



## DW-ARC 51 CAL RANGE



### Description

Dromex A.P.T™ (Arc Protective Technologies) product range is designed to protect the user from the hazards of heat and to reduce total burn injury when working in environments exposed to eclectic arc hazards.

The Dromex A.P.T™ 51 Cal attire is suitable for use in category 4 ARC related hazards.

This mandatory attire consists of the following:

- Jacket features:
  - Chunky open-end zip with plastic slider and FR Velcro strips.
  - Seams with triple needle top stitching.
  - FR Rib knit cuff.
  - ATPV 51 cal/cm<sup>2</sup> embroidery for garment suitability identification.
- Bib and Brace features:
  - Adjustable brace with black plastic clips.
  - FR Velcro adjustable tabs -15cm in length at the waist.
  - FR Velcro adjustable tabs -15cm in length at the legs.
  - Double needle top stitch boot piece.
  - Seams with triple needle top stitching.
  - ATPV 51 cal/cm<sup>2</sup> embroidery for garment suitability identification.

- Arc protection FR hood features:
  - Integrated with 40 cal visor permits the user to work at live parts or in the vicinity of live parts without requirements for head protection (falling objects) as the hood is integrated with a hard hat specified for arc flash protection.
  - Allows accommodation of a ventilation system, such as a powdered air purifying device, providing cooling comfort.
  - The 40 cal arc visor consists of two polycarbonate layers offering true vision (please refer to datasheet "ARC ErgoS Range" for detailed product information) with flame retardant velcro attachments and a universal bracket made of natural rubber band that fits around the arc helmet (please refer to data-sheet sheet, "Nikki Arc Protective Hard Hat" for detailed product information).
  - ATPV 51 cal/cm<sup>2</sup> embroidery on hood for head and face protection suitability, identification.
  - Seams with single needle top stitching.
  - Side flaps with FR Velcro closure.

These garments are commonly used in the following industries:

- Automotive
- Construction
- Mining
- Petroleum
- Utilities
- Data centres
- High volume manufacturing

Dromex® ATP™ fabrics are self-extinguishing, heat resistant and resistant to ignition.

### Special Instructions

None of the materials or processes used in the manufacture of these products are known to be harmful to the wearer.

The manufacturer has examined under the system for ensuring quality of production by means of monitoring and inspection.

These Arc flash suits are designed to accommodate the basic safety requirements and standards for Personal Protective Equipment.

The information contained herein is intended to assist the wearer in the selection of personal protective equipment.

Actual conditions of use cannot be directly simulated in a test environment therefore it is the responsibility of the end user and not the manufacturer or supplier to determine the arc flash suitability for the intended use.

Arc flash protective suits should be thoroughly inspected before use to ensure no damage is present.

### Specifications

- Style: Pocketless, Sky blue, bib brace, jacket and hood with integrated arc visor and arc protective hard hat.
- Fabric composition: 88% COTTON 12% NYLON
- Mass: 14oz (Inner), 9oz (Outer)
- Additional:
  - Accessories, Dromex part number, DW-ARCBAG
  - Arc shoulder carry on storage, accommodates storage of your jacket, bib pants, hood and gloves.



- Arc protective suits and visors must be worn with other arc protective attire and equipment to ensure complete protection against the hazards of arc flash.
- Refer to table "Arc Flash PPE Categories for further compatible ppe".

### Sizes Available

Jacket: S-3XL

Size designation	Nominal measurements of finished garment (cm)			
	Chest circumference	Back length	Back width	Sleeve length
S	94	70	36	47
M	99	71	38	47
L	104	72	40	48
XL	109	73	42	48
2XL	114	74	44	49
3XL	119	74.5	46	49

Bib pants: S-3XL

Size designation	Nominal measurements of finished garment (cm)		
	Waist extended	Outside leg length	Inside leg length
S	80	102	78
M	85	104	79
L	90	106	80
XL	95	108	81
2XL	100	110	82
3XL	105	110	82

Switching hood: Standard size

### Compliance & Conformity

- Complies to marking SANS 724, Personal protective equipment and protective clothing against the thermal hazards of an electric arc.
- IEC 61482-1-1 - Live working - Protective clothing against the thermal hazards of an electric arc - Open Arc Test Method. It determines the Arc Thermal Protection Value (ATPV level) of the garment. The basic principle is that the ATPV of the garment must be higher than the Arc Flash energy.
- IEC 61482-1-2, Live working - Protective clothing against the thermal hazards of an electric arc - Box Test Method. It determines the Arc Protection Class Rating of the material or garment by using a constrained and directed arc:
  - EN 61482-1-2:2014 - LIVE WORKING - PROTECTIVE CLOTHING AGAINST THE THERMAL HAZARDS OF AN ELECTRIC ARC - PART 1-2: TEST METHODS - METHOD 2: DETERMINATION OF ARC PROTECTION CLASS OF MATERIAL AND CLOTHING BY USING A CONSTRAINED AND DIRECTED ARC (BOX TEST) (IEC 61482-1-2:2014).
  - NFPA 2112 - Standard on flame resistant clothing for protection of industrial personnel against short duration thermal exposures from fire.
  - ASTM F1959, Standard Test Method for Determining the Arc Rating of Materials for Clothing.
  - ASTM F2621-12, Standard Practice for Determining Response Characteristics and Design Integrity of Arc Rated Finished Products in an Electric Arc Exposure.
  - EN 11611:2015, Protective clothing for use in welding and allied processes.
  - EN 11612:2015 Protective clothing -- Clothing to protect against heat and flame -- Minimum performance requirements.
  - ASTM F2178-12 -Standard Test Method for Determining the Arc Rating and Standard Specification for Eye or Face Protective Products.

Dromex: Unit 1, 1 Blase Road, New Germany, 3620, South Africa  
 T. +27(31) 713 1960 E. info@dromex.co.za  
 www.dromex.co.za



## Packaging

- Jacket: DW-ARC51-J - are packed in a resealable polybag and sold individually.
- Bib pants: DW-ARC51-BP - are packed in a resealable polybag and sold individually.
- Switching hood: DH-ARC51-SH - are packed in a resealable polybag and sold individually.

## Cleaning & Maintenance

For electric arc exposures, wear the correct number of flame resistant clothing layers as dictated by an electric arc hazard analyst. In potentially explosive environments, proper grounding procedures must be used for protection against electrostatic spark ignition. Do not put on or remove garments when in a potentially explosive environment.

### Garment:

Garments of Dromex A.P.T™ brand fibre can be cleaned by home or commercial laundry or by dry cleaning procedures without loss of their inherent protective features.

The following suggestions will help keep your garment looking neat, attractive and safe. If home procedures do not remove contaminants, commercial laundering or dry-cleaning is recommended:

- Launder garments of Dromex A.P.T™ separate from personal non-flame resistant clothing to help avoid contamination by flammable materials. Pre treat greasy stains and collar/cuff lines.
- Wash garments in warm water with heavy duty detergent.
- Do not overload home laundry equipment.
- Do not use chlorine bleach or detergents containing chlorine bleach.
- Chlorine bleach may cause fading and reduce fabric strength.
- Tumble dry garments at a low setting. Use the cool down cycle if available.
- Remove and hang garments as soon as tumbler stops.
- Do not hang in direct sun.
- Sunlight can cause fading and reduce fabric strength.

When using commercial laundry aids, be sure to read and carefully follow the manufacturer's instructions.



### Arc visor:

Rinse with mild detergent in clean water. To avoid scratching of the visor please dry the visor by using air. Common disinfectants can be used. Face shields should be inspected for mechanical damage before they are used. If the visor is cracked or mechanical damage is visible, the face shield should not be used. The most common defects are normally caused by small scratches to the visor.

## Disposal

All industrial waste should be disposed of correctly according to local regulations and good disposal practice. Workwear should be disposed of considering the hazardous substances they were used for as well as the material they are made up of. Please consider recycling.

## Marking

### TYVEK ATPV LOOP FOLD CARE LABEL

**ATPV 51 cal/cm<sup>2</sup>**  
This garment is made of **Dromex A.P.T.™** (Arc Protective Technologies) and is a trademark of Dromex.  
Manufactured by Dromex  
P.O. Box 2005, New Germany, 3620  
Tel: 031 713 1960 - Fax: 031 705 6508  
The purpose of this garment is to protect against the thermal hazards created by an Arc Flash.

This garment is not suitable for fire fighting or any other exposures where flame is of a continuous nature.

Flammable contaminants will reduce the thermal protection of any flame-resistant garment. Wash the garment frequently to ensure that no greases, oil soils and other flammable contaminants are present when the garment is worn. Repairs to the garment must be made with flame resistant components.

**RECOMMENDATIONS**

To maximise protection, garments should be:

- Loose fitting.
- Worn with flame resistant undergarments.
- Only made of cotton, silk or wool.

To maximise comfort:

- Try on garments to check for correct fit before washing.
- Wash new garments before wearing to remove fabric processing aids or finishes.

For electric ARC exposure, wear the correct number of flame resistant clothing layers as dictated by an electric arc hazard analyst. In potentially explosive environments, proper grounding procedures must be used for protection against electrostatic spark ignition. Do not put on or remove garments when in a potentially explosive environment.

Garments of Dromex A.P.T™ brand fibre can be cleaned by home or commercial laundry or by dry cleaning procedures without affecting the lifespan of the garment or its protective features. The following suggestions will help keep your garment looking neat, attractive and safe. If home procedures do not remove contaminants, commercial laundering or dry cleaning is recommended.

Launder garments of Dromex A.P.T™ separate from personal non-flame resistant clothing to help avoid contamination by flammable materials. Pre-treat greasy stains and collar/cuff lines.

Wash Garments in hot water with a heavy duty detergent. Do not overload home laundry equipment.

Do not use chlorine bleach or detergents containing chlorine bleach as it may cause fading and reduce fabric strength.

Tumble dry garments at a low setting. Use the cool down cycle if available. Remove and hang garments as soon as tumbler stops. Do not hang in direct sunlight as it can cause fading and reduce fabric strength.

When using commercial laundry aids, be sure to read and carefully follow the manufacturer's instructions.

### Position:

- Jacket - Side seam (Above hem)
- Bib & Brace - Left side seam below adjustable tab
- Hood - Left seam (Inside)

### SIZE LABEL



### Position:

- Jacket - Neck
- Bib & Brace - Back

### ATPV 40 cal/cm<sup>2</sup> ENGRAVED MARK

**Art.: DH-ARC40**  
**DROMEX HRC 4**  
**2018/041026**  
**CE 1883**  
**2C-2 BSD 1B - 166**  
**ASTM F2178**  
**Made in Germany**

### Position:

- Visor - Top right side of screen

### ORIGIN & YOM LABEL



### Position:

- Jacket - Neck
- Bib & Brace - Back
- Hood - Back (Inside)

## MAIN LABEL

### Position:

- Jacket - Neck (Inside)
- Bib & Brace - Back (Inside)
- Hood - Back (Inside)

### ARC HEAT TRANSFER PRINT



### Position:

- Jacket - Left hand side of chest
- Bib & Brace - Back (Right bottom)
- Hood - Centre back

### PRODUCT STANDARDS



IEC 61482-1-1, IEC 61482-1-2, NFPA 2112, SANS 724, ASTM F1959, ASTM F2621-12, EN 11611:2015, EN 11612:2015, EN 61482-1-2:2014

## EMBROIDERY (WHITE THREAD)



### Position:

- Jacket - Left hand side of chest
- Bib & Brace - Back left side of bottom
- Hood - Left hand side at front

### ARC HEAT TRANSFER PRINT



### Position:

- Jacket - Right centre sleeve
- Hood - Left hand side at front

**Dromex: Unit 1, 1 Blase Road, New Germany, 3620, South Africa**  
**T. +27(31) 713 1960 E. info@dromex.co.za**  
**www.dromex.co.za**

**Arc Flash PPE Categories**

Hazard/Risk Category	Recommended clothing used at this level	Required minimum ATPV (Cal/cm <sup>2</sup> ) as per EN	Workwear	Other PPE
HRC 1	FR shirt (T-shirt Short sleeve worn inside Long sleeve shirt) and FR pants; or coveralls; (Single base layer of FR protection)	4	 <p>ARC SHIRT &amp; DENIM JEAN</p> <p>ARC 2 PIECE CONTI-SUIT</p> <p>ARC T-SHIRT SS&amp;LS</p>	 <p>ARC LEATHER GLOVES</p> <p>ARC VISOR *(must wear with Balaclava)</p> <p>ARC BALACLAVA</p>
HRC 2	FR under garments (undershirt, underwear), FR shirt and FR pants; or FR coveralls; (2 or more layers of FR protection)	8	 <p>ARC BOXER SHORT</p>	 <p>ARC LEATHER GLOVES</p> <p>ARC VISOR *(must wear with Balaclava)</p> <p>ARC BALACLAVA</p> <p>ARC HARD HAT</p> <p>EARPLUGS</p>
HRC 3	FR under garments (undershirt, underwear), FR shirt, FR jacket, FR pants or FR coveralls; (2 -3 or more layers of FR protection)	25	 <p>ARC 2 PIECE CONTI-SUIT</p> <p>ARC PADDED JACKET</p>	 <p>ARC LEATHER GLOVES</p> <p>ARC VISOR *(must wear with Balaclava)</p> <p>ARC BALACLAVA</p> <p>ARC HARD HAT</p> <p>EARPLUGS</p>
HRC 4	(Undershirt, underwear), FR shirt, FR jacket/coat, FR pants or FR coveralls; (3-4 or more layers of FR protection)	40	 <p>ARC BIB &amp; BRACE, JACKET AND HOOD WITH VISOR</p>	 <p>ARC LEATHER GLOVES</p> <p>EARPLUGS</p>