
3M Science. Applied to Life.™
3M Fall Protection Updates
2022
LEVAC
SAFETY SUMMIT
powered by 3M

Agenda

1. CSA Updates
2. 2020 -2022 New Products
3. Summary / Q&A

CSA Z259.2.2-17 : Self-retracting Devices

Overview:

- Current Standard, CSA Z259.2.2-14 came into effect in 2016 due to testing issues
- Defaulted to Z259.2.2-98
- New initiation date August 1, 2019
- Covers:
  - Self-retracting devices/lifelines (SRLs)
  - Personal fall arrestors/limiters
  - SRLs with retrieval
  - Leading edge SRLs

CSA Z259.2.2-17 : Self-retracting Devices

New Classifications:

- **Class SRL** (self-retracting lifeline)
  - Elevated anchorage to limit free fall to device activation distance
  - Extracted lifeline cannot bear against an edge or surface during an arrest
- **Class SRL-R** (self-retracting lifeline with integral rescue capability)
  - Class SRL device with integral means for assisted rescue (raise/lower function)
- **Class SRL-LE** (self-retracting lifeline with leading edge capability)
  - SRL is anchored below the elevation of the dorsal D-ring on the worker's FBH
  - Extracted lifeline can bear against an edge or surface during an arrest
- **Class SRL-LE-R** (self-retracting lifeline with leading edge & integral rescue capability)
  - Class SRL-LE device with integral means for assisted rescue (raise/lower function)
  - The device shall operate as both an SRL-LE device and an SRL-R device; not necessarily as both (no CSA-test)

CSA Z259.2.2-17 : Self-retracting Devices

Summary:

- Standard took effect August 1, 2019
- All SRL's used below the back d-ring tested to the new Z259.2.2-17 MUST be LEADING EDGE. SRL's tested under the previous standard are still able to be used as they were designed (ie. NanoLok – previous SRL's sold under Z259.2.2-14 can still be used 3' below their back d-ring)
- Type 1, 2 & 3 is no longer referred to in the standard – this has been replaced with SRL, SRL-LE, SRL-R & SRL-LE-R regardless of their length.
- Recertification has been changed to REVALIDATION. Old standard required recertification to be 2 years from DOM and every year there after. The new standard has 3 new categories – Infrequent/Light, Moderate/Heavy & Severe/Continuous. The inspection interval is now 1, 2 or 5 years based on the 3 categories.
- This revalidation is now based on date the product is put into service and NOT the date of manufacturing.
- IMPORTANT – It is NOT up to 3M or our Distributors to determine what revalidation interval the customer must follow. An end user competent person must make this decision.
- SRL's that were made to the previous standard must continue to follow that inspection/recertification criteria (two years from DOM and every year there after)
- Where an SRD is deemed not repairable or access to the mechanicals render the device unusable, the manufacturer shall provide other inspection requirements and a service life for the device in question. Applies to some 6ft -20ft that are not repairable and we will state pre-use inspection and annual written inspection.
- The Competent Person has to know the categories and how to apply them to the product for their company. Equally as important is record-keeping and inspection procedural knowledge, which becomes of paramount importance to companies using SRDs

CSA Z259.2.2-17 : Self-retracting Devices

Revalidation:

- Revalidation triggers by a Competent Person (CP)
  - Failed daily use inspection (DUI) or failure to complete DUI
  - Failed CP inspection or failure to complete CP inspection
  - Validation period selection by CP
- Non repairables or SRDs not designed for disassembly for service shall:
  - Service life defined by the manufacturer
  - Other inspection details provided by the manufacturer

Inspection requirements for self-retracting devices					
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.

3M Fall Protection Whitepaper

Access whitepaper here.

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Changes in the CSA Standard for Self-Retracting Devices

Effective August 1, 2019

The Canadian Standard Association (CSA Group International) implemented a new standard addressing the certification and use of self-retracting devices (SRDs). This new standard change supersedes previous editions implemented in 1998 and 2014.

The scope of the standard remains the same, with a change in the descriptor of SRDs from "...connecting components in personal fall arrester systems" to "... connecting components in fall protection systems." While not clearly defined, this change seems to indicate that the standard has been relaxed in the application of SRDs to different fall protection needs, such as leading edge.

Originally	**"...connecting components in personal fall arrester systems"**
Replaced with	**"...connecting components in fall-protection systems."**

Definitions

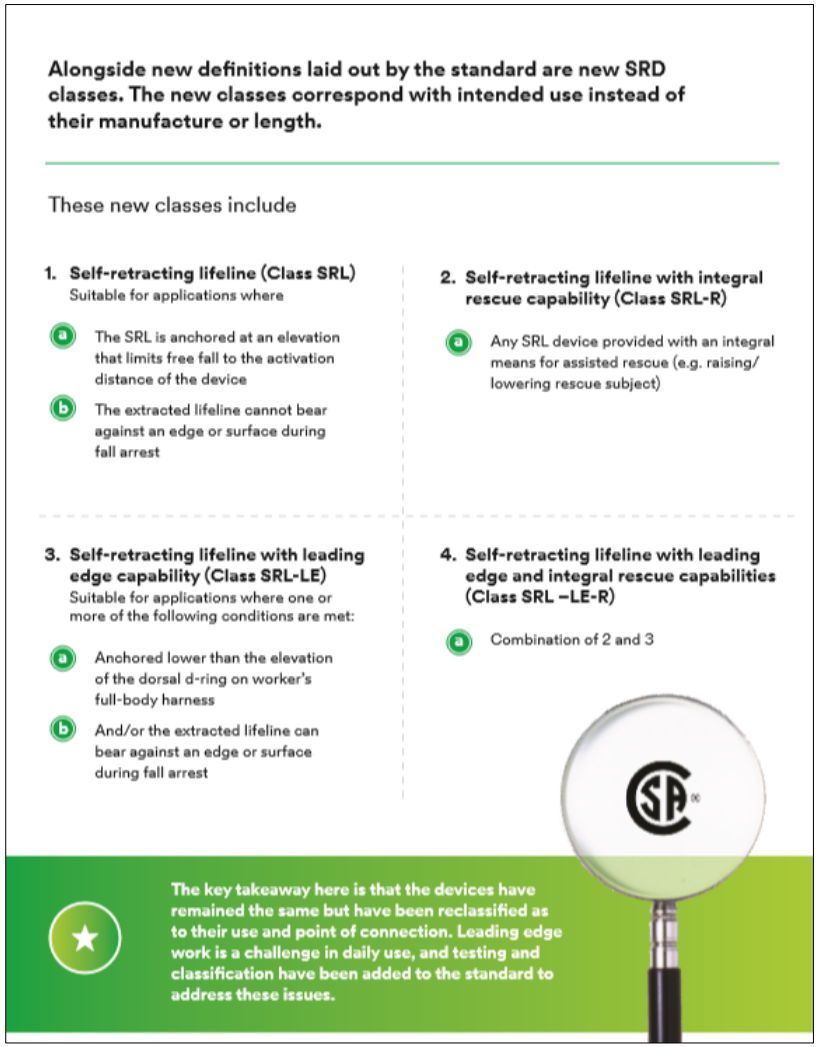
Key definitions in the standard were modified or added to better align with the new uses of SRDs and additional applications. This especially applies to any leading edge application of SRDs.

Modified definitions:

- Arrest distance (Xa)
- Lifeline

New definitions:

- Competent person
- Deployment factor (Dm)
- Fall arrest
- Fall arrest indicator
- Peak force
- Performance factor
- Product revalidation



Alongside new definitions laid out by the standard are new SRD classes. The new classes correspond with intended use instead of their manufacture or length.

These new classes include

1. **Self-retracting lifeline (Class SRL)**
   Suitable for applications where
   - (a) The SRL is anchored at an elevation that limits free fall to the activation distance of the device
   - (b) The extracted lifeline cannot bear against an edge or surface during fall arrest

2. **Self-retracting lifeline with integral rescue capability (Class SRL-R)**
   - (a) Any SRL device provided with an integral means for assisted rescue (e.g. raising/ lowering rescue subject)

3. **Self-retracting lifeline with leading edge capability (Class SRL-LE)**
   Suitable for applications where one or more of the following conditions are met:
   - (a) Anchored lower than the elevation of the dorsal d-ring on worker's full-body harness
   - (b) And/or the extracted lifeline can bear against an edge or surface during fall arrest

4. **Self-retracting lifeline with leading edge and integral rescue capabilities (Class SRL –LE-R)**
   - (a) Combination of 2 and 3

The key takeaway here is that the devices have remained the same but have been reclassified as to their use and point of connection. Leading edge work is a challenge in daily use, and testing and classification have been added to the standard to address these issues.

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards

Previous Energy Absorber Classifications:

- The energy absorber **classifications** of **E4** *(Standard Category, 4.0 kN)* and **E6** *(Heavyweight Category, 6.0 kN)* have been **removed**; CSA classifications for this no longer exist

- These **previous** CSA classifications (E4 and E6) basically amounted to 2 worker mass ranges, 2 maximum arrest forces and 2 maximum deployment lengths for energy absorbers, as follows:

Previous Classification	Worker Mass Range	Maximum Arrest Force	Maximum Deployment
E4	100 to 254 lbs	4.0 kN	3.9 ft
E6	200 to 386 lbs	6.0 kN	5.7 ft

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards

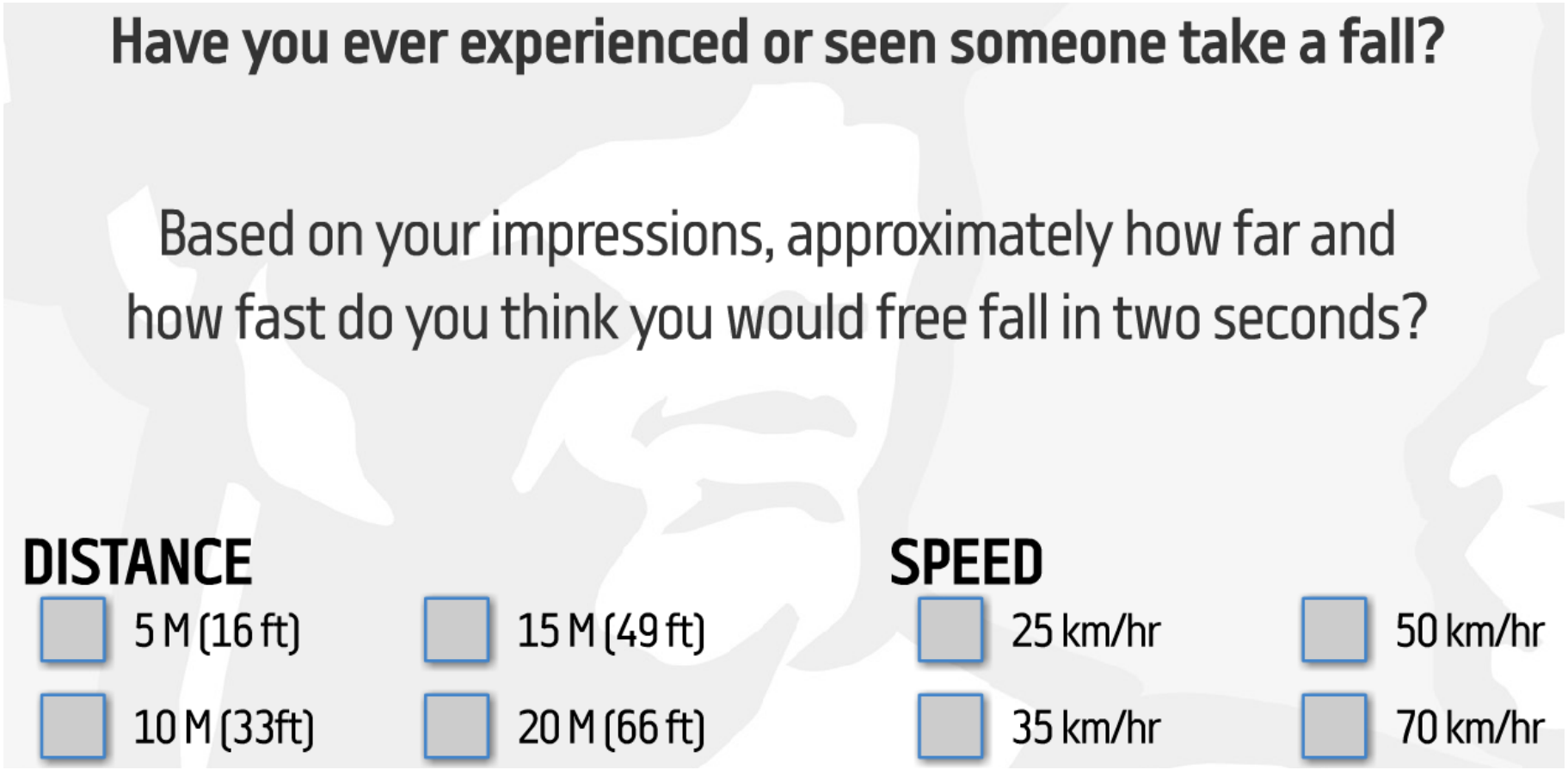
Worker Mass Ranges:

- Under the **new** Standard, CSA no longer dictates what worker mass ranges are permitted; this is **now up to manufacturers**

- 3M Fall Protection has determined, based on the 2 types of personal energy absorbers we manufacture, **4 total worker mass ranges are permitted** *(2 sets of ranges for each type of energy absorber)*, as follows:

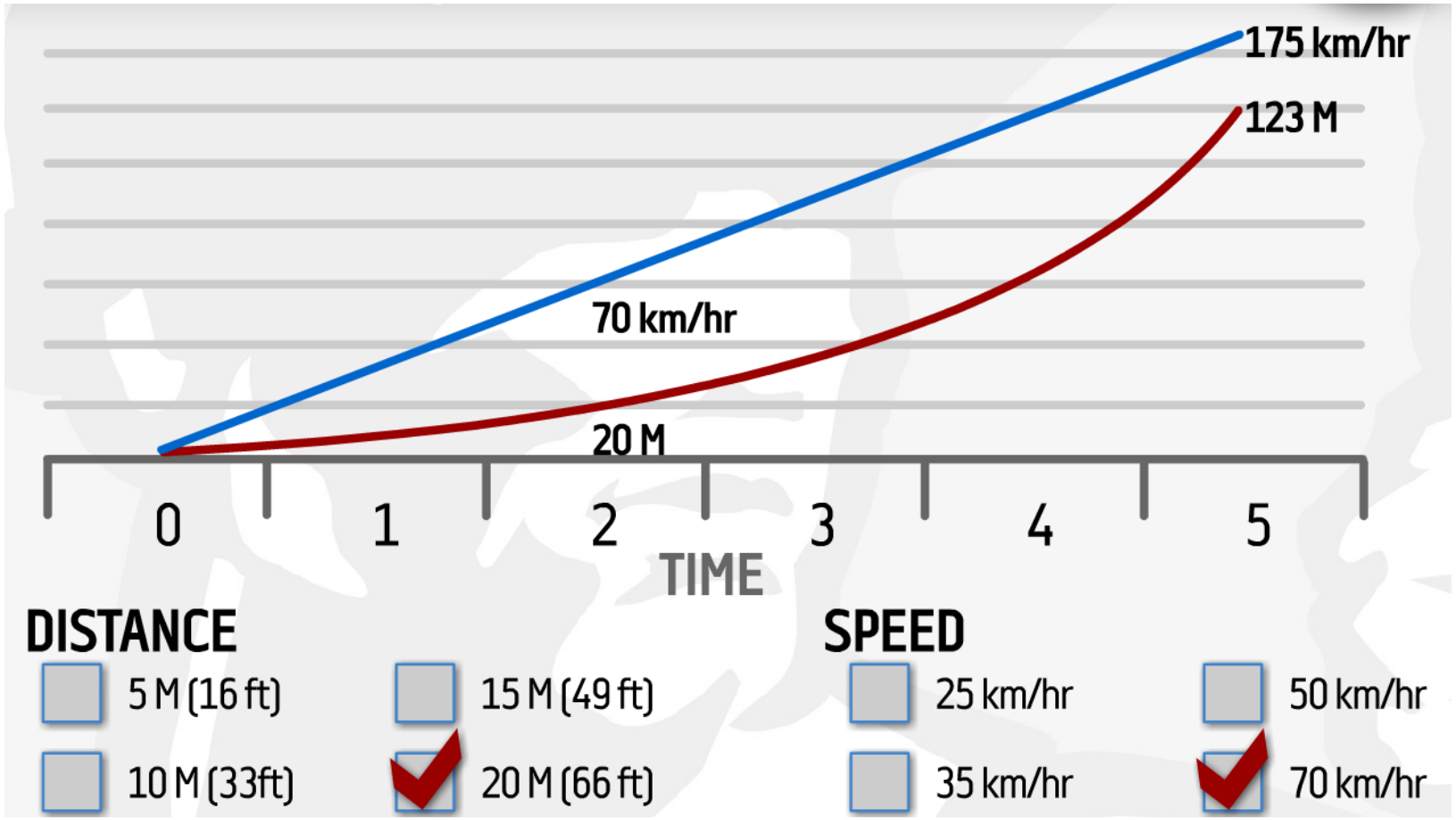
Energy Absorber Type	1st Mass Range	2nd Mass Range
Shock Pack	121 to 310 lbs (55 -140kg)	176 to 420 lbs (80 – 190kgs)
Tubular Web	132 to 253 lbs (60 – 115kg)	176 to 385 lbs (80 – 175kg)

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards



Source: Fall Protection Group, Working At Heights, Ontario Construction Program, V1.0

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards



Source: Fall Protection Group, Working At Heights, Ontario Construction Program, V1.0

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards

New “Y” classification:

- The previous version of the standard did refer to design requirements for a Y lanyard
- It just now has been given its own class designation, to go along with the others: A, B, C, D, E, F
- ***New*** design requirement that Y lanyard **shall contain at least one energy absorber**

CSA Z259.11-17 : Personal Energy Absorbers & Lanyards

Design requirement changes – classes A, B, C & D:

- **Class A, B & C lanyard (rope, web & wire rope):**
  - Modified the design requirements to **allow the lanyard to have Class I connectors** or integral terminations that may be connected to other fall arrest system
- **Class C: wire rope lanyard**
  - Added a ***new*** requirement that the wire rope lanyard **shall have an integral energy absorber**
  - Construction of the lanyard eyes formed by a bend-back eye with a swage construction was removed; now **specifically mentions Flemish eye splices secured with mechanical sleeves**
  - **Covers over mechanical sleeves shall be clear in colour** and allow for ease of worker inspection
- **Class D: lineman's pole strap**
  - Just removed "working positioning lanyard" from the title
- **Note:** no design changes to Class E: chain work positioning lanyard and Class F adjustable work positioning lanyard

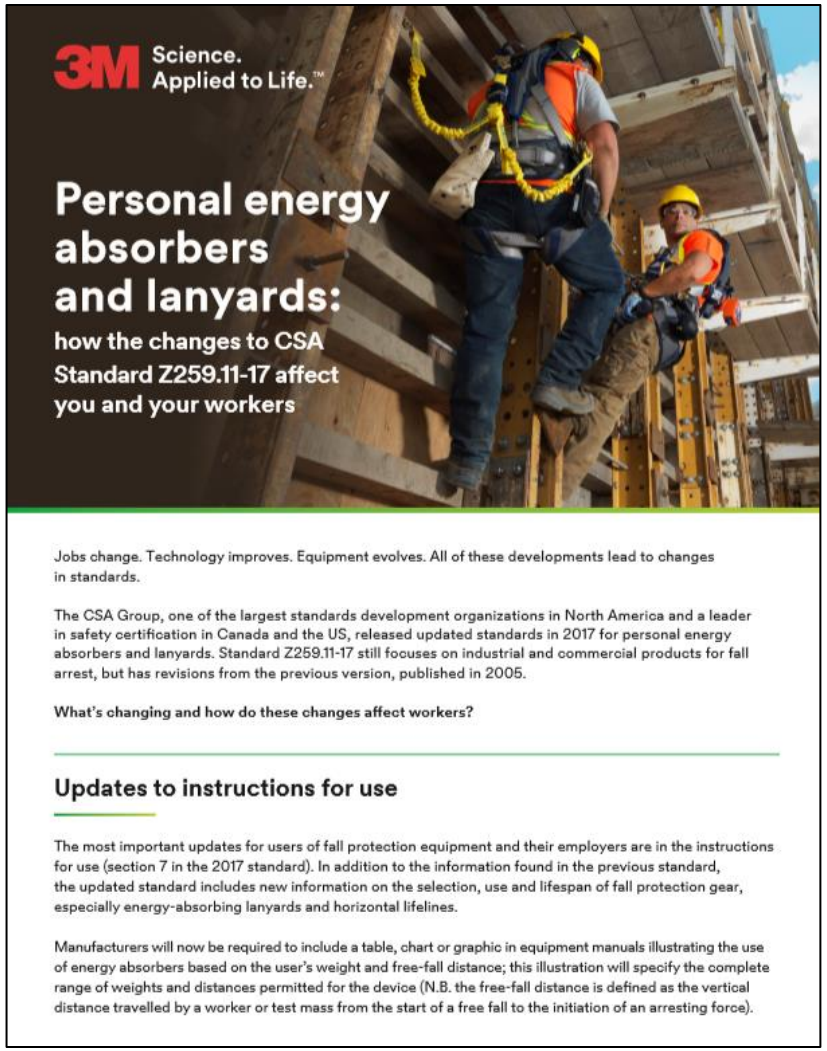
CSA Z259.11-17 : Personal Energy Absorbers & Lanyards

Labelling – classes A & B:

- ***New*** requirement for **all Class A and B lanyards that do not have an integral energy absorber**
- The following warning shall be included in the markings: **"Warning: For fall arrest, an energy absorber is recommended to be used with this lanyard."**

3M Fall Protection Whitepaper

Access the whitepaper here.



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Personal energy absorbers and lanyards:

how the changes to CSA Standard Z259.11-17 affect you and your workers

Jobs change. Technology improves. Equipment evolves. All of these developments lead to changes in standards.

The CSA Group, one of the largest standards development organizations in North America and a leader in safety certification in Canada and the US, released updated standards in 2017 for personal energy absorbers and lanyards. Standard Z259.11-17 still focuses on industrial and commercial products for fall arrest, but has revisions from the previous version, published in 2005.

What's changing and how do these changes affect workers?

Updates to instructions for use

The most important updates for users of fall protection equipment and their employers are in the instructions for use (section 7 in the 2017 standard). In addition to the information found in the previous standard, the updated standard includes new information on the selection, use and lifespan of fall protection gear, especially energy-absorbing lanyards and horizontal lifelines.

Manufacturers will now be required to include a table, chart or graphic in equipment manuals illustrating the use of energy absorbers based on the user's weight and free-fall distance; this illustration will specify the complete range of weights and distances permitted for the device (N.B. the free-fall distance is defined as the vertical distance travelled by a worker or test mass from the start of a free fall to the initiation of an arresting force).

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Absorbeurs d'énergie et longes personnels :

Comment les changements apportés à la norme Z259.11-17 de la CSA vous affectent-ils ainsi que vos travailleurs?

Les emplois changent. La technologie progresse. L'équipement évolue. Tous ces facteurs mènent à des changements dans les normes.

Le Groupe CSA, l'un des plus importants organismes de normalisation en Amérique du Nord et un chef de file en matière d'homologation en sécurité au Canada et aux États-Unis, a publié en 2017 une mise à jour des normes relatives aux absorbeurs d'énergie et aux longes personnels. La norme Z259.11-17 est toujours axée sur les produits antichutes industriels et commerciaux, mais la version précédente qui a été publiée en 2005 a fait l'objet de révisions.

Qu'est-ce qui change et comment ces changements affectent-ils les travailleurs?

Mises à jour des directives d'utilisation

Les mises à jour les plus importantes pour les utilisateurs d'équipement de protection contre les chutes et leurs employeurs sont les directives d'utilisation (section 7 dans la norme de 2017). En plus des renseignements contenus dans la norme précédente, la norme mise à jour comprend des nouveaux renseignements sur la sélection, l'utilisation et la durée utile de l'équipement de protection contre les chutes, plus précisément pour les longes amortisseur de choc et les lignes de vie horizontales.

Les fabricants devront maintenant inclure un tableau et un diagramme ou un graphique dans les guides d'utilisation de l'équipement pour illustrer l'utilisation des absorbeurs d'énergie en fonction du poids et de la distance de chute libre de l'utilisateur, de sorte à préciser l'étendue complète des poids et des distances autorisés pour le dispositif en question. (Remarque : La distance de chute libre se définit comme la distance verticale parcourue par un travailleur ou une masse d'essais depuis le début d'une chute libre jusqu'au début d'une force d'arrêt.)

CSA Z259.2.5-17 Fall Arresters & Vertical Lifelines

Major changes – New Classifications:

- New effectivity date – June 1, 2019
- Manual Fall Arrestor
  - Adjusts synthetic rope length with manual intervention
  - Dorsal attachment/ ideal for restraint
- Synthetic Rope Fall Arrestor
  - Automatic travel on the rope
  - Dorsal attachment
- Wire Rope Fall Arrestors
  - Automatic travel on wire rope
  - Ventral attachment
- Changes to manuals to match

CSA Z259.2.5-17 Fall Arresters & Vertical Lifelines

Major changes – New Classifications:

- Integration of connectors is mandatory
  - Prevents use of 6’ lanyard
    - 30” dorsal connectors
    - 9” ventral connectors
  - Most will have energy absorbers
    - AAF of 6 kNs (1350 lbs)
    - MAF of 8 kNs (1800 lbs)

- All devices must be sold/used on the lifelines on which they were tested
  - Outside venders can test if they wish to sell for our rope grabs
  - Cannot purchase and install lifelines which are uncertified
  - Lower end of the lifeline shall be terminated

CSA Z259.13-16 Manufactured Horizontal Systems

Overview:

- 60 foot systems continual
- 2 users maximum
- No intermediates
- With an energy absorber
- Published loads
- No deviations

Ontario

Systems (all) must be accompanied by drawing

1. Designed by an engineer (Z259.16)
2. Standard or custom
3. Arrangement of design
4. Component list
5. Number of users
6. Instructions for installation
7. Design loads: installed under the guise of a P. Eng. or designated competent person

Quebec

Systems (all) must be accompanied by drawing

1. Designed by an engineer in accordance to Z259.16
2. Arrangement of design
3. Component list
4. Number of users
5. Design loads
6. Instructions for installation: installed under the guise of a P. Eng.

Full Body Harnesses

Summary of changes in CSA Standard Z259.10-18

CSA Z259.10-18 : Full Body Harnesses

Overview:

- Definitions & references
- New harness class – “Class R”
- Arc-flash & ASTM standard F887-16
- Controlling shoulder strap separation
- More guidance info for test sample changes

CSA Z259.10-18 : Full Body Harnesses

Class R – Arc-resistant:

- “Class R full body harnesses are designed to provide protection for workers who could be exposed to thermal hazards of momentary electric arc or flame.”
- “In addition to the connector required for Class A, Class R may be included with any other class configurations permitted by this Standard.”

Shoulder strap separation:

- Added a new requirement to ensure all full body harnesses permanently incorporate a waist belt or back strap or other means of controlling the separation of the shoulder strap on the back of the full body harness.

CSA Harness D-Ring Classifications

Class A: Fall Arrest

Class P: Positioning

Class L: Ladder Climbing

Class E:Limited Access

Class D: Suspension &Descent

Class R: Arc Flash

Agenda

3M™ DBI-SALA® Nano-Lok™ SRL: Next Generation

Description: Next generation Nano-Lok™ Personal SRL no sku change

** Now replaces the Protecta Rebel models

Product Features/Benefits:

- Compact housing (30% smaller)
- As low as 4 ft. required fall clearance
- 60% faster to connect to a harness versus previous version
- Built In RFID tag
- Durable shock pack cover to support job site realities
- Smart braking system, 89% fewer intentional lock ups

Nano XL versions

- 9ft, 11ft, 20ft options in web
- 15ft. Cable options
- As low as 6ft. required fall clearance

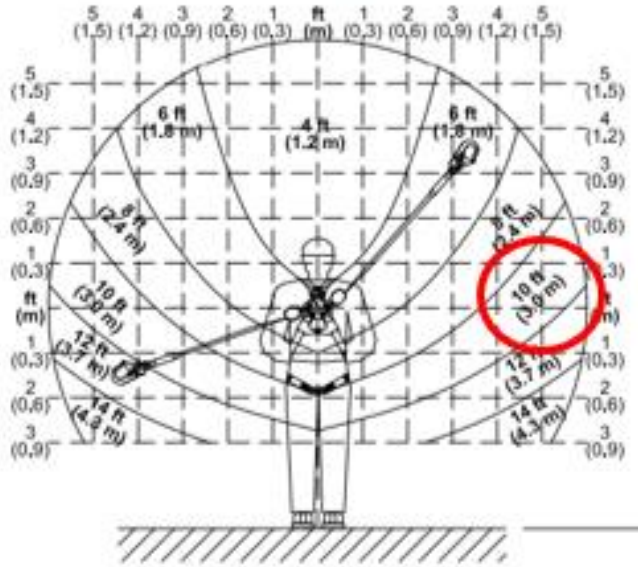
- Overhead work?
- Require LE?
- Limited fall clearances?
- Single leg or twin leg?
- Durability concerns?

3M™ DBI-SALA® Nano-Lok™ SRL: Next Generation

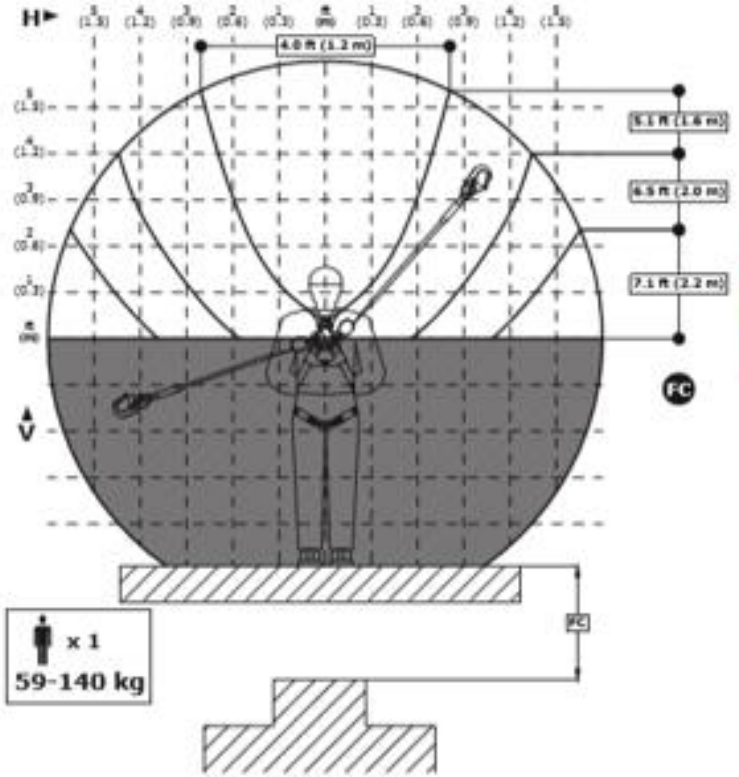
1st Generation Nano-Lok

2nd Generation Nano-Lok

Clearance required in feet (meters) between Working Level and learest Obstruction for User with Total Weight up to 310 lbs (141 kg)



10 ft



7.1 ft

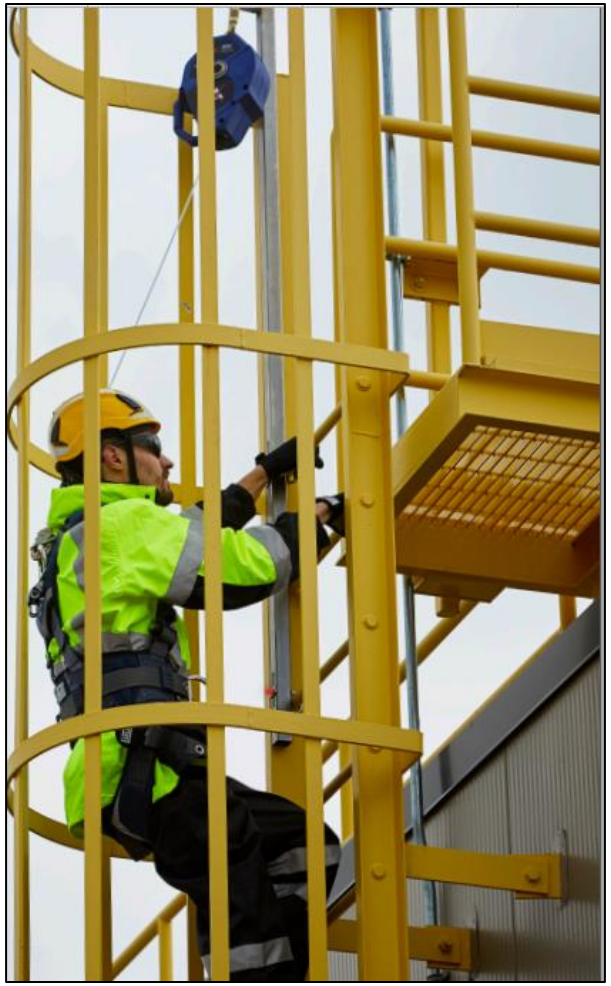
A reduction in clearance requirements! No tie-off below dorsal D

3M™ DBI-SALA® Fixed Ladder SRL Anchor

Key value proposition:

- Ease of use: quick set up and easy to use
- Durable for multiple permanent/temporary placement
- Anchor points are designed to work with 3M™ DBI-SALA™ and Protecta™ SRLs
- Compatible with existing full-body harness
- Lightweight solution

Learn more about this solution here.



New Lad-Saf ladder Climbing System

3M™ DBI-SALA® Lad-Saf™ Flexible Cable Vertical Safety Systems

Adding or upgrading your vertical safety systems just got easier. The new generation of Lad-Saf Systems are reengineered to simplify and speed up the installation process. With up to 72% fewer loose components* than some of our previous models, these lightweight systems are streamlined for easy installation and maintenance on a variety of structures—such as fixed ladders and telecommunication towers.

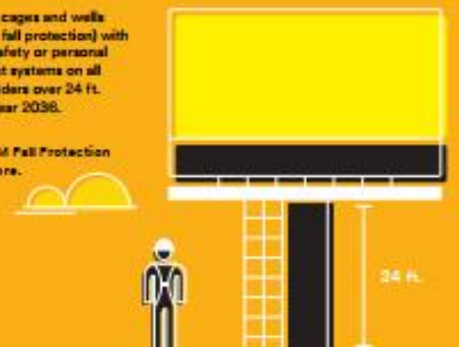
They have also been designed to meet the requirements of the new ANSI Z359.16 standard when used with our Lad-Saf X2 or X3 sleeve, helping you to stay in compliance with the current fall protection standards.

*On specific models.

OSHA's Walking-Working Surfaces Final Ruling requires:

- Install personal fall arrest or ladder safety systems on new and replacement fixed ladders over 24 ft.
- Replace cages and wells (used as fall protection) with ladder safety or personal fall arrest systems on all fixed ladders over 24 ft. by the year 2036.

Contact 3M Fall Protection to learn more.



Rung, 2 User, Stainless Steel 6116632

Rung, 2 User, Galvanized Steel 6116631

Rung, 4 User, Galvanized Steel - 6116633

Monopole, 4 User, Galvanized Steel - 6116634

Monopole, 4 User, Stainless Steel - 6116635

Telescoping Extension, 4 User, Galvanized Steel - 6116618

Climb Extension, 2 User, Galvanized Steel - 6116636

Streamlined Design

Convenient
Integrated fall arrest-rated anchor point.

Fast
Installation is easy with fewer loose parts and more robust cable tensioning and termination as compared to our previous systems.

New Pre-Swaged Cable Termination
Durable, high-strength steel construction that allows for easy installation and maintenance-free longevity.

Flexible
Mounting brackets can be used on a variety of fixed ladder styles that may consist of different rung spacings and shapes.

Ladder, Climb Extension and Grab Bar-Telescoping application fit the following rung types and spacings:

	Rung spacing	9 in.-12.25 in. (200 mm-310 mm)
	Cylindrical rung	0.75 in.-1.6 in. (19 mm-40 mm) diameter
	Square rung	0.75 in.-1.6 in. (19 mm-40 mm)
	Diamond rung	0.75 in.-1.6 in. (19 mm-40 mm) height
	Angle iron	0.75 in.-1.6 in. (19 mm-40 mm) leg height
	Rectangular rung	0.75 in.-1.6 in. (19 mm-40 mm) height, 0.75 in.-1.9 in. (19 mm-48 mm) width

Light
Total system weighs less than our previous 2- and 4-user systems.

Simple
Most configurations use fewer than 13 separate components—up to 72% less than some of our previous models.

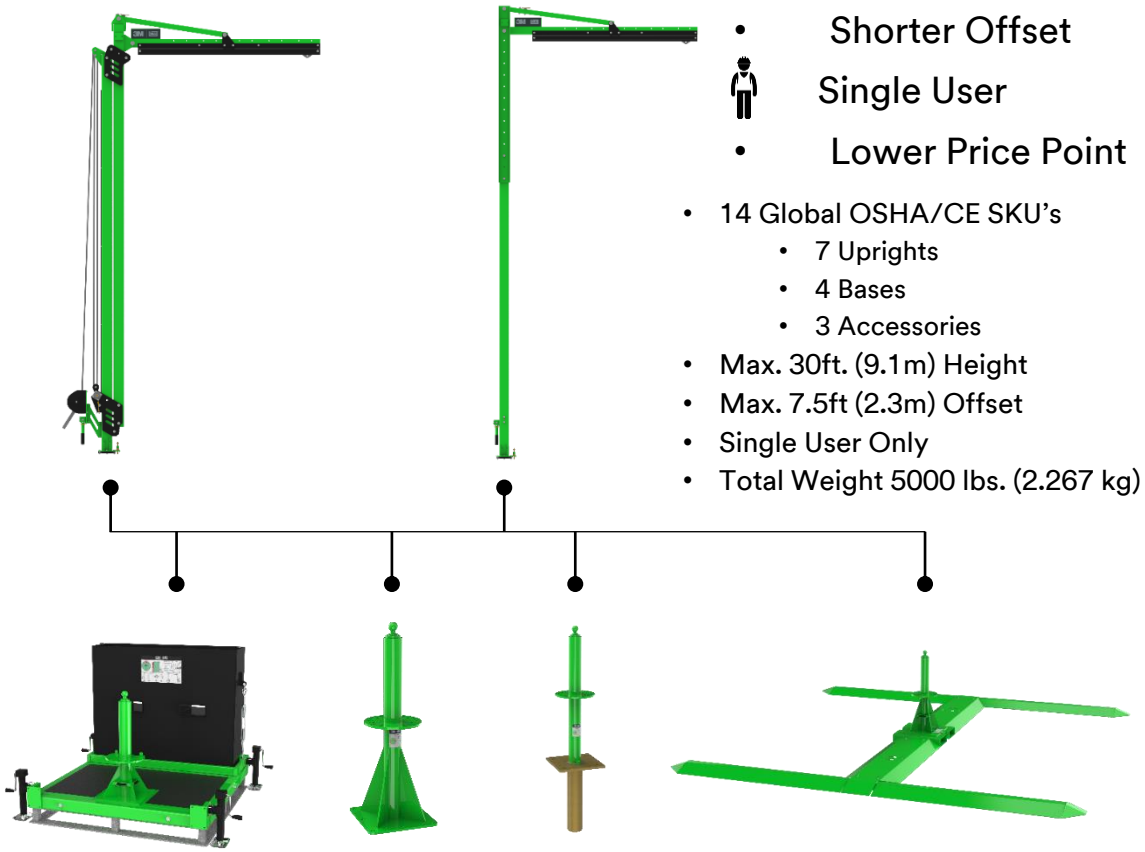
Compatible
Designed for use with your Lad-Saf X3 Detachable Cable Sleeve (8160054). Also compatible with Lad-Saf X2 Detachable Cable Sleeve (8160030).

3M™DBI-SALA® Flexiguard

Modular Jib System Models Overview

M100 | Solution

(Current EMU™ & Safrig™)

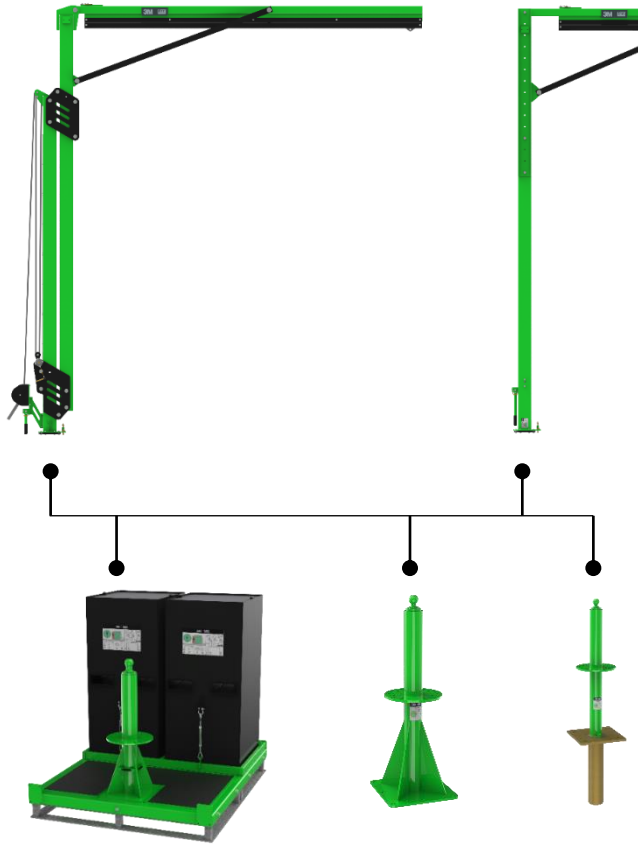


- Lighter weight
- Shorter Offset
- Single User
- Lower Price Point

- 14 Global OSHA/CE SKU's
  - 7 Uprights
  - 4 Bases
  - 3 Accessories
- Max. 30ft. (9.1m) Height
- Max. 7.5ft (2.3m) Offset
- Single User Only
- Total Weight 5000 lbs. (2.267 kg)

M200 | Solution

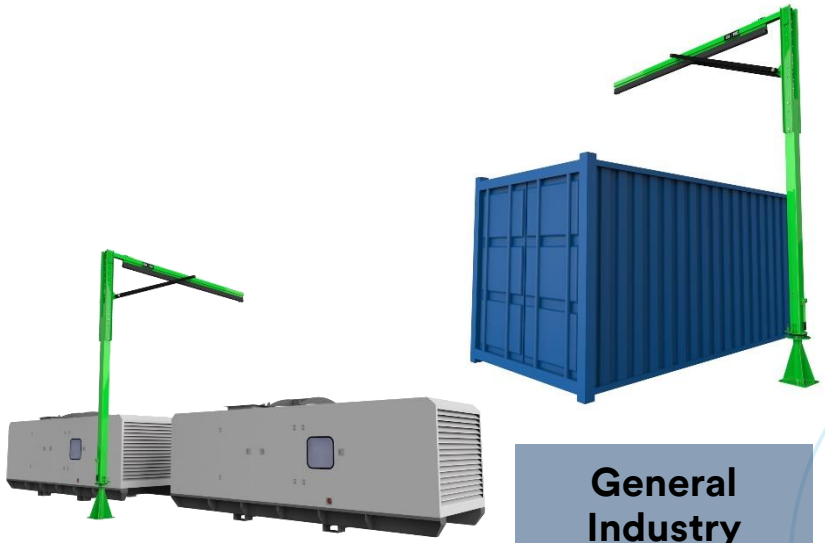
(Current CW Jib & New)



- Heavier Weight
- Larger Offset
- Single & Dual Users
- Higher Price Point

- 21 Global OSHA/CE SKU's
  - 14 Uprights
  - 3 Bases
  - 4 Accessories
- Max. 30ft. (9.1m) Height
- Max. 15ft (4.6m) Offset
- Single & Dual User Options
- Total Weight ~13,000 lbs. (5.897 kg)

Target Verticals



General Industry

Mining

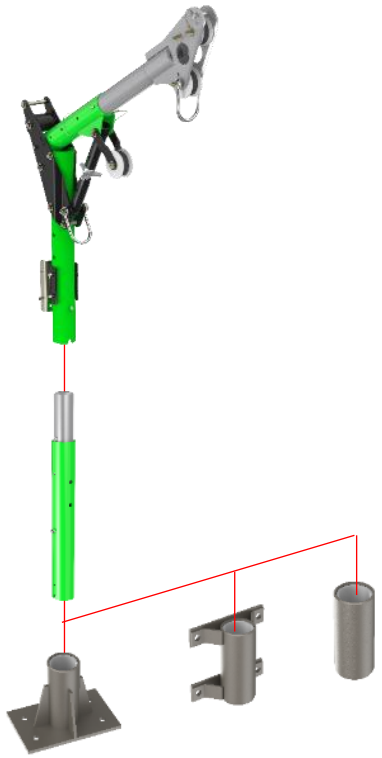
Military

Transportation

3M™ Fall Protection Configurator

Download today on the App Store or Google Play.

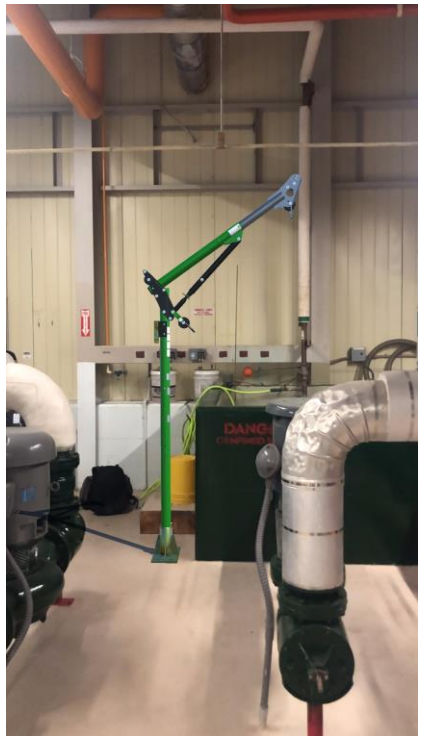
Configure



Visualize

Share

Applications – Municipal Services

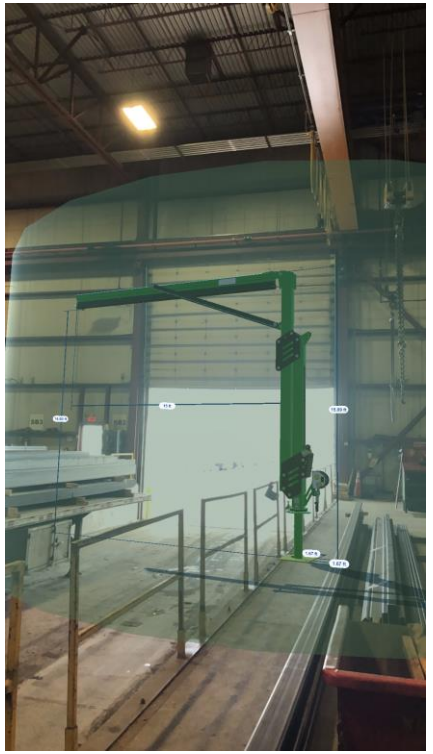


- Wastewater
- Water Treatment
- Garages / Shops
- Traffic/Street Lighting
- Telephone
- Public Works
- Transit

- Do you have confined spaces?
- Do you work on top of mobile equipment?
- Do you have an overhead crane?
- How many people do you need on the system?
- What is the fall clearance?
- Do you have a rescue plan?

Applications - Transportation

- Flat Decks
- 53’ Trailers / Tankers
- Fixed locations
- Portable
- Lay-down areas
- Construction projects
- Tarping stations
- Agriculture (feed, farm)



- Is this indoor or outdoor application?
- How many workers required on the system?
- Does it need to be portable or permanent?
- Fall clearance? Total coverage of system?
- Do they get onto the load to tarp/secure the load?
- Do they enter the tank, samples, connect/disconnect on top?
- Do they require ladder access and rescue?

Applications – Construction, Industrial, Mining, O&G

- Shops
- In-door / outdoor
- Gravel / concrete
- Underground
- Pits
- Service contractors
- Brandt, Komatsu, Cat
- Assembly, maintenance
- Manufacturing
- Pharma
- Gas transmission/pipeline

How many people on the system?
Do you need to take this through a door?
Do you need an adjustable anchor height?
What type of counterweight base?
Does it need to be portable?
Do you have other applications where this can be used?
How many sites can use this?
Any limitations (crane, doorway, surface, space)?

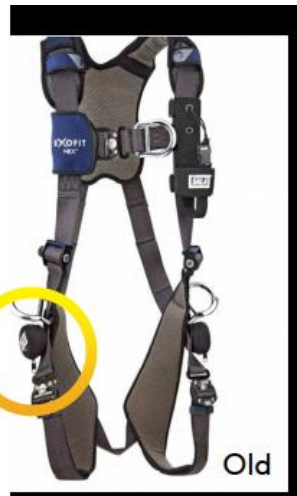
2021 Suspension Trauma Integration

Improved Design

1. Unzip

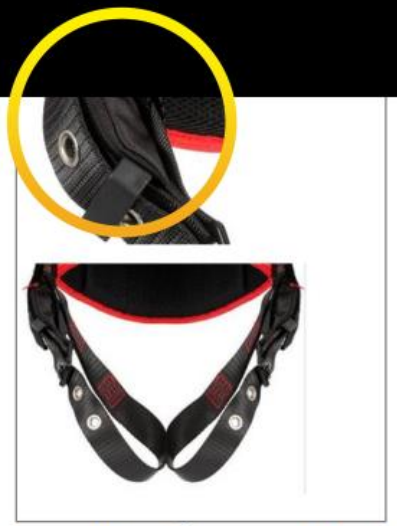
2. Deploy

3. Hook Connect



"hockey puck gets caught as I work at times..."
Houston, Tx

"I don't want the guys to have to know how to put these on and I don't want to have to play safety cop to see if they have been connected properly"
Houston, Tx



Same Design on Protecta

2021 Suspension Trauma integration

3M | DBI SALA Fall Protection

You're prepared to arrest the fall, but are you ready for the rescue?

A prevented fall is a complete success and the ultimate goal when working at height. An arrested fall can also be considered successful if significant harm is immediately avoided, but it's only part of the process. What happens next is just as crucial – a prompt rescue.

Suspension trauma—why every minute matters.

When a fallen worker is suspended for too long, their harness leg straps may constrict their veins, reducing the flow of oxygenated blood to their heart, brain and kidneys. Not every worker will experience suspension trauma, but for those who do, it can lead to unconsciousness and possibly death.

Factors that can contribute to suspension trauma.

Health – A worker with a pre-existing cardiac condition could be at greater risk[1].

Harness – The type and fit of harness may put a small amount of pressure on the ribs, which may help alleviate pressure on the arteries.[2]

Immobility and Gravity – A worker who is unable to make any movements with their legs is at greater risk[3].

Age – Older workers are possibly at an elevated risk due to less responsive arteries and veins and a less robust heart.[4]

Dehydration & Exhaustion – These conditions increase the chance and speed of suspension trauma occurring[5].

What do Canadian authorities say?

"If there is a risk due to falling in the workplace, an employer should have an adequate fall protection plan which includes an emergency plan to rescue a suspended worker whose fall has been arrested. The CSA standard for Full body harnesses, CSA Z259.10-18, states: "Where a suspension trauma strap is used, the manufacturer's instructions need to be followed to ensure that injury due to suspension trauma is reduced to a minimum." [5]

What's 3M™ DBI-SALA® Fall Protection doing about it?

Suspended workers are at risk of suspension trauma while awaiting rescue—unless they have a harness with suspension trauma safety straps to help reduce it. That's why we're adding this valuable feature to all 3M™ DBI-SALA® Fall Protection Harnesses. Together with Construction Industry Safety Initiative (CISI), we're committed to increasing the awareness of the danger of suspension trauma in the construction industry.

Are you ready to take a stand with us?

It's easy to get started:

- Upgrade and save on fall protection when you trade in or trade up with 3M ™ DBI-SALA® Fall Protection at 3M.ca/FallProTradeUp

1. OSHA Safety and Health Information Bulletin, SHIB 03-24-2004, updated 2011.
2. Haisa, H; Turner, N; Whisler, R; Zwiener, J. "Impact of Harness Fit on Suspension Tolerance," Human Factors, June 2012.
3. OSHA Safety and Health Information Bulletin, SHIB 03-24-2004, updated 2011.
4. Raynovich, W. "Dangerous Suspension: Understanding suspension syndrome & prehospital treatment for those at risk," Journal of Emergency Medical Services, Volume 32, Issue 8.
5. CSA Z259.10-18, Annex B.4 g

Introducing a New Generation of 3M™ DBI-SALA® ExoFit™ X-Series Harnesses

Over six decades ago, we began our commitment to help protect those working at height with innovative technology, high-quality products and comprehensive education and training. Today, that commitment shines brighter than ever with our latest line of harnesses designed to optimize worker safety, comfort and productivity.

X300

X200

X100

Available in the following styles in each series:

Vest

Construction Weight Distribution*

Tower Climbing

Wind Energy**

Retrieval

Oil and Gas

3M

*X100 and X300 only | **X200 and X300 only

3M™ DBI-SALA® ExoFit™ X-Series: Patented Features

3M Patented Solutions developed for customer-centric priorities.

Revolving Torso Adjusters*

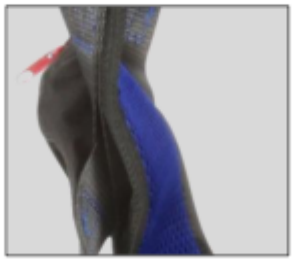
Does not allow webbing to slip out of adjustment unintentionally.

X300 | X200 | X100**

Personal SRL Adapter*

Connect personal SRLs to harnesses with confidence and ease.

X300 | X200 | X100



Suspension Trauma Relief Straps*

Integrated low-profile design between harness webbing—the first step to enhancing rescue plans.

X300 | X200 | X100

Anti-Slide Dorsal D-ring Pad

Helps greatly reduce dorsal D-ring slide with increased webbing contact.

X300 | X200 | X100

Weight Distribution System*

Relieve shoulder stress and fatigue by redistributing weight away from the shoulders and spine.

X300 | X100****

Automatic Stand-Up Dorsal D-ring*

Conveniently connect faster and easier vs. industry standard 'non-stand-up' dorsal D-rings. —enables efficient dorsal D-ring connections.

X300 | X200**

Auto-Locking Quick-Connect Buckles*

Secure-fitting buckle helps maintain fit, greatly reduces buckle slide.

X300**

Dual-Locking Quick Connect Buckles*

Locking mechanism secures buckles in place to maintain comfortable harness fit.

X200**

*3M Patented technology | **Available on select models

Fall Protection
For Tools

Fall Protection for Tools

Fall Protection for humans is about **you.**
Fall Protection for Tools is about **those around you.**

Why care?

Safety

- Death
- Injury

Productivity

- Work Stop
- Retrieval

Systems

- Downtime
- Maintenance Cost

3M | DBI SALA Fall Protection for Tools

Use the right tool for the job

Attachment Points

Tethers and Lanyards

Wristbands

Holsters

Pouches

Belts

Buckets

Dropped object prevention planning

- Important to have a plan to devise solutions to address objects/assets/tools at your site
- As leaders in fall protection and dropped object prevention we are here to assist you in developing a site specific plan

Legislation and Regulations

- No CSA standard exists currently
- US – ANSI/ISEA 121-2018, 125-2014 & OSHA
- Provincial legislation
  - Ontario
    - Occupational Health & Safety Act RSO 1990 (December 2016)
    - Regulation 851 Industrial Establishment and Construction Projects Ont Reg 213/91
      - Duties of workers….use or operate any equipment, machine, device or thing or work in a manner that may endanger himself, herself or any other worker
      - Material, articles or things shall be lifted, carried or moved in such a way and with such precautions and safeguards, including protective clothing, guards or other precautions as will ensure that the lifting, carrying or moving of the material, articles or things does not endanger the safety of any worker

2022 Webinar Series

		Leading Edge	Dropped Objects	Challenging Tie-Offs	Confined Space	3M Fall Innovations
English Sessions	Date	April 12	May 19	June 8	July 20	September 14
	Time	1pm EST	1pm EST	1pm EST	1pm EST	1pm EST
French Sessions	Date	April 14	May 26	June 14	July 21	September 15
	Time	1pm EST	1pm EST	1pm EST	1pm EST	1pm EST

Canadian Sessions:

- English sessions: https://engage.3m.com/FallProtectionWebinarsCA
- French sessions: **https://engage.3m.com/FRFallProtectionWebinarsCA**
- Register for each session at individual links
- Automated email will be received upon form submission with link to add the session to your calendar

Sessions Overview

1. Leading Edge Awareness – 1 hour
   Understanding the hazards and knowing the standards helping workers better recognize and avoid the hazards of working at height—including the specific risks associated with sharp and leading edges.

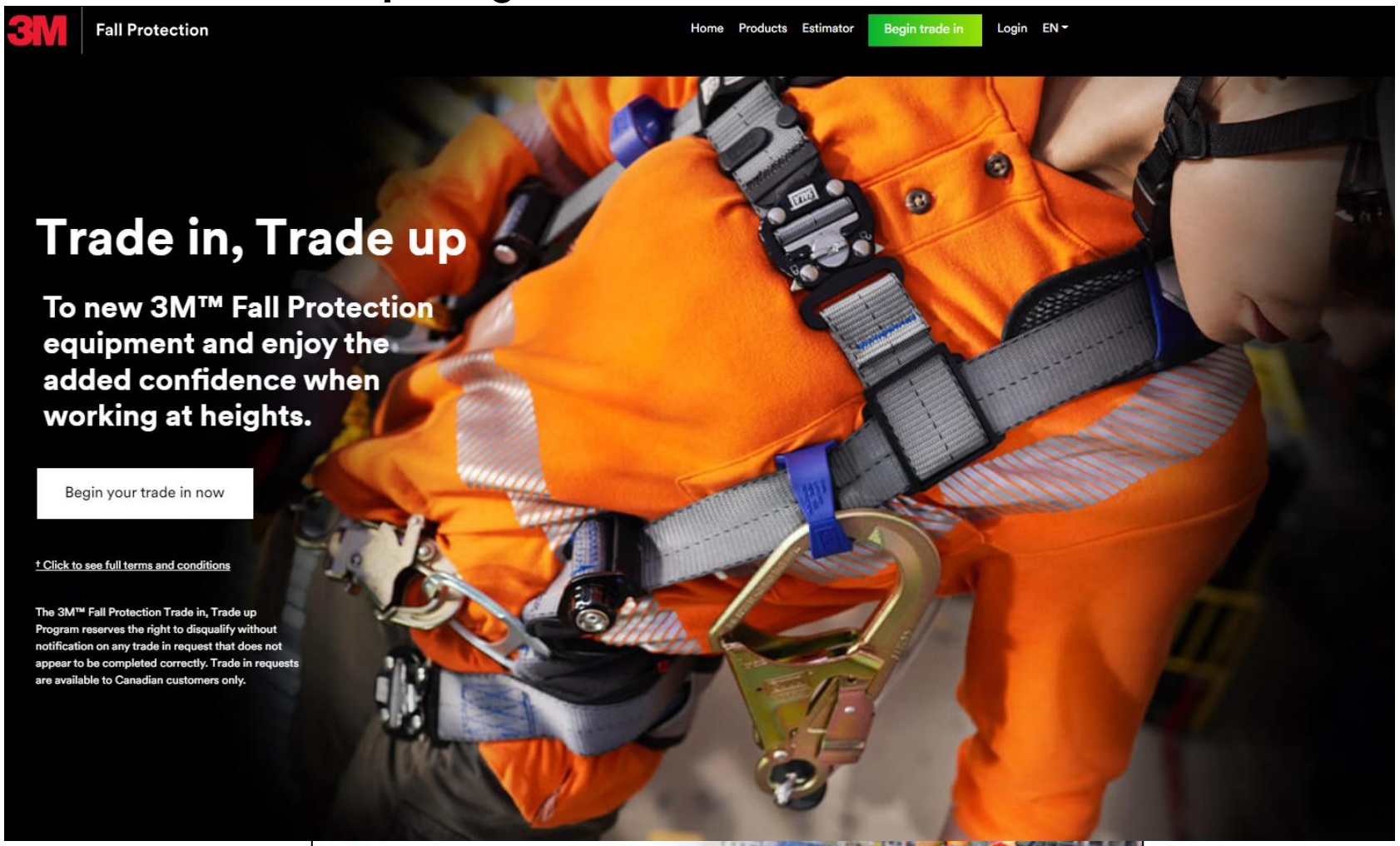
2. Dropped Objects Awareness – 1 hour
   Almost everyone has dropped a tool or seen a tool dropped on a jobsite. This session will highlight the importance of fall protection for our tools which can help protect other people, increase productivity, and keep our property safe and secure.

3. Challenging Tie-Offs – 1 hour
   During this webinar we will define what challenging tie-offs are and their applicable standards, show common worksite application examples, and walk through a blueprint of how to address these unique challenges.

4. Confined Space Awareness – 1 hour
   Confined spaces can be an extremely dangerous work environment, and when a worker inside becomes incapacitated, the need for proper, efficient, and effective emergency response is critical. Attendees are introduced to the General Construction Confined Space Standards, Leadership and rescuer roles, Hazards to be aware of and Entry, Working, and Rescue Solutions.

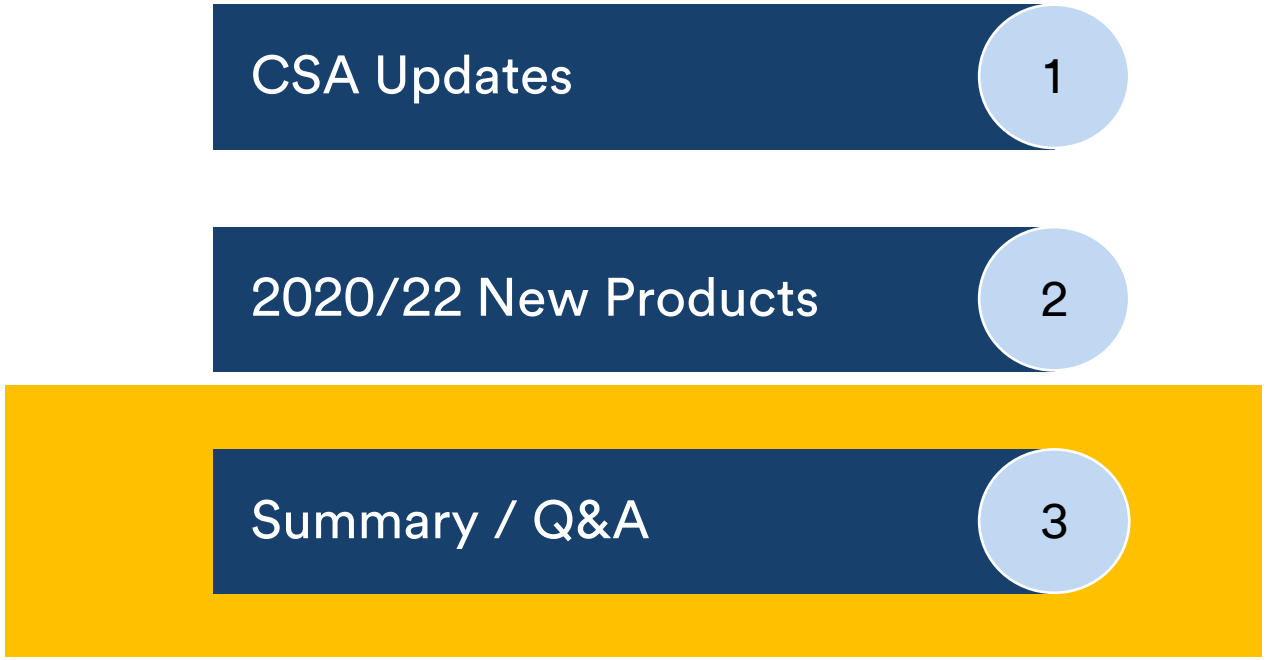
5. 3M Fall Innovations – 1 hour
   This session will explore the history of 3M Fall Protection and how feedback from our end-users and emerging technologies have shaped our fall protection offering.

3M Fall Protection:
Trade In / Trade Up Program



Watch the instructional video here.

Agenda



Summary

Key changes to several of the CSA standards that will affect the marketplace:

- SRL classes & revalidation timelines
- Class SRL-LE requires tie off below dorsal d-ring
- Energy Absorbers have new weight classes
- Class R – Arc Flash for F.B.H
- Ropes & Rope grabs, must work together, 30” max. lanyard

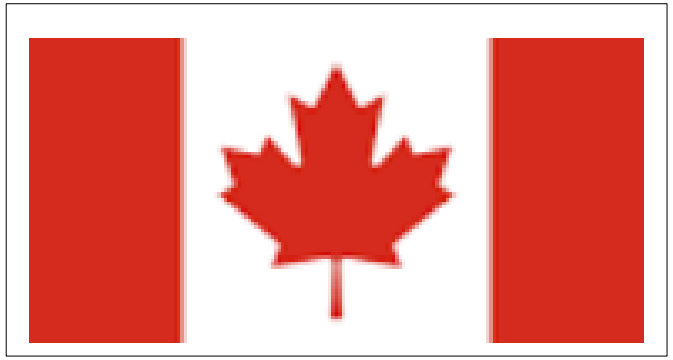
New Product Launches:

- 3M™ DBI-SALA® Nano-Lok™ SRL: Next Generation
- 3M™ DBI-SALA® Modular Unit Standard
- 3M™ Fall Protection Configurator
- 3M™ DBI-SALA® Fixed Ladder SRL Anchor
- New Integrated Suspension Trauma Straps

Summary

Key programs / assets:

- Trade-in / Trade-up program
- STS Integration
- Configurator AR App
  - 9 Fall Protection Specialists
  - Bilingual customer service support:
    - 1 800 387 7484 / 3mfallprotection-ca@mmm.com
  - Technical Department:
    - 1 800 387 7484
  - Town Square: www.3m.ca/townsquare




3M
Science.
Applied to Life.™
Thank you
Trevor Stein – Fall Protection Specialist
Jon Tenn – Regional Safety Specialist
Rachel McCormack – Regional Safety Specialist