

by Honeywell



Arc Flash Protective Garments

User Instructions



USER INSTRUCTIONS

For the following products:

Pro-Wear™





Pro-Hood™ Arc Flash Protective Hoods Meets:

NFPA 70E-15 PPE Category 2, 3 or 4 (per ASTM F1506-10a and ASTM F2178-08 ATPV requirements)

ASTM F1506-10a ATPV requirements (per ASTM F1959/F1959M-04 or -06a)



Pro-Wear[™] Arc Flash Protective Bib Overalls Meets:

NFPA 70E-15 PPE Category 2, 3 or 4 (per ASTM F1506-10a ATPV requirements)

ASTM F1506-10a ATPV requirements (per ASTM F1959/F1959M-04 or -06a)



Pro-Wear[™] Arc Flash Protective Coats Meets:

NFPA 70E-15 PPE Category 2, 3 or 4 (per ASTM F1506-10a ATPV requirements)

ASTM F1506-10a ATPV requirements (per ASTM F1959/F1959M-04 or -06a)



Pro-Wear[™] Arc Flash Protective Coveralls & Overpants

Meets:

NFPA 70E-15 PPE Category 2, 3 or 4 (per ASTM F1506-10a ATPV requirements)

ASTM F1506-10a ATPV requirements (per ASTM F1959/F1959M-04 or -06a)

This document outlines the safe use of Salisbury arc flash personal protective equipment and applies to Salisbury Pro-Hood™ Arc Flash Protective Hoods, Pro-Wear™ Arc Flash Protective Bib Overalls, Coats, Coveralls and Overpants. These products will be referred to as 'PPE' from this point on in this document. 'The User' shall be defined in this document as the person or entity wearing the PPE.

All Pro-Hood™ PPE meet the NFPA 70E-2015 PPE Category 2, 3 or 4 for Face PPE per Test Method ASTM F2178-08 and Apparel PPE per ASTM F1506-10a, Test Method F1959 / F1959M-04 or -06a.

All Pro-Wear™ PPE meet the NFPA 70E-2015 PPE Category 2, 3 or 4 for Apparel PPE per ASTM F1506-10a, Test Method ASTM F1959/F1959M-04 or -06a.

The PPE Categories of NFPA 70E-2015 are listed below. Refer to the product label for the specific Hazard/Risk Category of the garment.

| Hazard/Risk Category | ATPV Level (cal/cm ²) |
|----------------------|-----------------------------------|
| 1 | 4.0 minimum |
| 2 | 8.0 minimum |
| 3 | 25 minimum |
| 4 | 40 minimum |

The Pro-Hood™ and Pro-Wear™ PPE conforms with EN ISO 11612-2008 Protective Clothing – Clothing to protect against heat and flame. Refer to the product label for the specific performance levels of the garment. The range of performance levels available are listed below.

Code Letter A - Limited Flame Spread (A1 and/or A2)
Code Letter B - Connective Heat (B1 to B3)
Code Letter C - Radiant Heat (C1 to C4)

The PPE is not designed to protect against molten aluminum and iron splash.

FOR PRODUCTS MARKED CE 0120

The PPE has been shown to conform with the European PPE Directive 89/686/EEC through compliance to the harmonized European Standard EN ISO 11612:2008 as stated in Article 5 of European PPE Directive 89/686/EEC, as well satisfying all applicable Basic Health and Safety Requirements in Annex II of European PPE Directive according to Article 3 of European PPE Directive 89/686/EEC.

CAREFULLY READ THESE INSTRUCTIONS BEFORE USING THESE PRODUCTS

1. INTENDED USE OF THE PPE:

NOTE: THE PPE IS INTENDED TO PROTECT THE USER FROM THE THERMAL EFFECTS OF AN ELECTRIC ARC FLASH ONLY!

The PPE is NOT intended to be used to provide protection against other risks such as electric shock, mechanical impact, mechanical vibration, physical injury (abrasion, perforation, cuts, bites) or harmful effects of noise. The PPE is not to be used in welding applications.

NOTE: THE PPE MUST NOT COME IN TO CONTACT WITH LIVE EQUIPMENT! WHENEVER POSSIBLE, ALWAYS DE-ENERGIZE CIRCUITS BEFORE WORKING ON OR AROUND THEM.

The Pro-Hood™ PPE is not intended to protect the user's eyes from hazards such as high speed projectiles and molten metal splash. Compatible safety glasses and eye protection conforming to NFPA 70E and European Standard EN 166, as described in section 4 of this document, must be worn in conjunction with the PPE.

The Pro-Wear™ PPE is only intended to provide protection for the limbs and torso of the user. Neck, head, foot and hand protection must also be provided for, with use of compatible PPE, as described in section 4 of this document.

The PPE is available in a range of ATPV protection classes, as shown in section 2 of this document. ATPV is the Arc Thermal Performance Value of the PPE and is equal to the amount of incident energy emitted by an electric arc that the PPE will protect before the user will start to experience second degree burns. It is measured in cal/cm².

For each application where there is a risk of an electric arc occurrence, a suitable Arc Flash Hazard Analysis MUST ALWAYS be conducted by the user to ascertain the potential incident energy that the electric arc could emit. Each application is unique and can be defined by the following factors required to conduct an Arc Flash Hazard Analysis: Arc fault current, Supply voltage, Electrode gap, Number of phases of system, Electrical equipment environment (open air or enclosure), Arc duration, Distance of the PPE user to arc.

Once an Arc Flash Hazard Analysis has been conducted, the PPE of an appropriate ATPV class must be selected from the available range.

NOTE: THE ATPV CLASS OF THE PPE SELECTED FOR THE APPLICATION MUST BE HIGHER THAN THE POTENTIAL INCIDENT ENERGY FROM THE ELECTRIC ARC (ESTIMATED FROM AN ARC FLASH HAZARDS ANALYSIS) TO ELIMINATE THE RISK OF SECOND DEGREE BURNS, SHOULD AN ARC OCCUR.

The PPE should always be worn correctly by the user when entering a hazardous area as follows: Where applicable, all zippers should be fully closed and all hook&pile flaps closed fully and flush with no hook or pile portions exposed. Waist straps, where applicable, should be tightened to fit the user snugly. The PPE should always fit the user correctly. If the PPE is either too loose or too tight, the PPE will not provide an optimum level of protection as the user's movement and sight may become impeded or the user's skin or undergarments may become exposed and unprotected. The integrated hard hat, where applicable, must be correctly adjusted to firmly fit the user's head in order for it to remain in place for the foreseeable period of use and to allow the user minimum sight and movement impediment. This is done by turning the black adjustment knob located on the rear head strap to either tighten or loosen the head strap. All of the PPE products are available in a wide range of sizes to ensure the PPE will fit the user correctly.

Salisbury's Pro-Hood™ PPE does not include a hard hat when sold, but a hard hat is necessary when using this PPE to meet all necessary standards and requirements.

The hook & pile tape fastening the face shield to the hood should be firmly attached and should fit flush with no hook or pile portions exposed. Ensure that the front and rear flaps drop to the user's chest and upper back respectively without any hindrance.

NOTE: THE FACE SHIELD AFFECTS COLOR PERCEPTION.

The hard hat should be replaced if subjected to a significant mechanical impact. No part of the hard hat should be removed or modified hi any way.

2. CLASSES OF PROTECTION:

The PPE is available in the following ATPV classes of protection:

| | ATPV Classes of Protection Available-cal/cm ² | | | | | 2 | | |
|---|--|----|----|----|----|----|----|-----|
| PPE | 8.0 | 12 | 20 | 31 | 40 | 55 | 75 | 100 |
| Salisbury Pro-Wear™ Bib Overalls | Х | Х | Х | X | Х | X | Х | Х |
| Salisbury Pro-Hood™ PPE | X | Х | X | X | X | X | X | X |
| Salisbury Pro-Wear ™ Coats | Х | Х | Х | Х | X | Х | X | Х |
| Salisbury Pro-Wear ™ Coveralls & Overpants | Х | Х | Х | | | | | |

These ATPV classes are a result of independent laboratory testing of the PPE to Standard ASTM FI959 Test Method.

3. CLEANING, MAINTENANCE AND LIFE SPAN:

The PPE should be kept clean and dry to provide an optimum level of protection.

NOTE: SOILED CLOTHING PROTECTS LESS

The following care instructions apply to the fabric component of the PPE which should be removed from the shield and hard-hat assembly prior to washing. The face shield should be unfastened and removed prior to cleaning in an ultrasonic bath or with mild soapy lukewarm water. Dry with cleaning paper or lint free cloth.



The PPE should not be washed in temperatures over 165°F.



Tumble dry at normal temperature



Chlorine bleaches such as those containing sodium hypochlorite, oxygen bleaches such as hydrogen peroxide as well as soaps (salts of fatty acids) should not be used to wash the PPE either separately or in detergents as they may affect the protective properties of the PPE.

In order to provide an optimum level of protection, the PPE must be maintained in its original condition. If the PPE becomes damaged due to factors such as rips, cuts, abrasion and perforation, it may not provide the optimum level of protection and must be replaced.

Wear of the face shield due to scratches may cause the users vision to become restricted. Should such wear become apparent, the face shield should be replaced with an original Salisbury part listed in section 4 of this document. To replace the face shield in a Pro-Wear™ Hood, simply remove the fabric component of the PPE held on with hook & pile, then un-clip the shield from the hard hat bracket by turning the retaining clips.

NOTE: INSPECT THE PPE BEFORE EACH USE. DO NOT ATTEMPT TO USE THE PPE FOR ITS INTENDED PURPOSE IF ITS CONDITION IS IN DOUBT!

The PPE will maintain its protective properties until such time as the condition of the PPE is in doubt. In other words the PPE will maintain its protective properties for its life span.

4. COMPATIBILITY, ACCESSORIES AND SPARE PARTS:

The Salisbury Pro-Wear™ Bib Overalls must be used with Salisbury Pro-Wear™ Coats in order to provide the user with total limb and torso protection from the thermal effects of an electric arc flash.

NOTE: THE BLACK SUSPENDER MATERIALS OF THE Salisbury Pro-Wear™ ARC FLASH PROTECTION BIB OVERALLS SHOULD ALWAYS BE COVERED BY A Salisbury Pro-Wear™ COAT.

The Salisbury Pro-Wear™ Arc Flash Protection Coveralls are intended for use as a single garment providing the user with both limb and torso protection from the thermal effects of an electric arc flash.

For neck and head protection from the thermal effects of an electric arc flash, the use of a Salisbury Pro-Hood™ Arc Flash Protective Hood with an identical ATPV class to the Pro-Wear™ PPE is recommended. Please contact Salisbury for further details or questions. For eye protection Salisbury safety glasses are necessary. If wearing the safety glasses found in all Pro-Wear™ PPE Kits, ANSI Z87.1, 2005 is met.

INSTRUCTIONS FOR PRO-HOOD™ WITH INTEGRATED COOLING FAN OPTION

- Activate cooling fan with power switch located on left side of unit prior to wearing the Pro-Hood™. Once cooling fan is activated, inspect to ensure the fan is not obstructed in any way.
- 2. Place Pro-Hood™ on user as with any other Pro-Hood™.
- Deactivate cooling fan when not in use using power switch located on the left side of the unit.

To replace batteries:

- 1. Lift pouch flap located directly below the cooling fan unit.
- 2. Remove battery pack located on the right side of the pouch.
- 3. Remove and replace 8 "AA" type batteries.
- 4. Place battery pack securely back in pouch and close safety flap.
- 5. Activate cooling fan using power switch to test.

The Pro-Hood™ PPE must be used in conjunction with personal protective equipment of similar protective characteristics covering the rest of the user's body.

For limb and torso protection, it is recommended that either a Salisbury Pro-Wear™ Arc Flash Protection Coverall, or Salisbury Pro-Wear™ Coat and Salisbury Pro-Wear™ Arc Flash Protective Bib Overall or Salisbury Pro-Wear™ Overpants combination be used. Please contact Salisbury for further details.

INSTRUCTIONS FOR LIFT FRONT HOOD™

- 1. Ensure that face shield and fabric shroud have the same ATPV ratings.
- 2. Inspect Lift Front Hood prior to each use to ensure that there are no gaps that would expose the user to an arc flash.
- 3. Inspect the product before each use to ensure there are no cracks in the plastic components or tears in the fabric shroud.
- 4. Inspect the hinge mechanism and ensure that all plastic locking points are secure.

Using the face shield:

- To stow the face shield in the weight balancing position, lift the shield by squeezing the trigger and lifting into the up and stowed position. *Never leave the shield in the stowed position when inside the approach boundaries as defined by NFPA 70E.
- To lower the shield into the deployed position, grasp the trigger and pull the shield down until there is an audible click. Assure that the shield is in the final lowered position before use.

Care instructions:

Face shield:

 Wash with mild detergent and water. Rinse. Dry with soft cloth or chamois. If required, disassemble frame at joints and remove the window to clean the entire assembly. The frame and pivot mechanism is not user serviceable however these components may be cleaned by washing with a mild detergent under running water and air dried.

Fabric shroud:

 Remove fabric shroud from hard hat/face shield assembly and follow care instructions for arc flash garments outline in this booklet.

NOTE: THE PPE PIECE WITH THE LOWEST ATPV CLASS PROTECTION IS THE MAXIMUM CLASS OF PROTECTION OF THE ENTIRE PPE BEING USED.

For hand protection it is recommended that appropriate Salisbury Insulating Rubber Gloves be worn in conjunction with Salisbury Leather Protector Gloves to provide mechanical protection. Please contact Salisbury for further details.

For foot protection, Salisbury ASTM F1117 Dielectric is recommended. Spare parts available for use with the Salisbury Pro-Hood™ Arc Flash Protection Hood:

Hard hat Part # SA79R03

Replacement face shield for 8-12 cal/cm² Part # 2000V

Replacement face shield for 20-40 cal/cm² Part # 4000V

Replacement face shield (with bracket) fox 20-40 cal/cm² Part # 4000VB

Replacement face shield (with bracket and full brim) for 20-40 cal/cm² Part # 4000V

Replacement face shield for 55-75 cal/cm² Part #: 7500V

Replacement face shield for 100 cal/cm² Part # 10000V

Hand hat bracket for Front Brim Part #. BRACKET

Hard hat bracket for Full Brim Part # FBBRACKET

Recommended safety eye wear:

Clear lens, black frame Part # TS56505GRY

Smoked lens, black frame Part # TS56505GRYA

Amber lens, black frame Part # TS56505GRYS

5. STORAGE AND TRANSPORT:

The PPE is packed and delivered in a clear polyethylene bag. The PPE should be stored or transported, preferably in a similar polyethylene bag in a dry and dust free environment, protected from mechanical effects, UV light, temperature extremes and chemicals which may damage the PPE.

6. SIGNIFICANT MARKINGS:

Each PPE product has a marking located on the breast region indicating the ATPV level to which the PPE can protect the user. The marking is a badge constructed of the same fabric as the PPE with normally white embroidered lettering. The lettering shows the ATPV class (8.0, 12, 20, 31, 40, 55, 75 or 100) followed by CAL/CM².

FOR PRODUCTS MARKED CE0120

Mandatory- CE Marking: EC Type-examination for Directive 89/68 6/EEC by notified body number 0120: SGS United Kingdom Ltd., Weston-super-Mare, BS22 6WA, UK.

7. DETAILS OF NOTIFIED BODY:

SGS United Kingdom Limited, Weston-super-Mare, BS22 6WA, United Kingdom.

Notified Body #0120

8. SIZING:

Salisbury Pro-Hood™ Arc Flash Protection Hoods are sized One Size Fits All. Salisbury Pro-Wear™ PPE is sized per the charts on the next page.

HOW TO MEASURE

- A Chest Measure across front from underarm to underarm
- B Sleeve Measure from top shoulder seam out to end of cuff
- C Length Measure from back of neck down to hem
- **D Waist** Measure from waist side seam to side seam (flares open)
- E Inseam Measure from mid crotch down to leg hem
- F Length Measure from top of bib down to pant hem

PRODUCT: COVERALL

in/cm (ACCA8, ACCA12, ACCA20)

| Measuren | nents in inc | hes (minim | num allowe | ed) |
|----------|--------------|------------|------------|-------|
| SIZE | Α | В | D | E |
| Small | 40/102 | 34/86 | 36/91 | 29/74 |
| Medium | 44/112 | 35/86 | 40/102 | 30/75 |
| Large | 48/122 | 36/91 | 44/112 | 30/79 |
| XLarge | 52/132 | 38/91 | 48/122 | 30/79 |
| 2XLarge | 56/142 | 39/94 | 52/132 | 31/79 |
| 3XLarge | 60/152 | 39/94 | 56/142 | 31/79 |
| 4XLarge | 64/163 | 40/102 | 60/152 | 32/79 |
| 5XLarge | 68/173 | 40/102 | 64/163 | 32/79 |
| 6XLarge | 72/183 | 40/102 | 68/173 | 32/79 |

PRODUCT: COAT in/cm (ACC8, ACC12, AC20), (ACC31, ACC40, ACC40PLT, ACC55, ACC75, ACC100TW)

| | | es (minimum | |
|---------|--------|-------------|-------|
| SIZE | Α | В | C |
| Small | 44/112 | 35/89 | 32/81 |
| Medium | 48/122 | 36/91 | 32/81 |
| Large | 52/132 | 37/94 | 32/81 |
| XLarge | 56/142 | 38/97 | 32/81 |
| 2XLarge | 60/152 | 39/99 | 32/81 |
| 3XLarge | 64/163 | 40/102 | 32/81 |
| 4XLarge | 68/173 | 40/102 | 32/81 |
| 5XLarge | 72/183 | 40/102 | 32/81 |
| 6XLarge | 76/193 | 40/102 | 32/81 |
| | | | |

PRODUCT: BIB OVERALL in/cm (ACB8, ACB12,

ACB20, ACB31, ACB40, ACB40PLT, ACB55)

| Measuren SIZE | nents in inche D | es (minimum E | allowed) F |
|------------------|---------------------|------------------|---------------|
| Small | 44/112 | 30/76 | 54/137 |
| Medium | 48/122 | 30/76 | 55/140 |
| Large | 52/132 | 30/76 | 56/142 |
| XLarge | 56/142 | 30/76 | 57/145 |
| 2XLarge | 60/152 | 30/76 | 58/147 |
| 3XLarge | 64/163 | 30/76 | 59/150 |
| 4XLarge | 68/173 | 30/76 | 60/152 |
| 5XLarge | 72/183 | 30/76 | 61/155 |
| 6XLarge | 76/193 | 30/76 | 62/157 |
| | | | |

PRODUCT: OVERPANTS

in/cm (ACP8, ACP12, ACP20)

| Measure | ments in inch | es (minimum allowed | d) |
|---------|---------------|---------------------|----|
| Small | 38/97 | 30/76 | |
| Medium | 42/107 | 30/76 | |
| Large | 46/117 | 30/76 | |
| XLarge | 50/127 | 30/76 | |
| 2XLarge | 54/137 | 30/76 | |
| 3XLarge | 58/147 | 30/76 | |
| 4XLarge | 62/157 | 30/76 | |
| 5XLarge | 66/168 | 30/76 | |
| 6XLarge | 70/178 | 30/76 | |

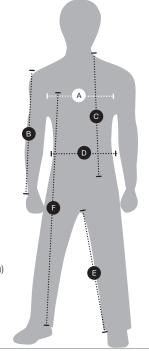
PRODUCT: BIB OVERALL

in/cm (ACB75, ACB100TW)

| | ments in inch | es (minimum | allowed) | |
|---------|---------------|-------------|----------|--|
| SIZE | D | E | F | |
| Small | 44/112 | 30/76 | 53/135 | |
| Medium | 48/122 | 30/76 | 54/137 | |
| Large | 52/132 | 30/76 | 55/140 | |
| XLarge | 56/142 | 30/76 | 56/142 | |
| 2XLarge | 60/152 | 30/76 | 57/145 | |
| 3XLarge | 64/163 | 30/76 | 58/147 | |
| 4XLarge | 68/173 | 30/76 | 59/150 | |
| 5XLarge | 72/183 | 30/76 | 60/152 | |
| 6XLarge | 76/193 | 30/76 | 61/155 | |
| | | | | |

HOW TO MEASURE

- A Chest Measure across front from underarm to underarm
- **B Sleeve** Measure from top shoulder seam out to end of cuff
- C Length Measure from back of neck down to hem
- **D Waist** Measure from waist side seam to side seam (flares open)
- E Inseam Measure from mid crotch down to leg hem
- **F Length** Measure from top of bib down to pant hem



9. PRODUCT NUMBERING:

BIB OVERALL PART FORMAT

| AC | В | 8 | 30 | BL | S |
|-----|-----|--------|--------|---|------|
| ARC | Bib | ATPV | Length | Color or Unique Material Designation | Size |
| | | Rating | | Color of Offique Material Designation | |
| | | 8 | | BL: Navy Blue (ATPV 8-20) | S |
| | | 12 | | RB: Royal Blue (ATPV 31) | M |
| | | 20 | | GY: Gray (ATPV 40, 55, 75) | L |
| | | 31 | | PLT: Green (ATPV 40 Premium Light Weight) | XL |
| | | 40 | | TW: Khaki, (ATPV 100 TuffWeld) | 2X |
| | | 40 | | | 3X |
| | | 55 | | | 4X |
| | | 75 | | | 5X |
| | | 100 | | | 6X |

OVERPANT PART FORMAT

| AC | CA | 8 | BL | S |
|-----|----------|--------|---------------|------|
| ARC | Coverall | ATPV | Color | Size |
| | | Rating | | |
| | | 8 | BL: Navy Blue | S |
| | | 11 | | M |
| | | 20 | | L |
| | | | | XL |
| | | | | 2X |
| | | | | 3X |
| | | | | 4X |
| | | | | 5X |
| | | | | 6X |

COVERALL PART FORMAT

| AC | Р | 8 | BL | S |
|-----|----------|--------|---------------|----------|
| ARC | Overpant | ATPV | Color | Size |
| | | Rating | | |
| | | 8 | BL: Navy Blue | S |
| | | 11 | | M |
| | | 20 | | L |
| | | | | XL |
| | | | | 2X 3X |
| | | | | |
| | | | | 4X |
| | | | | 5X |
| | | | | 6X |

COAT PART FORMAT

| AC | С | 8 | 32 | BL | S |
|-----|------|--------|--------|---|------|
| ARC | Coat | ATPV | Length | Color or Unique Material Designation | Size |
| | | Rating |] | Color of Offique Material Beerghation | 0.20 |
| | | 8 | | BL: Navy Blue (ATPV 8-20) | S |
| | | 11 | | RB: Royal Blue (ATPV 31) | М |
| | | 20 | | GY: Gray (ATPV 40, 55, 75) | L |
| | | 31 | | PLT: Green (ATPV 40 Premium Light Weight) | XL |
| | | 40 | | TW: Khaki, (ATPV 100 TuffWeld) | 2X |
| | | 40 | | | 3X |
| | | 55 | | | 4X |
| | | 75 | | | 5X |
| | | 100 | | | 6X |

HOOD PART FORMAT

| FH | 40 | PLT |
|------------------|--------|-----------------|
| Hood designation | ATPV | Color or |
| | Rating | Special Feature |
| | 8 | Color |
| | 11 | BL: Navy Blue |
| | 20 | RB: Royal Blue |
| | 31 | GY: Gray |
| | 40 | |
| | 55 | Special Feature |
| | 75 | PLT: Premium |
| | 100 | Light Weight |





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