



# Fire Innovations

## Product Specifications

<b>Product No</b>	1101-0010
<b>Description</b>	<b>Apache Harness/Ladder</b>
<b>Revision</b>	A
<b>Date:</b>	04.09.13



### INTENT OF DESIGN

The Apache Harness is designed to be a one-size-fits-all NFPA Class II harness. It is easy to adjust to an individual's waist. The leg straps can be set to the user's fit preference by pulling on the A-frame to simulate deployment, then resetting the harness by pulling down on the legs O-Rings. This harness can be placed on the exterior of the turnout pants or between the shells by simply having slits made into the turnout pants to Fire Innovations specifications. The sliding O-ring on the A-Frame is designed to be an attachment point for a bailout system. Left or right side buckle are available.

### OVERVIEW

The Apache Harness is in process to be certified NFPA 1983:2012 Edition\* Fire Resistance (FR) Escape Class II Harness. Additionally, it is a NFPA ladder belt by simply connecting a ladder hook to the A frame attachment point, or adding our patented Multi-Use Strap™ (MUSII). This strap adds numerous capabilities to the harness, such as: assisting in various RIT and victim carries/drag, steep angle operations, a NFPA personal escape anchor, and a NFPA ladder strap. The Apache is constructed with 100% Kevlar® One and three quarter inch (1.75") webbing, and comes standard with two NFPA (2) attachment/positioning points for bailout and/or connecting a NFPA ladder strap/hook.

### KEY FEATURES

- Multi-size Harness
- Fast gross adjustment.
- Kevlar® Constructed
- NFPA 1983-2012 FR Class II Harness & Ladder Harness\*
- Two NFPA Attachment Points/Positioning Point

### KEY BENEFITS

- Rated for two person loads
- Self adjusting A Frame attachment point
- Light weight 1.95lbs

### CERTIFICATIONS

- NFPA 1983-2012 FR Class II Harness/Ladder (Summer 2013)

### RELATED PRODUCTS

- Cheyenne in Class II version with 2 MUS.

### ADDITIONAL INFORMATION

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### HIGHLIGHTS

- NFPA FR Class II Harness/Ladder Belt\*  
 \* when used with a ladder hook or MUSII
- Side pull O-ring adjustments
- Leg adjustments
- Self adjusting when deployed
- 100% Kevlar construction
- Forge steel rated hardware

### VERSATILITY

- The Apache Series Harness is light and adjustable harness. One size fits all feature makes it practical for most departments.
- The rear leg adjustments feature lets the firefighter quickly adjust buckles to comfortable locations
- No lower loop need in crouch area
- Waist belt on harness buckle adjust to existing belt loops.

### KEY BENEFITS

The Apache Harness is a self adjusting harness. Lose fitting when not deployed. Tightens to your pre-adjustments when deployed.

- Multi-Use Strap II –carabineer or lanyard
- Leg harnesses side adjuster rings allow leg straps to revert to pre-deployment status (loosens leg straps).
- Bailout or Utility Rope Bags

## COMPANY FACTS

- Fire Innovations is an ISO 9001:2008 certified manufacturer.
- Products Independently tested by Underwriters Laboratories (UL)
- Founded in year 2000
- All products, proudly made in the USA



## TECHNICAL SPECIFICATIONS

Materials	Description	Specifications
Hardware	Forged Steel	100% Proof test load 2500lbs+
Materials	Black Kevlar® Webbing	9000lbs
Thread	Kevlar®	138 Bonded
Weight	1.95 lbs ± .05 lbs.	

Product Segments	
Per position on rig	Not applicable
Individual use	Is give to each member and place on turnout pants
Uses	Bailout, Ladder operation, & Rescue
Benefits	Two person rescue; waist belt hardware easily adjustable around existing belt loops
Cons	Unable to carry tools; is on the turnout pants on all calls
Turnout requirements	Pant: Belt loops are the only retrofit need. No lower loops needed in crouch.

## ACCESSORIES

Part No.	Description
1101-0010.1	Apache Class II Harness (Small 28"-50")
1101-0090*	Multi-Use Strap™ II: NFPA Ladder Strap, Positioning Point, *Escape Anchor (with carabineer option)
1102-00xx	Hook & Go III
1102-00xx	Turnout pouch II
1190-00xx	Hook Carabineer

## **BID SPECIFICATIONS**

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### **Apache Series Firefighter Harness/Ladder**

#### *General Requirements*

The Harness shall be compliant to Fire Resistance (FR) Escape Class II Harness NFPA 1983-2012 Edition Standards. The belt shall be capable of 3,034 lbs. static load. (1.75") Kevlar® webbing.  
The Harness shall have an O-ring NFPA attachment/positioning point and the main A-frame. The O-Ring will deform at 3000lbs. was design to be an energy absorber.  
A lighter weight easily identifiable leg straps are designed for comfort and ease of adjustment. Two Reset O-Ring are on the leg loops.  
A-Frame is made of 1.25" Kevlar webbing.  
An optional hook carabineer or lanyard connected Fire Innovations® Multi-Use Strap™ II is to be incorporated with this harness to create a certified NFPA ladder harness.

#### *Sizing*

The Class II harness shall be a one-size-fits-all, self adjusting harness when deployed, and loosens when not deploys by pushing down leg harnesses side adjuster rings, allowing the leg straps to revert to pre-deployment status.

#### *Buckles*

All buckles shall be constructed of forged alloy steel and at the min. 100% proof load tested @11.2kN (2500 lbs.). Additionally, buckles shall be UL® tested and certified to NFPA 1983 and 2012 Edition Standards.

#### *Webbing*

All webbing shall be UL® tested and certified to NFPA 1983-2012 Edition Standards.  
The belt shall be constructed of one and three quarter inch (1.75") Kevlar® webbing.  
The A-frame shall be constructed with one and a quarter inch (1.25") Kevlar® webbing  
The Legs shall be constructed with one and three quarter inch (1.75") light weight Kevlar® webbing with a yellow center marker.  
It shall be sewed with 138 bonded twisted Kevlar® thread.

## Q & A

### Question

What approvals does the Fire Innovations Apache Series Harness have?

### Answer

The Fire Innovations Apache Series Harness is designed to exceed the standards of both NFPA 1983-2012 edition (Standard for Fire Service Life Safety Rope and System Components) as an Escape belt and/or Ladder belt (with the optional Multi-Use Strap II).

### Question

My department has firefighters of various sizes. Can the Fire Innovations Apache Series Harness accommodate our firefighters?

### Answer

Yes. The Fire Innovations Apache series harness is a one-size-fits-all harness (28"-50"). Additionally, harnesses can be customized to exact individual sizes.

### Question

How much does the Fire Innovations Apache Series harness weight?

### Answer

The Fire Innovations NFPA Apache Class II FR harness weights approximately 1.95lbs.±.05 lbs due to sizes. Accessories such as bailout systems and ladder straps are optional equipment and do add to the weight accordingly.

### Question

Can a bailout system be attached to the Apache series Harness?

### Answer

Yes. Fire Innovations has several different styles of bailout systems that can be incorporated with the Apache Harness. Each style bailout system has been designed to meet specific firefighter requirements and needs. Other system also maybe use. (ie. HG3, PB2 or PB3)

### Question

Why would I purchase the Apache harness?

### Answer

The Apache harness is a self adjusting harness when deployed, light weight, made of Kevlar, has load indicators built in to it for safety. It is a truly one-size-fits-all that meets many department requirements.

### Question

What are the turnout requirements for the Apache harness?

### Answer

With little or no modifications the firefighter can now have a certified NFPA Class II harness integrated into the turnout. Belt loops are required on the waist line of the turnout pants. No need to add crotch and rear bottom loops, but can be used if available.

### Question

What are the differences between the Apache class II harnesses, and other internal harnesses?

### Answer

The Apache Class II harnesses have some advantages versus current available internal harnesses:

It is easy to adjust once deployed, just pull down on the external side adjuster rings allows leg straps to revert to pre-deployment status (loosens leg straps). There is no need to go between the liner and the shell, as internal harnesses may required to.

Easy to remove and reinstall for turnout maintenance. Firefighter may become complacent do to complex installation of internal harnesses.

Little or no modifications are needed to the turnout pants. Only waist loops are required. If turnout already has existing belt loops, harness is designed to accommodate most manufacture standard installed loops. No additional slits or crotch loops are required.

Firefighter compliance is easily spotted. Some firefighters stop wearing the internal harnesses for various reason and visibility check is not always possible due to the turnout coat. The Apache Class II Harness leg straps are easily spotted even with the turnout coat on.

The Apache Class II can be used as partially an internal harness, the belt would be on the outside and the legs would have slit on the turnout pants to have the go between the liner and the shell.

### Question

Are external harnesses more susceptible to snag hazards than internal harnesses?

### Answer

No. Many departments such as FDNY use external harnesses. No documented instances have been reported. The coat protects the harness from snag hazards. You are more likely to snag your eagle on your traditional fire helmet, or your SCBA...these occurrences have been documented.

### Question

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### Answer

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### Question

Why choose a FR (Fire Resistant) versus a non-FR harness?

### Answer

According to the NFPA 1983:2012, section **A.7.4.5** *Exposure of the life safety harness to flame or high temperatures during use can cause melting of thermoplastic materials of the harness and result in failure.* The Apache harness uses 100% Kevlar.