

## Miller® Falcon™ Edge Self-Retracting Lifeline

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

**Q1: What is a Leading Edge Self-Retracting Lifeline (SRL)?**

**A1:** A Leading Edge SRL 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. These self-retracting lifelines are also safe to anchor below the harness back D-ring down to foot level.

**Q2: How does a user know if their SRL is safe for leading edge applications?**

**A2:** A leading edge SRL requires an integral shock absorber attached to the end of the lifeline connected to the worker to ensure that the shock absorber remains with the worker if a fall were to occur over an edge. This integral shock absorber is critical to ensure that the lifeline remains intact and to reduce forces on the worker if a fall were to occur over an edge.

The Falcon Edge SRL includes special labeling on the housing and the shock pack cover (as shown below) that identifies it as a leading edge device.



Front Housing Label



Shock Pack Cover

**Q3: What is a leading edge application?**

**A3:** 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. Many times, a leading edge application includes anchoring at foot level.

**Q4: Why was the new Miller Falcon™ Edge SRL developed?**

**A4:** Honeywell estimates that 80% of fall protection applications have the potential for the lifeline to come in contact with an edge. The Falcon Edge SRL was developed to provide protection to workers who need a longer self-retracting lifeline and are faced with applications like those described in Question 3. An overhead anchorage may not be available in which case the only choice is to connect at a lower level. When connecting at a lower level, in almost all cases the lifeline will come in contact with an edge during a fall.

**Q5: What Falcon Edge SRL models are available?**

**A5:** There are six Falcon Edge SRL models available in 20-ft (6m), 30-ft (9m), and 50-ft (15m) working lengths. Three of the models have a ballistic nylon shock pack cover which is very durable and suitable for most applications. The other three models have a shock pack cover made of CarbonX®, a flame-retardant fabric well-suited for welding applications.

**Q6: Is the Falcon Edge SRL suitable for applications in which the device will be mounted overhead as well as at the working surface?**

**A6:** Yes, the Falcon Edge SRL can be mounted overhead as well as down to foot level.

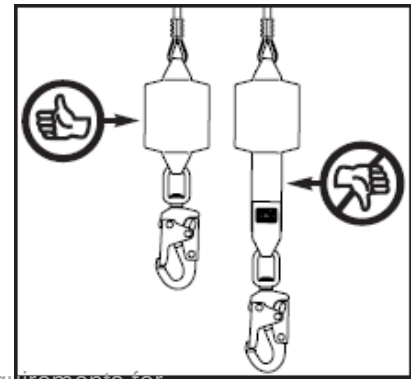
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**Q7:** Are there safety standards that have leading edge requirements for fall protection connecting devices?

**A7:** Yes, ANSI Z359.14 and CSA Z259.2.2 have specific requirements for leading edge self-retracting devices.

**Q8:** What are the key requirements within the ANSI Z359.14 LE (Leading Edge) standard for leading edge self-retracting devices?

**A8:** 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 of the lifeline 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

**Q9:** What is the CSA Z259.2.2 standard and what are the key requirements for Class SRL-LE devices?

**A9:** CSA Z259.2.2 is a standard that includes safety requirements for Self-Retracting Devices. It was finalized and released in 2017. The standard classifies a Class SRL-LE as one that is suitable for applications where one of the following conditions are met:

- 1.) It is anchored lower than the elevation of the dorsal d-ring on the worker's full body harness
- 2.) The extracted lifeline can bear against an edge or surface during fall arrest

Key requirements of the standard are the same as the requirements of ANSI Z359 listed above except the edge radius that the product is tested to is 0.010-in. (0.25 mm). For more information please refer to the standard.

**Q10:** What fall protection standards does the Falcon Edge SRL meet?

**A10:** The Falcon Edge SRL meets all applicable OSHA, ANSI, and CSA requirements. These include OSHA 1926.502, ANSI A10.32, ANSI Z359.14 SRL-LE Class B, and CSA Z259.2.2 Class SRL-LE. Always refer to the label on the product for applicable standards the product meets.

**Q11:** What radius of edges is the Falcon Edge SRL rated for?

**A11:** All Falcon Edge models are rated for applications with sharp edges that have a radius of  $\geq 0.005$  in (0.13 mm)

**Q12:** How does a user know how sharp the edge is that they are working near?

**A12:** The best method for accurately identifying the sharpness of an edge is to measure it using a radius gauge (see example). These gauges are relatively inexpensive and readily available to purchase through a variety of retailers and distributors.



**Q13:** What is the weight capacity rating for the Falcon Edge SRL?

**A13:** The Falcon Edge is rated for up to a 420-lb. (190.5 kg) user (including clothing, tools, and equipment),

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in all connections from overhead down to foot level except in Canada. When tested to requirements of the CSA Z259.2.2-17 for Self-Retracting Devices standard, the maximum weight capacity in all connections is 375 lbs. (170 kg).

**Q14: Is the Falcon Edge SRL equipped with a load indicator?**

**A14:** Yes, the Falcon Edge includes a load indicator built into the shock absorber pack. When subjected to fall arrest forces the internal white energy absorber will become exposed or deploy as shown in the image to the right.

**Q15: What is the material and diameter of the lifeline?**

**A15:** The Falcon Edge SRL includes a galvanized steel cable lifeline with a diameter of 7/32 in. (5.5 mm). This thicker cable as compared to a common SRL cable lifeline diameter of 3/16 in. (4.4 mm) increases the durability of the lifeline and increases user weight capacity.

**Q16: Is the Falcon Edge SRL available with a stainless steel lifeline?**

**A16:** The Falcon Edge SRL is only available with a galvanized steel lifeline. The leading edge testing requirements for ANSI Z359.14 are very difficult to pass and require that the lifeline remain intact when tested over an extremely sharp edge. Galvanized steel cable is stronger than the equivalent diameter of stainless steel wire rope, hence it performs better when tested to the standard.

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

**A17:** There are a variety of factors that must be considered when calculating fall clearance distance needed in leading edge applications. These factors include, the weight of the user, connection height, set-back distance, lateral edge distance, swing fall, and non-standing work positions. The Falcon Edge instruction manual includes a fall clearance chart with different scenarios of set-back distance and lateral edge distance. Please refer to the fall clearance chart within the user instruction manual to identify what fall clearance is needed.

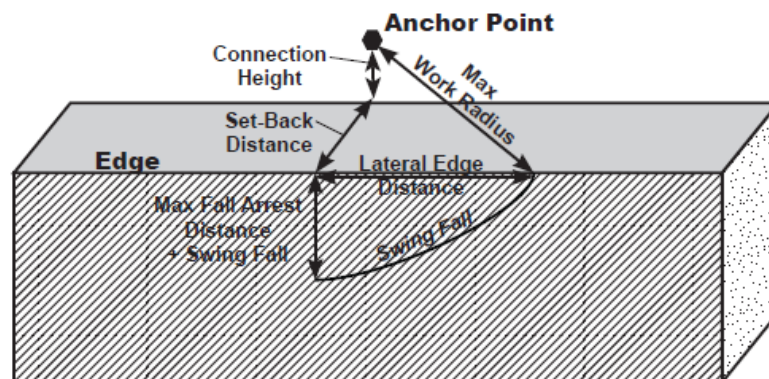
**Q18: Are there special anchorage requirements or minimum set-back distance for the Falcon Edge SRL?**

**A18:** Yes, the anchor point must be at the same height or higher than the edge at which a fall might occur. The minimum set-back distance required for the Falcon Edge SRL is 18-in. (0.5m). Lateral edge distance (work zone) from perpendicular to the anchor point is dependent on the set-back distance of the anchor point. Refer to Diagrams A & B (included in this FAQ) and Fall Clearance Tables in Appendix B in the user instruction manual.

**Q19: Are there any special requirements to limit swing fall when using the Falcon Edge SRL?**

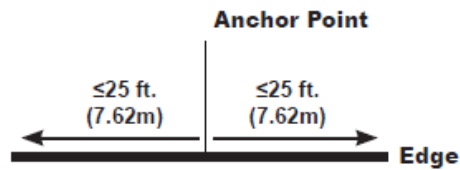
**A19:** Yes, it is imperative that swing fall be limited as much as possible. This can be accomplished by increasing the set-back distance and/or limiting the work zone (lateral edge distance in Diagram A). For example, a Falcon Edge SRL anchored at a set-back distance of 45 ft. (13.72 m) with a user working at the maximum permitted lateral edge distance (work zone) of 25 ft. (7.62 m) will experience the greatest swing fall allowed for a Falcon Edge SRL.

**DIAGRAM A - LEADING EDGE APPLICATION**



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



Refer to Fall Clearance Tables in APPENDIX B for lateral edge distance (work zone) limitations with regard to specified set-back distances of anchor point.

**Q20: Can the Falcon Edge SRL be used in a horizontal leading edge application?**

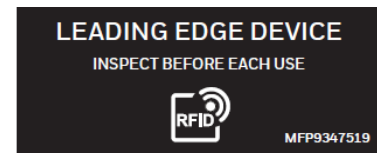
**A20:** Yes, while overhead mounting is recommended whenever possible, the Falcon Edge SRL has been specifically designed and successfully tested in accordance with the standards for horizontal use and falls over a sharp edge [radius  $\geq$  0.005 in. (0.13 mm)].

**Q21: Can the Falcon Edge SRL be used with a horizontal lifeline system?**

**A21:** Yes, the Falcon Edge SRL may be used with a Honeywell approved horizontal lifeline system with special considerations. Refer to the instruction manual for requirements and more information.

**Q22: Is the Falcon Edge SRL equipped with an RFID?**

**A22:** Yes, the Falcon Edge SRL includes RFID technology for asset inspection and tracking. The RFID label is embedded within the shock absorber cover in the location of the RFID icon as shown.



**Q23: What is the warranty on the Falcon Edge SRL?**

**A23:** As with the standard Miller Falcon SRL, the Falcon Edge SRL includes a lifetime housing guarantee. The product also includes a limited lifetime warranty for manufacturer defects and workmanship.

**Q24: Is the Falcon Edge SRL repairable?**

**A24:** Yes, the product can be repaired through Honeywell repair centers and/or repair partners authorized by Honeywell.

**Q25: Does the Falcon Edge SRL require annual factory recertification through an authorized center?**

**A25:** Honeywell, as the manufacturer, does not require the Falcon Edge SRL be sent in for annual factory recertification. However, the end-user/company must ensure compliance with applicable national and regional fall protection regulations and may elect to follow additional voluntary standards regarding inspection and recertification requirements.

The user must also follow inspection and test procedures outlined in the instruction manual. If the product does not pass the product manual inspection criteria or if a worker falls into the unit, it must be sent in for repair and recertification.

For those end-users who adhere to the voluntary general industry standard **ANSI Z359.14-2014 Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems**, ANSI has established the inspection requirements (shown below). These inspection requirements are for the

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end-user and do not require factory re-certification.

Type of Use	Application Examples	Conditions of Use	Inspection Frequency Competent Person
Infrequent to Light	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments	Annually
Moderate to Heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Semi-annually to annually
Severe to Continuous	Commercial construction, oil and gas, mining	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environment	Quarterly to semi-annually

CSA Z259.2.2-17 for Self-Retracting Devices has new inspection and revalidation requirements as displayed in the table below.

Type of Use	Application Examples	Example Conditions of Use	Worker Inspection Frequency	Competent Person Inspection Frequency	Product Revalidation Frequency
Infrequent to Light	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperature, clean environments	Before each use	Annually	At least every 5 years but not more than intervals required by the manufacturer
Moderate to Heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Before each use	Semi-annually to annually	At least every 2 years but not more than intervals required by the manufacturer
Severe to Continuous	Commercial construction, oil and gas, mining, foundry	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environment	Before each use	Quarterly to semi-annually	At least annually but not more than intervals required by the manufacturer

**Q26: Where can I find additional information on ANSI Z359 & CSA standards?**

**A26:** For complete information, the ANSI Z359 Fall Protection Code is available directly from the American Society of Safety Engineers (ASSE) – [www.asse.org](http://www.asse.org). CSA standards are available directly from the CSA Group and can be purchased at [shop.csa.ca](http://shop.csa.ca).

**Q27: Who should I contact for additional questions/information?**

**A27:** Contact Honeywell Technical Service at 800-873-5242 (press 4).

**Limitless Possibilities. Ask the Expert.**

Technical Service: 800.873.5242  
[www.millerfallprotection.com](http://www.millerfallprotection.com)

**Honeywell Industrial Safety**

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**CANADA**

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 Fax: 888.667.8477

**⚠ 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.