



SILVER NEEDLE INC.™

SUPERIOR FABRICS SUPERIOR DESIGN SUPERIOR PERFORMANCE



SILVER NEEDLE INC.

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3015Q LEVEL 2 DUPONT™ NOMEX® COVERALL
BASE DESIGN WITH NO AVAILABLE OPTIONS \$888.41
(SHOWN WITH ADDITIONAL OPTIONS AND ACCESSORIES)



The **3015Q (Level 2) DuPont™ Nomex®** coverall is intended to be used as part of a system designed to offer the greatest protection in the event of a flash fire. To achieve the very best level of protection, the coverall must be worn with our **Number 279L-3 PBI and Nomex®** fire resistant hood with long drape, our **Number 372 Kevlar®** gauntlet style gloves, leather boots, and an industry approved (**SCBA**) Self Contained Breathing Apparatus.

Silver Needle Inc. has spent many years researching, developing, and testing this suit system. Our test data indicates that the coverall can allow a risk of burn injury at the neck and chest area when a standard **Nomex®** balaclava style hood is used. The design of the **279L-3** hood helps to minimize burn risk to this area due to its double layer design, longer drape, and the fire resistant, high heat properties of the **PBI** knit fabric used on the outer layer. Test data confirms that the longer drape protects the wearer from burn injury to the neck and chest area when it is worn correctly with the drape properly tucked into the coverall with the storm flap and collar secured with the hook and loop tabs.

Similar test data confirms that the 16" and 18" inch **372 Kevlar® fleece** gloves minimize burn injury to the arms. **DuPont's** "Thermo-man" test apparatus (A thermal manikin with sensors designed to detect and predict burn injury) does not have thermal sensors on the hand, so an accurate measurement of burn injury to the hand is difficult to measure. However, 2nd and 3rd degree burns to the arm are minimized when the 372 gloves are placed on the manikin with the hook and loop tabs properly secured. Worn correctly in conjunction with the **3015Q** coverall, the ensemble is designed to eliminate the risk of gas vapor entering into the sleeves and creating a flash fire hazard inside the arms of the suit.

It is the position of Silver Needle Inc. that in any case where the end user of our suit system chooses not to utilize all the recommended garments available with the ensemble, (specifically the **279L-3** hood and the **372** gloves) then the end user cannot reasonably expect the **3015Q** coverall to perform as intended by the manufacturer. Silver Needle Inc. can only guarantee the effectiveness of the extraction suit system's safety features, and fire resistant properties when the complete system is worn following our guidelines for proper fit, care, and operation. All zippers, storm flaps, closures, and any other safety features that may be included must be used in accordance with Silver Needle's guidelines to ensure the maximum safety benefits of the suit system.

Silver Needle Inc. would like to provide you with the safest garments available. We not only manufacture the extraction suit system, but it is our intention to educate your safety personnel on how to wear our garments properly, and care for the fabrics so that maximum safety and minimal risk can be achieved.

Please contact **Silver Needle Inc.** with any questions or concerns. **1-800-863-7733** Monday through Friday 7:00 am to 4:00 pm PST. Email: CustomerService@silverneedleinc.com

Fabric Content:

DuPont™ NOMEX® aramid
(93% NOMEX/5% KEVLAR/2% Carbon)

Characteristics:

Inherently flame resistant anti-static fabric engineered to reduce "nuisance" static. Self-extinguishing, will not ignite, melt, drip or burn. These characteristics make NOMEX® an exceptional all around fabric for applications such as petroleum refining, petro-chemical, fire service, and gas and electric utilities.

NOMEX® brand fibers are inherently flame resistant (FR): the flame resistance is an inherent property of the polymer chemistry.

It will not diminish during the life of the fiber.



STYLE 372-1 KEVLAR® FLEECE
GLOVES
STARTING AT \$76.75



DUPONT™ KEVLAR™ KNIT CUFF
\$33.52



STORM FLAP ZIPPER COVER
WITH 18 INCH ZIPPER OPTION

- **AVAILABLE OPTIONS:**

- Harness made with 6000 psi Nylon or 9000 psi DuPont™ Kevlar®
- Suit can be made without the built in harness, however it would not be considered an extraction suit without it
- 17' Kevlar® lanyard (any length available)
- D-Ring
- Kevlar® knit cuffs and ankle stirrup
- 2" Fire Resistant Reflective to meet Class 1 or Class 2 DOT Requirements
- NOMEX® leg zipper sealed with storm flap
- Suit can be custom embroidered with Nomex® thread
- Various colors
- Custom fit with our sizing program

DOT CLASS II REFLECTIVE \$46.50

DOT CLASS III REFLECTIVE \$70.35



KEVLAR® HARNESS \$279.40

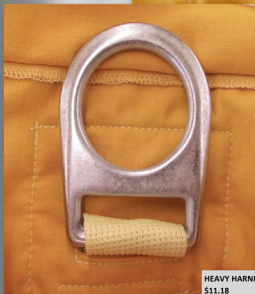
NYLON HARNESS \$67.50



18 INCH FR LEG ZIPPER
\$40.98



KEVLAR® RETRIEVAL LANYARD
\$103.25



HEAVY HARNESS RING
\$11.18

QUILTED NOMEX®

With its 100% **NOMEX®** woven face cloth and three layers of inherently flame-resistant **NOMEX®/KEVLAR® E89™** batts, **ARALITE® SL3** is a thin, lightweight barrier providing excellent thermal protection.

Thin, lightweight thermal protection
Flexible and comfortable to wear
Proven high performance
Excellent tear strength

ARALITE SL3 delivers peace of mind when lives are on the line.





GEAR UP AND GO

SAFETY HOOD #279L-3 \$189.20 - \$208.12

Made of PBI & Nomex® knit
DuPont™ Nomex® quilted outer shell liner
(tucks inside coverall neckline)

GLOVES #372-1 \$87.97 - \$96.77

Kevlar® fleece fire resistant gloves will not melt or drip

BOOTS #2012XP \$174.24

Steel toe cap, oil resistant sole, non-metallic
puncture proof insole

GEAR BAG #999-2 \$55.88

Tough 1000D Cordura® Nylon gear bag

Waterproof with two inside pockets

Heavy-duty zipper closure with storm flap

Can be embroidered or screened with name and
or logo





Grizzly Wear™ Clothing by Silver Needle Inc. combines safety with style.

Fire and water resistant garments that exceed industry standards for Electric Arc Flash and Fire Hazard protection.



CALL FOR OPTIONS AND PRICING

GRIZZLY WEAR™ FR RAIN GEAR

Dartex® Fabric

Dartex® is polyurethane transfer coating on weft knitted fabric, manufactured in the UK by the proven world-leader in pu transfer coating – Dartex® Coatings Ltd.

The fabric is waterproof, semi-vapor permeable and anti-fungal treated. It is also 'fabric weldable', which is why our garments have welded seams, giving the ultimate in waterproof finishes.

It is available in a range of colors and performance standards.

Silver Needle Inc. can custom manufacture safety clothing from Dartex® fabric.

Proven protection against fire and arc flash hazards.







CALL FOR OPTIONS AND PRICING



STYLE 727 COAT STARTING AT \$141.55



STYLE 1004 BIB OVERALL STARTING AT \$86.13

GRIZZLY WEAR COVERALLS

Introduced in 1996, the **UltraSoft®** fabric line was designed with both comfort and safety in mind. **UltraSoft®** was created with a unique blend of 88% cotton and 12% high-tenacity nylon to provide a soft feel for greater comfort, enhanced wear life and protective performance. In fact, the fabric is engineered to focus the excellent abrasion resistance of the nylon on the outer surface to prolong garment wear life, while the cotton fibers are focused towards the skin to optimize comfort.

UltraSoft® is guaranteed flame resistant for the life of the garment in either high-temperature industrial or home washing procedures. That makes it ideal for enhanced protection from electric arc and flash fire exposures, as well as multipurpose protection from electric arc flash, flash fire, molten ferrous metal and welding exposures.



CALL FOR PRICING 1-800-863-7733



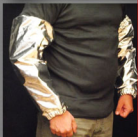




SWITCHERS COAT USING COMBINED FABRICS TO ACHIEVE ATPV REQUIREMENTS

CRYOGENIC SAFETY CLOTHING





3015Q-1 CRYOGENIC PROTECTION COVERALL
ALUMINIZED 3B SHELL, NOMEX® E89 QUILTED LINER
BASE PRICE \$965.56

CRYOGENICS:

Handling cryogenic fluids may result in exposure to cold liquid, boil-off gas, or cold surfaces. Protective clothing must be worn to guard against the hazard of coming into contact with the cold. The recommended cryogenic safety clothing includes using face protection, safety gloves, long sleeve shirts, lab coats, and aprons to achieve full body coverage.

Silver Needle Inc., with the cooperation of Northwest Natural Gas, has developed a protective cryogenic coverall, and cryogenic gloves that when worn together will protect your entire body from cold contact hazards. The cryogenic coverall design is based on our patented Flash Fire Natural Gas Extraction Suit System coverall. The aluminized fabric used for the coverall was selected after numerous other fabrics were field tested, and the aluminized surface has been proven to repel cryogenic natural gas liquid. The cryogenic coverall is double stitched using **DuPont™ Kevlar® thread**. The arms and the leg openings use hook and loop closures to provide a seal in order to prevent liquid or gas from entering the coverall. The collar design is similar to the protective gear used by fire departments for increased neck protection. The front of the coverall utilizes a heavy duty **DuPont™ Nomex®** zipper that is overlapped with a hook and loop storm flap type closure designed to prevent gas vapor and gas liquid from entering the cryogenic suit.



HANDLING AND TRANSPORT OF CRYOGENS

The potential for freezing by contact with the extreme cold of cryogenics necessitates varying degrees of eye, hand and body protection. When a cryogenic fluid is spilled on a person, a thin gaseous layer forms next to the skin. This layer protects tissue from freezing, provided the contact with the cryogen involves small quantities of liquid and brief exposures to dry skin. However, having moist skin, exposure to moving cryogenics, or extended periods of time, can freeze tissue.

The most likely cause of frostbite to the hands and body is contact with cold metal surfaces. Since there is not protective layer of gas formed, frostbite will occur almost instantaneously, especially when the skin is moist. The damage from this freezing (frostbite) occurs as the tissue thaws.

Adequate protection and clothing is required at all times when handling, transferring or operating near cryogenic fluids.

PROTECTIVE CLOTHING

Whenever handling or transfer of cryogenic fluids might result in exposure to the cold liquid, boil-off gas, or surface, protective clothing shall be worn. This should include face shield and or safety goggles, safety gloves, long sleeve shirts, lab coats, and aprons. Eye protection is required at all times when working with cryogenic fluids. Hand protection is required to guard against the hazard of touching cold surfaces.



CRYOGENIC HAND PROTECTION

Our cryogenic gloves were tested by Northwest Natural Gas in the LNG plant. Liquid gas was run over the fabric to see if liquid gas would seep through the cloth during the first pass or a second trial. No LNG penetrated the fabric which remained intact after the cloth returned to ambient temperature. A second test was performed on the same fabric samples. A recession was made in the fabric to cup liquid natural gas in order to pool the liquid and see if the minus 260 degree Fahrenheit (-260°) temperature would break down the same fabric that was previously tested. No LNG was able to penetrate the fabric and again the fabric "looked like new" upon returning to ambient temperature. The individuals administering the test indicated that at no time would a worker experience such liquid gas exposure, and that the amount of liquid natural gas used in both tests, in all probability, would never be encountered.

Samples of worn gloves were also tested for penetration at the seams.

No apparent liquid natural gas penetration was found.



317C-17 CRYOGENIC GLOVE
STARTING AT \$85.05



SILVER NEEDLE INC. AWARDS AND RECOGNITION

SUPPLIER CLEARINGHOUSE CERTIFICATE OF ELIGIBILITY

CERTIFICATE EXPIRATION DATE: 03-24-2017

The Supplier Clearinghouse for the Utility Supplier Diversity Program of the California Public Utilities Commission hereby certifies that it has audited and verified the eligibility of:

*Silver Needle Inc., dba Silver Needle Inc.
of Kellogg, Idaho as a WBE*

pursuant to Commission General Order 156, and the terms and conditions stipulated in the Verification Application Package. This Certificate shall be valid only with the Clearinghouse seal affixed hereto.

Eligibility must be maintained at all times, and renewed within 30 days of any changes in ownership or control. Failure to comply may result in a denial of eligibility. The Clearinghouse may reconsider certification if it is determined that such status was obtained by false, misleading or incorrect information. Decertification may occur if any verification criterion under which eligibility was awarded later becomes invalid due to Commission ruling. The Clearinghouse may request additional information or conduct on-site visits during the term of verification to verify eligibility.

This certification is valid only for the period that the above named firm remains eligible as determined by the Clearinghouse. Utility companies may direct inquiries concerning this Certificate to the Clearinghouse at 800-359-7998 in Los Angeles.

VON: 7KN00033

Determination Date: 03-24-2014

Recognition of Lean Knowledge

Brenda Stinson

Has successfully attained the level of

LEAN KNOWLEDGE CERTIFICATE

And recognizes that through education, experience and demonstrated ability has met the certification standards established by this Society.

116943
CERTIFICATION NO

December 31, 2008
DATE OF CERTIFICATION

December 31, 2011
EXPIRATION DATE

Niel Duffie
SME PRESIDENT

Kathryn Daniels, Ph.D., C.M.A., C.E.M.
CHAIRMAN INTERNATIONAL CERTIFICATION

THIS CERTIFICATE DOES NOT CONSTITUTE A LICENSE TO PRACTICE ENGINEERING





SILVER NEEDLE INC. HAS BEEN MANUFACTURING THE HIGHEST QUALITY SAFETY CLOTHING FOR OVER 30 YEARS. OUR SAFETY PRODUCTS ARE MANUFACTURED EXCLUSIVELY IN THE UNITED STATES OF AMERICA.

