

FLAME RESISTANT GARMENTS

Standard vs. Test Methods

Often users mix up the many standards and test methods related to FR garments. We will go through the most relevant standard performance specification, test methods, terms and give you a summary of what you should really be looking for when considering FR garments.

ASTM F2733-09

This is a Standard Performance Specification for Flame Resistant Rainwear for Protection Against Flame Hazards. Requirements: must meet requirements under Testing Methods ASTM D6413 and ISO 17493 and ASTM F1930.

CGSB 155.10

This is a Standard Performance Specification for Firefighter's protective clothing for protection against heat and flame. This standard is specific to firefighter clothing, and has no relevance for any other industry. It is commonly, and incorrectly, used to reference a fabric's resistance to ignition and self-extinguish when exposed to an open flame.

CGSB 155.20-2000

This is a Standard Performance Specification outlining the minimum requirements for performance workwear worn for protection against unplanned exposure to hydrocarbon flash fire. Testing includes flame resistance (fabrics tested before and after 50 domestic wash/dry cycles), thermal protective performance (TPP), heat resistance, and thermal shrinkage resistance.

What does it mean to meet CGSB 155.20-2000?

The CGSB 155.20-2000 standard refers to protective workwear that will be worn as the outermost garment (please note the wording "workwear" and "garment", as this standard relates to a completed garment, not just its components). This standard is the most abused; many manufacturers will claim partial compliance with statements like: (1) Meets CGSB 155.20 Par 6.1.1 (referencing only the single paragraph 6.1.1 of the standard which is related to Flame Ignition and Self-Extinguish—the actual garment is non-compliant, but the outer fabric has a basic flame retardant treatment); (2) Shell material meets CGSB 155.20 (referencing only that the outer fabric meets paragraphs 6.1.1. through 6.1.2.2 of the standard which is related to the Flame Ignition, Self-Extinguish, and Thermal Protective Properties (TPP) of the shell fabric—the actual garment is non-compliant as the Standard requires all Components, including liners, visibility trim (tape), reinforcements, wristlets, and collar meet Flame and Heat Resistance requirements both in original state and after 50 cycles of washing; all threads must be inherently flame resistant, and all insulation must be Flame and Heat Resistant. Using reference portions to this standard, or unique paragraphs of this standards is misleading and deceptive to the consumer, who will assume the garment is protective against hydrocarbon flash fire occurrence.

What about PVC or PU product?

Garments made of PVC or PU polymers films cannot meet CSGB 155.20 as it will not pass the ISO 17493 convective heat requirement due to their low melting points of 160°C, and 240°C respectively.

CGSB 155.22-2014

This is the Standard Performance Specification outlining the minimum requirements for performance of fireline workwear worn for protection against the adverse effects to the firefighter's body during forest firefighting. Testing includes flame resistance (fabrics tested before and after 50 domestic wash/dry cycles), thermal protective performance (TPP), heat resistance, thermal shrinkage resistance, and seam strength.

NFPA 2112-2012

This is the Standard Performance Specification that will specify the minimum performance requirements and test methods for flame-resistant fabrics and components, and the design and certification requirements for garments for use in areas at risk of flash fires. Testing includes flame resistance (fabrics tested before and after 100 commercial wash/dry cycles), thermal protective performance (TPP), heat resistance, thermal shrinkage, and manikin flash fire.

NFPA 1975-2014

This is the Standard Performance Specification outlining requirements for the design, performance, testing, and certification of non-primary protective station/work uniforms and the individual garments comprising station/work uniforms. This standard will also specify requirements for the thermal stability and flame resistance of textiles used in the construction of station/work uniforms.

NFPA 1977-2016

This is a Standard Performance Specification specifying the minimum design, performance, testing, and certification requirements for protective clothing, helmets, gloves, and footwear that are designed to protect firefighters adverse environmental effects during wildland fire-fighting operations.

ASTM F1506-15

This is a Standard Performance Specification for Textile Material for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards, as per Section 130.7 (C)(8) of NFPA 70E. Testing includes electric arc exposure, flame resistance (fabrics tested before and after 25 commercial wash/dry cycles), tear resistance, breaking strength, dimensional change in laundering, colourfastness to laundering/dry cleaning, and yarn slippage.

An FR designated garment refers to the fabric's treated or inherent ability to resist ignition or to self-extinguish.

Hydro carbon flash protection; CGSB 155.20-2000 compliance tests vertical flame as well as thermal protective performance (TPP VALUE) A minimum level 6 (at 3 second) is required to meet this standard, and all materials used on the garment including the threads must be FR.



What is HRC and TPP?

HRC is changing to Arc Rated Category (CAT)

HRC is an abbreviation for Hazard/Risk Category as determined by the ATPV (Arc Thermal Protective Values) or the amount of energy from an Electric Arc a fabric will resist. The change to Arc Rated Category is to remove the "risk", and define the actual arc protection as "risk" to a worker is more a function of multiple factors that require a risk assessment or model. This standard does not address hydrocarbon flash fire peril. HRC is going to Arc rated Category as defined as follows:

Arc CAT	ATPV Protection
CAT 1	Min. 4 calories/cm ²
CAT 2	Min. 8 calories/cm ²
CAT 3	Min. 25 calories/cm ²
CAT 4	Min .40 calories/cm ²

Over the next year you will see a transition of labelling on FR garments from HRC to CAT (Arc Rating ATPV). HRC/CAT has a relationship with Hydrocarbon Flash Fire protection in that materials of cotton or inherent FR (Nomex) generally will meet the TPP requirements of hydrocarbon Flash Fire protection when meeting HRC/CAT 2 or greater. However, HRC/CAT 2 cannot be attained with polymer film fabrics like PVC which will fail Hydrocarbon Flash requirements. When selecting Hydrocarbon Flash Fire garments focus on the TPP values versus the HRC/CAT level.

TPP

Thermal Protective Performance of a fabric tested with radiant and convective energy to determine the total energy required to simulate a 2nd degree burn injury. The minimum requirement for a fabric used in a CGSB 155.20 garment is 6.0.

TPP in relation to CGSB155.20.2000

It is not enough that a fabric may have a TPP value of 6.0+; in order to meet the standard of CGSB 155.20, and provide the required amount of hydrocarbon flash protection to a user, the whole garment must comply with the CGSB 155.20 standard. Be careful about claims of "Fabric meets CGSB 155.20, or has a TPP value of 6.0+".

CAT/HRC is only used for electric arc, so a high CAT/HRC rating does not automatically imply that it will offer any hydrocarbon flash fire protection. Depending on the material used, a high CAT/HRC garment may provide some inherent TPP value but unless stated, do not assume TPP rating.

Hydrocarbon Flash and Electric Arc

The correct standards for Hydrocarbon Flash Fire and Electric Arc protective clothing are:

NFPA 70E, NFPA 2112-2012, CGSB 155.20-2000
CGSB 155.22-2014, and ASTM F1506

Each of these standards has stringent requirements for compliance, lot traceability, and independent testing. Manufacturers making any claims of compliance to these standards should be able to provide extensive testing reports in original state and after 50 washing cycles.

Limitations

Under each of the above standards, there is a requirement that each garment has a clear label that outlines the limitations, and use of the garment for applications. All Viking® garments with claims of "basic" FR will be labelled as follows:

Attention

This garment has been tested in accordance with the test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 Flame Resistance, Self Extinguishing for Momentary Contact with Open Flame.

In contact with flame, this garment will resist ignition, and / or self-extinguish. The intended use of the garment is for protection from liquids including water, oil, light acids and caustics. This garment also provides wind resistance and acts as a thermal layer against harsh elements, while providing increased visibility of the wearer. This garment is not intended as protection from hydrocarbon flash fires, electric arc hazards, or welding sparks.

Test Methods

ASTM D6413

The USA Testing Method and requirement for determining a fabric's resistance to ignition and ability to self-extinguish when exposed to an open flame.

CAN/CGSB 4.2 No. 27.10

The Canadian Testing Method and requirement for determining a fabric's resistance to ignition and ability to self-extinguish when exposed to an open flame.

ISO 17493/ASTM F2894-12b

A testing method and requirement for determining a fabric's ability to resist ignition, melting, or shrinkage in ambient temperatures at 260°C for 5 minutes.

ASTM F1930

A testing method using a manikin with a finished garment and using a heat flux of 2 cal/cm² over an exposure time of 3 seconds to determine the predicted second and third degree burn area. This test method duplicates a hydrocarbon flash fire incident, and predicts the garment's protection against 2nd and 3rd degree burns.

Codes/Guides

OSHA 1910.269

This is a code or guide comprised of the operational and maintenance of electric power generation, control, transformation, transmission and distribution lines, and equipment. OSHA standard CFR1910.269 has brought many occupational safety principles for the protection of all the workers working in workspaces where there is always risk of injuries due to electric shocks or fire burns.

NFPA 70E-2015

Both of these code or guide are for electrical safety in the workplace, composed of procedures, policies, and guidelines.



Viking® FR Vest



6136FR

- Fully compliant with CSA Z96-15 Class 2, Level 2
- Fully compliant with ANS/ISEA 107-2015 Type R, Class 2, ASTM D6413 (FR)
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Strong breathable FR-treated premium polyester material
- 2" Vi-brance® reflective tape in WCB/Worksafe configuration
- 5-point hook-and-loop tear away safety design
- Safety D-ring access slot on back
- Extra strong edging tape
- 2 Chest, and 2 front storage pockets
- Machine washable
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Size **S/M - 4XL/5XL**



Open Road® Surveyor FR Vest



6165FR

- Fully compliant with CSA Z96-15 Class 1, Level 2
- Fully compliant with ANS/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- 100% Cotton FR-treated fabric for comfort and durability
- Built to last heavy-duty brass snaps and grommets
- Mesh side vents
- Dual reflective chest straps
- Cell/Radio pocket with hook-and-loop fastener
- Safety D-ring slot access on back
- 14" zippered pack across entire back area
- 8 pockets with hook-and-loop fastener (5 outside; 3 inside)
- Brass grommets on lower front pockets for surveyor tape dispenser
- Long ruler slot pocket on left back
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Size **S - 4XL**



Viking Handyman® FR Suit

- Fully compliant with CSA Z96-15 Class 1, Level FR
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- 100% Waterproof and windproof
- Ideal for Fish/Food processing as sandwich fabric will not delaminate with exposure to animal or fish oil
- 0.35mm FR-treated PVC/polyester/PVC material
- Sandwich construction proves good splash protection and chemical resistance
- 2" Yellow prism reflective tape
- Generous sizing for comfort and freedom of movement
- Micro welded seams for durability and waterproofness
- ESR nylon snap closure systems
- Sold as a 3-piece suit
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- Cotton corduroy collar for comfort
- Detachable hood included
- Adjustable wrist cuffs
- Underarm vents for breathability

Bib Pants

- Bib pants with adjustable waist panel and ESR suspenders
- Adjustable boot cuffs



2110FR

Size S - 3XL



Viking Handyman® FR PU

- Fully compliant with CSA Z96-15 Class 2, Level 2
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- 100% Waterproof and windproof
- Stretchable FR-treated PU/Polyester fabric lightweight and flexible in sub-zero conditions
- 2" Yellow Reflexite™ prism reflective tape
- Micro welded seams
- Resistant to motor oil, diesel, chemicals, animal fats, and fish oils
- ESR nylon snap closure systems
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- Fully compliant with ANSI/ISEA 107-2015 Type R, Class 3, ASTM D6413 (FR)
- Large detachable hood to cover hard hat
- Outer storm flap over zipper
- Adjustable wrist cuffs
- Underarm vents for breathability

Bib Pants

- Bib pants with adjustable waist panel and ESR suspenders
- Adjustable boot cuffs



6050FRP

6050FRJ

Size S - 4XL





Viking Handyman® FR PU

- Fully compliant with CSA Z96-15 Class 2 Level 2
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- 100% Waterproof and windproof
- Stretchable FR-treated PU/polyester fabric lightweight and flexible in sub-zero conditions
- 2" Vi-brance® reflective material in 4" WCB/Worksafe/DOT configuration
- Micro welded seams
- Resistant to motor oil, diesel, chemicals, animal fat, and fish oil
- ESR nylon snap closure systems
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- Fully compliant with ANSI/ISEA 107-2015 Type R, Class 3, ASTM D6413 (FR)
- Large detachable hood to cover hard hat
- Adjustable wrist cuffs
- Underarm vent for breathability
- 2 Durable intergrated front pockets
- Outer storm flap over front zipper

Bib Pants & Waist Pants

- Fully compliant with ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- Adjustable boot cuffs
- Bib pants with adjustable waist panel and ESR suspenders
- Waist pants have draw cord elasticized waist and pass through pockets

6055FRWP G available in S - 3XL

Size **S - 4XL**



Viking® FR Hoodie

- Fully compliant with CSA Z96-15 Class 1, Level 2
- Fully compliant with ANSI/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Premium 400 gsm FR-treated cotton fleece lined hoodie keeps you warm and comfortable
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- Tear away detachable hood
- Warm full-size hood with drawstring adjustors
- Dual reflective chest straps
- 2 Front storage pockets
- Comfort snug elastic wrist and waistband
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks



3907FRH

Size **S - 4XL**



Viking® Firewall FR® Hoodie

- Meets safety standards: PPE Category 2, CAN/CGSB 155.20-2000, CSA Z462-15, ASTM F1506, NFPA 70E-2015
- Fully compliant with CSA Z96-15 Class 1 Level 2 and ANSI/ISEA 107-2015 Type O, Class 1, FR
- High-performance 400 gsm FR-treated cotton provides durability, comfort and excellent dual hazard protection against hydrocarbon flash fire and arc flash, minimizing the risk of burns
- TPP Value: Contact 10.4, Spaced 12
- ARC rating ATPV: 19 cal/cm² CAT2 (HRC2)
- 2" Vi-brance® FR reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- Dual reflective chest straps
- Tear-away detachable hood with drawstring adjustors
- Warm full size hood with drawstring adjustors
- Two front storage pocket
- Comfort snug elastic wrist and waistband



64H122200

U.S. availability: S - 5XL

Size **S - 6XL**



Viking Professional® Journeyman 300D Trilobal Rip-stop FR Surveyor Vest

- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Heavy-duty FR-treated 300 denier Trilobal rip-stop polyester with PU backing gives superior abrasion, puncture, rip and snag resistance
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- 4 Outer large storage pockets with hook-and-loop fasteners, multi pen/marker/chalk and small ruler pocket, 11" large ruler slot pocket, and 14" zippered pack across entire back area
- Dual chest straps
- Safety D-ring access slot on back
- Cell/radio pouch pocket
- 4 inner storage pockets
- Mesh side vents for breathability
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

3995FR

- Fully compliant with CSA Z96-015 Class 1, Level 2
- Fully compliant with ANSI/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)

3995FRO

- Fully compliant with CSA Z96-15 Class 2, Level 2
- Fully compliant with ANSI/ISEA 107-2015 Type R, Class 2, ASTM D6413 (FR)



3995FRO

3995FR

Size **S - 3XL**





3907FRPO 3907FRP

3907FRJO

3907FRJ

Size S - 4XL

Viking Professional® Journeyman 300D Trilobal Rip-stop FR

- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Heavy-duty FR-treated 300 denier Trilobal ripstop polyester with PU backing gives superior abrasion, puncture, rip and snag resistance
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- Waterproof, and windproof
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- 3907FRJ is fully compliant with CSA Z96-15 Class 1, Level 2, and ANSI/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)
- 3907FRJO is fully compliant with CSA Z96-15 Class 2, Level 2, and ANSI/ISEA 107-2015 Type R, Class 3, ASTM D6413 (FR)
- Detachable Stormblaster® hood reduces wind and rain exposure up the back of the jacket, while orienting the front close to the chin and cheek area. It has a safety tear away design, making it easy to remove and attach.
- Warm and comfortable fleece collar
- Heavy-duty zipper with storm flap for weather protection
- Dual reflective chest straps
- Double stitched tape and background for superior durability
- 14" embroidery zipper included
- Front and back vents for extra breathability
- 2 Large zippered pockets on the outside, and 1 inner chest pocket
- Adjustable wrist with hook-and-loop fastener to seal out rain and wind

Bib Pants

- 3907FRP is fully compliant with CSA Z96-15 Class 1, Level 2, and ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- 3907FRPO is fully compliant with CSA Z96-15 Class 2, Level 2, and ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- Heavy-duty elastic suspenders with quick release buckle
- Elasticized waist with zippered fly and hook-and-loop flap
- 13" Boot zippers with cover and hook-and-loop fastener for easy access
- Detachable bib design

Professional



Viking Professional® Insulated Journeyman 300D Trilobal Rip-stop FR

- Fully compliant with CSA Z96-15 Class 1, Level 2
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Heavy-duty FR-treated 300 denier Trilobal rip-stop polyester with PU backing gives superior abrasion, puncture, rip and snag resistance
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- 125 gsm ThermoMAXX® Insulation good up to -30°C / -22°F
- Waterproof and windproof
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- Fully compliant with ANSI/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)
- Insulated Stormblaster® hood reduces wind and rain exposure up the back of the jacket, while orienting the front close to the chin and cheek area. It has a safety tear away design, making it easy to remove and attach.
- Heavy-duty zipper with storm flap for weather protection
- Dual reflective chest straps
- Double stitched tape and background for superior durability
- 14" embroidery zipper included
- Front and back vents for extra breathability
- 2 Large zippered pockets on the outside, and 1 inner chest pocket
- Adjustable wrist with hook-and-loop fastener to seal out rain and wind

Bib Pants

- Fully compliant with ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- Heavy-duty elastic suspenders with quick release buckles
- Elasticized waist with zippered fly and hook-and-loop flap
- 13" Boot zippers with cover and hook-and-loop fasteners for easy access
- Detachable bib design
- Insulated upper bib



Professional



3907FRWJ

3907FRWJ

Size S - 4XL

Viking Professional® Freezer Insulated Journeyman 300D Trilobal Rip-Stop FR

- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Heavy-duty FR-treated 300 denier Trilobal rip-stop polyester with PU backing gives superior abrasion, puncture, rip and snag resistance
- 2" Vi-brance® reflective material in 4" contrasting tape meets WCB/Worksafe/DOT configuration
- 250 gsm ThermoMAXX® Insulation good up to -50°C / -60°F
- Waterproof and windproof
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Parka

- 3957FRJ is fully compliant with CSA Z96-15 Class 1, Level 2 and ANSI/ISEA 107-2015 Type O, Class 1, ASTM D6413 (FR)
- 3957FRJO is fully compliant with CSA Z96-15 Class 2, Level 2 and ANSI/ISEA 107-2015 Type R, Class 3, ASTM D6413 (FR)
- Insulated Stormblaster® hood reduces wind and rain exposure up the back of the jacket, while orienting the front close to the chin and cheek area. It has a safety tear away design, making it easy to remove and attach.
- Warm and comfortable fleece collar
- #10 heavy-duty tooth zipper with storm flap for weather protection
- Dual reflective chest straps
- Double stitched tape and background for superior durability
- 14" embroidery zipper included
- Adjustable waist drawstring toggle for windproof
- 2 Large storage pockets with hook-and-loop flap closure, and 1 inner chest pocket
- Adjustable wrist with hook-and-loop fasteners and double cuff to seal out rain and wind
- Insulated 34" long parka for added warmth

Overalls

- 3957FRP is fully compliant with CSA Z96-15 Class 1, Level 2 and ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- 3957FRPO is fully compliant with CSA Z96-15 Class 2, Level 2 and ANSI/ISEA 107-2015 Class E, ASTM D6413 (FR)
- Heavy-duty elastic suspenders with quick release buckle
- Insulated front and back upper bib
- Inner zippered pocket and front storage pocket on bib
- 18" heavy duty boot zipper with 7" internal kick panel
- 2 Side waist gussets for wind guard
- Zippered fly and hook-and-loop flap
- 2 Front slash pockets
- 1 side cargo pocket



Size S - 4XL



3957FRPO 3957FRP



3957FRJO 3957FRJ

Viking® Miner 49er Mining Suit

- Fully compliant with CSA Z96-15 Class 1, Level FR
- Tested in accordance with test method CAN/CGSB-4.2 No.27.10 & ASTM D6413 flame resistance, self-extinguishing for momentary contact with open flame
- Fully compliant with WCB Standard PPE2 High Visibility Garment Type 2
- 100% Waterproof and windproof
- Heavy-duty neoprene with nylon, PU backing
- Suitable for long wearing industrial applications and abrasive environments
- Resistant to acids, chemicals, oils, and solvents
- 30% concentration Sodium Cyanide resistant >480 minutes
- Heat and flame incidental contact protection
- Excellent puncture, tear and abrasion resistance
- Generous sizing for working ease
- Seams are heat-sealed and taped
- 2" Vi-brance® reflective tape strategically placed front and back
- This garment is not intended as protection from Hydrocarbon Flash Fires, Electric Arc Hazards, or welding sparks

Jacket

- Durable nickel plated brass buttons
- D-ring slot on back (also provides venting)
- Hood (5212) sold separately

Bib Pants

- Heavy-duty elastic suspenders
- Double bib design with inner zippered pocket and pen holder
- One side waist gusset for adjustability



Size S - 3XL



5200P



5200J