

# Declaration of Conformity

In Accordance with ANSI/ISEA 125-2014 and ANSI/ASSP Z359.7-2019



Alexander Andrew, Inc. 1306 S. Alameda St Compton, CA 90221 (800) 719-4619

Declaration #

D0503079

Declaration Date

5/3/2024

Tested Item #

72907SP8

7' Arc Flash Mini Pro Class 1 SRL, Single-leg Personal Connector + Steel 5k Carabiner

Additional Items Conforming Under this Declaration:

72907SP8S

72907SPD1

Alexander Andrew, Inc. declares that the product(s) listed above is in conformity with the requirements of the following product standard(s):

ANSI Z359.14-2021 & ASTM F887

Conformity Assessment Method in accordance with ANSI/ISEA 125-2014

Level 1

Level 2

Level 3

Level 1: FallTech Lab  
Outside the Scope of  
ISO/IEC Standard 17025:2005

Level 2: FallTech Lab  
Within the Scope of  
ISO/IEC Standard 17025:2005

Level 3: Independent 3rd Party Lab  
accredited to  
ISO/IEC Standard 17025:2005

Supporting  
Documentation

Authorized Signature

Name

Zachary Winters

Title

Engineering Manager

Date

5/3/2024



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FallTech Lab - TL-594

ISO/IEC 17025:2017

Alexander Andrew Inc dba FallTech

### FallTech Test Report

Test Report No.	PC-3111	Rpt. Date	5/3/2024	Rpt. Rev		Rev Date	
Report Prepared For	FallTech						
Initiated By	Zachary Winters	Test Specification(s)	ANSI Z359.14-2021: 4.2, 4.3, 4.5				
Part No.	72907SP8	Part No. Revision	A				
Part Description	7' Arc Flash Mini Pro Class 1 SRL						
Test Request No.	PC-3111	Date Complete	5/2/2024				
Test Operator(s)	Yesbet Sierra / Jay Sponholz						

### Material/Sample Identification

Sample ID	Description
7817950	7' Arc Flash Mini Pro Class 1 SRL
7817947	7' Arc Flash Mini Pro Class 1 SRL
7817940	7' Arc Flash Mini Pro Class 1 SRL
7817945	7' Arc Flash Mini Pro Class 1 SRL
7817941	7' Arc Flash Mini Pro Class 1 SRL
SRL-P3*	7' Arc Flash Mini Pro Class 1 SRL
7819746	7' Arc Flash Mini Pro Class 1 SRL
7817943	7' Arc Flash Mini Pro Class 1 SRL
DPTH3*	7' Arc Flash Mini Pro Class 1 SRL
7817944	7' Arc Flash Mini Pro Class 1 SRL
7817942	7' Arc Flash Mini Pro Class 1 SRL
DPTC3*	7' Arc Flash Mini Pro Class 1 SRL
7817949	7' Arc Flash Mini Pro Class 1 SRL
7817948	7' Arc Flash Mini Pro Class 1 SRL
DPTW3*	7' Arc Flash Mini Pro Class 1 SRL

### Test Summary

Test Specification	Test Criteria	Test Result	Pass/Fail
ANSI Z359.14-2021 4.2.1	Static Strength ≥ 3600 Lbf for ≥ 60 Seconds	3623.4 lbF	Pass
ANSI Z359.14-2021 4.2.1	Static Strength ≥ 3600 Lbf for ≥ 60 Seconds	3623.0 lbF	Pass
ANSI Z359.14-2021 4.2.1	Static Strength ≥ 3600 Lbf for ≥ 60 Seconds	3620.2 lbF	Pass
ANSI Z359.14-2021 4.3.2	Max Arrest 72" Freefall ≤ 1800 Lbf	1127.7 Lbf	Pass
	Visual Indicator Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.2	Max Arrest 72" Freefall ≤ 1800 Lbf	1097.0 Lbf	Pass
	Visual Indicator Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.2	Max Arrest 72" Freefall ≤ 1800 Lbf	1236.2 Lbf	Pass
	Visual Indicator Evidence of Impact	Clear Evidence	Pass

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<b>Initiated By</b>	Zachary Winters	<b>Test Specification(s)</b>	ANSI Z359.14-2021: 4.2, 4.3, 4.5				
<b>Part No.</b>	72907SP8	<b>Part No. Revision</b>	A				
<b>Part Description</b>	7' Arc Flash Mini Pro Class 1 SRL						
<b>Test Request No.</b>	PC-3111	<b>Date Complete</b>	5/2/2024				
<b>Test Operator(s)</b>	Yesbet Sierra / Jay Sponholz						

### Test Summary (Continued)

Test Specification	Test Criteria	Test Result	Pass/Fail	
ANSI Z359.14-2021 4.3.1 DPT Ambient	Max Arrest Force	≤ 1800 Lbf	1372.7 lbF	Pass
	Avg Arrest Force	≤ 1350 Lbf	788.4 lbF	Pass
	Arrest Distance	≤ 42"	30.6"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1 DPT Ambient	Max Arrest Force	≤ 1800 Lbf	1297.3 lbF	Pass
	Avg Arrest Force	≤ 1350 Lbf	809.0 lbF	Pass
	Arrest Distance	≤ 42"	26.7"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1 DPT Ambient	Max Arrest Force	≤ 1800 Lbf	1345.5 lbF	Pass
	Avg Arrest Force	≤ 1350 Lbf	757.8 lbF	Pass
	Arrest Distance	≤ 42"	30.5"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.7 DPT Hot	Max Arrest Force	≤ 1800 Lbf	1267.3 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	741.5 lbF	Pass
	Arrest Distance	≤ 42"	31.4"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.7 DPT Hot	Max Arrest Force	≤ 1800 Lbf	1186.7 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	678.6 lbF	Pass
	Arrest Distance	≤ 42"	33.9"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.7 DPT Hot	Max Arrest Force	≤ 1800 Lbf	1298.0 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	758.5 lbF	Pass
	Arrest Distance	≤ 42"	30.4"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass

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<b>Report Prepared For</b>	FallTech						
<b>Initiated By</b>	Zachary Winters	<b>Test Specification(s)</b>	ANSI Z359.14-2021: 4.2, 4.3, 4.5				
<b>Part No.</b>	72907SP8	<b>Part No. Revision</b>	A				
<b>Part Description</b>	7' Arc Flash Mini Pro Class 1 SRL						
<b>Test Request No.</b>	PC-3111	<b>Date Complete</b>	5/2/2024				
<b>Test Operator(s)</b>	Yesbet Sierra / Jay Sponholz						

### Test Summary (Continued)

Test Specification	Test Criteria		Test Result	Pass/Fail
ANSI Z359.14-2021 4.3.1.8 DPT Cold	Max Arrest Force	≤ 1800 Lbf	1426.6 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	792.6 lbF	Pass
	Arrest Distance	≤ 42"	25.5"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.8 DPT Cold	Max Arrest Force	≤ 1800 Lbf	1390.8 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	829.6 lbF	Pass
	Arrest Distance	≤ 42"	26.5"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.8 DPT Cold	Max Arrest Force	≤ 1800 Lbf	1415.5 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	791.9 lbF	Pass
	Arrest Distance	≤ 42"	27.4"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.9 DPT Wet	Max Arrest Force	≤ 1800 Lbf	1339.6 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	723.7 lbF	Pass
	Arrest Distance	≤ 42"	28.2"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.9 DPT Wet	Max Arrest Force	≤ 1800 Lbf	1287.8 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	703.4 lbF	Pass
	Arrest Distance	≤ 42"	27.6"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass
ANSI Z359.14-2021 4.3.1.9 DPT Wet	Max Arrest Force	≤ 1800 Lbf	1232.0 lbF	Pass
	Avg Arrest Force	≤ 1575 Lbf	769.2 lbF	Pass
	Arrest Distance	≤ 42"	29.8"	Pass
	Visual Indicator	Evidence of Impact	Clear Evidence	Pass

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Part No.	72907SP8	Part No. Revision	A				
Part Description	7' Arc Flash Mini Pro Class 1 SRL						
Test Request No.	PC-3111	Date Complete	5/2/2024				
Test Operator(s)	Yesbet Sierra / Jay Sponholz						


### Test Summary (Continued)

Test Specification	Test Criteria	Test Result	Pass/Fail
ANSI Z359.14-2021 4.5.1	Retraction Tension 0% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	2.2 lbF Pass
	Retraction Tension 50% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	3.4 lbF Pass
	Retraction Tension 100% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	6.8 lbF Pass
ANSI Z359.14-2021 4.5.1	Retraction Tension 0% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	2.4 lbF Pass
	Retraction Tension 50% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	3.4 lbF Pass
	Retraction Tension 100% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	6.8 lbF Pass
ANSI Z359.14-2021 4.5.1	Retraction Tension 0% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	2.6 lbF Pass
	Retraction Tension 50% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	3.9 lbF Pass
	Retraction Tension 100% Extracted	1.25 Lbf - 25 Lbf ≤ 48" Extended	5.6 lbF Pass

### Conclusion

Based upon the samples provided to the Lab:  
 FallTech P/N 72907SP8 Rev. A meets the requirements of ANSI Z359.14-2021 and ASTM F887-20\*

### Report Signatories and Approval

Lab Quality Manager		Date	5/3/2024
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## EXPOSURE TO AN ELECTRIC ARC

### Requesting Agency:

FallTech  
1306 S Alameda St  
Compton, CA 90221

### Reference Test Standard:

**ELECTRIC ARC TESTS: ASTM F887-20, SECTION 22**  
OBSERVATION OF PERSONAL CLIMBING EQUIPMENT EXPOSED TO AN  
ELECTRIC ARC

### Test Report:

K-581029-2402H02-R00

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### Test Specimen:

FallTech, SRL-P, Style 72907SP8, Webbing: Kevlar/Nomex Yellow

### Result:

As requested, 7 samples of FallTech, SRL-P, Style 72907SP8 were exposed to an electrical arc. Based on test results, this product style meets the requirements in Table 1-1. The samples were returned to the Agency for examination and additional drop test. Note: Self-retracting devices (SRDs) are not included in the scope of arc exposure test in ASTM F887-20.

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Sample Received	Test Date	Report Date
February 14, 2024	February 15, 2024	February 28, 2024

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Prepared by

Approved by

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Claude Maurice  
Technical Specialist, HCL  
TD Technologies, Kinectrics

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Brian Shiels  
Service Line Manager  
ArcWear, Kinectrics AES



## Revision History

Rev	Description		
00	Initial report creation		
	Issue Date	Prepared by	Approved by
	February 28, 2024	Claude Maurice	Brian Shiels
Rev	Description		
	Issue Date	Prepared by	Approved by

For questions about this test report, please contact [Contact.ArcWear@Kinectrics.com](mailto:Contact.ArcWear@Kinectrics.com)

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### QUALITY MANAGEMENT

The arc testing performed to the above mentioned Standard is accredited by the Standards Council of Canada (SCC) to conform to the requirements of CAN-P-4E (ISO/IEC 17025:2017). Accreditation by the Standards Council of Canada (SCC) is a mark of competence and reliability

- The test performed does not apply to electrical contact or electrical shock hazard.
- The test result is applicable only to the Test Specimens delivered to Kinectrics, other material, design or color may have a different response.
- It is the clients' responsibility to provide full and accurate information about the items supplied.
- No test is done to validate the fiber content or composition of the test item.
- Photographs of the test specimens and waveforms of the arc current, voltage and calorimeters with the circuit and arc exposure calibration records are available from Kinectrics and provided to the client separately from this report.



## 1 Test Standard:

### Electrical arc test according to ASTM F887-20, Section 22

Standard Specifications for Personal Climbing Equipment, After Exposure to an Electric Arc Evaluation. Specimens are mounted on mannequins having a distance of 30.5 cm (12 inches) from the chest to the centerline of the electrodes. The test standard requires that the finished personal climbing equipment be exposed to a level of  $40 \text{ cal/cm}^2 \pm 5 \text{ cal/cm}^2$ .

### 1.1 Test Requirements

Harnesses- The test program requires the specimens be placed on mannequins as normally worn. Sufficient quantities shall be exposed on the front and on the back to meet the drop test requirements of Table 5 of the Standard.

Harness with dorsal attachment only: 4 frontal arc exposure, 4 rear arc exposure (8 samples arc tested).

Harness with front and dorsal attachment: 6 frontal arc exposure, 6 rear arc exposure, (12 samples arc tested).

Harness accessories, loops etc. - Three specimens of each accessory or loop are required to be exposed to the arc.

Energy Absorbing Lanyard - Three specimens of each lanyard are required to be exposed to the arc.

SRL & SRD- Self-retracting devices (SRDs) are not included in the scope of arc exposure test in ASTM F887-20, Section 22. Their test method, number of samples required, and subsequent drop test and criteria has not been established by ASTM. Until the standard is revised, the arc exposure test is based on the requirements for Energy Absorbing Lanyards (non-retracting). The drop test to verify mechanical integrity following the arc exposure will be arranged by the producer based on the applicable drop method followed for such devices.

Other effects as a result for an arc fault such as the noise, light emissions, pressure rise, hot oil, electric shock, the consequences of physical and mental shock or toxic influences are not covered by this standard.

### 1.2 Acceptance criteria for products exposed to electrical arc:

The procedure outlined in ASTM F887-20 is followed to verify the electric arc performance of the personal climbing equipment. The product is considered as having passed the visual inspection criteria if the parameters defined in Table 1-1 are met. As proof of performance following the arc exposure, the exposed test specimens shall be subjected to a drop test as soon as practical after the arc exposure.



**Table 1-1: Visual inspection Criteria for Electric Arc Performance of ASTM F887-20**

Parameter	Criterion
Arc Energy	Electrical arc exposure of $40 \text{ cal/cm}^2 \pm 5 \text{ cal/cm}^2$
Ignition	No electric arc ignition.
After-flame Time	Less than 5 seconds on load bearing materials and less than 15 seconds for accessories or non-load bearing components.
Material Performance	Material shall withstand the arc exposure with good integrity and have no melting and dripping of molten materials to the floor of any load bearing material. Non load bearing accessories may exhibit melting and dripping provided they are not ignited while dripping.

## 2 Test Condition:

The following test circuit parameters and conditions were used.

- Electric arc current: 8 kA rms  $\pm 10\%$ , 60 Hz
- Open circuit voltage: 2500 V rms  $\pm 10\%$ , 60 Hz
- Nominal Heat Flux Density:  $2100 \text{ kW/m}^2$  ( $50 \text{ cal/cm}^2\cdot\text{s}$ )
- Arc duration: 0.85 seconds  $\pm 0.1 \text{ s}$  to obtain required incident energy
- Electrode gap: 305 mm (12 inches)
- Distance from mannequin to electrode: 305 mm (12 inches)
- Deviations and abnormalities: none

Note: The measurement uncertainty, MU, for the measured values of this test method are well within the requirements of the test standard and are defined on a 95% confidence interval basis over the full test range, as follows:

- Temperature:  $\pm 2 \text{ }^\circ\text{C}$
- Arc Current:  $\pm 2.5\%$
- Time zero reference:  $\pm 3 \text{ ms}$
- Incident Energy:  $\pm 1.5\%$
- Voltage:  $\pm 2.2\%$

## 3 Test Sample Description:

The following description of the test sample was provided by the client and confirmed by the sample shown in Figure 3.1.

<b>Sample description:</b>	FallTech, SRL-P, Style 72907SP8, Webbing: Kevlar/Nomex Yellow
<b>Sample identification:</b>	Serial number of each identified in Table 4-1
<b>Manufacturer:</b>	FallTech
<b>Material of webbing:</b>	Kevlar/Nomex, Yellow, 1.5 mm thickness
<b>Number of samples tested:</b>	7
<b>Notes:</b>	Black/Navy pack covering material not identified.



**4 Test Results:**

Two mannequin torsos were placed at 120° in the arc test cage at a distance of 305 mm (12 in) from the electrodes. The samples were placed on each of the two mannequins as shown in Figure 6.1.

After the arc exposure, the samples were examined and observations are given in Table 4-1. Samples having met the visual performance criteria in Table 1-1 are marked as “Meets”. These samples shall then be subjected to a mechanical drop test as indicated in ASTM F887-20. Photographs of the samples before and after the arc exposure are shown in Section 6.

**Table 4-1a: Summary of Test Results**

	Trial # 24-0477		Trial # 24-0478	
Mannequin	A	B	A	B
Serial number	NA	NA	NA	NA
Exposure area	SRL body	3x yellow webbing	SRL body	2X Label pack, black cover
Incident Energy	38 cal/cm <sup>2</sup>	42 cal/cm <sup>2</sup>	45 cal/cm <sup>2</sup>	40 cal/cm <sup>2</sup>
After-flame	0 s	0 s	0 s	0 s
Ignition	No	No	No	No
Melting and Dripping	No	No	No	No
Acceptance Criteria	Meets	Meets	Meets	Meets

**4.1 Observations:**

Charring was observed on the webbing and covering material on all samples. Ablation of the pack covering material, SRL body not melted, label charred. No afterflame was observed on SRL, covering material or webbing.

**5 Interpretation of Results:**

This testing does not assign an arc rating to this product. The purpose of this test is to observe the response characteristics of the lanyards when exposed to an open-air electric arc as described in ASTM F887-20.

As requested, 7 specimens of FallTech, SRL-P, Style 72907SP8 were exposed to an electrical arc. Based on test results, this product style meets the requirements in Table 1-1. The samples were returned to the Agency for examination and additional drop test.

Note: Self-retracting devices (SRDs) are not included in the scope of arc exposure test in ASTM F887-20.