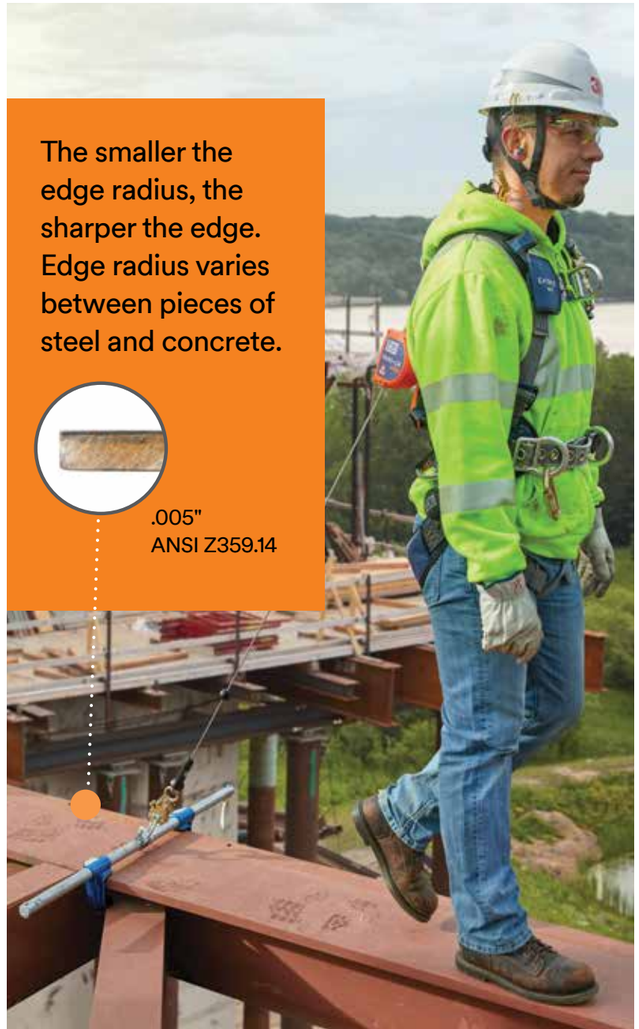
3M | DBI SALA®

Fall Protection

The edge is our inspiration.

Understanding leading and sharp edges



The smaller the edge radius, the sharper the edge. Edge radius varies between pieces of steel and concrete.

.005"
ANSI Z359.14

Leading Edge

To visualize a leading edge, imagine a worker installing steel decking on a new building. Now imagine the worker's fall protection system is anchored at foot-level behind him. As the worker moves out and away from the anchor point while installing the decking, the worker is exposed to a potential fall over the edge of the building or the edge of an elevated platform.

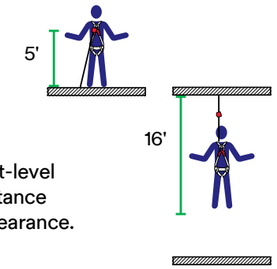
Sharp Edge

A sharp edge is one that, for practical purposes, is not rounded and has the potential to cut most types of lifelines. The ANSI Z359.14 standard for sharp edges, for example, involves testing the fall arrest device's lifeline over a piece of steel bar with a radius of no more than 0.005" (5 one thousands of an inch). If the lifeline is cut or severely damaged, the device fails the test and does not comply with ANSI.

Sharp edges are found in many leading edge applications where the edge is able to cut or damage a traditional lifeline upon contact. Typical I-beams have edge radii that range from .005" to .032".
Do you know how sharp your edges are?

4 Unique risks of leading and sharp edges:

1 Increased fall distance

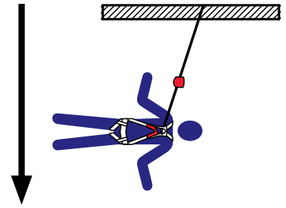


Anchoring at foot-level increases the distance needed for fall clearance.

When workers are attached at foot-level, as they often are in leading edge applications, they will fall farther than they would if they were anchored at shoulder height or above. The required clearance when anchored at foot-level varies by product so make sure to reference the products user instructions.

2 Lock-up speed

Required time to reach velocity to engage lifeline takes longer because of longer fall distance.



Self-retracting lifelines react to a fall when the lifeline accelerates out of the housing at a certain velocity. When self-retracting lifelines are anchored at foot-level, the lifeline does not achieve the required acceleration during a fall until after the user's D-ring passes over the leading edge and below the level of the anchor. This means the user has already fallen approximately 5 feet before the self-retracting lifeline device will engage to arrest the fall.

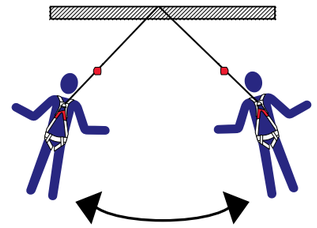
3 Increased fall arrest forces

Potentially higher impact to the body when the fall is arrested.

Falling further means the impact on the body through the fall protection system will potentially be higher when the fall is arrested. This is why leading edge and sharp edge rated products contain additional energy-absorbing devices.

4 Increased potential for swing hazards

This could create a sawing action on a lifeline strung taught over a sharp edge.



Depending on a worker's position during a fall, they may swing like a pendulum after the fall is arrested. While swinging is a hazard under any circumstances, the danger is compounded if the worker's lifeline is strung taught over a sharp edge and saws back and forth across that edge.

3M™ DBI-SALA® Smart Lock Self-Retracting Lifelines

Fewer unintentional lockups* — now that's smart.

Unlock your productivity. From reducing unintentional lockups,* to simplifying inspections, every detail of the new 3M™ DBI-SALA® Smart Lock Self-Retracting Lifelines is designed to help increase your productivity and convenience. Significant internal testing was completed to make this product work while reducing the unintentional lockups. Compared to our existing devices, the new Smart Lock SRL locked up 29 percent less when tested against 422 work motion profiles.

Features & Benefits

- Swiveling anchorage and carabiner
- Ergonomic handle
- Magnetic retraction control
- Patent pending dual label system
- Highly-visible orange energy-absorber cover

Application	Part #	Length	Lifeline Material
Horizontal (Leading Edge)	3503802	20'	Galvanized Steel
	3503822	30'	Galvanized Steel

*Compared to our previous generation SRLs.

Part Number:
3503822

Part Number:
3504500

3M™ DBI-SALA® Ultra-Lok™ Leading Edge Self-Retracting Lifelines

Right-size gear works smarter, like you.

The 3M™ DBI-SALA® Ultra-Lok™ Leading Edge line of retractables includes lengths from 15' to 55', and are approved for leading edge work and foot-level tie-off, providing protection against sharp, leading edges.

Features & Benefits

- Top swivel limits lifeline twisting for smoother operation.
- Lightweight, compact and durable thermoplastic housing.
- Ergonomic cable handle provides added comfort and ease-of-use when making connections.
- Self-locking swivel hook limits lifeline twisting.
- Impact indicator provides visual indication of fall arrest.
- 3,600 lb. gate reduces chances of accidental disengagement ("roll-out").
- Built to last with stainless steel components and anti-ratcheting brake system.

Application	Part #	Length	Lifeline Material
Horizontal (Leading Edge)	3504422	15'	Galvanized Steel
	3504500	30'	Galvanized Steel
	3504600	55'	Galvanized Steel

All solutions adhere to ANSI Z359.14 leading and sharp edge requirements.

3M™ DBI-SALA® Nano-Lok™ Edge Self-Retracting Lifeline

Specifically designed for foot-level tie-off.

In your line of work, anchoring at your feet may be the only option. The 3M™ DBI-SALA® Nano-Lok™ Edge SRL is specifically designed for foot-level tie-off and sharp edge applications, and meets relevant safety standards. It features a combination of innovative lifeline material, energy absorption, and harness connection to reduce the impact forces on the worker, and the shear forces on the lifeline, in a fall arrest event over a sharp edge.

Features & Benefits

- Available in single and twin-leg units.
- Easy-to-install connector provides 360 degrees of rotation and leaves the D-ring open for rescue or other equipment.
- Impact-resistant housing provides durability.
- Global sharp edge icon makes identification of sharp edge product quick and easy.
- Tough and flexible lifeline is 8 ft. (2.4 m) of 3/16 in. (5 mm) galvanized cable, providing maximum range of motion, durability and resistance.
- Backpack design stays tight to the harness and helps evenly distribute the unit's weights.
- Backpack-style energy absorber and connector work together to help limit forces on both the worker and the impacted edge.

Part Number:
3500231

	Lifeline Hook									SRL
	Tie-back	Alum. Rebar Lock Hook	Steel Rebar Lock Hook	Alum. Rebar Hook	Steel Rebar Hook	Steel Snap Hook	Steel Swivel Snap Hook	Alum. Captive Carabiner	Alum. Snap Hook	Part #
Twin-Leg	■									3500228
		■								3500231
			■							3500227
				■						3500249
					■					3500246
						■				3500225
							■			3500226
								■		3500229
									■	3500230
Single-Leg	■									3500213
		■								3500216
			■							3500212
				■						3500247
					■					3500248
						■				3500210
							■			3500211
								■		3500214
									■	3500215

3M™ DBI-SALA® EZ-Stop™ Leading Edge Lanyards

Engineered for work near sharp edges.

Web and rope lanyards can break on sharp edges, such as I-beams or concrete. Work with confidence when you use the 3M™ DBI-SALA® EZ-Stop™ Leading Edge, which provides steel cable foot-level tie-off for sharp edges.

Features & Benefits

- Foot-level tie-offs for maximum 12 ft. free fall
- Quarter-inch vinyl-coated steel cable
- Wide variety of aluminum and steel hooks are available
- Bright orange shock pack cover makes it easy to see you're using a sharp-edge model
- Passes ANSI Z359.14 (dropped on a .005 radius edge)

EZ-Stop
Leading Edge
Single Cable Unit
Part Number: 1246261

EZ-Stop Leading Edge
100% Tie-Off
Part Number: 1246068

Part #	Type	Single-Leg/ Twin-Leg	Leg Material	Hook 1 (Harness) Material/Style	Hook 2 (Anchor) Material/Style	Hook 3 (Anchor) Material/Style
1246066	Leading Edge	Single	Cable, Vinyl Coated	Steel/Snap	Steel/Snap	-
1246068	Leading Edge	Twin	Cable, Vinyl Coated	Aluminum/Snap	Aluminum/Snap	Aluminum/Snap
1246178	Leading Edge	Twin	Cable, Vinyl Coated	Aluminum/Snap	Aluminum/Rebar Locking Nose	Aluminum/Rebar Locking Nose
1246261	Leading Edge	Single	Cable, Vinyl Coated	Steel/Snap	Steel/Rebar Locking Nose	-

All solutions adhere to ANSI Z359.14 leading and sharp edge requirements.

3M™ PROTECTA® Rebel™ Self-Retracting Lifeline

Be a Rebel™ on the Leading Edge.

Introducing the Rebel™ Leading Edge Family

We've expanded our product line to help meet your jobsite fall protection needs. Users are now able to tie-off at foot-level with the 20', 33', 50', and 66' 3M™ Rebel™ Leading Edge Self-Retracting Lifelines. These products are put through extensive sharp edge testing to help ensure protection against sharp, abrasive and other leading edges found at construction sites.

Part #	Cable Length	L x W x H	Weight	*Cover Part #
3590540	20'	42" x 10" x 4.5"	17 lb.	3590010
3590543	33'	42" x 11" x 4.5"	19 lb.	35905011
3590546	50'	46" x 13" x 5.5"	25 lb.	3590012
3590548	60'	46" x 13" x 5.5"	26 lb.	3590012

*Cover sold seperately

Optional Anchors for Leading Edge Applications

3M™ Protecta® Swiveling Roof Anchor
Part Number: 2190070

3M™ Protecta® Standing Seam Roof Anchor
Part Number: 2190072

Part Number: 3590540

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