

FRONTLINE FALL PROTECTION INC. TEST REPORT

SCOPE OF WORKS

ANSI/ASSP Z359.13-2013: Personal Energy Absorbers and Energy Absorbing Lanyards

REPORT NUMBER

105874305CRT-005

ORIGINAL REPORT NUMBER

105201180CRT-002

ISSUE DATE

July 15, 2024

PAGES

8

DOCUMENT CONTROL NUMBER

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3933 US Route 11
Cortland, New York ,USA
13045

TEST REPORT FOR FRONTLINE FALL PROTECTION INC.

Report No.: 105874305CRT-005

Date: July 15, 2024

Telephone: 607-758-6246
Facsimile: None
www.intertek.com

FRONTLINE FALL PROTECTION INC.
6 Lee BLVD
Malvern, PA 19355
UNITED STATES
info@frontlinefall.com

Phone: 1+ 305-721-4407

Report Number..... : 105874305CRT-005

Signed Quote Number..... : Qu-014569258-3

PO Number.....: N/A

Name of Testing Laboratory

Preparing the Report: Intertek Testing Services NA Inc.

Test Specification:

Standard.....: ANSI/ASSP Z359.13-2013

Date(s) of Testing.....: 9/26/2022-9/28/2022

Product Description:

Product Type:: EA DUAL LAYNARD

Brand Name:: Frontline Fall Protection

Model Number(s):: LIS62RA

Model Sharing:: N/A

Date(s) Samples Received: 9/20/2022

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SECTION 1

SUMMARY OF TESTING

TESTS COMPLETED	ANSI/ASSP Z359.13-2013 CLAUSE	STATUS
Design	3.1-3.1.5	PASS
Activation Force	4.2	PASS
Dynamic Performance – Ambient Wet	4.13.1	PASS
Dynamic Performance – Cold Dry	4.13.2	PASS
Dynamic Performance – Hot Dry	4.13.3	PASS
Static Strength, (Y Lanyards, 3-configurations)	4.7	PASS
Dynamic Performance, (Y-lanyard , single connection)	4.8	PASS
Dynamic Performance, (Y-lanyard, Dual connection)	4.9	PASS
Dynamic Performance, (Y-lanyard, Hip connection)	4.10	PASS
Marking And Instructions	5	PASS

SECTION 2

This test report concludes the work anticipated in the testing phase of your project. If there are any questions regarding this report please contact the undersigned at 607-753-6711.

COMPLETED BY:	Alex Smith	REVIEWED BY:	Matthew Stevens
TITLE:	Technician	TITLE:	Team Leader
SIGNATURE:		SIGNATURE:	
DATE	07/15/2024	DATE:	07/15/2024

Please see attached test data for details.

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3.2.5 (4.13.3)	<p>HOT DRY: Dynamic Performance Testing of EAL's, Single Leg, Test within 5-min. of conditioning</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Requirements</th> </tr> <tr> <th></th> <th>Avg. AF lbs-f</th> <th>Max. AF lbs-f</th> </tr> </thead> <tbody> <tr> <td colspan="3">Hot Dry</td> </tr> <tr> <td>6ft FF</td> <td>< 900</td> <td>< 1,800</td> </tr> <tr> <td>12 ft FF</td> <td>< 1,350</td> <td>< 1,800</td> </tr> <tr> <td colspan="3">Max. Deployment Distance</td> </tr> <tr> <td>6ft FF</td> <td colspan="2">48- inches</td> </tr> <tr> <td>12 ft FF</td> <td colspan="2">60-inches</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Condition Samples:</th> </tr> </thead> <tbody> <tr> <td colspan="2"><u>113°+/- 4° F (45°+/- 2 C) for a minimum of 8 hours prior to test:</u></td> </tr> <tr> <td>Test Date:</td> <td>9/26/2022</td> </tr> <tr> <td>Temp:</td> <td>46.1</td> </tr> <tr> <td>Start Time:</td> <td>9/26/2022 1pm</td> </tr> <tr> <td>Stop Time:</td> <td>9/27/2022 7 am</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="6">HOT Dry</th> </tr> </thead> <tbody> <tr> <td>6 ft FF:</td> <td style="text-align: center;">X</td> <td>Sample: 1</td> <td>Sample: 2</td> <td>Sample: 3</td> <td></td> </tr> <tr> <td>12 ft FF:</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>"Zero" force sensor:</td> <td></td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> <td style="text-align: center;">YES</td> <td></td> </tr> <tr> <td>Time: chamber to drop:</td> <td></td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">2</td> <td style="text-align: center;">Min</td> </tr> <tr> <td>Time: in chamber</td> <td></td> <td style="text-align: center;">17</td> <td style="text-align: center;">17</td> <td style="text-align: center;">17</td> <td style="text-align: center;">Hrs/min</td> </tr> <tr> <td>Elongation, initial:</td> <td></td> <td style="text-align: center;">93</td> <td style="text-align: center;">93</td> <td style="text-align: center;">93</td> <td style="text-align: center;">Inches</td> </tr> <tr> <td>Elongation, final:</td> <td></td> <td style="text-align: center;">140 ½</td> <td style="text-align: center;">139 ¾</td> <td style="text-align: center;">140 ½</td> <td style="text-align: center;">Inches</td> </tr> <tr> <td>Total Elongation (Ef-Ei):</td> <td></td> <td style="text-align: center;">47 ½</td> <td style="text-align: center;">46 ¾</td> <td style="text-align: center;">47 ½</td> <td style="text-align: center;">Inches</td> </tr> <tr> <td>AF avg. :</td> <td></td> <td style="text-align: center;">662</td> <td style="text-align: center;">622</td> <td style="text-align: center;">628</td> <td style="text-align: center;">Lbs-f</td> </tr> <tr> <td>AF max. :</td> <td></td> <td style="text-align: center;">733</td> <td style="text-align: center;">686</td> <td style="text-align: center;">700</td> <td style="text-align: center;">Lbs-f</td> </tr> </tbody> </table>	Requirements				Avg. AF lbs-f	Max. AF lbs-f	Hot Dry			6ft FF	< 900	< 1,800	12 ft FF	< 1,350	< 1,800	Max. Deployment Distance			6ft FF	48- inches		12 ft FF	60-inches		Condition Samples:		<u>113°+/- 4° F (45°+/- 2 C) for a minimum of 8 hours prior to test:</u>		Test Date:	9/26/2022	Temp:	46.1	Start Time:	9/26/2022 1pm	Stop Time:	9/27/2022 7 am	HOT Dry						6 ft FF:	X	Sample: 1	Sample: 2	Sample: 3		12 ft FF:						"Zero" force sensor:		YES	YES	YES		Time: chamber to drop:		2	2	2	Min	Time: in chamber		17	17	17	Hrs/min	Elongation, initial:		93	93	93	Inches	Elongation, final:		140 ½	139 ¾	140 ½	Inches	Total Elongation (Ef-Ei):		47 ½	46 ¾	47 ½	Inches	AF avg. :		662	622	628	Lbs-f	AF max. :		733	686	700	Lbs-f		PASS
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TEST REPORT FOR FRONTLINE FALL PROTECTION INC.

Report No.: 105874305CRT-005

Date: July 15, 2024

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3.2.10.2 (4.9)	<p>Dynamic Performance Testing of Y-Lanyards – Dual Connection</p> <p>Attached both legs to Weight</p> <table border="1"> <tr> <td colspan="3">Requirements</td> </tr> <tr> <td>Ambient Dry</td> <td>Avg. AF lbs-f</td> <td>Max. AF lbs-f</td> </tr> <tr> <td>6ft FF</td> <td>< 1,800</td> <td>< 1,800</td> </tr> <tr> <td>12 ft FF</td> <td>< 1,800</td> <td>< 1,800</td> </tr> </table> <table border="1"> <tr> <td colspan="6">AMBIENT DRY</td> </tr> <tr> <td>6 ft FF:</td> <td>X</td> <td>Sample: 1</td> <td>Sample: 2</td> <td>Sample: 3</td> <td></td> </tr> <tr> <td>12 ft FF:</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>“Zero” force sensor:</td> <td></td> <td>YES</td> <td>YES</td> <td>YES</td> <td></td> </tr> <tr> <td>AF avg. :</td> <td></td> <td>1002</td> <td>1015</td> <td>908</td> <td>Lbs-f</td> </tr> <tr> <td>AF max. :</td> <td></td> <td>1555</td> <td>1557</td> <td>1549</td> <td>Lbs-f</td> </tr> </table>	Requirements			Ambient Dry	Avg. AF lbs-f	Max. AF lbs-f	6ft FF	< 1,800	< 1,800	12 ft FF	< 1,800	< 1,800	AMBIENT DRY						6 ft FF:	X	Sample: 1	Sample: 2	Sample: 3		12 ft FF:						“Zero” force sensor:		YES	YES	YES		AF avg. :		1002	1015	908	Lbs-f	AF max. :		1555	1557	1549	Lbs-f		PASS
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**SECTION 5
REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105201180CRT-002	09/29/2022	Original Report	Steven Morey	Matthew Stevens
105874305CRT-005	07/15/2024	Report Extension	Alex Smith	Matthew Stevens