

Safety Equipment Flash Protection

Pro-Shield

Arc Flash Protective Shield

- * 10 cal/cm sq protection
- * .06" thick
- * 8" x 14" viewing area
- * Light green tint
- * Anti-fog



Catalog No.	Description
AS1000	Shield w/ chin cup & slotted dielectric bracket
AS1000R	Shield w/ chin cup and ratcheted head gear w/ 4" arc guard.
AS1000HAT	Arc shield w/ chin cup, dielectric slotted bracket, & front brim hard hat
ASBAG	Fleece interior cotton canvas storage bag for Pro-Shield w/ drawstring closure
SA29*	ANSI Type I, front brim w/ quick-fit 4-point suspension
SA29R*	ANSI Type I, front brim w/ ratchet 4-point suspension

* Please indicate the color hard hat you are ordering.
01 White/ 02 Yellow/ 03 Orange



Replacement Arc Flash Protective Lenses & Brackets

(Pictured bottom left)

- * 10 cal/cm squared to 100 cal/cm squared protection.
- * .06" thickness
- * 8" x 14" viewing area on Pro-Shield.
- * 10" x 20" viewing area on Pro-Hood shield.
- * Amber tint.
- * Use with FR clothing.

Catalog No.	Description
AS1000FS	Replacement face shield for AS1000HAT
ASCP	Replacement chin cup only
AS1000FSR	Replacement face shield for AS1000R
4000	Replacement face shield for 11 cal/cm sq to 40 cal/cm sq Pro-Hood
4000V	Replacement amber lens w/ hook & pile attachment for 11 cal/cm sq to 40 cal/cm sq Pro-Hood
4000VB	Replacement amber lens with hood & pile attachment and universal dielectric front brim hard hat bracket for 11 cal/cm sq to 40 cal/cm sq Pro-Hood.
10000	Replacement face shield for 55 cal/cm sq and higher Pro-Hood.
BRACKET	Universal dielectric hard hat bracket to interface w/ front brim hard hats.
FBBRACKET	Universal dielectric hard hat bracket to interface w/ full brim hard hats.
ASSLB	Orange slotted dielectric bracket, fits front brim hard hats & interfaces w/ AS1000FS.
ASRHG4	Ratcheted head gear w/ 4" arc guard, interfaces w/ AS1000FSR.

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Safety Equipment Flash Protection

Switchboard Matting

Switchboard Matting is permanently placed in front of switchgear, motor control centers and other high voltage apparatus to provide personal protection for workers. It is also used when tending take-up and pay out reels and when adding or replacing conductors. Made from high quality rubber, 1/4" thick and tested to 20kV to comply with ASTM D178, Class 2 specifications. The corrugated surface acts as a safety tread while reducing the possibility of metal particles becoming embedded. Switchboard matting is made in 25 yard rolls which can be custom cut to specified lengths as per customer request. Maximum use voltage: 17,000



Catalog No.	Dimensions	Weight
M24-2	1/4" x 24"	9 lbs.
M30-2	1/4" x 30"	12 lbs.
M36-2	1/4" x 36"	15 lbs.
M48-2	1/4" x 48"	18 lbs.

Storage Bag



Catalog No.	Description
SKBAG	Large storage bag for storing arc flash protective clothing, gloves and other accessories.

Arc Flash Sizing Chart

Jackets and Coats		
Chest		Coat
34"-36"		S
38"-40"		M
42"-44"		L
46"-48"		XL
50"-52"		2XL
54"-56"		3XL
Special Order Sizes		
58"-60"		4XL
62"-64"		5XL
Bib Overalls		
Waist	Overall	Inseam
28"-30"	S	28"
32"-34"	M	29"
36"-38"	L	30"
40"-42"	XL	30"
44"-46"	2XL	30"
48"-50"	3XL	30"
Special Order Sizes		
52"-54"	4XL	30"
56"-58"	5XL	30"
Coveralls		
Chest	Coverall	Inseam
34"-36"	S	28"
38"-40"	M	29"
42"-44"	L	30"
46"-48"	XL	30"
50"-52"	2XL	30"
54"-56"	3XL	30"
Special Order Sizes		
58"-60"	4XL	30"
62"-64"	5XL	30"

Safety Equipment

Flash Protection

Flash Jackets & Coats

- * Indura Ultra Soft material.
- * Sewn with Nomex thread.
- * 32" long, sizes S,M,L,XL,2XL,3XL in stock.
- * Other sizes available by special order.
- * Jacket design incorporates attached hood & interfaces with Pro-Shield.
- * Coats designed to interface with Pro-Hood.
- * Meets current ASTM F1506 and NFPA 70E standards.

(Pictured top right)

* Add suffix to catalog number for desired size:
S,M,L,XL,2XL,3XL.

Catalog No.	Description
JSHV1132BL	11 cal/cm sq, 9oz./yd sq material, hooded w/ hook&pile,w/ wristlets.
ACC1132BL	11 cal/cm sq, 9oz./yd sq material, expansion back for added comfort, FR hook&pile front closure, w/ wristlets.
ACC2032BL	20 cal/cm sq, 13oz./yd sq material, expansion back for added comfort, FR hook&pile front closure, w/ wristlets.
ACC3132RB	31 cal/cm sq, 2 layer (9oz/yd sq & 7oz/yd sq) material, expansion back, dual stage front closure with plastic zipper and FR hook&pile storm flap, w/ wristlets.
ACC4032GY	40 cal/cm sq, 2 layer (9oz/yd sq & 13oz/yd sq) material, expansion back, dual stage front closure w/ plastic zipper and FR hook&pile storm flap, w/ wristlets.
ACC5532GY	55 cal/cm sq, 2 layer (13 oz/yd sq & 13 oz/yd sq) material, expansion back, dual stage front closure w/ plastic zipper and FR hook&pile storm flap, w/ wristlets.
ACC7532GY	75 cal/cm sq, 3 layer (7 oz/yd sq & 2-13oz/yd sq) material, expansion back,dual stage front closure w/ plastic zipper and FR hook&pile storm flap w/ wristlets.
ACC10032GY	100 cal/cm sq, 4 layer (2-7oz/yd sq & 2-13oz/yd sq) material, expansion back, dual stage front closure w/ plastic zipper and FR hook&pile storm flap, w/ wristlets.



Side View of JSHV1132BL



JSHV1132BL



ACC2032BL

Pro-Hood

Arc Flash Protective Hood

- * Indura Ultra Soft material, sewn with Nomex thread.
- * 10" x 20" viewing area.
- * Wide arc rated anti-fog amber lens.
- * Meets current ASTM F2178 and NFPA 70E standards and flammability requirements of ASTM F1506.
- * Universal hard hat bracket included.
- * One size fits all.



FH31RB

Catalog No.	Description
FH11BL	11 cal/cm sq protection, single layer of 9oz/yd sq material, navy blue.
FH20BL	20 cal/cm sq protection, single layer of 13 oz/yd sq material, navy blue.
FH31RB	31 cal/cm sq protection, 2 layer (9oz/yd sq & 7oz/yd sq) material, royal blue.
FH40GY	40 cal/cm sq protection, 2 layer (9oz/yd sq & 13 oz/yd sq) material, gray.
FH55GY	55 cal/cm sq protection, 2 layer (13 oz/yd sq & 13 oz/yd sq) material, gray.
FH75GY	75 cal/cm sq protection, 3 layer (7oz/yd sq & 13 oz/yd sq) material, gray.
FH100GY	100 cal/cm sq protection, 4 layer (2-7oz/yd sq & 2-13 oz./yd sq) material, gray.

Safety Equipment Flash Protection

Flash Protection Bib Overalls & Coveralls

- * Indura Ultra Soft material, sewn with Nomex thread.
- * Bib front for added protection.
- * Integrated heavy duty suspenders.
- * Adjustable gussets on pant cuffs hook&pile waist straps.
- * Meets current ASTM F1506 and NFPA 70E standards.
- * S,M,L,XL,2XL,3XL in stock. Other sizes available by special order.

Catalog No.	Description
ACB1130BL	11 cal/cm sq, 9oz/yd sq material, relax cut and heavy duty suspenders.
ACB2030BL	20 cal/cm sq, 13oz/yd sq material, relax cut and heavy duty suspenders.
ACB3130RB	31 cal/cm sq, 2 layer (9oz/yd sq & 7oz/yd sq) material, relax cut and heavy duty suspenders.
ACB4030GY	40 cal/cm sq, 2 layer (9oz/yd sq & 13oz/yd sq) material, relax cut and heavy duty suspenders.
ACB5530GY	55 cal/cm sq, 2 layer (13oz/yd sq & 13oz/yd sq) material, relax cut and heavy duty suspenders.
ACB7530GY	75 cal/cm sq, 3 layer (7oz/yd sq & 2-13oz/yd sq) material, relax cut and heavy duty suspenders.
ACB10030GY	100 cal/cm sq, 4 layer (2-7oz/yd sq & 2-13 oz/yd sq) material, relax cut and heavy duty suspenders.
ACCA11BL	11 cal/cm sq, COVERALLS 9oz/yd sq material, full cut with set in sleeves, front flame retardant closure, expansion back, and 2-ply wristlets.
ACCA20BL	20 cal/cm sq, COVERALLS 13 oz/yd sq material, full cut with set in sleeves, front flame retardant closure, expansion back and 2-ply wristlets.

* SEE PICTURES TOP RIGHT

* Add suffix to catalog number for desired size:
S,M,L,XL,2XL,3XL.



ACCA11BL



ACB2030BL

Personal Protective Equipment Kits w/ Jacket 11 cal/cm sq protection

- * 32" long lightweight comfortable jacket.
- * Jacket meets current NFPA 70E standards HRC2.
- * 9oz/yd sq Indura Ultra Soft FR material.
- * Garments sewn with Nomex thread.
- * Excellent breathability & cotton comfort.
- * AS1000HAT 10 cal/cm sq arc shield w/ hard hat.
- * Shield has 8" x 14" green tinted viewing area.
- * Clear lens safety glasses.
- * 11", Class 00 or 0 rubber insulating gloves.
- * Gloves available in variety of colors and sizes.
- * ILP leather protectors in dual sizes.
- * Glove storage bag & Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SKJ	11	S,M,L,XL,2XL,3XL

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Safety Equipment Flash Protection

Personal Protective Equipment Kits 11 or 20 cal/cm sq protection

- * 32" long lightweight comfortable coat.
- * Coat includes expansion back design.
- * Hook & Pile front closure.
- * Wristlets made from Nomex FR material.
- * Deluxe cut Bib Overalls w/ suspenders.
- * Coat & Bib Overalls meet NFPA 70E standards, HRC 2
- * 9oz/yd sq Indura Ultra Soft FR material (11cal/cm sq)
- * 13oz/yd sq Indura Ultra Soft FR material (20cal/cm sq)
- * Garments sewn with Nomex thread.
- * Excellent breathability & cotton comfort.
- * Hard Hat
- * Pro-Hood w/ wide arc rated amber lens.
- * Clear lens safety glasses.
- * 11", Class 00 or 0 rubber insulating gloves.
- * Gloves available in variety of colors.
- * ILP leather protectors in dual sizes.
- * Glove storage bag.
- * Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SK	11	S,M,L,XL,2XL,3XL
SK	20	S,M,L,XL,2XL,3XL

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Personal Protective Equipment Kits 31 cal/cm sq protection

- * 32" long lightweight comfortable coat.
- * Coat includes expansion back design.
- * Dual stage front closure w/ plastic zipper and hook & pile storm front.
- * Wristlets made from Nomex FR material.
- * 2 layer Deluxe cut Bib Overalls w/ suspenders.
- * Coat & Bib Overalls meet current NFPA 70E standards, HRC 3.
- * 2 layer (9oz/yd sq & 7oz/yd sq)
- * Garments sewn with Nomex thread.
- * Excellent breathability & cotton comfort.
- * 11", Class 00 or 0 , or 14" Class 2 rubber insulating gloves.
- * Gloves available in variety of colors and sizes.
- * ILP leather protectors in dual sizes.
- * Hard Hat
- * 2 layer Pro-Hood w/ wide arc rated amber lens.
- * Clear lens safety glasses.
- * Glove storage bag.
- * Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SK	31	S,M,L,XL,2XL,3XL

**Please call us if you don't see what you
are looking for!**

Safety Equipment Flash Protection

Personal Protective Equipment Kits 40 cal/cm sq protection

- * 32" long lightweight comfortable coat.
- * Coat includes expansion back design.
- * Dual stage front closure w/ plastic zipper and hook & pile storm front.
- * Wristlets made from Nomex FR material.
- * 2 layer Deluxe cut Bib Overalls w/ suspenders.
- * Coat & Bib Overalls meet NFPA 70E standards, HRC 4
- * 2 layer (9oz/yd sq & 13oz/yd sq) Indura Ultra Soft FT material.
- * Harments sewn with Nomex thread.
- * Excellent breathability & cotton comfort.
- * 14" Class 2 rubber insulating gloves.
- * Gloves available in variety of colors.
- * ILP leather protectors in dual sizes.
- * Hard Hat.
- * 2 layer Pro-Hood w/ wide arc rated amber lens.
- * Clear lens safety glasses.
- * Glove storage bag.
- * Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SK	40	S,M,L,XL,2XL,3XL

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Personal Protective Equipment Kits 55 or 75 cal/cm sq protection

- * 32" long lightweight comfortable coat.
- * Coat includes expansion back design.
- * Dual stage front closure w/ plastic zipper and hook & pile storm front
- * Wristlets made from Nomex FR material.
- * 2 & 3 layer Deluxe cut Bib Overalls w/ suspenders.
- * Coat & Bib Overalls meet NFPA 70E standards, HRC 4
- * 2 layer (9oz/yd sq & 13oz/yd sq) material (55 cal/cm sq)
- * 3 layer (7oz/yd sq & 2-13oz/yd sq) material (75 cal/cm sq)
- * Indura Ultra Soft FR material.
- * Garments sewn with Nomex thread.
- * Excellent breathability & cotton comfort.
- * 14" Class 2 rubber insulating gloves.
- * Gloves available in variety of sizes.
- * ILP leather protectors in dual sizes.
- * Hard Hat.
- * 2 or 3 layer Pro-Hood w/ wide arc amber lens.
- * Clear lens safety glasses.
- * Glove storage bag.
- * Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SK	55	S,M,L,XL,2XL,3XL
SK	75	

Safety Equipment Flash Protection

Personal Protective Equipment Kits 100 cal/cm sq protection

- * 32" long lightweight comfortable coat.
- * Coat includes expansion back design.
- * Dual stage front closure w/ plastic zipper and hook & pile storm front.
- * Wristlets made from Nomex FR material.
- * 4 layer Deluxe cut Bib Overalls w/ suspenders.
- * Coat & Bib Overalls meet NFPA 70E standards, HRC 4
- * 4 layer (2-7oz/yd sq & 2-13oz/yd sq) material.
- * Indura Ultra Soft FR material.
- * Garments sewn with Nomex thread.
- * Excellent breathability and cotton comfort.
- * 14" Class 2 rubber insulating gloves.
- * Gloves available in variety of sizes.
- * ILP leather protectors in dual sizes.
- * Hard Hat.
- * 4 layer Pro-Hood w/ wide arc rated amber lens.
- * Clear lens safety glasses.
- * Glove storage bag.
- * Large storage bag.



Catalog No.	cal/cm sq Rating	Size of Garments
SK	100	S,M,L,XL,2XL,3XL

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Arc & Flame Resistant Rain Suits

The Arc Resistant PVC Nomex Rain Suit and The Arc Resistant PVC Nomex/Kevlar Rain Suit comply with current ASTM F1891 standards. These jackets include a collar hood, back vent with D-Ring opening, zipper front, two patch pockets with hook and pile flaps and 3M Scotchlite reflective trim. Both pants include a snap fly front, deluxe suspenders system with quick release hardware and slide adjusters, hook and pile cuff adjusters and 3M Scotchlite reflective trim. Both types of jackets and pants are available in either yellow or orange. PVC Nomex/Kevlar Rain Suit meets Class 3 ANSI/ISEA 107-1999 standards because of the higher visibility striping.

The Arc Resistant PVC Nomex Economy Rain Suit complies with current ASTM 1891 standards. This jacket features a draw string attached hood and snap front. The pants feature adjustable buckle suspenders and snap fly front. Both the jacket and pants are available in either yellow or orange.



KRJ & KRP / ERJ & ERP

NRJ

Catalog No.	Description	Sizes
Nomex Utility Rain Suit		
NRJ	Jacket	S,M,L,XL,2XL,3XL
NRP	Pants	
Nomex/Kevlar Utility Rain Suit		
KRJ	Jacket	S,M,L,XL,2XL,3XL
KRP	Pants	
Nomex Economy Rain Suit		
ERJ	Jacket -no tape	S,M,L,XL,2XL,3XL
ERP	Pants -no tape	

IMPORTANT

Safety Information for PPE

Whenever possible, always de-energize lines before working on or around them.

Arc Protective Clothing Requirements

* OSHA CFR 1910.269 "The employer shall ensure that each employee who is exposed to the hazards of flames or electric arcs does not wear clothing that, when exposed to flames or electric arcs, could increase the extent of injury that would be sustained by the employee." (I)(6)(iii)

* Clothing made from acetate, nylon, polyester and rayon either pure or blended should not be worn when working in hazardous environments.

* Clothing made from 100% cotton or wool must be determined acceptable for the conditions the worker will be exposed to. Clothing made from flame-resistant materials, that meet current ASTM F1506, is acceptable.

* ASTM F1506 details the specifications of a textile to be used by an electrical worker as a means of electrical arc protection. A garment must include a label, which states the following information: Tracking I.D. Code, Meets ASTM F1506, Manufacturer's name, Care Instructions & Fiber Content, Size, and "Arc Rating" - ATPV or E_{BT}.

* ASTM F2178 is the test method used to measure arc rated products intended to protect the face of workers exposed to electrical arcs.

* To evaluate FR clothing materials in order to measure the heat transferred through the fabric, two values are calculated: arc-thermal performance value (ATPV) and heat attenuation factor (HAF).

* ATPV is the minimum energy causing the predicted onset of second-degree burns.

* HAF is the percentage of total energy of the arc that the fabric prevents from passing through.

* Heavier or layers of FR fabrics give higher ATP values.

Always Perform a Hazard Assessment

The NFPA 70E Standard for Electrical Safety Requirements for Employee Workplaces requires employers to perform an Electrical Arc Hazard Assessment. Each situation is unique and needs to be evaluated on its own merits. ASTM F1959 details the standardized test that must be used to determine the thermal protective value of textiles in an electric arc application.

Clothing selected for a particular application shall have an arc protective rating of (E_{BT} or APTV) higher than the potential hazard to prevent the onset of second degree burns.

Factors Affecting the Extent & Seriousness of Worker Injury when Exposed to Arc Flash.

1. Electric arc intensity
 - * Fault current
 - * System voltage
 - * Electrode gap
 - * Number of phases involved
 - * Open arc configuration or enclosure
2. Electric arc duration
3. Distance of the worker from the electric arc
4. Type and fit of clothing worn
5. Age and health factors

Even relatively low voltages can be fatal. For example, electrical shocks produced from common 60 hz AC power passing from hand to foot for a duration of one second can have the following effects:

Current	Effects
1-3 Milliamps	Tingling Sensation
3+Milliamps	Shock (pain)
10+Milliamps	Muscular Contractions (can't let go)
30+Milliamps	Respiratory Paralysis (may be fatal)
60+Milliamps	Ventricular Fibrillation (usually fatal)
4+Amps	Heart Paralysis (fatal)
5+Amps	Tissue Burning (fatal, vital organs destroyed)

Salisbury's FR Fabrics

* Salisbury uses Westex Indura Ultra Soft exclusively. Indura Ultra Soft blend of 88% cotton and 12% high tenacity nylon substantially increase the fabric's abrasion resistance helping the garment last over 0% longer than 100% cotton garments. Plus the new softer feel further enhances the breathable "all-weather" comfort of cotton. The treatment process for Indura flame resistant fabrics forms a long chain flame retardant polymer impregnated into the core of each cotton fiber. Guaranteed flame resistant for the life of the garment. An excellent value equation. Meets current NFPA 70E and ASTM F1506 standards.

* Nomex is a man made fiber resistant to heat, flame and chemicals. Nomex and Kevlar are registered trademarks of E.I. du Pont Nemours and Company.

See the next page for NFPA 70E Edition Table 3-3.9.3 Protective Clothing Characteristics Typical Protective Clothing Systems

IMPORTANT**Safety Information for PPE
(Continued)****NFPA 70E 2000 Edition****Table 3-3.9.3 Protective Clothing Characteristics****Typical Protective Clothing Systems**

Color Code	Hazard Risk	Description (# of layers)	Weight (oz/yd sq)	*Min ATPV *EBT *Rating of PPE cal/cm sq
Blue	0	Untreated cotton (1)	4.5-7	n/a
	1	FR shirt & FR pants (1)	4.5-8	5
	2	Cotton underwear plus FR shirt and FR pants (2)	9-12	8
Royal Blue	3	Cotton underwear plus FR shirt and FR pants plus FR coverall (3)	16-20	25
Gray	4	Cotton underwear plus FR shirt and FT pants plus double layer switching coat and pants (4)	24-30	40

* ATPV is defined in the ASTM F1959 standard arc test method for flame resistant (FR) fabrics as the incident energy that would just cause the onset of a second degree burn. EBT is the average of the five highest incident energy exposure values below the stoll curve, where the fabric does not exhibit a breakopen. EBT is reported when ATPV cannot be measured due to FR fabric breakopen.

**Always put Safety First!!****Other Safety Items we provide:**

- * Harnesses
 - * Glasses
 - *Gloves
 - * Dielectric Boots
 - * Hard Hats
 - * Vests
 - * Flags
 - * Signs
- & MUCH MORE**

**IT IS IMPORTANT TO BE
EFFICIENT,
AND MOST IMPORTANTLY
SAFE ON THE JOB!**

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SEE WHAT YOU ARE LOOKING
FOR!**

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