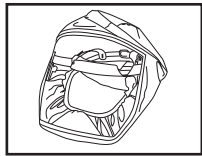


3M Versaflo™ S-Series Hoods and Headcovers

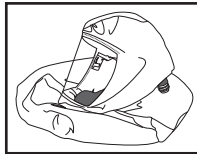
User Instructions for:



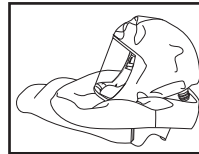
S-103S
S-103L
S-133S
S-133L
S-133SB
S-133LB
S-333S
S-333L



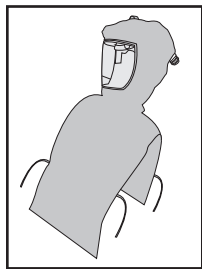
S-403S
S-403L
S-433S
S-433L
S-533S
S-533L



S-605



S-607
S-707



S-805
S-807

Important: Before use, the wearer must read and understand these *User Instructions*. Keep these *User Instructions* for reference.

/

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⚠ WARNING

This product helps protect against certain airborne contaminants. **Misuse may result in sickness or death.** For proper use, see supervisor, *User Instructions* or call 3M in U.S.A., 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.

FOREWORD

Contact Information

Read all instructions and warnings before using. Keep these *User Instructions* for reference. If you have questions regarding these products contact 3M Technical service.

In United States:

Website: www.3M.com/OccSafety

Technical Service: 1-800-243-4630

In Canada:

Website: www.3M.com/CA/occsafety

Technical Service: 1-800-267-4414

System Description

The 3M™ VersaFlo™ S-Series hoods and headcovers are designed to be used with certain 3M breathing tubes and Powered Air-Purifying Respirators or Supplied Air Units to form a respirator system.

The S-100 and S-300 series headcovers (i.e. loose fitting facepieces) and the S-400 and S-500 series hoods have a wide-view window (visor) and an elasticized faceseal. The S-403 has an added inner bib or shroud which is worn tucked into work clothing. The hoods and headcovers are held in place with an adjustable, non-replaceable plastic integrated suspension (S-133, S-133B, S-333, S-433, and S-533) or a sewn-in elastic suspension (S-103 and S-403). There are different sizes and fabrics available and all headcovers and hoods are supplied fully assembled, ready for use.

The S-600, S-700, and S-800 series hoods incorporate a neck collar or inner bib with an outer shroud and a wide-view visor. They are available in a variety of fabrics. The S-800 series hoods have sealed seams to help prevent liquid permeation through the thread holes. The S-600, S-700, and S-800 series hoods use the S-950 Premium Head Suspension. The S-950 suspension is easily removable and can be adjusted by the user for fit and airflow comfort.

⚠ WARNING

Properly selected, used, and maintained respirators help protect against certain airborne contaminants by reducing concentrations in the wearer's breathing zone below the Occupational Exposure Limit (OEL). It is essential to follow all instructions and government regulations on the use of this product, including wearing the complete respirator system during all times of exposure, in order for the product to help protect the wearer. **Misuse of respirators may result in overexposure to contaminants and lead to sickness or death.** For proper use, see supervisor, refer to the product *User Instructions* or contact 3M Technical Service.

List of Warnings within these *User Instructions*

⚠ WARNING

1. This product helps protect against certain airborne contaminants. **Misuse may result in sickness or death.** For proper use, see supervisor, *User Instructions* or call 3M in U.S.A., 1-800-243-4630. In Canada, call Technical Service at 1-800-267-4414.
2. **Failure to follow these instructions** may reduce respirator performance, overexpose you to contaminants, and **may result in injury, sickness, or death.**
 - Always correctly position the S-100, S-300, S-400, and S-500 Series hoods and loose-fitting facepieces on the head.
 - Users should be clean-shaven where the respirator's faceseal (S-100, S-300, S-400, and S-500 series products) comes into contact with their face.
 - Always tuck the inner shroud of the S-403, S-607, S-707, and S-807 hood into your work clothes.
 - Always pull the S-950 premium head suspension fully through the opening in the S-600, S-700, and S-800 series hoods.
 - Do not use with parts or accessories other than those manufactured by 3M as described in these *User Instructions* or on the NIOSH approval label for this respirator.
 - The S-Series hoods and headcovers are one component of an approved respiratory protection system. Always read and follow all *User Instructions* supplied with your 3M PAPR Blower Unit or Supplied Air Unit in order to ensure correct system operation.
3. Do not use these products for eye and face protection. When exposed to eye and face hazards (e.g. impact hazards) select and wear appropriate protection. **Failure to do so may result in serious injury.**
4. Do not use these products around heat, flames, or sparks. Select and wear appropriate protection when exposed to sparks and/or flames. **Failure to do so may result in serious injury.** In case of intended use in explosive atmospheres, contact 3M Technical Service.

Limitations of Use

1. Do not wear this respirator to enter areas where:
 - a. Atmospheres are oxygen deficient.
 - b. Contaminant concentrations are unknown.
 - c. Contaminant concentrations are Immediately Dangerous to Life or Health (IDLH).
 - d. Contaminant concentrations exceed the maximum use concentration (MUC) determined using the Assigned Protection Factor (APF) for the specific respirator system or the APF mandated by specific government standards, whichever is lower. See *APF* section of this *User Instruction*.
2. These products may offer limited splash protection against certain chemicals. Consult a qualified industrial hygienist and the applicable Chemical Permeation Guide(s) to determine suitability of these products for your specific environment. Note, only the S-800 series hoods have sealed seams to help prevent liquid permeation through thread holes. For additional information, contact 3M Technical Service.

Respirator Program Management

Occupational use of respirators must be in compliance with applicable health and safety standards. By law, US employers must establish a written respiratory protection program meeting the requirements of the OSHA Respiratory Protection Standard 29 CFR 1910.134 and any applicable OSHA substance specific standards. In Canada, CSA standard Z94.4 requirements must be met and/or requirements of the applicable jurisdiction, as appropriate. For additional information on this standard, contact OSHA at www.OSHA.gov. The major sections of 1910.134 are listed here for reference. Consult an industrial hygienist or call 3M Technical Service with questions concerning applicability of these products to your job requirements.

Major Sections of OSHA 29 CFR 1910.134

| Section | Description |
|---------|--|
| A | Permissible Practice |
| B | Definitions |
| C | Respiratory Protection Program |
| D | Selection of Respirators |
| E | Medical Evaluation |
| F | Fit Testing |
| G | Use of Respirators |
| H | Maintenance and Care of Respirators |
| I | Breathing Air Quality and Use |
| J | Identification of Cartridges, Filters, and Canisters |
| K | Training and Information |
| L | Program Evaluation |
| M | Recordkeeping |

NIOSH –Approval, Cautions, & Limitations

These products are one component of a NIOSH approved respiratory protection system. Refer to the *User Instructions* and/or the NIOSH approval label provided with the 3M Supplied Air Unit or Powered Air Purifying Blower Unit for approved configurations and applicable NIOSH Cautions and Limitations.

OPERATING INSTRUCTIONS

Unpacking

Inspect the package contents for shipping damage and ensure all components are present. The product should be inspected before each use following the procedures in the *Inspection* section of this *User Instruction*.

Assembly

WARNING

Failure to follow these instructions may reduce respirator performance, over expose you to contaminants, and **may result in injury, sickness, or death.**

- Always pull the S-950 premium head suspension fully through the opening in the S-600, S-700, and S-800 series hoods.

S-100, S-300, S-400, S-500 Series (with Integrated Head Suspension)

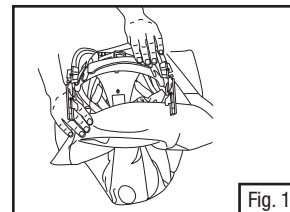
These products are provided fully assembled. Prior to use, ensure any protective covering or film that may have been placed over the visor to protect it during manufacturing and shipping is removed. Verify all plastic suspension straps (S-133, S-133B, S-333, S-433, and S-533 series) are fully connected prior to use. Re-connect if necessary.

S-600, S-700, S-800 Series Hoods (with S-950 Premium Head Suspension)

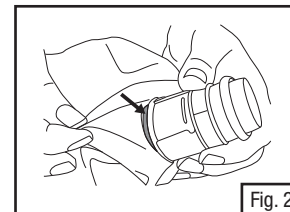
Installing the head suspension into the hood:



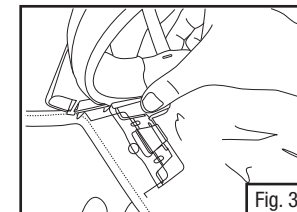
Note: Before installing the S-950 suspension, examine the suspension and locate the groove located between the air duct sealing ring (i.e. gasket) and the blue airflow adjustment mechanism. The fabric of the hood must be pulled past the lip of the air inlet and seated in the groove (Fig. 2).



With the hood upside down and the visor window facing towards you, insert the head suspension into the hood. (Fig. 1).



Pull the air inlet through the opening in back of the hood. Fabric must be pulled past the lip of the air inlet (located just beneath the blue airflow adjustment mechanism) and seated in the groove just above the air duct sealing ring (i.e. gasket) (Fig. 2).



Attach the suspension to the visor tabs located on each side of the visor window by sliding the visor attachment clips onto the visor tab (Fig. 3).

Removing the premium head suspension

To remove the S-950 suspension, detach the visor attachment clips located on each side of the suspension from the visor window by lifting the center tab of the visor adjustment clip up slightly and sliding the visor attachment clips off the visor tab. Remove the suspension from the hood.

Breathing Tubes & Adapters



Note for S-950 Premium Suspension (S-600/700/800 Series Hood) Users: The S-955 Airflow Adjustment Cover must be attached to the breathing tube before connecting the breathing tube to the air inlet of the S-950 Premium Suspension. Snap the Airflow Adjustment Cover into place on the QRS (Quick Release Swivel) end of the breathing tube (i.e. the end with the blue pinch clip) according to Fig. 4. Note that the S-955 Airflow Adjustment Cover is only used with the S-950 Premium Head Suspension and is not compatible with the S-100, S-300, S-400, or S-500 series products. The S-955 may be installed and removed from the breathing tube as needed.

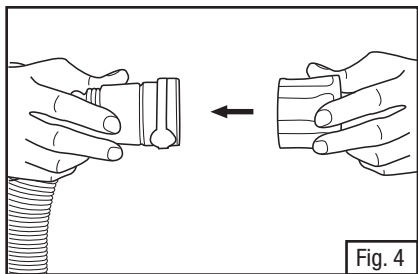


Fig. 4

Connecting the breathing tube

Connect the breathing tube by pushing the QRS (Quick Release Swivel) end of the breathing tube (i.e. the end with the blue pinch clip) onto the air inlet of the headgear. S-100, S-300, S-400, and S-500 series users see Fig. 5. All other users see Fig. 6. The breathing tube should make an audible click when attached. Verify breathing tube is secured to the headgear by pulling on the connection.

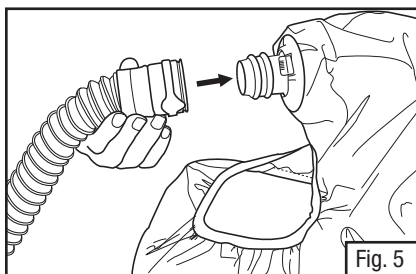


Fig. 5

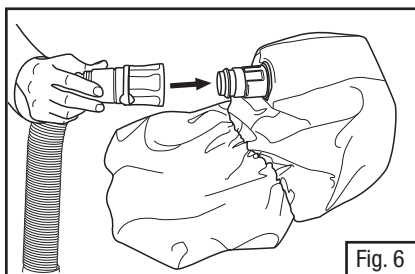


Fig. 6

Disconnecting the breathing tube

To disconnect the breathing tube, compress the blue pinch clip of the QRS to release and pull back to remove (Fig. 7).

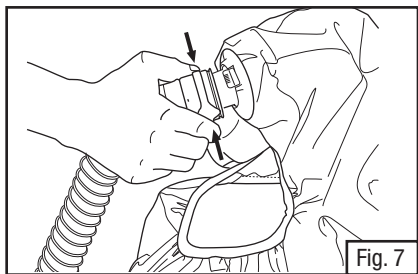


Fig. 7

PAPR/SA Components

Read completely and follow the assembly instructions in the *User Instructions* provided with your 3M PAPR (Powered Air Purifying Respirator) blower unit or Supplied Air Unit.

Donning & Fitting

⚠ WARNING

Failure to follow these instructions may reduce respirator performance, overexpose you to contaminants, and **may result in injury, sickness, or death.**

- Always correctly position the S-100, S-300, S-400, and S-500 series hoods and loose-fitting facepieces on the head.
- Users should be clean-shaven where the respirator's face seal (S-100, S-300, S-400, and S-500 series products) comes into contact with their face.
- Always tuck the inner shroud of the S-403, S-607, S-707, and S-807 hood into your work clothes.

The following instructions cover donning and fitting of your 3M hood or headcover. Follow the *User Instructions* for your 3M PAPR or Supplied Air Unit to properly assemble, don, and fit your specific air source. Complete all necessary performance checks as described in those *User Instructions* and verify that the airflow is adequate before donning your headgear and entering a contaminated environment.

1. Check that you have the appropriate size hood or headcover. Sizing Guidelines for S-Series Hoods and Headcovers are provided in Table 1. Some models are available in more than one size. Since the sizing guidelines are general, the best fitting size for you may depend on your facial size and shape. Select the size that fits most comfortably and matches your head size. An optional size reducing pad (S-954) is available for the S-950 Premium Suspension to enhance fit of suspension around the brow and top of the head as well as to decrease the circumference. See the *Replacement Parts and Accessories* section of this *User Instruction* for additional information.

Table 1: Sizing Guidelines for S-Series Hoods and Headcovers

| | Head Circumference (cm) | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|--|---------------------------------|-------|-------|-------|-------|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|----|
| | US Hat Size | 6 1/4 | 6 3/8 | 6 1/2 | 6 5/8 | 6 3/4 | 6 7/8 | 7 | 7 1/8 | 7 1/4 | 7 3/8 | 7 1/2 | 7 5/8 | 7 3/4 | 7 7/8 | 8 |
| Integrated Suspension (S-100, S-300 S-400, S-500 Series Hoods/ Headcovers) | S/M | | | | | | | | | | | | | | | |
| | M/L | | | | | | | | | | | | | | | |
| S-950 Premium Suspension (S-600, S-700, S-800 Series Hoods) | With standard S-953 Comfort Pad | | | | | | | | | | | | | | | |

Maximum
 Optimum

2. Don the hood or headcover and connect the breathing tube.

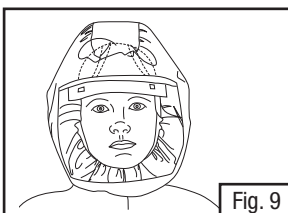
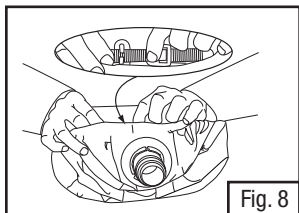
Note: You may want to use the buddy system and have a colleague help check for proper donning.



S-100, S-300, S-400, and S-500 Series:

- Pull the hood or headcover over your head so that the visor is directly in front of your face.
- Pull the suspension firmly onto your head. The suspension should feel tight but comfortable. The comfort pad (i.e. sweatband) should be worn around your forehead just above the brow.
- **Headgear with plastic suspensions only** (all models except S-103 and S-403): If your hood or headcover has a plastic suspension it may be adjusted as necessary to achieve a comfortable fit (Fig. 8). The headband of the plastic suspension should be worn around your forehead and the crown strap should be positioned on top of the head, not around the back of the head (Fig. 9).

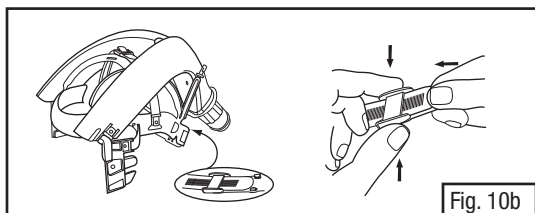
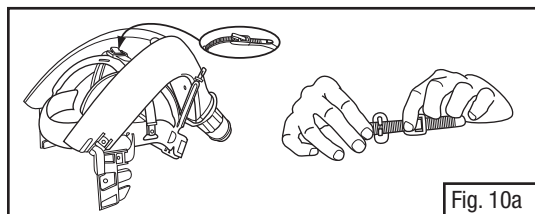
NOTE: The fabric suspension in the S-103 and S-403 is not adjustable.



- To achieve the best fit, the elasticized edge of the hood or headcover faceseal should come in contact with your face under the chin and above the ears. **S-403 only:** The S-403 is designed to be worn with the inner shroud tucked into other protective clothing. Tuck the inner shroud fully into your work clothing. Leave the outer shroud draped over your shoulders.

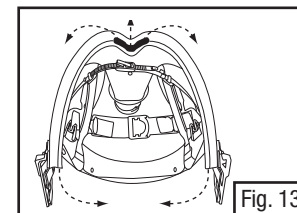
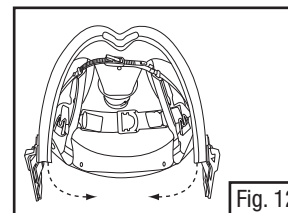
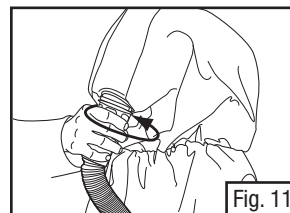
S-600, S-700, and S-800 Series

- Adjust the S-950 suspension as necessary to achieve a comfortable fit (Fig. 10a & 10b). An optional chin strap (S-958) is available for additional comfort and stability. See *Replacement Parts and Accessories* section of this *User Instruction* for additional information.



- Insert the suspension into the hood (see *Assembly* section of this *User Instruction*).
- Pull the hood over your head so that the visor is directly in front of your face.
- If using the optional chin strap, place the elastic strap under your chin and pull the ends of the strap to adjust the tightness.
- If your hood has an inner bib (shroud), tuck the inner shroud fully into your work clothing.

- Leave the outer shroud draped over your shoulders. If using the S-807 or S-805 Hood, pull the long outer shroud down over clothing and tie tightly, but comfortably at the sides.
- Adjust the airflow of the S-950 Premium Head Suspension for wearing comfort by rotating the Airflow Adjustment Cover (S-955) according to Fig. 11. While wearing, the airflow may be directed primarily to the front visor (Fig. 12) or split to provide more airflow to the top of the head (Fig. 13).



3. Complete any final performance checks required according to the *User Instructions* for your PAPR or Supplied Air Unit.

Entering and Exiting the Contaminated Area**WARNING**

1. **Failure to follow these instructions may result in serious injury.**
 - a. Do not use these products for eye and face protection. When exposed to eye and face hazards (e.g. impact hazards) select and wear appropriate protection.
 - b. Do not use these products around heat, flames, or sparks. Select and wear appropriate protection when exposed to sparks and/or flames. In case of intended use in explosive atmospheres, contact 3M.
2. The S-Series hoods and headcovers are one component of an approved respiratory protection system. Always read and follow all *User Instructions* supplied with your 3M PAPR Blower Unit or Supplied Air Unit in order to ensure correct system operation. **Failure to do so may reduce respirator performance, overexpose you to contaminants, and may result in injury, sickness, or death.**

With the respirator in operation, enter the contaminated area, breathing normally. Keep the air supply hose or PAPR assembly away from equipment, vehicles, and other physical and chemical hazards.

1. Airborne contaminants which can be dangerous to your health include those that are so small you may not be able to see or smell them.
2. **Do not** wear this respirator to enter areas where:
 - a. Atmospheres are oxygen deficient.
 - b. Contaminant concentrations are unknown.
 - c. Contaminant concentrations are Immediately Dangerous to Life or Health (IDLH).
 - d. Contaminant concentrations exceed the maximum use concentration (MUC) determined using the Assigned Protection Factor (APF) for the specific respirator system or the APF mandated by specific government standards, whichever is lower. See *APF* section of this *User Instruction*.
3. Leave the contaminated area *before* reaching inside or removing the hood or headcover. Do not remove the respirator or reach your hand into the hood or headcover in areas where the air is contaminated.
4. Leave the contaminated area immediately if any of the following conditions occur:
 - a. Any part of the system becomes damaged.
 - b. Airflow into the respirator decreases or stops.

- c. Breathing becomes difficult.
- d. You feel dizzy or your vision is impaired.
- e. You taste or smell contaminants.
- f. Your face, eyes, nose or mouth become(s) irritated.
- g. You suspect that the concentration of contaminants may have reached levels at which this respirator may no longer provide adequate protection.
- h. The inner shroud on the S-403, S-607, S-707, or S-807 series hood becomes untucked.

Refer to the *Inspection & Maintenance* sections of these *User Instructions* for guidance on how to properly care for your hood or headcover.

INSPECTION & MAINTENANCE

⚠ WARNING

Failure to follow these instructions may reduce respirator performance, overexpose you to contaminants, and **may result in injury, sickness, or death.**

- Do not use with parts or accessories other than those manufactured by 3M as described in these *User Instructions* or on the NIOSH approval label for this respirator.

The 'in use' life of these products will vary with frequency and conditions of use. Before and after each use, inspect for signs of damage or wear.

Carefully:

- Examine the condition of the fabric, head suspension, visor, outer shroud, and as applicable, inner shroud, collar, or elasticized face seal. Check that there are no cracks, rips, dents, holes, tears, or other damage.
- Look closely at the stitching. Ensure stitching is intact and there is no unraveling or gaps in the seams. There should be no tears or holes that could permit contaminated air to enter the hood or headcover.
- If using the S-800 series hood, closely inspect the sealed seams for rips, holes, tears, or other damage. Ensure side ties are present and undamaged.
- Look for scratches or other visual distortions that could make it difficult to see through the visor.
- Examine the head suspension for cracks or other damage.
- Examine the entire breathing tube. Look for tears, holes or cracks. Bend the tube to verify that it is flexible. Ensure the gasket located in the QRS (i.e. the end connection to headgear) is present and not damaged. If using a BT-Series breathing tube, inspect the gasket located on the bayonet end of the breathing tube (i.e. the end that connects to the airsource) for signs of damage. The breathing tube should fit firmly into the airsource connection.

If you discover any signs of wear and/or damage, discard the component and replace it with a new one. Failure to do so may affect respirator performance and reduce the degree of protection provided.

REPLACEMENT PARTS AND ACCESSORIES

⚠ WARNING

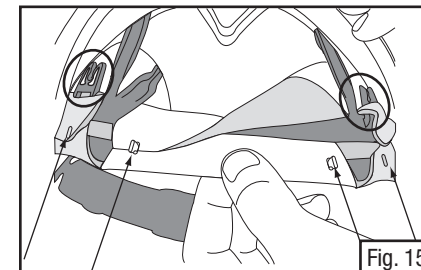
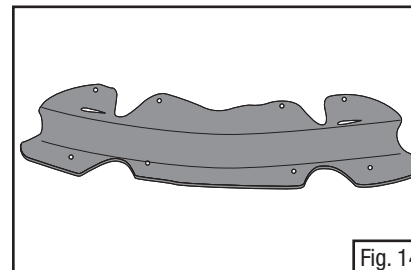
Failure to follow these instructions may reduce respirator performance, overexpose you to contaminants, and **may result in injury, sickness, or death.**

- Do not use with parts or accessories other than those manufactured by 3M as described in these *User Instructions* or on the NIOSH approval label for this respirator.

S-950 Premium Head Suspension

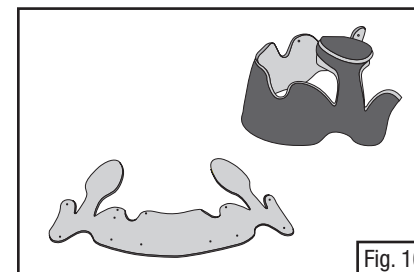
Replacing the Standard Comfort Pad, S-953

1. Remove existing comfort pad by gently pulling the pad off the attachment points.
2. Secure the new S-953 comfort pad (Fig. 14) to the suspension according to Fig. 15. The two long slots in the comfort pad hook over the large top hooks circled in Fig. 15. Use the smaller hooks on the suspension to fully secure the comfort pad.



Installing the Size Reducing Comfort Pad, S-954

An optional size reducing pad (Fig. 16) can be used instead of the standard comfort pad to help improve fit of the suspension around the brow, top of the head, and around the circumference of the head.



S-950 Premium Suspension Sizing

| Head Circumference (cm) | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|-------|-------|-------|-------|-------|-------|----|-------|-------|-------|-------|-------|-------|-------|----|
| US Hat Size | 6 1/4 | 6 3/8 | 6 1/2 | 6 5/8 | 6 3/4 | 6 7/8 | 7 | 7 1/8 | 7 1/4 | 7 3/8 | 7 1/2 | 7 5/8 | 7 3/4 | 7 7/8 | 8 |
| With optional size reducing S-954 Comfort Pad | | | | | | | | | | | | | | | |
| With standard S-953 Comfort Pad | | | | | | | | | | | | | | | |

Maximum
 Optimum

To install the size reducing pad:

1. Remove the standard S-953 comfort pad by gently pulling the pad off the attachment points.
2. Secure the S-954 Size Reducing Comfort Pad to the suspension according to Fig. 17a-d. The two long slots in the size reducing comfort pad hook over the large top hooks on the premium head suspension marked with an arrow in Fig. 17a. Use the smaller hooks on the suspension to fully secure the pad as shown (Fig. 17b-17d).



Note: When worn, the two large "spoon" shaped parts of the pad should rest on the top of the head.

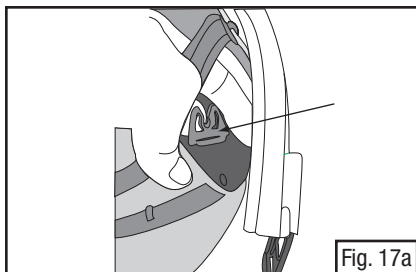


Fig. 17a

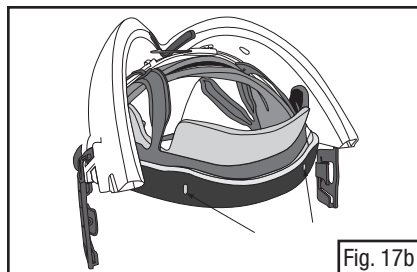


Fig. 17b

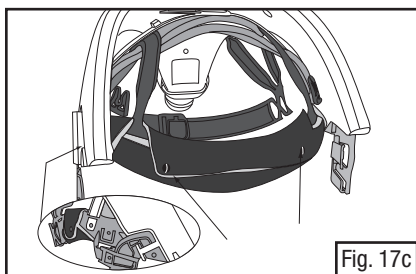


Fig. 17c

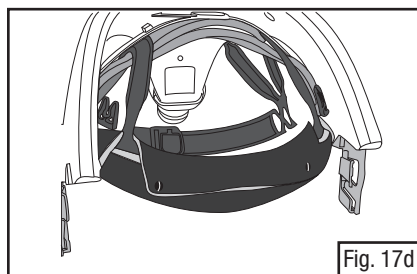


Fig. 17d

Replacing the Visor Attachment Clips, S-952

To replace the S-952 Visor Attachment Clips, release the clips from the suspension according to Fig. 18. This may require the use of a tool. Install the new clips by sliding the clip into position at the two connection points.

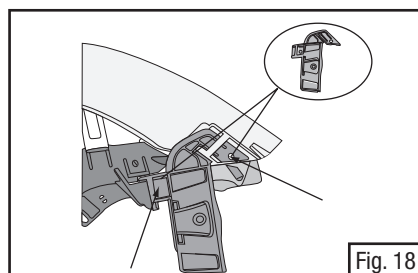


Fig. 18


Replacing the Headband, S-951

To replace the S-951 Headband, release the headband from the attachment points located at the visor clips and along the molded air channel. Use a tool if necessary. Install the new headband by sliding the clips of the headband into the attachment points.

Installing the Chin Strap, S-958

An optional chin strap is available for the S-950 Premium Suspension for additional comfort and stability.

1. Locate the chin strap attachment points on the suspension. Fig. 19a shows an attached chin strap with the arrow pointing to the attachment catch on the suspension.

 **Note:** The attachment points are located on the dark gray headband near where the visor clips attach. There are two catches, one on each side of the headband.

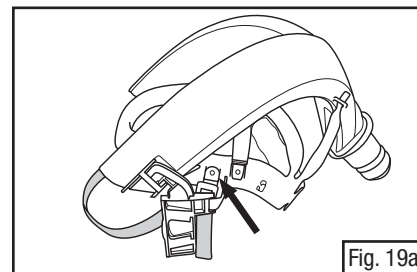


Fig. 19a

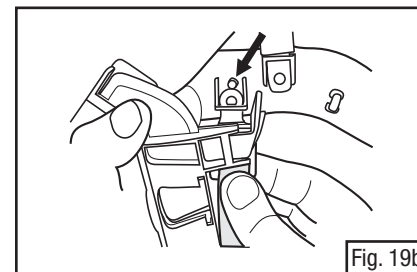



Fig. 19b


2. Install the chin strap by inserting the chin strap clips onto the attachment points on the suspension according to Fig. 19b. Firmly press the hole in the chin strap clip onto the catch on the suspension.
3. Verify chin strap is secured to the suspension by pulling on the chin strap.

Peel-offs

Attaching Peel-Off Visor Covers- S-920S, S-920L, S-922

1. Peel off the paper backing from the adhesive on the edges of the cover.
2. Center the cover over the visor and press the edges with the adhesive coating against the visor.

 **Note:** You may stack up to 5 visor covers on top of one another. This allows you to quickly peel off covers as they become difficult to see through, reducing the number of times you must stop working to reapply covers.

 **Note:**

- S-920S peel-offs: use with S-133S, S-133SB, S-333S, S-433S & S-533S
- S-920L peel-offs: use with S-133L, S-133LB, S-333L, S-433L & S-533L
- S-922 peel-offs: use with S-600, S-700 & S-800 series hoods and also S-103* & S-403* series.

* S-922 covers the most area of the visor. Users may also want to evaluate S-920S and S-920L. H-110 peel-off is also an option for the S-403L.

CLEANING, STORAGE, AND DISPOSAL

Cleaning

Follow the hygiene practices established by your employer for the specific contaminants to which the respirator assembly has been exposed. A clean cloth or sponge dampened with a mild solution of water and liquid household soap may be used to wipe down the hoods, headcovers, plastic head suspensions, and other plastic parts. Hang hoods and headcover by the loop sewn into the top or lay it flat. Never fold or crush the visor. Air dry inside and out thoroughly before storage or reuse. If liquid enters the air channels of the S-950 premium head suspension ensure it is thoroughly dry before storage and reuse.

Breathing tubes may be cleaned in a similar manner. If liquid enters the breathing tube, thoroughly dry the tube before storage or reuse by forcing air through the tube (approximate flow rate of 6 to 15 cfm) for several minutes with the tube hanging vertically.

DO NOT:

- Use detergents that contain lanolin or other oils.
- Wipe the visor with strong solvents such as MEK, acetone, or toluene as those may damage or distort the visor.
- Soak components in cleaning solutions or solvents.
- Wash in a washing machine or respirator washer.
- Use sterilization processes such as ethylene oxide, radiation and steam sterilization as they may damage the components.
- Submerge or soak breathing tubes with foam mufflers in any fluids.

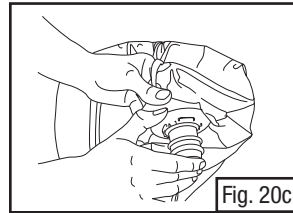
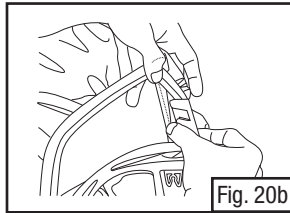
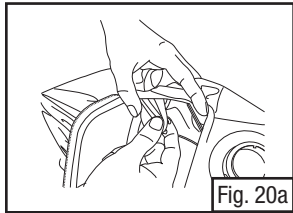
Storage

Hang your 3M™ Versaflo™ S-Series hood or headcover by the loop sewn into the top of the hood or lay it flat. Never fold or crush the visor. Store product in a clean area that is protected from contamination, damage, dirt, debris, product distortion, UV, and direct sunlight. Do not store next to furnaces, ovens, or other sources of high heat. Do not store outside the recommended storage temperature conditions (see *Specifications Section*) or above 90% humidity.

Disposal

Dispose of product according to local regulations. The integrated plastic components (head suspension and air inlet) of the S-133, S-133B, S-333, S-433, and S-533 series can be removed for disposal (Fig. 20a, 20b, 20c). On the S-103 and S-403 the plastic air inlet may be removed (Fig. 20c).

- Release the press studs attaching the face seal to the integrated head suspension and remove from the fabric face seal (Fig. 20a).
- Remove the head suspension by releasing the attachment clips located on each side of the visor (Fig. 20b).
- Remove the air inlet by detaching from the headtop fabric (this may require the use of a tool) (Fig. 20c).



SPECIFICATIONS

Contact 3M Technical Service for additional technical specifications (e.g. weight, materials of construction, etc).



Note: The S-Series hoods and headcovers contain no components made from natural rubber latex.

Technical

| | |
|-----------------------------|--|
| Airflow range | 6 to 15 cfm (170 to 425 lpm) |
| Noise level | Less than 80 dBA (excluding external noise) |
| Operating Temperature Range | -10°C to 55°C (14°F to 130°F) |
| Storage Temperature Range* | -30°C to 50°C (-22°F to 122°F) |
| Shelf Life | 3 year suggested shelf life for all models when stored in original packaging. User must inspect headgear prior to use to determine serviceability. |

* 4°C to 35°C (40°F to 95°F) suggested storage temperature range if product will be stored for an extended period of time before first use.

Assigned Protection Factors (APF)

| Model Number | Classification | OSHA APF ¹ |
|---|-------------------------|-----------------------|
| S-103S, S-103L S-133S, S-133L S-133SB, S-133LB S-333S, S-333L | Loose fitting facepiece | 25 |
| S-403S, S-403L S-433S, S-433L S-533S, S-533L S-605, S-607 S-707 S-805, S-807 | Hood | 1000 ² |

¹ In Canada, follow CSA Z94.4 or the requirements of the authority having jurisdiction in your region.

² 3M supports an APF of 1,000 for these hoods, which is consistent with the OSHA APFs defined in 29 CFR 1910.134. Contact 3M Technical Service for supporting test procedures and data.

LISTING OF COMPONENTS, ACCESSORIES, AND REPLACEMENT PARTS

3M™ Versaflo™ S-Series Hoods and Headcovers

| Part Number | AAD Cat. # | Description |
|---|------------|--|
| Headcovers (loose fitting facepieces) | | |
| S-103S | | Economy Headcover, small/medium |
| S-103L | | Economy Headcover, medium/large |
| S-133S | | White Headcover with Integrated Head Suspension, small/medium |
| S-133SB | | Blue Headcover with Integrated Head Suspension, small/medium |
| S-133L | | White Headcover with Integrated Head Suspension, medium/large |
| S-133LB | | Blue Headcover with Integrated Head Suspension, medium/large |
| S-333S | | High Durability Headcover with Integrated Head Suspension, small/medium |
| S-333L | | High Durability Headcover with Integrated Head Suspension, medium/large |
| Face Seal Hoods | | |
| S-403S | | Economy Hood, small/medium |
| S-403L | | Economy Hood, medium/large |
| S-433S | | Hood with Integrated Head Suspension and Face Seal, small/medium |
| S-433L | | Hood with Integrated Head Suspension and Face Seal, medium/large |
| S-533S | | High Durability Hood with Integrated Head Suspension and Face Seal, small/medium |
| S-533L | | High Durability Hood with Integrated Head Suspension and Face Seal, medium/large |
| S-600 and S-700 Series Hood Assemblies | | |
| S-655 | | Assembly Contains: S-605 Hood with Inner Collar, S-950 Premium Head Suspension, S-955 Airflow Adjustment Cover, S-954 Size Reducing Pad, S-922 Peel-Off. |
| S-657 | | Assembly Contains: S-607 Hood with Inner Shroud, S-950 Premium Head Suspension, S-955 Airflow Adjustment Cover, S-954 Size Reducing Pad, S-922 Peel-Off. |
| S-757 | 37301 | Assembly Contains: Painter's Hood with Inner Shroud, S-950 Premium Head Suspension, S-955 Airflow Adjustment Cover, S-954 Size Reducing Pad, S-922 Peel-Off. |
| S-855 | | Assembly Contains: S-805 Hood with Inner Collar, S-950 Premium Head Suspension, S-955 Airflow Adjustment Cover, S-954 Size Reducing Pad, S-923 Peel-Off. |
| S-857 | | Assembly Contains: S-807 Hood with Inner Collar, S-950 Premium Head Suspension, S-955 Airflow Adjustment Cover, S-954 Size Reducing Pad, S-923 Peel-Off. |

| Replacement Parts | | |
|-------------------|-------|--|
| S-605 | | Hood with Inner Collar |
| S-607 | | Hood with Inner Shroud |
| S-707 | 37300 | Painter's Hood with Inner Shroud |
| S-805 | | Hood with Sealed Seams and Inner Collar |
| S-807 | | Hood with Sealed Seams and Inner Shroud |
| S-950 | 37303 | Premium Head Suspension for use with S-600, S-700 Series Hoods |
| S-951 | | Headband for S-950 Premium Head Suspension |
| S-952 | 37304 | Visor Attachment Clips (Left and Right) for S-950 Premium Head Suspension |
| S-953 | 37305 | Comfort Pad for S-950 Premium Head Suspension |
| S-954 | 37306 | Size Reducing Comfort Pad for S-950 Premium Head Suspension |
| S-955 | 37307 | Air-Flow Adjustment Cover for use with S-950 Premium Head Suspension |
| S-956 | 37308 | Air Duct Sealing Ring for S-950 Premium Head Suspension |
| Accessories | | |
| S-958 | | Chin Strap for Premium S-950 Head Suspension |
| S-920S | | Peel-Off Visor Cover, small/medium, for use with S-133S, S-133SB, S-333S, S-433S, and S-533S Products |
| S-920L | | Peel-Off Visor Cover, medium/large, for use with S-133L, S-133LB, S-333L, S-433L, and S-533L Products |
| S-922 | 37302 | Peel-Off Visor Cover for use with S-103S, S-103L, S-403S, S-403L, and S-600, S-700, and S-800 Series Hoods |

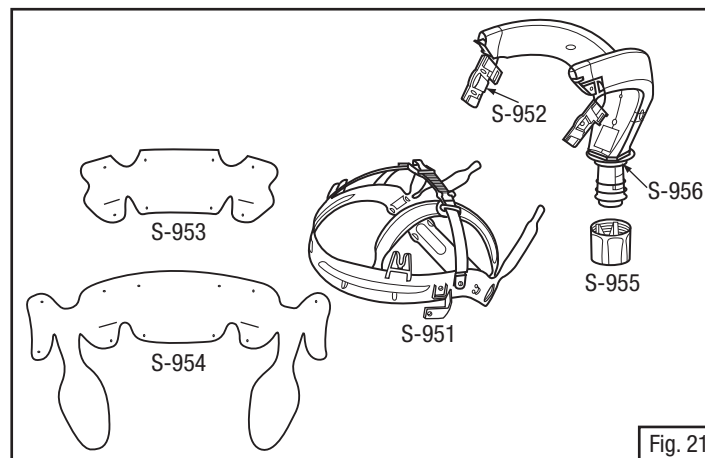


Fig. 21

TROUBLESHOOTING

Consult the *S-Series Trouble Shooting Guide* or contact 3M Technical Service to help identify possible causes and corrective action for problems you may experience.

IMPORTANT NOTICE

WARRANTY: 3M warrants that Versaflo™ Powered Air Purifying Respirator (PAPR) and Supplied Air Respirator (SAR) systems, and their component parts will be free from defective materials and workmanship at the time of purchase and will cover the parts listed below for the time periods indicated, provided they are maintained and used in accordance with the product's *User Instructions* and/or recommendations. 3M's only obligation under this Warranty will be, at 3M's option, to repair or replace without charge any defective parts of the Versaflo™ respirator product returned to 3M in accordance with the instructions below and found by 3M to have been defective at the time of purchase or during the warranty period as applicable. This Warranty does not apply to any parts that have been misused, altered or had repair attempted, or have been subjected to abuse, accidental or otherwise. The extended Warranty does not apply to expendable consumables, accessories, or fabric components such as but not limited to: filters/cartridges, face seals, shrouds, hoods and head covers, and visors.

Warranty time periods for specified parts:

- PAPR Blower Unit, excluding consumables: 2000 hours of use or 1 year from date of purchase, whichever occurs sooner.
- Batteries: 250 cycles or 1 year from date of purchase, whichever occurs sooner.
- Battery chargers, SAR Valves, SAR Panels, excluding consumables, and Respiratory Faceshields, Hard Hats, and Helmets, excluding consumables, 1 year from date of purchase.
- CO monitors, 2 years from date of purchase.

EXCLUSIONS TO WARRANTY: THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, EXCEPT OF TITLE AND AGAINST PATENT INFRINGEMENT.

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 sale, use or misuse of 3M Versaflo products, or the user's inability to use such products. THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

FOR MORE INFORMATION

In United States, contact:

Website: www.3M.com/OccSafety

Technical Assistance: 1-800-243-4630

For other 3M products:

1-800-3M-HELPS or

1-651-737-6501