

## Miller® TurboLite™ Edge Personal Fall Limiter

When the Job Takes You to the Edge: Depend on Miller

**Q1: What is a Leading Edge Personal Fall Limiter (PFL)?**

**A1:** A Leading Edge PFL is a self-retracting device designed for applications in which the lifeline may come in contact with an edge in the event of a fall. A Leading Edge PFL requires an integral means of reducing fall arrest forces in the event of a fall over an edge to ensure the lifeline remains intact and to reduce forces on the worker to be within safety guidelines.

**Q2: What is a leading edge application?**

**A2:** A leading edge application is one whereby the user may be anchored at foot level/working surface or higher and the lifeline has the potential to come in contact with an edge if the user falls. Leading edge applications are very prevalent in fall protection applications. Some common types of leading edge applications involve I-Beams, scaffolding, and work surfaces consisting of steel decking, concrete, and wood surfaces.

**Q3: Is the TurboLite Edge suitable for applications in which the device will be connected overhead as well as at the working surface?**

**A3:** Yes, the TurboLite Edge can be mounted overhead down to foot-level.

**Q4: What standards does the TurboLite Edge meet?**

**A4:** The product meets all applicable OSHA & ANSI requirements. These include OSHA 1926.502, OSHA 1910.66, ANSI A10.32 and ANSI Z359.14 Class B/Leading Edge. CSA does not have a standard that covers Leading Edge Self-Retracting Lifelines at this time but the TurboLite Edge is in the process of certification to CSA Z259.2.2-98 for overhead use.

**Q5: What are the key requirements within the ANSI Z359.14 LE (Leading Edge) standard for leading edge self-retracting devices?**

**A5:** ANSI Z359.14 is a standard that includes safety requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems including Self-Retracting Lanyards for leading edge (SRL-LEs).

According to the ANSI Z349.14 standard, below are some key requirements for leading edge self-retracting devices. For more information please refer to the standard.

### Testing

- Tested over a steel edge that has a radius  $\leq 0.005$  in (0.13 mm)
- Conducted perpendicular to the edge as well as offset laterally along the edge
- Purpose of offset test is to ensure the lifeline can withstand sliding along the edge during the fall and remain intact

### Design

- Must include an integral energy absorber at the end that connects to the user
- The purpose of the energy absorber is to limit the arresting force on the user and the tension in the lifeline as it passes over the edge to ensure it remains intact

**Q6: What radius of edges is the TurboLite Edge rated for?**

**A6:** TurboLite EXTREME models are rated for applications with sharp edges that have a radius of  $\geq 0.005$  in (0.13mm)

TurboLite MAX models are rated for applications with smooth edges that have a radius of  $\geq 0.060$  in (1.5 mm)

## FREQUENTLY ASKED QUESTIONS

**Q7: What TurboLite Edge models are available?**

A7:

<b>TurboLite™ EXTREME - Cable Lifeline for Sharp Edge Applications</b>			
Configuration	Lifeline Connector	SKU/Length	
		6-ft.	9-ft.
Single	Steel Locking Snap Hook	MFLEC-3/6FT	MFLEC-3/9FT
	Steel Locking Rebar Hook	MFLEC-4/6FT	MFLEC-4/9FT
	Aluminum Locking Snap Hook	MFLEC-11/6FT	MFLEC-11/9FT
	Aluminum Locking Rebar Hook	MFLEC-12/6FT	MFLEC-12/9FT
	Aluminum Captive Eye Carabiner	MFLEC-18/6FT	MFLEC-18/9FT
Twin	Steel Locking Snap Hooks	MFLEC2-3/6FT	MFLEC2-3/9FT
	Steel Locking Rebar Hooks	MFLEC2-4/6FT	MFLEC2-4/9FT
	Aluminum Locking Snap Hooks	MFLEC2-11/6FT	MFLEC2-11/9FT
	Aluminum Locking Rebar Hooks	MFLEC2-12/6FT	MFLEC2-12/9FT
	Aluminum Captive Eye Carabiners	MFLEC2-18/6FT	MFLEC2-18/9FT

<b>TurboLite™ T-BAK EXTREME - Cable Lifeline with Web Tie-Back for Sharp Edge Tie-Back Applications</b>			
Configuration	Lifeline Connector	SKU/Length	
		8-ft.	11-ft.
Single	5K® Steel Locking Tie-Back Hook	MFLEC-20/8FT	MFLEC-20/11FT
Twin	5K® Steel Locking Tie-Back Hooks	MFLEC2-20/8FT	MFLEC2-20/11FT

**NOTE:** TurboLite™ T-BAK EXTREME models are only available in the US

<b>TurboLite™ MAX - Web Lifeline for Smooth Edge Applications</b>				
Configuration	Lifeline Connector	SKU/Length		
		6-ft.	9-ft.	12-ft.
Single	Steel Locking Snap Hook	MFLEW-3/6FT	MFLEW-3/9FT	MFLEW-3/12FT
	Steel Locking Rebar Hook	MFLEW-4/6FT	MFLEW-4/9FT	MFLEW-4/12FT
	Aluminum Locking Snap Hook	MFLEW-11/6FT	MFLEW-11/9FT	MFLEW-11/12FT
	Aluminum Locking Rebar Hook	MFLEW-12/6FT	MFLEW-12/9FT	MFLEW-12/12FT
	Aluminum Captive Eye Carabiner	MFLEW-18/6FT	MFLEW-18/9FT	MFLEW-18/12FT
Twin	Steel Locking Snap Hooks	MFLEW2-3/6FT	MFLEW2-3/9FT	MFLEW2-3/12FT
	Steel Locking Rebar Hooks	MFLEW2-4/6FT	MFLEW2-4/9FT	MFLEW2-4/12FT
	Aluminum Locking Snap Hooks	MFLEW2-11/6FT	MFLEW2-11/9FT	MFLEW2-11/12FT
	Aluminum Locking Rebar Hooks	MFLEW2-12/6FT	MFLEW2-12/9FT	MFLEW2-12/12FT
	Aluminum Captive Eye Carabiners	MFLEW2-18/6FT	MFLEW2-18/9FT	MFLEW2-18/12FT

## FREQUENTLY ASKED QUESTIONS

TurboLite™ T-BAK MAX - Web Lifeline for Smooth Edge Tie-Back Applications			
Configuration	Lifeline Connector	SKU/Length	
		7.5-ft.	10.5-ft.
Single	5K® Steel Locking Tie-Back Hook	MFLET-1/7.5FT	MFLET-1/10.5FT
Twin	5K® Steel Locking Tie-Back Hooks	MFLET2-1/7.5FT	MFLET2-1/10.5FT

**NOTE:** TurboLite™ T-BAK MAX models are only available in the US

**Q8: What is the weight capacity rating for the TurboLite Edge?**

**A8:** The maximum weight capacity is 420 lbs. (190.5kg.) including clothing and tools. This weight capacity applies to foot-level and above connection.

**Q9: Is there a TurboLite Edge model available for tie-back applications?**

**A9:** TurboLite Edge models are available for tie-back applications for both sharp and smooth edges in the US only at this time.

The TurboLite T-BAK EXTREME is designed with a dual lifeline consisting of Vectran™ webbing and galvanized cable. The heavy-duty, abrasion-resistant webbing portion of the lifeline is designed for tie-back installation. The cable portion of the lifeline is rated for edges with a radius of  $\geq 0.005$  in (0.13 mm).

The TurboLite T-BAK EXTREME may be used in tie-back and non-tie-back applications for smooth edge applications as long as the web tie-back portion does not come in contact with an edge radius of  $< 0.060$  in (1.5 mm).

The TurboLite T-BAK MAX is designed with a heavy-duty Vectran™ web lifeline designed for tie-back installation and can be used in tie-back and non-tie back smooth edge applications with an edge radius  $\geq 0.060$  in (1.5 mm).

**Q10: What is the maximum diameter of the anchor that the TurboLite T-BAK EXTREME can be tied off around?**

**A10:** The web tie-back portion of the TurboLite T-BAK EXTREME is 42 in. (1.1 m). The maximum diameter of the anchor that the TurboLite T-BAK EXTREME can be tied off around is 12 in. (0.3 m).

**Q11: What is the maximum diameter of the anchor that the TurboLite T-BAK MAX can be tied off around?**

**A11:** The entire length of the lifeline can be tied around the anchor point.

**Q12: Can the TurboLite Edge be installed to the harness back D-ring?**

**A12:** No. The TurboLite Edge is designed to be connected to the back of the harness through the webbing below the back D-ring. To ensure the harness connector is properly installed, ensure the pin is captured behind BOTH webbing straps and that the red band on the harness connector pin is NOT visible. The harness connector pin is not properly engaged if the red band on the pin is visible.

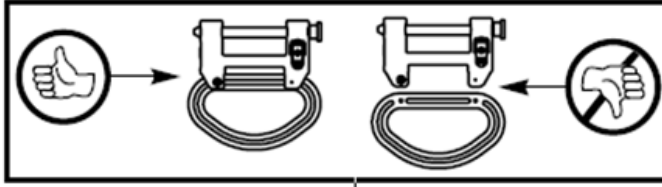
**Q13: Is the TurboLite Edge available with the Twin Turbo G2 Connector or D-Ring Connector?**

**A13:** No, the TurboLite Edge is only available with the TurboLite Edge Harness Connector.

## FREQUENTLY ASKED QUESTIONS

**Q14: Does the TurboLite Edge have a load indicator?**

**A14:** Yes, the TurboLite Edge is equipped with a load indicator built into the harness connector. When subjected to fall arrest forces the harness connector will separate as shown in the drawing below.



**Q15: When should the optional D-Pad Clip be used?**

**A15:** The optional D-Pad Clip is recommended for best performance to minimize slippage of the TurboLite Edge harness connector on the harness webbing. The D-Pad Clip is not necessary for harnesses with back pads sewn to the harness webbing (e.g. Miller AirCore Harnesses). Please refer to the chart below for a list of harnesses that are compatible with the D-Pad Clip.

Harness D-Pad Clip Recommended Usage	
Harnesses to use with D-Pad Clip	Harnesses that do not need D-Pad Clip
Miller Revolution™	Miller AirCore™
Miller DuraFlex®	Miller Titan™ (T2000, T2007, T2500)
Miller DuraFlex® Ultra	Miller Titan T-Flex™
Miller DuraFlex Python®	Miller Titan™ Non-Stretch (T4000, T4007, T4078, T4500, T4507, T4577)
Miller DuraFlex Python® Ultra	North Rite-On
Miller HP™	
Miller Standard Non-Stretch	
Miller Speciality (Concrete Construction, Oil Rig, ProCraft and Welding)	
North Rite-On II	

**Q16: Can both lifelines of a twin TurboLite Edge be tied off at the same time?**

**A16:** Yes, it is acceptable to tie-off both lifelines of a twin TurboLite Edge PFL at the same time and may be preferred to limit the weight of the unit on the user.

**Q17: How do I calculate minimum required fall clearance for the TurboLite Edge?**

**A17:** Refer to the TurboLite Edge instruction manual for details on calculating minimum fall clearance requirements.

**Q18: Are there special anchorage requirements or minimum set-back distance for the TurboLite Edge?**

**A18:** Yes, minimum set-back distance varies by model. Lateral edge distance (work zone) must be limited to 6-ft. (1.8 m) from perpendicular to the anchor point (see Table 1 & Diagrams A & B below). Refer to the instruction manual for set-back distance anchorage requirements.

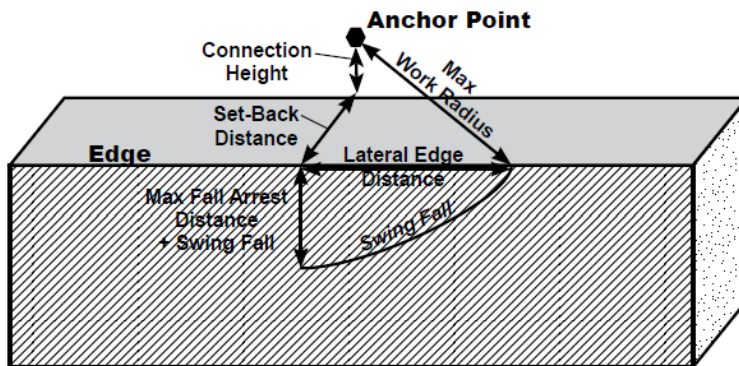
## FREQUENTLY ASKED QUESTIONS

**TABLE 1: Minimum Set-Back Distance Anchorage Requirements**

	Approved Edges	Lifeline Material	Approved for Tie-Back Installation	Minimum Set-Back Distance
<b>TurboLite EXTREME</b>	SHARP EDGE Radius $\geq$ .005 in. (.13mm)	Galvanized Cable	NO	None
<b>TurboLite T-BAK EXTREME</b>	SHARP EDGE Radius $\geq$ .005 in. (.13mm)	Galvanized Cable (with Heavy-Duty Vectran/Polyester Webbing portion for tie-back installation)	YES	Varies - Set-back distance must ensure that webbing portion of the lifeline shall not contact an edge during a fall.
<b>TurboLite MAX</b>	SMOOTH EDGE Radius $\geq$ .060 in. (1.5mm)	Spectra Webbing	NO	None
<b>TurboLite T-BAK MAX</b>	SMOOTH EDGE Radius $\geq$ .060 in. (1.5mm)	Heavy-Duty Vectran/ Polyester Webbing	YES	None

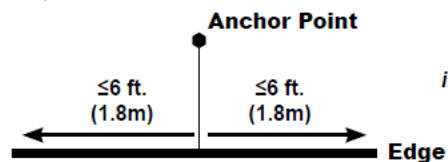
NOTE: TurboLite™ T-BAK EXTREME and MAX models are only available in the US

### DIAGRAM A - LEADING EDGE APPLICATION



### DIAGRAM B - OVERHEAD VIEW OF LEADING EDGE APPLICATION

Min. set-back distance varies by unit; see TABLE 1.



Refer to Fall Clearance Tables in APPENDIX A for lateral edge distance (work zone) limitations.

## FREQUENTLY ASKED QUESTIONS

**Q19: Are there any special requirements to limit swing fall?**

**A19:** Yes, it is imperative that swing fall be limited as much as possible. This can be accomplished by increasing the set-back distance and/or limiting the work zone. For example, a TurboLite Edge anchored at the edge with no set-back distance with a user working at the maximum 6-ft. (1.8 m) lateral edge distance will experience the greatest swing fall allowed for a TurboLite Edge leading edge application.

**Q20: Can the TurboLite Edge be used with a horizontal lifeline system?**

**A20:** Yes, the TurboLite Edge may be used with a Honeywell approved horizontal lifeline system with special considerations. Refer to the instruction manual for requirements and more information.

**Q21: Can the TurboLite Edge be used in a horizontal leading edge application?**

**A21:** Yes, while overhead mounting is recommended, the TurboLite Edge has been specifically designed and extensively tested for horizontal leading edge use. In accordance with ANSI Z359.14 the TurboLite Edge EXTREME has been successfully tested for horizontal use and falls over a sharp edge (radius  $\geq$  0.005 in (0.13 mm)). TurboLite MAX models are approved for horizontal use and falls over a smooth edge (radius  $\geq$  0.060 in (1.5 mm)).

**Q22: Is the TurboLite Edge repairable?**

**A22:** Yes. If damage occurs to the harness connector or shock pack cover and/or if the shock absorber is deployed, a twin unit can be sent into Honeywell to have these components replaced. If a single unit within a twin configuration becomes damaged it can also be sent into Honeywell to have the damaged unit replaced. For more information and pricing, please contact Honeywell Technical Service at 800-873-5242.

**Q23: Is the TurboLite Edge equipped with an RFID?**

**A23:** Yes, the TurboLite Edge includes RFID technology for asset inspection and tracking. The RFID label is attached to the shock absorber.



**Q24: Is the TurboLite Edge available with a stainless lifeline?**

**A24:** The TurboLite Edge is only available with a galvanized lifeline. The leading edge testing requirements for ANSI Z359.14 are very difficult to pass. Galvanized cable performs better when tested to the standard since it is stronger than the equivalent 3/16-in (5mm) stainless steel wire rope.

**Q25: What is the warranty on the TurboLite Edge?**

**A25:** As with all Miller brand products, the TurboLite Edge has a Limited Lifetime warranty against manufacturer defects and workmanship.

**Q26: Who should I contact for additional questions/information?**

**A26:** Contact Honeywell Technical Service at 800-873-5242 (press 4).

**Limitless Possibilities. Ask the Expert.**

Technical Service: 800.873.5242  
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**⚠ WARNING!** This equipment should only be used after reading and understanding the manufacturer's instructions. Failure to follow instructions could result in serious injury or fatality.