material: Coated polycarbonate for increased chemical and scratch resistance.



3M™ Versaflo™ S-433 Hood

Includes neck and shoulder coverage. Fabric material: Polypropylene coated non-woven polypropylene. Visor material: PETG.



3M™ Versaflo™ S-533 Hood

Neck and shoulder coverage with soft, low-linting fabric that more readily drapes over user. Fabric material: Polyurethane coated knitted polyamide. Visor material: Coated polycarbonate for increased chemical and scratch resistance.



3M™ Versaflo™ S-655 Hood

General purpose, with knitted inner collar that is shorter and thinner than previous models. Fabric material: Polypropylene coated non-woven polypropylene. Visor material: PETG.



3M™ Versaflo™ S-657 Hood

Features a double-shroud design for its respiratory seal. Fabric material: Polypropylene coated non-woven polypropylene. Visor material: PETG.



3M™ Versaflo™ S-757 Painters Hood

Fabric specifically intended to help capture paint overspray. Fabric material: Polypropylene coated non-woven polypropylene. Visor material: PETG.



3M™ Versaflo™ S-855E Hood

Sealed seam hood for liquid chemical splash environments. Fabric material: Zytron™ 200. Visor material: Coated polycarbonate. Zytron™ is a registered trademark of Kappler.

3M™ Versaflo™ M-Series Respiratory Protection Headgear for Powered and Supplied Air Respirators

3M™ Versaflo™ M-Series Headgear 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™ M-100 Faceshield) for optimal fit and weight distribution.



Easy Maintenance

Easily removable parts allow simple cleaning, maintenance and replacement.

New Visor

A new visor design combines excellent peripheral and downward vision with good optical clarity. Coated visor option provides added chemical and scratch resistance.

Versatility

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

3M™ VERSAFLO™ M-SERIES FACESHIELDS, HARD HATS AND HELMETS

M-100 Respiratory Faceshield

- Light, well-ventilated shell offers maximum comfort
- Optional accessory (M-170 Faceshield Inserts) provides head coverage from dirt and debris, as well as minimal protection from contact with stationary objects ("bump" protection)
- Recommended for most powder handling, paint spraying, and general maintenance applications where an approved level of head protection is not required
- Available with a variety of face seal fabrics



The M-976 Head, Neck, and Shoulder Cover can be used with all M-100 and M-300 headgear to help keep the wearer's hair, neck, and collar clean from paint spray, powder, or other contaminants.

M-300 Respiratory Hard Hat

- 6-strap textile suspension offers maximum comfort
- Recommended for most powder handling, paint spraying and general maintenance applications where hard hat protection is required or desired
- Available with a variety of face seal fabrics



M-400 Respiratory Helmet

- 6-strap textile suspension offers maximum comfort
- Recommended for most powder handling, paint spraying, and general maintenance applications where the highest level of respiratory protection defined by OSHA and hard hat protection is required or desired
- Four different shroud materials available



Lightweight and easy to use.

3M™ Versaflo™ S-Series Systems—Breathing Tubes

New Breathing Tubes

All S-Series compatible breathing tubes feature the innovative 3M™ Quick Release Swivel (QRS) connection. The QRS connects quickly to the headgear and swivels to minimize loops and kinks in the breathing tube.

BT-20S



3M™ Versaflo™ Breathing Tube, Small/Medium

Approx. 28", features steel core coils for durability. To improve comfort and reduce the potential to catch on the wearer's surroundings, BT-20 tubes are available in two sizes.

BT-20L



3M™ Versaflo™ Breathing Tube, Medium/Large

Approx. 38", features steel core coils for durability. To improve comfort and reduce the potential to catch on the wearer's surroundings, BT-20 tubes are available in two sizes.

BT-30



3M™ Versaflo™ Length-Adjusting Breathing Tube

Self-adjusting length results in an approved fit for most wearers and reduced risk of catching and snagging.

BT-40



3M™ Versaflo™ Heavy Duty Neoprene Rubber Breathing Tube

Features a durable, heat-resistant neoprene rubber material for rugged applications.

3M™ Versaflo™
Comfort
Simplicity
Versatility



General Offices

3M Center, Building 235-2W-70
St. Paul, MN 55144-1000



⚠ WARNING

These respirators help protect against certain airborne contaminants. 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 OSHA 1910.134 including training, fit testing and medical evaluation. In Canada, CSA standards Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. Misuse may result in sickness or death. For proper use, see packaging instructions, supervisor, or call 3M OH&ESD Technical Service in USA at 1-800-243-4630 and in Canada at 1-800-267-4414.