

# **Declaration of Conformity**

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

Declaration #: DOC-UFH10231G Declaration Date: 08/29/2024

Item #: UFH10231G **Description:** KStrong® Kapture™ Elite 5-Point Full Body Harness, Dorsal D-ring, 2 Side D-rings,

TB Legs (ANSI)

Brand Name: KStrong Manufacturer: KStrong

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

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

> UFH10231G(S-M) UFH10231G(M-L) UFH10231G(L-XL)

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

## ANSI Z359.11-2021

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



#### Level 1:

KStrong Lab Outside the Scope of ISO/IEC Standard 17025:2017



#### Level 2:

KStrong Lab Within the Scope of ISO/IEC Standard 17025:2017



#### Level 3:

Independent 3rd Party Lab accredited to ISO/IEC Standard 17025:2017

Supporting Documentation: KS-Test-UFH10231G.pdf

This Certificate is a guarantee that the above standard(s) was met by the requirements of such standard. Testing was performed under normal operation mode. The results of testing apply only to the particular sample tested and the specific test carried out. This Certificate is only issued for products which have passed the testing requirements of listed standard(s).

**Authorized Signature:** 

John H. Kemp Jr. President - KStrong

ISO 17025 Accredited Test Laboratory



Intertek Testing Services NA, Inc. 3933 US Rt. 11 Cortland, NY 13045

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

**Accrediting Agency** 





5202 Presidents Court, Ste 220 Frederick, MD 21703 Tel: 301.644.3248 info@A2LA.org



# **Test Verification of Conformity**

Verification Number: 105931908CRT-002

On the basis of the referenced test report(s), sample(s) of the below product have been found to comply with the harmonized standards and Directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it(them).

Applicant Name & Address: KStrong INC

150 N. Radnor Chester Rd.

Suite F200 Radnor, PA 19087

USA

Product Description: Full Body Harness

Models/Type References: UFH10231G, UFH10101G, UFH10131G, UFH16101G, UFH16001GP, UFH10201GQ

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

USA

Date of Tests: 04/27/2023 – 04/28/2023

Test Report Number(s): 105931908CRT-001

Signature:

Name: Matthew Stevens
Position: Team Leader
Date: 08/29/2024





This Verification is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Verification. Only the Client is authorized to permit copying or distribution of this Verification. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.



# KSTRONG INC. TEST REPORT

#### **SCOPE OF WORK**

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

#### **REPORT NUMBER**

105931908CRT-001

#### **ORIGINAL REPORT NUMBER**

105529384CRT-011

#### **ISSUE DATE**

August 29, 2024

#### **PAGES**

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#### **DOCUMENT CONTROL NUMBER**

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Report No.: 105931908CRT-001

Date: August 29, 2024

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

Report Number.....: 105931908CRT-001

**Signed Quote Number. ....:** Qu-01473922

PO Number. ....::

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: .....: UFH10231G

**Shared Model Number:....:** UFH10101G, UFH10131G, UFH16101G, UFH16001GP, UFH10201GQ

Date(s) Samples Received .....: 4/17/23

Report No.: 105931908CRT-001

Date: August 29, 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:	Alex Smith	SIGNATURE	Alf-state and the state of the
DATE	08/29/2024	DATE:	08/29/2024

Please see attached test data for details.

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#### **SECTION 3**

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

USED FOR TEST	DESCRIPTION	MANUFACTURER	CONTROL NO.	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE
Х	Drop Test Structure	Intertek	NA	CAT. 3		N/A	N/A
Χ	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

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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 alternative fall arrest attachment		NA	NA
3.2.2.1	The sternal attachment may be used for travel restraint or rescue		NA	NA
3.2.2.2	Sternal attachment design shall direct the load through the shoulder straps and thighs		NA	NA
3.2.2.3	Sternal Attachment Element Requirements		NA	NA
3.2.2.3.1	Dynamic Feet First – see section 4.3.3		NA	NA
3.2.2.3.2	Static Feet First – see section 4.3.5		NA	NA
3.2.2.3.3	Fall Arrest Indicator – see section 4.3.6		NA	NA
3.2.3	Frontal attachment to be used for ladder guided type FA's where no chance of fall in a feet first direction (may be used for work positioning)		NA	NA
3.2.3.1	Frontal Attachment Element Requirements			NA
3.2.3.1.1	Dynamic Feet First – see section 4.3.3			NA
3.2.3.1.2	Static Feet First – see section 4.3.5			NA
3.2.4	Shoulder attachments shall be used as a pair, also 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 for work positioning, not used for FA		NA	NA
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

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Paragraph	Test Description		Results			Compliance
3.3.1.6	In areas of concentrated wear straps shall	be protected	Y	'ES		PASS
3.3.1.7	Spacing between eyelets centers shall be linches	Spacing between eyelets centers shall be between 1-1/8-2 inches		'ES		PASS
3.3.2	Thread and Stitching YE		'ES		PASS	
3.3.2.1	Shall have the same material as load beari	ing straps	Y	'ES		PASS
3.3.2.2	All stitching shall be lock stitched and back	kstitched	Y	'ES		PASS
3.3.2.3	All stitching used to connect load bearing contrasting in color at a distance of 12-inc		Y	'ES		PASS
3.3.3	Connecting Components		Y	'ES		PASS
3.3.3.1	Hardware shall conform to Z359.12 (excep	ot soft loops)	Y	'ES		PASS
3.3.3.2	Soft loops attachments may be used in pla connecting components	ace of metal	Y	'ES		PASS
3.3.3.3	Soft loop attachments shall be constructed meet section 3.3.1	d of materials that			NA	NA
3.3.3.4	Soft loops shall include protection from w	ear			NA	NA
4	Qualification Testing					
		"DORSAL ATT	ACHMENT"			
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	Requ Sample ID: Location of Dorsal A Drop Height Max Arrest Force Hi- initial height Hf- final height He – Harness Effect ( Harness effect shall n which is stated in the whichever is less. Sta Release from the torso Support the torso for fall	Hi-Hf) of exceed 18-inches or Mfg. Instructions, ated: o a period of 5-minutes post o post fall of an angle not ortical t indicator deployed		inches ft lbs inches inches inches inches	PASS

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Paragraph	Test Description	Results		Compliance
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 Attachm Requirements per Section 3.2.  Sample ID: 2  Location of Dorsal Attachment Element Drop Height Max Arrest Force Hi- initial height Hf- final height 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	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 Attachmer Requirements per Section 3.2.1  Sample ID: 3  Location of Dorsal Attachment Element  Drop Height  Max Arrest Force  Hi- initial height  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	PASS

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Paragraph	Test Description	Results			Compliance
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: 1 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 No 7.4°	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	Head First DORSAL Attachment Requirements per Section 3.2.1.3.  Sample ID: 2 Location of Dorsal Attachment Element Drop Height Max Arrest Force Release from the torso	8 6 1908	inches ft lbs No	DAGG
	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	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	Yes Yes Yes	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 No 8.0°	PASS

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Paragraph	Test Description	Results			Compliance
Paragraph 4.3.5	Test Description Static Feet First Test:  Test Set-up (Dorsal):  1. Don the harness on the test torso 2. Secure crotch of test torso to test equipment 3. connect to attachment element	Feet First DORSAL Attachmen Requirements per Section 3.2.1.3 Sample ID: 1,2,3 Release from the torso Slippage – Crotch Strap Adjuster, Right Slippage – Crotch Strap Adjuster, Left	0 0	no inches inches	Compliance
	4. mark locations of buckles and adjusters 5. apply 3,600 lb load and maintain for 1-minute 6. Release load and evaluate sample	Slippage – Chest Strap Adjuster, Center 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-	0 0 na na na Yes	inches inches inches inches inches na	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		Yes	PASS

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Paragraph	Test Description	Results	Compliance
· · · · · · · · · · · · · · · · · · ·	1 000 0 00011   10011	"HIP ATTACHMENT"	
4.3.5	Static Feet First Test:  Test Set-up (Hip):  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 3.2.6.1.1  Sample ID: 1,2,3  Release from the torso no Slippage – Crotch Strap Adjuster, Right oinche Slippage – Crotch Strap Adjuster, Left oinche Slippage – Chest Strap Adjuster, Center oinche Slippage – Chest Strap Adjuster, Right oinche Slippage – Chest Strap Adjuster, Right oinche Slippage – Chest Strap Adjuster, Left oinche Slippage – Chest Strap Adjuster, Left oinche Slippage – Other na inche Slippage – Other na inche Strap tear further than adjacent eyelet adjuster na Straps shall show no signs of tearing yes  "Slippage through any adjuster shall not exceed 1-inch"	es es es es PASS
4.3.7	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  2) Connect the attachment element to the static test equipment using a test lanyard.  3) Apply and steadily increase the load until a disengagement load of not more than 120 pounds (0.5 Kn)	Sample 2 (break load) 23 I	bs bs bs PASS

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Date: August 29, 2024

#### **SECTION 5**

#### **REVISION HISTORY**

REPORT NUMBER	DATE OF REVISION	DESCRIPTION OF CHANGE:	PROJECT OWNER	REVIEWED BY
105431545CRT-001	04/28/2023	Original Report	Alex Smith	Matthew Stevens
105431545CRT-001	08/04/2023	Report Correction (Model Number & Shared Model Number)	Alex Smith	Matthew Stevens
105529384CRT-011	08/10/2023	Report Extension	Alex Smith	Matthew Stevens
105931908CRT-001	08/29/2024	Report Extension	Alex Smith	Matthew Stevens

#### **SECTION 6**

#### **PHOTOGRAPHS**

#### UFH10131G



## UFH16101G

