

Navy Fire Resistant Duty Uniform Shirts (Short Sleeve)

Men's 4.5 oz/yd² Nomex III or approved substitute Fire Fighter Shirt (Short Sleeve).

The Fire Fighter Short Sleeve Shirt shall be a dress style shirt with a front placket using decorative buttons and hidden snap fasteners for the closure to allow for quick removal. The Fire Fighter shirt shall have two military creases on the front of the shirt and three military creases on the back of the shirts.

The shirrtail length shall be proportionate to the shift size and long enough to allow State of Hawaii Aircraft Rescue Fire Fighting (ARFF) personnel to raise their hands above their head and have the shirrtail remain in the trousers. An optional service can be selected by the ordering ARFF personnel to have a longer shirt tail length (2" or longer) and/or proportionate length sleeves for the garment. The change of this service shall be added to the individual shirt size price and as specified in Appendix C. Adding fabric to an existing garment shall not be acceptable.

Certification and Compliance:

Garment shall be ISO 9001 certified. Fire Fighter shirts made from Nomex IIIA (4.5 oz/yd²) or approved substitute fabrics shall meet or exceed the performance requirements of NFPA 1975, Standard on Emergency Services Work Clothing Elements. These garments shall meet or exceed the requirement of Occupational Safety Health Association (OSHA) Standard 1910.269: "Electric Power Generation, Transmission, and Distribution; Electrical Protective Emergency (Maintenance Standard)", Federal Register, Volume 59, No. 20, and CAL/OSHA General Industry Safety Orders (GISO), Title 8. The shirt shall be tested in accordance with Federal Test Standards 191, Method 5903.2.

Materials

The following arc rating apply to these garments.

<u>Fabric</u>	<u>Nominal Wt.</u>	<u>Arc Rating</u>
Nomex IIIA or approved substitute	4.5 oz/yd ² or approved substitute	4.1 cal/cm ² or approved substitute

Fabric:

The shirt shall be manufactured with Nomex IIIA or approved substitute fabric made from DuPont Nomex IIIA or approved substitute fiber. The fabric shall be treated with a wickable finish to enhance absorbency and improved comfort.

Findings:

The thread size shall be 45/3 or equivalent to ensure adequate seam strength and garment integrity. The color of the thread shall match the fabric. The thread for seaming and stitching shall conform to MIL-T-43636.

Buttons used on the shirt will be made of molded polyester, size 24 ligne.

The snap fasteners shall be heavy-duty industrial grade and made of solid brass with nickel plating. All snaps shall be applied such that no metal from the snaps will be in contact with the skin.

Garment Construction:

Garments shall be constructed to maximize the wear life of the garment. Proper stitching, reinforced stress areas, and the highest quality construction features shall be used. All garment parts must be properly cut to avoid puckering after laundering and to give the best appearance. All stitching must be of proper tension and sized.

Stitches and Seams:

All stitching shall conform to Federal Standard 751 (FED-STD-751A). All stitch types shall be sewn with a minimum of 8 and a maximum of 10 stitches per inch. The thread tension shall be maintained to eliminate loose or tight stitching.

Chest Pockets:

Each shirt shall have two chest pockets measuring 5 ½" wide by 6 ¾" deep at the bottom point of the pocket. Both pockets shall have a flap secured with a hook and loop closure. Each pocket shall have a decorative button with the left pocket containing a pencil slot. Pockets and flaps shall be set with double-needle lock stitching. All corners and stress areas shall be reinforced with bartack stitches.

Sleeves:

The sleeves shall be on-piece construction and shall be closed at underarm and set into the Shoulders.

Badge Tab:

The badge tab shall be 1" wide by 2" in length and sewn on the shirt over the left breast pocket. The bottom of the badge tab shall be 7/8" above the breast pocket. The eyelets shall be centered on the tab, approximately 1 ¼" apart. Two eyelets shall be placed to allow the badge, when worn, to hang above the pocket.

Shirt Closure:

The shirt shall have a placket with snap fastener closure. The placket shall be attached to the left side of the closure and shall extend from the collar to the tail of the shirt. The placket shall be reinforced with Nomex non-woven interlining for added stiffening. Six (6) concealed female snaps will be set in the center. The left side of the placket shall have five (5) decorative buttons at 24 linge and one button at 20 linge at the collar.

Collar:

Shirt shall contain a 2-piece convertible French style banded collar to enhance the appearance Retention of the shirt. The collar and collar band shall be reinforced with Nomex non-woven Interlining fused to the fabric for added shape retention. The top of the collar shall have a 20 Linge button closure.

For Chief Officers (Captains and Lieutenants) collar insignia, collars shall have one (1) eyelet or Reinforced hole on each side, which shall be sewn into the center of the shirt collar, 2” from the Collar tips.

Yoke:

The yoke shall extend the full width of the back to each set-in sleeve. The yoke shall be double Layered and extend straight across the back.

Finishing:

All Nomex IIIA or approved substitute shirts shall be pressed and autoclaved to impart Permanent press characteristics to the fabric and the garment.

Sizes and Colors:

<u>Colors</u>	<u>Stock Size Range</u>
Navy	<u>Chest 38-50, 52-58</u>
Navy	Regular, Long

Labels:

All garments shall bear all labels mandated by the Federal Trade Commission at the date manufacture. Permanent labels shall be sewn into the inside of the garment and include the following information:

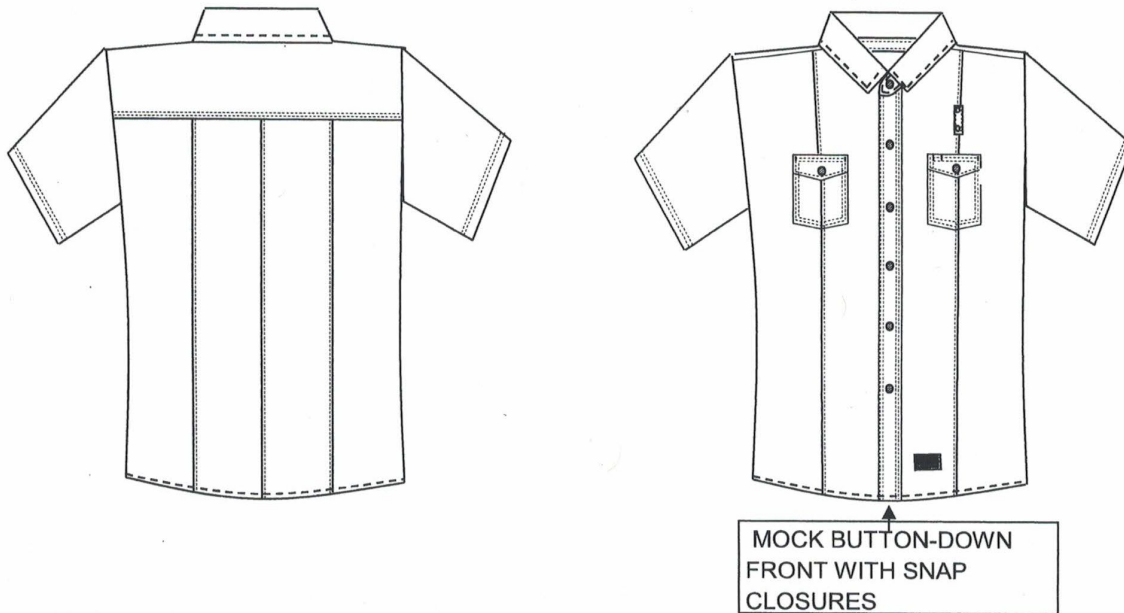
Product-specific data (date of manufacture, style number, size, lot number, origin).
Warning labels (including product warnings, limitations of use, etc.).
Care and Laundering instructions.
Certifications (if applicable).

Manufacturer's Guarantee:

Manufacturer shall guarantee that all garments shall be free from workmanship defects resulting from normal wear within one (1) year of purchase for garments laundered per Manufacturer's instructions. Apparel color shifting and fading shall be excluded.

Sample:

Below is a sample of a HFD "Navy" Fire Resistant Duty Uniform Shirts (Short Sleeve).



Navy Fire Resistant Duty Uniform Trousers

Men's 7.5 oz/yd² Nomex IIIA or approved substitute Industrial and Fire Fighter Trousers (also referred to as pants).

Fire Resistant Duty Uniform Pants shall be navy in color.

Description

The pants shall be designed for durability with triple-stitched, felled outer seams and seat seam. The pants shall have a uniform cut with four (4) deep inverted pockets. The front pockets shall be slash dress style and the back pockets shall be welt design. The waistband shall be full furnished with belt loops and the legs permanently creased.

Certification and Compliance:

Pants shall be ISO 9001 certified. Industrial pleated fire fighter pants made from Nomex IIIA or approved substitute (7.5 oz/yd²) fabrics shall meet the performance requirements of ASTM F-1506; Standard Performance Specification for Flame Resistant and Electric Arc Rated Protective Clothing Worn by Workers Exposed to the Flames and Electric Arcs, NFPA 2112; Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire; and NFPA 1975 Standard on Emergency Services Work Clothing Elements, These garments shall meet or exceed the requirement of OSHA standard 1910.269: “Electric Power Generation, Transmission, and Distribution; Electrical Protective Equipment (Maintenance Standard)”, Federal Register, Volume 59, No. 20, and CAL/OSHA General Industry Safety Orders (GISO), Title 8. The pants shall be tested in accordance with Federal Test Standard 191, Method 5903.2.

Materials

The following arc rating apply to these garments:

<u>Fabric</u>	<u>Nominal Wt.</u>	<u>Arc Rating</u>
Nomex IIIA or approved substitute	7.5 oz/yd ² or approved substitute	6.6 cal/cm ² or approved substitute

Fabric and Pocketing:

The pants shall be manufactured with Nomex IIIA or approved substitute. The fabric shall be treated with a wickable finish to enhance absorbency and improve comfort. For pocketing and other internal construction fabrics shall be made from Nomex IIIA or approved substitute, and shall have a minimum weight of 4 ½ oz/yd² or approved substitute.

Findings:

The zipper shall contain solid brass hardware (zipper teeth and chain) with a semi-automatic slide. The zipper tape shall be made from Nomex fiber or approved substitute. The thread for all seams and stitching shall be made from Nomex, Nomex III, Nomex IIIA aramid fiber, or approved substitute.

The thread size shall be 45/3 or equivalent to ensure adequate seam strength and garment integrity. The color of the thread shall match the fabric. The thread for seaming and stitching shall conform to MIL-T-43636.

The waist closure shall be rivet button made of solid brass. The inside of the rivet button shall be separated from the skin with a layer of Nomex fabric or approved substitute.

Garment Construction:

Garments shall be constructed to maximize the wear life of the garment. Proper stitching, reinforced stress areas and the highest quality construction features shall be used. All garments parts must be properly cut to avoid puckering after laundering and to give the best appearance. All stitching must be of proper tension and size.

Stitches and Seams:

All stitching shall conform to Federal Standard 751 (FED-STD-751A). All stitch types shall be sewn with a minimum of 8 and a maximum of 10 stitches per inch. The thread tension shall be maintained to eliminate loose or tight stitching.

Front Pockets:

The pant shall have two slash type pockets sewn into the waistband, extending 9" down and having a 7" opening. The bottom of the pockets shall be reinforced with an additional layer of pocketing 2" deep at the pocket point and reinforced with bartack stitches. The edge of each pocket attached to the pant side seam shall be a minimum of 1" into the pocket and shall be reinforced with an additional layer of pant fabric for aesthetic and strength purposes.

Back Pockets:

The back pockets shall be welt construction with an opening of 5 ½" wide. The pocket shall be 7" wide and 7" deep. The top of the pocket shall set into the waistband. The welt opening shall be set 3" below the bottom of the waistband. A pocket facing of shell fabric extends ½" into the pocket opening shall be reinforced with bartack stitches. The left pocket shall have a button (size 22 or 24 ligne) and loop closure.

Zipper and Fly:

The right fly shall be made with an additional layer of Nomex fabric or approved substitute and shall be attached to the right front of the pant. The exposed edge shall be sewn to prevent unraveling. The right side of the zipper shall be set into the fly sewn through both layers of the fabric for added reinforcement and shape retention. The left side of the zipper shall be stitched through the left pant fabric, the zipper tape and the lining.

The right and left fly shall be joined together at the base of the zipper using two (2) parallel bartack stitches that are sewn through the fly and zipper tape on both sides of the base of the zipper. The fly facing shall continue down into the crotch area to cover all metal parts of the zipper.

Crotch and Seam Assembly:

The crotch shall be formed below the fly at the intersection of the four (4) bottom panels of the pant. The pants shall be assembled in the following order: front and seat center seams, outside leg seams and inside leg seams to form the completed pant.

Finishing:

Autoclaving: All Nomex IIIA or approved substitute pants shall be pressed and autoclaved to impart permanent press characteristics to the fabric and the garment.

Leg Creases:

Creased shall be pressed into the centers of the front and back of the pant legs using a hot head press. The creases shall be "lintrak" treated (i.e., treated with a special fabric adhesive) to enhance crease retention.

<u>Colors</u>	<u>Stock Size Range</u>
Navy	Waist 28-34, Inseam to 34" Waist 35-42, Inseam to 36" Waist 44-58, Inseam to 36" No odd waist after 35"

Labels:

All garments shall bear all labels mandated by the Federal Trade Commission at the date manufacture. Permanent labels are sewn into the inside of the garment and include the following information:

Product-specific data (date of manufacture, style number, size, lot number, origin).

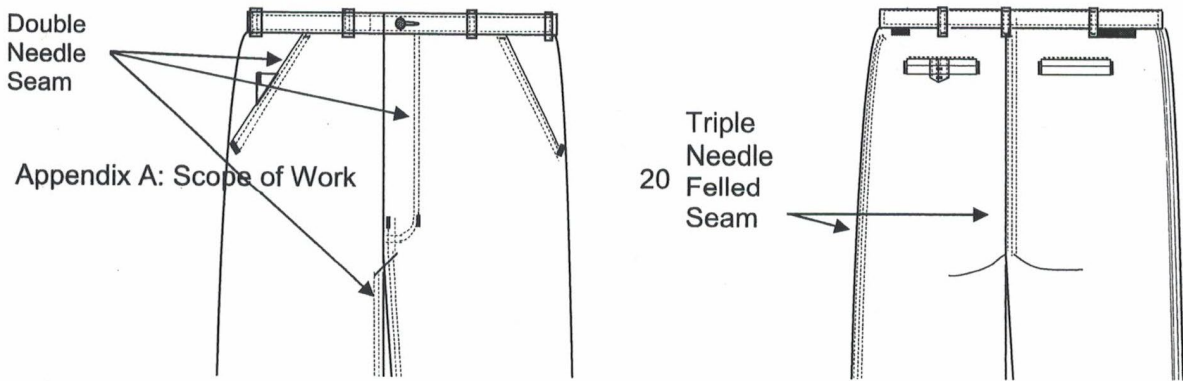
Warning labels (including product warnings, limitation of use, etc.).

Care and laundering instructions.

Certifications (if applicable).

Manufacturer's Guarantee:

The Manufacturer shall guarantee that all garments shall be free from workmanship defects resulting from normal wear within one (1) year of purchase for garments laundered per Manufacturer's instructions. Apparel color shifting or fading shall be excluded. Garment shall be produced from a manufacturing facility with a quality that shall be ISO 9001 certified.



Duty Uniform Jackets, Polyester.

Uniform jackets shall be navy in color and include, but not be limited to the following:

Constructed entirely from a heavy duty, 65% Dacron polyester and 35% cotton twill blend or approved substitute. The fabric shall be acid-resistant.

A bi-swing back for added mobility.

The following jacket sizes shall be available: Small (S), Medium (M), Large (L), Extra large (XL), Extra Large (2XL), Extra Extra Extra Large (3XL) and Extra Extra Extra Extra Extra Large (4XL).

An optional service can be selected by the ordering ARFF members to have a longer jacket tail length (2" or longer) and/or proportionate length sleeves for the garment. The charge for this service shall be added to the individual shirt size cost. Adding fabric to an existing garment shall not be acceptable..

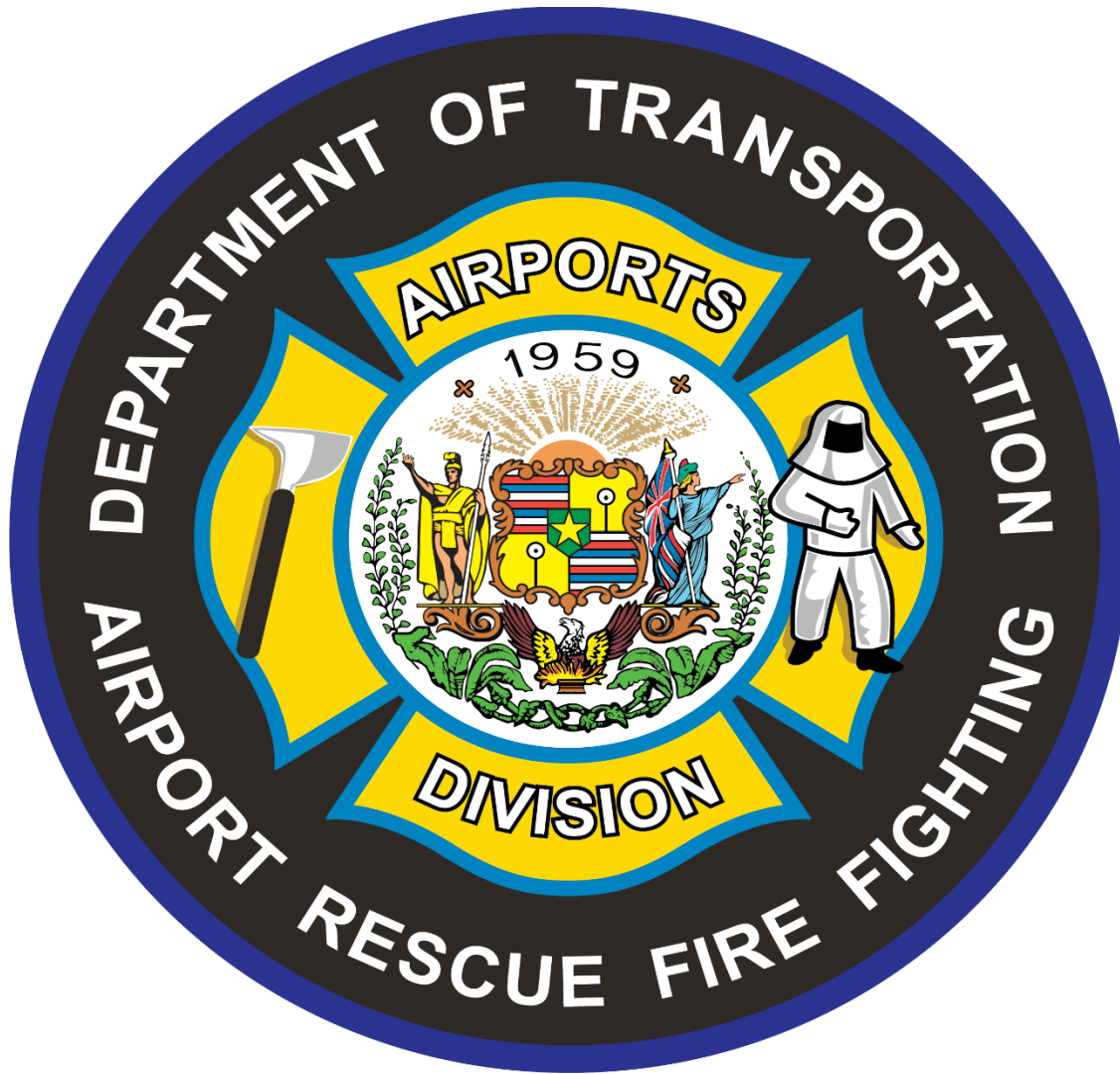
The Contractor shall also have jacket liners compatible to the jackets described herein, available for purchase at the **ARFF member's Personal own expense.**

Patches:

Attachment of one (1), 4", ARFF shoulder patch as specified herein to be provided by the Airports Fire Chief.

The ARFF shoulder patch shall be sewn centered on the left outer sleeve, 1" below the shoulder seam.

The ARFF should patch shall have heat sealed backing to secure threads in place.



Navy Duty Uniform Cotton T-Shirts (Short Sleeve)

The furnished uniform cotton t-shirt shall be navy in color.

Constructed from fabric that is a minimum 6.0 oz., 100% cotton.

The following shirt sizes: Small (S), Medium (M), Large (L), Extra Large (XL), and Extra Extra Large (2XL), Extra Extra Extra Large (3XL), Extra Extra Extra Extra Large (4XL) shall be offered.

Printing:

Printing shall be done in lemon yellow colored ink, matching the existing shade used by the ARFF. The logo shall be screened with a clear inking design (no running or overlapping of the ink into the design).

“Flash curing” or other acceptable procedure shall be done to prevent the dark background from appearing in the printing/logo.

Warranty:

In addition to adhering to the warranty described below, the Contractor shall warranty the silk screening for not less than one (1) year. This warranty shall cover fading, peeling, cracking, and running of the silk screen ink.

Front of Shirt:

The shirt to be provided shall have the word “FIRE”. Silk screened in 2” letters, centered on the front. Letters shall be outlined with 1/8” borders.

Back of the shirt:

The work “FIRE” shall be screened in 2” letters, outlined 1/8” borders and centered on the back with words “AIRCRAFT RESCUE FIRE FIGHTING” “DEPARTMENT OF TRANSPORTATION” “AIRPORTS DIVISION” in 5/8” letters below the word “FIRE”.

Sleeve of shirt:

A 3” stencil of the ARFF shoulder patch shall be silk screened and centered on the left outer sleeve with the bottom of the shoulder patch being 1 ½ inch from the hem line.

Navy Duty Uniform Board Shorts

Board shorts shall be navy in color.

Board shorts shall include, but not limited to the following:

Constructed from fabric that is a quick drying material, 92% polyester and 8% spandex.

A front closure that is black Velcro or approved substitute and be a minimum of 1” wide and approximately 6” long.

Four (4) enamel coated, metal eyelets for fastening by an attached 100% nylon lace, black in color, with a minimum of 5/8” aglet.

A waistband measuring appropriately 1 ½” wide.

Shorts shall have cargo pocket that has an external pocket flap. Pocket shall be a minimum 5” x 5” and shall be professionally sewn on the right leg. The pocket flap shall be provided with a minimum 1” wide Velcro or approved substitute, that is a minimum 3 ½” long.

Shorts shall be done using gold color thread.

Size and Color:

<u>Colors</u>	<u>Stock Size, Length</u>
Navy	Waist 28-54, Length: 19" or approved substitute

Patch:

Shorts shall have an attachment of one (1) 3" ARFF patch as specified herein to be provided by the offeror.

Patch shall be sewn on the left leg with the bottom of the patch 1 ½" above the leg hem stitch, 1 ½" from the left leg seam and shall have heat sealed backing to secure threads in place.

Navy Duty Uniform Athletic Shorts

Uniform athletic shorts shall include, but not limited to the following:

The item supplied shall be made of fabric that is polyester and shall be quick drying.

Shorts shall have an elastic waist band 1 ½ wide with a sewn-in drawstring.

Shorts shall have an inseam of 9" or an approved substitute.

Shorts shall have two (2) side split pockets, one (1) on each of the front sides of the athletic shorts, The pocket shall have an approximately 6" slit opening. All stress points shall have bartack enforced. "Z" stitch corners.

The following sizes shall be available: Small (S), Medium (M), large (L), Extra Large (XL), Extra Extra Large (2XL), Extra Extra Extra Large (3XL).

The stitching shall be done using blue color thread.

Patches:

The shorts shall have attachment of one (1), 3" ARFF patch as specified herein to be provide by the Offeror.

Patch shall be sewn on the left leg with the bottom of the patch 1 ½" above the leg hem stitch, 1 ½ " from the left leg seam, and shall have heat sealed backing to secure threads in place.