

# **Declaration of Conformity**

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

Item #: UFH10531G

**Description:** KStrong<sup>®</sup> EndurX<sup>™</sup> 5-Point Full Body Harness, Abrasion Resistant Shoulder Pad, Deluxe Leg Pads, Enhanced Dorsal D-ring Plus<sup>™</sup>, Side D-rings, Quick Slide Adjusters, Trauma Relief Straps, QC Chest, TB Legs (SS), All Aluminum Hardware

Brand Name: KStrong

Manufacturer: KStrong

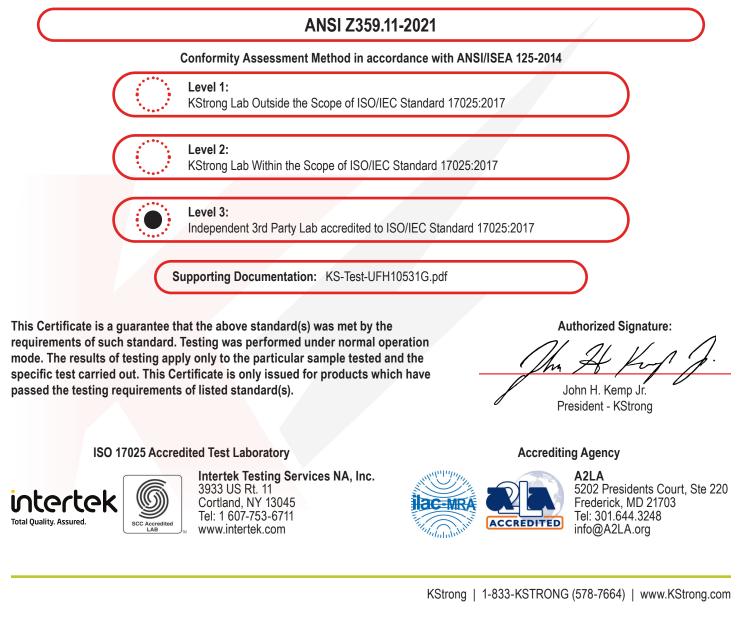
Address: 150 N. Radnor Chester Road, Suite F200, Radnor, PA 19087

### Declaration #: DOC-UFH10531G Declaration Date: 06/05/2024

#### Additional Items Conforming Under this Declaration (If Applicable):

UFH10531G(XS) UFH10531G(S) UFH10531G(M) UFH10531G(L) UFH10531G(XL) UFH10531G(2XL) UFH10531G(3XL)

KStrong declares that the product(s) listed above is in conformity with the requirements of the following performance standard(s):





# **Test Verification of Conformity**

## Verification Number: 105848516CRT-002

harmonized standards and Dired	est report(s), sample(s) of the below product have been found to comply with the ctives listed on this verification at the time the tests were carried out. Other e relevant to the product. This verification is part of the full test report(s) and should hem).
Applicant Name & Address:	KStrong INC 150 N. Radnor Chester Rd. Suite F200 Radnor, PA 19087 USA
Product Description:	Full Body Harness
Models/Type References:	UFH10531G, UFH10501G, UFH10501Q
Brand Name:	KStrong Inc.
Relevant Standards:	ANSI Z359.11-2021
Verification Issuing Office Name & Address:	Intertek Testing Services NA, Inc. 3933 US Rt-11 Cortland, NY 13045
Date of Tests:	USA 04/27/2023 – 04/28/2023
Test Report Number(s):	105848516CRT-001
Signature:	

Name: Position: Date:

**Matthew Stevens Team Leader** 06/05/2024





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# KSTRONG INC. TEST REPORT

**SCOPE OF WORK** 

Standard Evaluation to ANSI Z359.11-2021 Safety Requirements for Full Body Harnesses

**REPORT NUMBER** 105848546CRT-001

ORIGINAL REPORT NUMBER 105431545CRT-002

**ISSUE DATE** June 5, 2024

PAGES

DOCUMENT CONTROL NUMBER

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TEST REPORT FOR KSTRONG INC.

Report No.: 105848516CRT-001 Date: June 5, 2024 3933 US Rt. 11 Cortland, NY 13045

Telephone: 1 607-753-6711 www.intertek.com

KStrong Inc. 150 N. Radnor Chester Rd. Suite F200 Radnor, PA 19087 USA

Report Number:	105848516CRT-001
Signed Quote Number:	Qu-01456282
PO Number :	NA
Name of Testing Laboratory Preparing the Report:	Intertek Testing Services NA Inc.
Test Specification:	
Standard:	ANSI/ASSP Z359.11-2021
Date(s) of Testing:	4/27/2023 – 4/28/2023
Product Description:	
Product Type::	Full Body Harness
Model Number::	UFH10531G
Shared Model Number::	UFH10501G, UFH10501Q
Date(s) Samples Received::	4/18/2023

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Report No.: 105848516CRT-001 Date: June 5, 2024

#### SECTION 1

#### SUMMARY OF TESTING

TESTS COMPLETED	ANSI/ASSP Z359.11-2021 CLAUSE	STATUS
Design	3	PASS
Dynamic Feet First Drop (Dorsal)	4.3.3	PASS
Dynamic Headfirst Drop (Dorsal)	4.3.4	PASS
Fall Arrest Indicator (Dorsal)	4.3.6	PASS
Static Feet First (Dorsal)	4.3.5	PASS
Static Feet First (Hip)	4.3.5	PASS
Static Feet First for Lanyard Parking Attachment	4.3.7	PASS

#### SECTION 2

This test report concludes the work anticipated in the testing phase of your project. Original Testing performed to 2014 Edition. Data evaluated to 2021 version as no differences in test procedures. If there are any questions regarding this report, please contact the undersigned at 607-753-6711.

COMPLETE D BY:	Alex Smith	REVIEWED BY:	Matthew Stevens
TITLE:	Technician	TITLE:	Team Leader
SIGNATURE:	Ales Smith 06/05/2024	SIGNATURE	06/05/2024

Please see attached test data for details.

Report No.: 105848516CRT-001 Date: June 5, 2024

#### **SECTION 3**

#### **TESTING EQUIPMENT CALIBRATION INFORMATION**

USED FOR TEST	DESCRIPTION	MANUFACTURER	CONTROL NO.	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE
x	Drop Test Structure	Intertek	NA	CAT. 3	-	N/A	N/A
Х	Test Torso	NA	15064	220 lbs	-	VBU	VBU
Х	Load Cell	Interface	G119	-	-	5/25/22	5/25/23
Х	Tape Measure	Kobalt	H422	-	-	5/13/22	5/13/23

#### SECTION 3

#### SUPPLEMENTAL TEST DATA

Paragraph	Test Description	Results	Compliance
3	Requirements		
3.1	Design Requirements		
3.1.1	Permanently incorporate a dorsal or sternal attachment	YES	PASS
3.1.2	Materials and constructions shall meet requirements	YES	PASS
3.1.3	FBH w/ dorsal attachment shall permanently include a sub-pelvic strap and /or waist belt	YES	PASS
3.1.4	FBH w sternal attachment shall permanently include a waist belt	YES	PASS
3.1.5	All shoulder straps shall come together and be connected at the dorsal location	YES	PASS
3.1.6	All FBH's shall permanently incorporate a waist belt or a back strap for controlling the separation of the shoulder straps	YES	PASS
3.1.7	Modular components shall design requirements		NA
3.1.7.1	Modular components shall be attached to the harness using connections that meet section 3		NA
3.1.7.2	Attachment element extender can be no longer than 24-inches		NA
3.1.8	FBH integrated into a vest shall allow visual inspection or entire FBH		NA
3.1.9	All FBH shall be equipped with a fall arrest indicator that will deploy during dynamic testing	YES	PASS
3.1.10	FBH/EA/EAL combinations shall meet the requirements of Z359.11 and Z359.13	YES	PASS
3.1.11	FBH shall include keepers for straps	YES	PASS
3.1.12	FBH shall include lanyard parking attachment	YES	PASS
3.1.13	It shall not be possible to remove elements	YES	PASS
3.1.14	All single point attachment elements must be located within 2-inches of the vertical centerline	YES	PASS
3.2	Attachment Element Requirements	YES	PASS
3.2.1	Dorsal- shall be used as the primary fall arrest attachment	YES	PASS
3.2.1.1	May be used in travel restraint or rescue	YES	PASS
3.2.1.2	Dorsal attachment shall direct the load through the shoulder straps and around the thighs	YES	PASS
3.2.1.3	Dorsal Attachment Element requirements	YES	PASS
3.2.1.3.1	Dynamic Feet First- see section 4.3.3	YES	PASS

Paragraph	Test Description	Results		Compliance
3.2.1.3.2	Dynamic Head First – see section 4.3.4	YES		PASS
3.2.1.3.3	Static Feet First- see section 4.3.5	YES		PASS
3.2.1.3.4	Fall Arrest Indicator – see section 4.3.6	YES		PASS
3.2.2	The sternal attachment may be used as an	YES		PASS
	alternative fall arrest attachment	1125		1 A55
3.2.2.1	The sternal attachment may be used for travel restraint or rescue			NA
3.2.2.2	Sternal attachment design shall direct the load	NIDO N		D 4 G G
	through the shoulder straps and thighs	YES		PASS
3.2.2.3	Sternal Attachment Element Requirements	YES		PASS
3.2.2.3.1	Dynamic Feet First – see section 4.3.3	YES		PASS
3.2.2.3.2	Static Feet First – see section 4.3.5	YES		PASS
3.2.2.3.3	Fall Arrest Indicator – see section 4.3.6	YES		PASS
3.2.3	Frontal attachment to be used for ladder guided			
	type FA's where no chance of fall in a feet first		NA	NA
3.2.3.1	direction (may be used for work positioning) Frontal Attachment Element Requirements			NA
3.2.3.1.1	Dynamic Feet First – see section 4.3.3			NA
3.2.3.1.2	-			
3.2.4	Static Feet First – see section 4.3.5 Shoulder attachments shall be used as a pair, also			NA
5.2.4	for rescue and entry/retrieval not for FA.			NA
3.2.4.1	Shoulder Attachment Elements Requirements			NA
3.2.4.1.1	Static Feet First – see section 4.3.5			NA
3.2.5	Waist, rear attachment for travel restraint only			NA
3.2.5.1	Waist, rear attachment shall be subjected to			
	minimal loading, not used for FA			NA
3.2.5.2	Waist Attachment Elements Requirements			NA
3.2.5.2.1	Static Feet First – see section 4.3.5			NA
3.2.6	Hip attachments shall be used as a pair and solely for work positioning, not used for FA	YES		PASS
3.2.6.1	Hip Attachment Element Performance Requirements	YES		PASS
3.2.6.1.1	Static Feet First – see section 4.3.5	YES		PASS
3.2.7	Suspension seat shall be used as a pair and solely		NA	NA
2 2 7 1	for work positioning, not used for FA		1171	1424
3.2.7.1	Suspension Seat Attachment Element Performance Requirements		NA	NA
3.2.7.1.1	Static Feet First – see section 4.3.5	YES		PASS
3.3	Component Requirements	YES		PASS
3.3.1	Load Bearing Straps	YES		PASS
3.3.1.1	Shall not be less than 1-5/8" (41mm)	YES		PASS
3.3.1.2	Minimum breaking strength of 5,000 lbs per			
	section 7.1.1	YES		PASS
3.3.1.3	Straps shall be pure, non-recycled synthetic material. Any restrictions shall be marked on the FBH	YES		PASS
3.3.1.4	Straps shall be hot cut, sealed, covered, or stitched to prevent fraying	YES		PASS
3.3.1.5	After abrasion conditioning per 7.1.2, straps shall have a breaking strength of at least 3,600 lbs when tested to 7.1.1	YES		PASS

Paragraph	Test Description		Results			Compliance
3.3.1.6	In areas of concentrated wear straps shall b protected	be .		YES		PASS
3.3.1.7	Spacing between eyelets centers shall be b 1-1/8- 2 inches	etween		YES		PASS
3.3.2	Thread and Stitching			YES		PASS
3.3.2.1	Shall have the same material as load bearing straps			YES		PASS
3.3.2.2	All stitching shall be lock stitched and bac	kstitched		YES		PASS
3.3.2.3	All stitching used to connect load bearing shall be contrasting in color at a distance of inches			YES		PASS
3.3.3	Connecting Components			YES		PASS
3.3.3.1	Hardware shall conform to Z359.12 (exception loops)			YES		PASS
3.3.3.2	Soft loops attachments may be used in place metal connecting components			YES		PASS
3.3.3.3	Soft loop attachments shall be constructed materials that meet section 3.3.1				NA	NA
3.3.3.4	Soft loops shall include protection from we	ear			NA	NA
4	Qualification Testing					
4.3.3	Dynamic Feet First Drop Test:	"DO	RSAL ATTACHMENT"			
	<ul> <li><u>Test Set-up (Dorsal):</u></li> <li>1. Don the harness on the test torso</li> <li>2. Position dorsal attachment per the Mfg Instructions.</li> <li>3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard</li> <li>4. Determine drop height, attach quick release to the torso neck, lower torso to remove slack, measure height (lowest point of torso to floor)</li> <li>5. Raise torso to predetermined height, release, measure MAF, measure and record final height</li> </ul>	Drop He Max Arn Hi- initia Hf- final He – Ha Harness which is whichev Release Support fall Shall suj greater t At least	n of Dorsal Attachment Element eight rest Force al height		inches Ft Lbs inches inches inches 6.2°	PASS

Paragraph	Test Description	Results		Compliance
4.3.3	<ul> <li>Dynamic Feet First Drop Test:</li> <li>Test Set-up (Dorsal):</li> <li>1. Don the harness on the test torso</li> <li>2. Position dorsal attachment per the Mfg Instructions.</li> <li>3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard</li> <li>4. Determine drop height, attach quick release to the torso neck, lower torso to remove slack, measure height (lowest point of torso to floor)</li> <li>5. Raise torso to predetermined height, release, measure MAF, measure and record final height</li> </ul>	Feet First DORSAL Attachm Requirements per Section 3.2.         Sample ID:       2         Location of Dorsal Attachment Element       2         Drop Height       Max Arrest Force         Hi- initial height       Hf         He – Harness Effect (Hi-Hf)       Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated         Release from the torso       Support the torso for a period of 5-minutes post fall         Shall support the torso post fall of an angle not greater than 30° to vertical         At least one fall arrest indicator deployed visibly and permanently	inches Ft Lbs inches inches inches inches 6.0°	PASS
4.3.3	Dynamic Feet First Drop Test:         Test Set-up (Dorsal):         1. Don the harness on the test torso         2. Position dorsal attachment per the         Mfg Instructions.         3. If equipped with chest strap (section         4.3.2), locate strap +/-2 inches on torso         from datum E figure 5 and 1b of         standard         4. Determine drop height, attach quick         release to the torso neck, lower torso to         remove slack, measure height (lowest         point of torso to floor)         5. Raise torso to predetermined height,         release, measure MAF, measure and         record final height	Feet First DORSAL Attachment         Requirements per Section 3.2.1         Sample ID:       3         Location of Dorsal Attachment Element       3         Drop Height       Max Arrest Force         Hi- initial height       Hf         He – Harness Effect (Hi-Hf)       Harness effect shall not exceed 18-inches or which is stated in the Mfg. Instructions, whichever is less. Stated:         Release from the torso       Support the torso for a period of 5-minutes post fall         Shall support the torso post fall of an angle not greater than 30° to vertical         At least one fall arrest indicator deployed visibly and permanently	inches Ft Lbs inches inches inches	PASS

Paragraph	Test Description	Results		Compliance
4.3.4	<ul> <li>Dynamic <u>Head First</u> Drop Test:</li> <li><u>Test Set-up (Dorsal)</u>:</li> <li>1. Don the harness on the test torso</li> <li>2. Position dorsal attachment bearing point 8 +/- 1 inch below the top of the shoulder (or maximum lowest position)</li> <li>3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard</li> <li>4. Attach quick release to the torso crotch, lower torso to remove slack</li> <li>5. Raise torso to predetermined height, release, measure MAF</li> </ul>	Head First DORSAL Attachment Requirements per Section 3.2.1.3.         Sample ID:       1         Location of Dorsal Attachment Element       1         Drop Height       Max Arrest Force         Release from the torso       Support the torso for a period of 5-minutes post fall         Shall support the torso post fall of an angle not greater than 30° to vertical       At least one fall arrest indicator deployed visibly and permanently	inches ft lbs 7.4°	PASS
4.3.4	Dynamic Head First Drop Test:Test Set-up (Dorsal):1. Don the harness on the test torso2. Position dorsal attachment bearingpoint 8 +/- 1 inch below the top of theshoulder (or maximum lowest position)3. If equipped with chest strap (section4.3.2), locate strap +/-2 inches on torsofrom datum E figure 5 and 1b ofstandard4. Attach quick release to the torsocrotch, lower torso to remove slack5. Raise torso to predetermined height,release, measure MAF	Head First DORSAL Attachment Requirements per Section 3.2.1.3.         Sample ID:       2         Location of Dorsal Attachment Element       2         Drop Height       Max Arrest Force         Release from the torso       Support the torso for a period of 5-minutes post fall         Shall support the torso post fall of an angle not greater than 30° to vertical       At least one fall arrest indicator deployed visibly and permanently	inches ft lbs 7.7°	PASS
4.3.4	Dynamic Head First Drop Test:         Test Set-up (Dorsal):         1. Don the harness on the test torso         2. Position dorsal attachment bearing point 8 +/- 1 inch below the top of the shoulder (or maximum lowest position)         3. If equipped with chest strap (section 4.3.2), locate strap +/-2 inches on torso from datum E figure 5 and 1b of standard         4. Attach quick release to the torso crotch, lower torso to remove slack         5. Raise torso to predetermined height, release, measure MAF	Head First DORSAL Attachment Requirements per Section 3.2.1.3.         Sample ID:       3         Location of Dorsal Attachment Element         Drop Height         Max Arrest Force         Release from the torso         Support the torso for a period of 5-minutes post fall         Shall support the torso post fall of an angle not greater than 30° to vertical         At least one fall arrest indicator deployed visibly and permanently	inches Ft Lbs 8.0°	PASS

Paragraph	Test Description	Results		Compliance
4.3.5	Static <u>Feet First</u> Test: <u>Test Set-up (Dorsal):</u> 1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element 4. mark locations of buckles and adjusters 5. apply 3,600 lb load and maintain for 1-minute 6. Release load and evaluate sample	Feet First DORSAL Attachmen Requirements per Section 3.2.1.3           Sample ID:         1,2,3           Release from the torso         1,2,3           Slippage – Crotch Strap Adjuster, Right         Slippage – Crotch Strap Adjuster, Left           Slippage – Chest Strap Adjuster, Center         Slippage – Chest Strap Adjuster, Right           Slippage – Chest Strap Adjuster, Right         Slippage – Chest Strap Adjuster, Left           Slippage – Other         Slippage – Other           Strap tear further than adjacent eyelet adjuster         Straps shall show no signs of tearing           "Slippage through any adjuster shall not exceed 1-         1	.3 no no inch no inch no inch no inch na inch na inch na Yes	les les les les PASS
4.3.6	Fall Arrest Indicator Test:         Test Set-up (Dorsal):         1. Don the harness on the test torso         2. Position dorsal attachment per the         Mfg Instructions.         3. Attach quick release to the neck of the         test torso         4. Attach a Z359.13 compliant 6-foot         EAL to the test anchorage         5. lower torso until test shackles are         straight but no load         6. raise torso 24-inches	DORSAL Attachment           Requirements per Section 3.2.1.3           Sample ID:         1,2,3           At least one fall arrest indicator shall deploy           visibly and permanently	.4 Yes	PASS

Paragraph	Test Description	Results		Compliance
		'HIP ATTACHMENT"		
4.3.5	Static <u>Feet First</u> Test: <u>Test Set-up (Hip):</u> 1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element 4. mark locations of buckles and adjusters 5. apply 3,600 lb load and maintain for 1-minute 6. Release load and evaluate sample	Feet First HIP Attachment Requirements per Section 3.2.6.1.           Sample ID:         1,2,3           Release from the torso         1,2,3           Slippage – Crotch Strap Adjuster, Right         Slippage – Crotch Strap Adjuster, Right           Slippage – Crotch Strap Adjuster, Left         Slippage – Chest Strap Adjuster, Center           Slippage – Chest Strap Adjuster, Right         Slippage – Chest Strap Adjuster, Right           Slippage – Chest Strap Adjuster, Left         Slippage – Other           Slippage – Other         Slippage – Other           Strap tear further than adjacent eyelet adjuster         Straps shall show no signs of tearing           "Slippage through any adjuster shall not exceed 1-in         Slippage through any adjuster shall not exceed 1-in	no0inches0inches0inches0inches0inchesnainchesnainchesnayes	PASS
4.3.7	<ol> <li>*STATIC FEET FIRST T</li> <li>1) Secure the crotch of the test torso to the static test equipment ensuring the direction of the pull on the attachment simulates a feet first fall</li> <li>2) Connect the attachment element to the static test equipment using a test lanyard.</li> <li>3) Apply and steadily increase the load until a disengagement load of not more than 120 pounds (0.5 Kn)</li> </ol>	EST FOR LANYARD PARKING ATTACH Sample ID: 1-3 Sample 1 (break load) Sample 2 (break load) Sample 3 (break load)	MENT ELEMEN 24 lbs 23 lbs 26 lbs	T" PASS

Report No.: 105848516CRT-001 Date: June 5, 2024

#### **SECTION 5**

#### **REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105431545CRT-002	04/28/2023	Original Report	Alex Smith	Matthew Stevens
105848516CRT-001	06/05/2024	Report Extension	Alex Smith	Matthew Stevens

#### **SECTION 6**

#### **PHOTOGRAPHS:**

UFH10531G





UFH10501G

UFH10501Q

