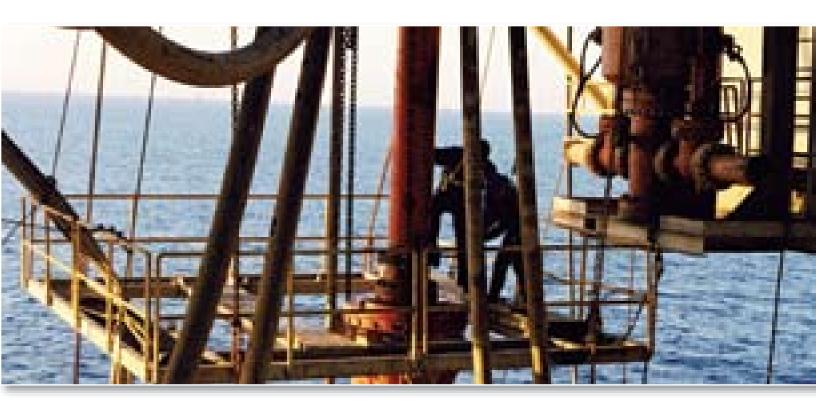


Fall Protection For the Oil and Gas Industry



FROM THE WORLDWIDE





















OIL AND GAS

This industry specific catalog is dedicated to keeping oil and gas workers safe while on the job!

Fall protection is a complicated issue and one of the most important faced by an employer or worksite supervisor. With over 100,000 reported incidents per year, falls from heights almost always result in serious injury. In the oil and gas industry, lack of proper fall protection can have serious consequences, even death.

Contents

Oil & Gas Applications

• Climbing the Derrick Ladder	4-5
• Monkey/Tubing Board & Basket Work	6-7
• Raising Operations, Escape & Rescue	8-9
• General Maintenance Work/Rig Up & Rig Down	10-11
• Maintenance & Servicing on Pipe Racks	12-13
• General Maintenance/Operations	14-15
• Shut Downs & Confined Space	16-17
The i-Safe™ Intelligent Safety System	18-19
Full Body Harnesses & Body Belts	20-27
Lanyards	28-33
Anchorages and Anchorage Connectors	34-37
Vertical Systems	38-39
Self Retracting Lifelines	40-43
Horizontal Lifelines	44-47
Confined Space Entry, Rescue	40 F2
& Descent Equipment	48-53
PROTECTA Line	54-59
DBI-SALA Training & Consulting	60-61
Standards Summary	62-65
Notes	66-67

USA 651.388.8282

www.capitalsafety.com

Canada 905.795.9333

DBI-SALA & PROTECTA

Leaders in Oil and Gas Industry Fall Protection

Meeting oil and gas challenges

We understand that there is no more diversified work environment than in the Oil and Gas Industry. Not only is it constantly changing as the work progresses and technology evolves, but the industry itself is always innovating with new procedures and materials that present new challenges for your fall protection plan.

Oil and gas employees work in multiple scenarios where safety is always foremost on the job. These environments are specialized and multi-disciplined, demanding a full range of fall protection solutions to meet the needs of a variety of workplaces. That is why employers turn to Capital Safety, the makers of the two leading industry brands DBI-SALA & PROTECTA for industry expertise, superior quality products and continual systems innovation.

While both brands operate with a similar commitment to safety and quality, each brand has its own brand promise. DBI-SALA, which represents the ultimate in fall protection for any work environment, is supported by a commitment to Excellence, Innovation and Broad Range. PROTECTA represents fundamental fall protection at an exceptional value and is supported by a commitment to Reliability, Quality and Economy. The combination of the two brands provides our customers access to two great lines that serve the fullest range of product and value requirements.

A reputation for innovation

Many companies are generalists in safety, but Capital Safety is the only global company that has always been dedicated entirely to fall protection and rescue.

Our ISO 9001-2000 certification drives superior engineering, quality manufacturing and unparalleled customer services. Our design and engineering teams excel at finding the best way to keep workers totally safe and comfortable.

We have the industry's:

- Highest number of engineers
- Largest patent portfolio with over 180 patents
- Greatest number of industry firsts

Combining experience and knowledge with state-of-the-art outdoor and indoor testing procedures, we produce the most technologically advanced safety equipment in the world. This equipment exceeds both national and international standards, including OSHA, ANSI, CSA and CE. We call it "creating a higher standard of safety."

Your partner in safety

Our service doesn't end with the sale. We understand the oil and gas industry and your precise fall protection needs. The highly trained professionals at Capital Safety educate, train and provide extensive long term support to ensure that all aspects of your fall protection program are successful. Whether you choose DBI-SALA or PROTECTA you can be assured that all the demands the oil and gas industry places on you are met head on with safety leading the way.

The A, B, C's of Personal Fall Protection

DBI-SALA & PROTECTA offers a complete array of passive and active fall arrest systems. The basics of every personal fall arrest system can be described as the ABC's of fall arrest.

ANCHORAGE

Anchorage means a secure point of attachment (structure) for the fall arrest system. The type of anchorage varies with the industry, the job being performed, the type of installation and the structure available. The anchorage connector provides a means of attaching the system to the anchorage (structure).

BODY SUPPORT

Full body harnesses provide a connection point on the worker for the personal fall arrest system. Depending on the application, they can be used as part of a system to protect the worker from falling and to limit the extent of potential injury in case of a fall.

CONNECTORS

Connectors are devices used to connect the worker's full body harness to the anchorage system. Connectors include lanyards, snap hooks, carabiners, deceleration devices and specialty systems such as self retracting lifelines, ladder climbing systems, vertical lifelines and rope grabs.

DESCENT/RESCUE

Rescue and retrieval of a fallen worker is a required component of any Fall Protection Program.









DBI-SALA & PROTECTA—your one-stop for the most comprehensive collection of innovative fall protection products for the oil & gas industry!



Drilling/Servicing Rigs Applications

CLIMBING THE DERRICK LADDER

Fall protection challenges

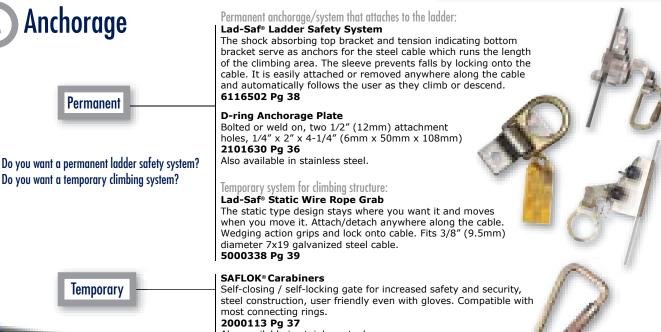
- Workers, specifically the derrickhand, are required to climb the derrick ladder to access different areas of the rig for servicing, tripping operations and during rig up and down operations. Many climbs per day in excess of 100 feet each are typical.
- The ladder can be greasy, encrusted in ice, or very narrow with uncomfortable rungs, all of which could lead to a slip or fall.
- Depending upon the style of rig, there is also often offset ladders requiring workers to climb from one fixed ladder to another at height. If the fall protection system does not provide convenient protection during this transition, a worker may ignore its use or be put in a position where a fall is possible.
- Workers are also often in a hurry, tasks are done throughout the night and in all weather conditions, multiplying the chance of a fall or
- Finally, the transition from the derrick ladder to the monkey board, rod basket, or other areas of the derrick should be considered when selecting the appropriate fall arrest system for climbing the ladder.





Do you want a temporary climbing system?

Also available in stainless steel.





High Performance

Standard

Fundamental

What level of quality and durability do you require in a full body harness?

For ultimate comfort, performance and durability:

ExoFit™ XP Vest Front D-ring Harness

Removable shoulder, back and leg padding with breathable 3-D mesh lining makes this harness the ultimate in comfort and safety. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Stand-up back D-ring enables connections to be made without straining. Features back and front D-ring ideal for ladder safety systems and quick connect buckles. **1110202** (Not available in Canada) **Pg 23**

ExoFit™ Vest Front D-ring Harness

ExoFit™ incorporates built-in shoulder, back and leg padding with a breathable lining that draws moisture away from the body, keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features back and front D-ring ideal for ladder safety systems and quick connect buckles. **1108527** (1108527C in Canada) **Pg 23**

For reliable, workhorse performance:

Delta™ II Cross-Over Style Harness

Unique Delta™ pad design provides comfort and holds the shape of the harness for fast no-tangle donning. Stand-up back D-ring enables connection to be made without straining. Features front (ideal for ladder climbing) and back D-rings, tongue buckle leg straps. 1102950 (1102950C in Canada) Pg 27

For compliance at the lowest possible price:

PRO™ Climbing Harness

For economical reliability, PRO™ harnesses provide fundamental features in a comfortable fit. Built-in impact indicators and global standards in one harness model aid in maintaining compliance. Features front and back D-rings, tongue buckle leg straps.

AB13313 Pg 55

Connectors

Is the structure you are climbing long in length?

Non-Assisted

Do you want assistance climbing?

Assisted

For non-assisted climbing on a ladder or other structure:

Sealed Self Retracting Lifeline

Environmentally sealed design for the ultimate in durability and corrosion resistance features 130 ft. (30, 50, 85 and 175 ft models available) of 3/16" stainless steel cable, swiveling hook with impact indicator and a reserve lifeline. **3403601** (3403601C in Canada) **Pg 43**

ShockWave2™ Shock Absorbing Lanyard

Expands to 6 ft. (1.8m) and contracts to 4-1/2 ft. (1.4m) Reduces dragging and snagging for more freedom of movement. Twin-leg 100% tie-off style helps you remain connected at all times. Built-in D-ring allows you to use with self retracting lifeline. Variety of hook options to meet your work site needs. Impact indicator allows user to visually inspect unit for a fall. **1244456** (Not available in Canada) **Pg 32**

For assisted climbing on a ladder or other structure:

SSB Climb Assist System

The climb assist system with external counterweight aids workers and provides fall protection while climbing lengthy ladders and towers. It is ideal for use on land-based and offshore drilling platforms where environmental and work conditions can make climbing ladders hazardous, and the unlimited length of the system makes it ideal for use in any environment. **3511063 Pg 38**

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety representative for more detail.

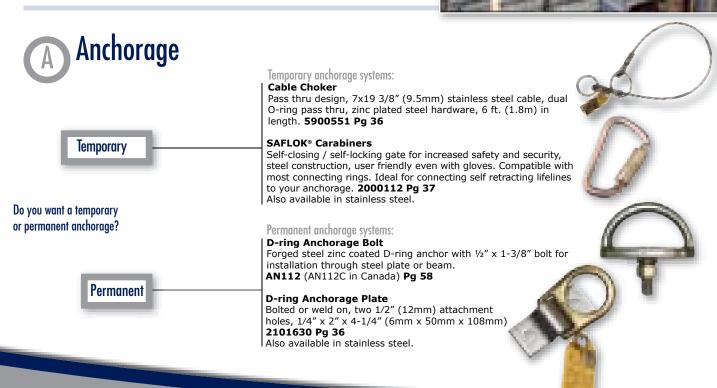


Drilling/Servicing Rigs Applications MONKEY/TUBING BOARD & BASKET WORK

Fall protection challenges

- The derrickhand is likely exposed to the greatest risks of any worker with regard to falling on a drilling rig. The majority of these hazards are while on the board or in the basket. Ensuring that they have a comfortable positioning system as well as backup fall arrest system is paramount.
- Accessing from the derrick ladder to the board or basket also exposes these workers to a fall. 100% fall protection is critical to ensure that should a worker slip or neglect to install the fall restraint lanyard, the fall will be arrested.
- Workers must be vigilant to ensure that fall protection systems do not interfere or get caught up in the draw-works or elevators as tripping operations are in progress.
- Systems should be designed and installed to minimize swing fall and free fall wherever possible.
- A comfortable harness and system that does not interfere
 with smooth operations is critical as the derrickhand can
 be on the board for an entire shift. This is multiplied with
 weather extremes such as wind, snow, excess heat, humidity, rain and sleet.
- Other considerations are ensuring that the systems installed provide protection when a stand is dropped across the derrick, or when rigging up/down the wind board, and during emergency escape.





Body Support

What level of quality and durability do you require in a full body harness?

High Performance

Standard

For ultimate comfort, performance and durability:

ExoFit™ Derrick Harness with Seat Sling $\mathsf{ExoFit}^{\mathsf{TM}}$ incorporates built-in shoulder, back and leg padding with a breathable lining that draws moisture away from the body, keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features mating buckles on chest area to connect to derrick belt (model 1000570 - photo shows harness with belt), back D-ring with 18" (46cm) extension, belt with back D-ring, seat sling with positioning D-rings and tongue buckle leg straps.

1100302 (1100302C in Canada) Pg 24

For reliable, workhorse performance: Delta™ II Derrick Harness with Seat Sling Delta No-Tangle® design for added comfort and easy donning. Features a front D-ring ideal for ladder climbing and rescue, back D-ring with 18" (46cm) extension, belt with back and side D-rings and tongue buckle leg straps.

1106106 Pg 25

Delta™ II Cross-Over Harness

Delta No-Tangle® design for added comfort and easy donning. Features a front D-ring ideal for ladder climbing and rescue, back D-ring with 18" (46cm) extension, belt with back and side D-rings and tongue buckle leg straps.

1106375 (1106375C in Canada) Pg 27



Derrick Belts

These unique and specialized derrick belts are designed for personnel performing work on the monkey or tubing board. They provide the worker with fall protection and comfort with the large frontal pad while leaning outward and positioning for the next drilling pipe. They incorporate tongue buckle adjustment, pass thru or tongue buckle type connection to the harness, and two fixed front rings to run the positioning lanyard through. Model 1000570 shown attached to harness, other models available. Pg 25 (Not available in Canada)



Corrosive Environment

Is your work performed in a corrosive or standard environment?

Standard Environment

Do you require fall arrest and positioning?

Positioning Only

Fall arrest device for offshore applications:

Sealed Self Retracting Lifeline

Environmentally sealed design for the ultimate in durability and corrosion resistance features 30ft. (50, 85, 130 and 175 ft models available) of 3/16" stainless steel cable, swiveling hook with impact indicator and a reserve lifeline. **3400800** (3400800C in Canada) **Pg 43**

Fall arrest device for land based applications:

Ultra-Lok® Self Retracting Lifeline

Device features a swiveling anchor loop, corrosion resistance stainless steel working components and a 30' (9m) galvanized cable lifeline. For added safety, it includes a swiveling hook with impact indicator and a reserve lifeline.

3504430 (3504430C in Canada) Pg 42

Also available in 20' (6m), 50' (15m) and 85' (26m) lengths.

Heavy Duty Compact Self Retracting Lifeline

Compact, lightweight and very rugged aluminum housing design. 11 ft. (3.3m) galvanized cable 3/16" (5mm) lifeline with an anti-ratcheting, self adjusting disk brake system.

3506000 (3506000C in Canada) Pg 43

Positioning device for monkey board work:

Rope Positioning Lanyard

Used to maintain a working position on the monkey board, restricting movement at the edge, 15 ft. (4.5m) polyester rope lanyard with snap hooks at each end. Other lengths available.

1232402 (1202403C in Canada) Pg 33

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety representative for more detail.





Drilling/Servicing Rigs Applications

RAISING OPERATIONS, ESCAPE & RESCUE

Fall protection challenges

- There are a number of procedures and situations where workers could be exposed to extreme hazards and dangers while at height. Taking precautions and ensuring that equipment and systems are available to mitigate the risks is paramount.
- Although many rigs have man-rated air hoists or winches, the majority do not. Workers being raised on non-man-rated devices could be exposed to entanglement hazards, and these hoists are strong enough to pull a worker apart. A simple distraction or communication problem could lead to serious injury. Not implementing a device or system that slips or removes this risk is dangerous.
- Likely the most dangerous and unwelcomed event that can occur on a rig is a blowout and/or fire/explosion. Although many precautions are taken and procedures are in place to minimize their chances, escape systems must be in place in there event. A system that provides controlled descent in the event of unconsciousness or injury should be positioned in a location for safe and easy access. It must provide positive locking once connected, which is critical for the safety of the worker in an emergency or life threatening situation. Ease of set up, the ability to modify the slope of the descent and a system that is easy to use and maintain is a priority during selection.
- Many situations can occur on a rig when a worker at height may require rescue. This may include injuries such as pinches and crushing, broken bones, and heat and cold exposures. Heart attack or other medical issues should also be considered. Finally, rescue following fall arrest must also be considered and planned for. Equipment that is easy to set-up, use and provides a safe mechanical advantage is recommended.







What level of quality and durability do you require in a full body harness for raising/lifting operations?

High Performance

Standard

For ultimate comfort, performance and durability?

ExoFit™ XP Tower Climbing Harness

Stand-up back D-ring with impact indicator, tongue buckle body belt with hip pad and side D-rings. Removable shoulder, back, and leg padding, seat sling with positioning D-rings. 3-D mesh lining with soft edging for comfort. Quick-connect buckles.

1110302 (1110302C in Canada) Pg 23

ExoFit™ Tower Climbing Harness

Built-in shoulder, back, and leg padding with mesh lining and soft edging for comfort. Tongue buckle body belt with hip pad and side D-rings. Front and back D-ring, seat sling with positioning rings, and quick-connect buckles. **1108652** (1108652C in Canada) **Pg 23**

For reliable, workhorse performance:

Delta™ II Bosun Chair Harness

Vest style with back D-ring with 18" (46cm) extension, tongue buckle body belt with pad and side D-rings, seat board with suspension D-rings for added support and comfort, tongue buckle leg straps.

1108125 (1108125C in Canada) Pg 26

Boatwain's Chair

Complete with integrated cushion for comfort for extended use and side snaps to hang equipment/tools from is ideal for raising/lifting operations. 1001190 Pg 25





Suspension Trauma

In its simplest form, suspension trauma is where an individual hangs in a harness in a vertical or near vertical position without moving their legs, and as such, blood begins to pool in the lower extremities, because the muscles in the legs are not contracting on the veins and helping the blood back to the heart (against gravity). Blood is not properly circulated, the individual's blood pressure drops, the brain does not receive adequate blood flow and unconsciousness follows, sometimes death. DBI-SALA's suspension trauma safety strap allows the suspended worker to stand up in their harness to relieve pressure. 9501403 (9501403C in Canada) Pg 22



Escape

Are you escaping from the rig at heights?

For escape applications: Rollgliss® Descent Systems

Device will get personnel down safely from high places, available in either angled or sloped models providing complete versatility and flexibility. Extremely easy to operate and use, no power source or special skills or tools are required – just hook-up and go! 3303000 Pg 53

For rescue applications:

Rollgliss® R350 Rescue System

50 ft. (15m) rope rescue system provides efficient hauling, but more importantly very controlled lowering. The system allows you to change the hauling ratios on the fly with quick release hardware, making the system very versatile. Complete with Rollgliss® and rope control device, anchor sling and carrying bag. Various lengths and pulley ratios are available. **8902004 Pg 52**

Rollgliss® Rescue Kit

Designed for the rescue of a worker left suspended at height after a fall. It provides a safe, reliable and cost effective packaged rescue solution and is easy to operate, no specialized tools, extensive rescue skills or power source required. Lightweight and portable, everything is contained within the carrying bags and available in 33 ft (10m), 66 ft (20m) and 99 ft. (30m) lengths.

8900292 Pg 52

Are you rescuing a fallen worker?

Rescue

For raising or lifting a worker: Tension Limiter

Unique safety mechanism is designed to be mounted in-line between the person and the raising/lowering winch line. Should the person being raised become entangled, the Tension Limiter device will begin to pay out a high visibility lifeline (BRIGHT YELLOW) warning the operator and limiting the forces on the worker. The winch operator would stop the raising operations immediately and free the entangled person. 5900177 Pg 53

For back-up fall arrest system:

Ultra-Lok® Self Retracting Lifeline

Device features a swiveling anchor loop, corrosion resistance stainless steel working components and a 30' (9m) galvanized cable lifeline. For added safety, it includes a swiveling hook with impact indicator and a reserve lifeline.

3504430 (3504430C in Canada) Pg 42

Also available in 20' (6m), 50' (15m) and 85' (26m) lengths.



Raising

Are you raising a worker on a hoist line?

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety representative for more detail.

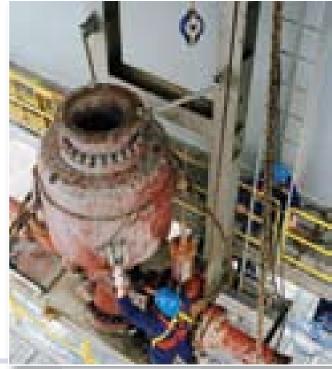


Drilling/Servicing Rigs Applications

GENERAL MAINTENANCE WORK/RIG UP & RIG DOWN

Fall protection challenges

- Workers are required to do a variety of maintenance and servicing operations throughout the rig at height, including changing light bulbs, working on the BOP's, greasing motors and pulleys as well as installing lines and pins. Some work may be at heights of only a few feet within the substructure or hundreds of feet up to the crown of the rig.
- Rigging up and down prior to and following drilling operations often exposes workers to many more uncommon fall hazards. This is often due to the fact that many rigs are in one location for many months at a time and workers are unfamiliar with move procedures. Further, much of the guarding and systems in place are removed during these procedures so other protection must be considered and implemented.
- Many of these tasks also require workers to carry tools and have both hands free to perform their duties, so positioning equipment must be implemented. Considerations should be made on your harness for storing and tying back tools as well as D-ring location for positioning.





Do you require horizontal mobility or is the work fixed in one location?

For fixed work in one location:

Tie-Off Adaptor

Pass thru design provides a safe and easy way to anchor a fall protection device to an overhead location. 1-3/4" (44mm) polyester strap, 3" (76mm) wear guard, zinc plated steel hardware.

1003000 Pg 36

Cable Choker

Pass thru design, 7x19 3/8" (9.5mm) stainless steel cable, dual O-ring pass thru, zinc plated steel hardware, 6 ft. (1.8m) in length. **5900551 Pg 36**

Fixed Beam Anchor

Installs in seconds to the beam structure, with final tightening using a built-in adjustment handle. Attach it to the beam structure in any orientation or direction for added versatility. **2108406 Pg 37**

SAFLOK® Carabiners

Self-closing / self-locking gate for increased safety and security, steel construction, user friendly even with gloves. Compatible with most connecting rings. Ideal for connecting self retracting lifelines to your anchorage. 2000112 Pg 37
Also available in stainless steel.

For horizontal mobility during general maintenance duties:

EZ-Line™ Horizontal Lifeline System

Retractable 60 ft. (18m) horizontal system is the fastest and easiest to install system on the market. The cable lifeline is neatly stored in an easy to carry case. It is compact and lightweight, and can attach to any 5,000 lb. rated anchorage point.

7605060 (7605063, 40 ft. [12.2m] in Canada) **Pg 47**

Portable Mast & Base System

The bases can be welded into place anywhere along the platform flush with the decking, the mast is slid into the base. The system provides a tie-off point for your self retracting lifeline for 360 degrees of mobility or a lanyard.

8000050 and 8000051 Pg 37





High Performance

What level of quality and durability do vou require in a full body harness?

For ultimate comfort, performance and durability:

ExoFit™ XP Vest Style Harness

Removable shoulder, back and leg padding with breathable 3-D mesh lining makes this harness the ultimate in comfort and safety. The padding is constructed in the shape of an "X that wraps around you for no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back D-ring and quick connect buckles.

1110102 (1110102C in Canada) Pg 23

ExoFit™ Vest Style Harness ExoFit™ incorporates built-in shoulder, back and leg padding with a breathable lining that draws moisture away from the body keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features back D-ring and quick connect buckles. **1107977** (1107977C in Canada) **Pg 23**

Standard

For reliable, workhorse performance:

Delta™ II Vest Style Harness

Unique Delta™ pad design provides comfort and holds the shape of the harness for fast no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back D-ring, tongue buckle leg straps.

1102000 (1102000C in Canada) Pg 26

Fundamental

For compliance and value: **PRO™ Vest Style Harness**

For economical reliability, PRO™ harnesses provide fundamental features in a comfortable fit. Built-in impact indicators and global standards in one harness model aid in maintaining compliance. Features back D-ring, pass thru buckle leg straps.

AB10113 Pg 55



Connectors

How much mobility does the worker require?

More Mobility

Less Mobility

For more than 6' of mobility:

Talon® Self Retracting Lifelines

Compact and lightweight design features 8' (2.4m) nylon webbing lifeline. The brake system incorporates all metal components for durability. A unique quick-connect handle for direct attachment to the anchorage or harness sets this unit apart. It also includes an impact indicator for added safety. 3101001 (3101001C in Canada) Pg 43

Ultra-Lok® Self Retracting Lifeline

Device features a swiveling anchor loop, corrosion resistance stainless steel working components and a 30' (9m) galvanized cable lifeline. For added safety, it includes a swiveling hook with impact indicator and a reserve lifeline. 3504430 (3504430C in Canada) Pg 42 Also available in 20' (6m), 50' (15m) and 85' (26m) lengths.

Sealed Self Retracting Lifeline

Environmentally sealed design for the ultimate in durability and corrosion resistance features 30 ft. of 3/16" stainless steel cable, swiveling hook with impact indicator, reserve lifeline and carrying handle.

3400801 (3400801C in Canada) Pg 43

For less than 6' of mobility:

WrapBax™2 Tie-Back Shock Absorbing Lanyard

The WrapBax[™]2 is specifically designed for tie-back use-eliminates the need for a separate anchorage connector, reduces inventory and cost, simplifies inspections and worker training and improves compliance. Double leg 100% tie-off model shown, single-leg versions also available.

1242003 (1222003C in Canada) Pg 32

ShockWave2™ Shock Absorbing Lanyard

ShockWave2™ shock absorbing lanyards are stretchable for complete freedom of movement. They expand to 6' (1.8m) and contract to 4-1/2' (1.4m) in reaction to your movements, reducing trip hazards. 100% tie-off twin leg version to remain connected at all times. 1244412 (1224412C in Canada) Pg 32

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety . representative for more detail.



Resist Technology Provides Ultimate Protection

We've added Resist Technology to two of our most popular lines of products, Delta™ II harnesses and EZ-STOP®II shock absorbing lanyards. These products incorporate webbing with an extruded polyurethane coating providing protection against the elements, easy care and added durability. The specialized coating provides superior protection against grease, oil, dirt and grime, simply wiping clean in seconds. It also deflects debris that causes abrasion and makes the webbing cut and tear resistant for extended service life and lower overall cost of ownership.

1110930 Delta™II Harness (1110930C in Canada) Pg 26, and 1240850 EZ-Stop®II Shock Absorbing Lanyard (1220850C in Canada) Pg 31







Refineries Applications

MAINTENANCE AND SERVICING ON PIPE RACKS

Fall protection challenges

- Pipe racks run for miles through many plants and require workers to access areas for servicing, inspection and installation. Some multi-tiered racks can be as much as 50 feet in height.
- Lower racks also have their own hazards as equipment must be selected to ensure workers do not hit the ground during fall arrest due to minimal clearance available.
- Moving from one level to the next, working along the rack at height and initial access and egress are considerations which may require multiple solutions and equipment for adequate 100% protection.
- Compelling environmental issues such as ice, snow or rain can be associated with pipe racks. In addition, many are jammed packed with piping making maneuvering almost impossible.
- Finally, situations such as welding or cutting may require specialized fall arrest equipment along with the unique procedures for the operation.





Do you require horizontal mobility or do you require fixed connection work?

Fixed

Horizontal

For fixed connection work:

Tie-Off Adaptor

Pass thru design provides a safe and easy way to anchor a fall protection device to an overhead location. 1-3/4" (44mm) polyester strap, 3" (76mm) wear guard, zinc plated steel hardware. 1003000 Pg 36

Fixed Beam Anchor

Installs in seconds to the beam structure, with final tightening using a built-in adjustment handle. Attach it to the beam structure in any orientation or direction for added versatility. 2108406 Pg 37

For horizontal mobility:

Sayfline™ Horizontal Lifeline System

Durable and lightweight horizontal system that utilizes easy to adjust wedge grip termination for easy installation. **7602060 Pg 47**

SecuraSpan® Portable Horizontal Lifeline System

The lightweight and economical SecuraSpan® systems are designed for single or multiple spans and can accommodate many beam sizes. **7400160 Pg 46**

Glyder2™ Sliding Beam Anchor

For complete horizontal mobility, the Glyder2™ effortlessly slides across the beam following you as you work. **2104700 Pq 37**







What level of quality and durability do you require in a full body harness?

High Performance

Standard

Fundamental

For ultimatecomfort, performance and durability:

ExoFit™ XP Positioning Harness

Removable shoulder, back and leg padding with breathable 3-D mesh lining makes this harness the ultimate in comfort and safety. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back & side D-rings and quick connect buckles. 1110227 (1110227C in Canada) Pg 23

ExoFit™ Positioning Harness

ExoFit[™] incorporates built-in shoulder, back and lea padding with a breathable lining that draws moisture away from the body keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features back and side D-rings and quick connect buckles. 1108577 (1108577C in Canada) Pg 23

For reliable, workhorse performance: Delta™ II Positioning Harness

Unique Delta™ pad design provides comfort and holds the shape of the harness for fast no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back & side D-rings, tongue buckle leg straps.

1102008 (1102008C in Canada) Pg 26

For compliance and value:

PRO™ Positioning Harness

For economical reliability, PRO™ harnesses provide fundamental features in a comfortable fit. Built-in impact indicators and global standards in one harness model aid in maintaining compliance. Features back & side D-rings, pass thru buckle leg straps. AB11123 Pg 55

EZ-Line™ Horizontal

EZ-Line™ is the most user friendly and fastest horizontal lifeline system to install, remove and store on the market today! EZ-Line's™ innovative retractable design allows the user to quickly and efficiently set-up any length of system in only seconds and dismantle it just as quick. The entire 60 ft (18m; 40 ft. [12.2m] in Canada) EZ-Line™ system is retracted into an easy to carry case which eliminates large and bulky coils of cable that are difficult to set-up, relocate and store. Additionally, EZ-Line™ weighs only 25 lbs. which is 33% lighter than traditional systems providing ease-of-use and added worker satisfaction. After installation the worker(s) is able to attach to the cable lifeline with their fall arrest system and begin work, fully protected. EZ-Line™ will provide 2 users per span, up to 6 users per system, complete horizontal mobility and hands-free fall protection. 7605060 (7605063 in Canada) Pg 47

Connectors

For 100% tie-off:

EZ-Stop® II Shock Absorbing Lanyard

Double-leg 100% tie-off design. Pack style shock absorbing lanyard with 1" (25mm) webbing and snap hooks. 1240406 (1220406C in Canada) Pq 31

WrapBax™2 Tie-Back Shock Absorbing Lanyard

The $WrapBax^{TM}2$ is specifically designed for tie-back use - eliminates the need for a separate anchorage connector, reduces inventory and cost, simplifies inspections and worker training and improves compliance. Double-leg 100% tie-off model shown, single-leg versions also available.

1242003 (1222003C in Canada) Pg 32

Twin-Leg Talon® Self Retracting Lifeline

Provides 100% tie-off with two independent 6' (1.8m) web lifelines. Offers added mobility and safety when moving along a structure. A unique quick-connect handle, Delta™ Comfort Pad and two lanyard keepers for direct attachment to the harness sets this unit apart. Complete with an impact indicator and mul-

tiple hook options. 3102000 Pg 43

For standard tie-off:

Talon® Self Retracting Lifeline

Compact and lightweight design features 8' (2.4m) nylon webbing lifeline. The brake system incorporates all metal components for durability. A unique quick-connect handle for direct attachment to the anchorage or harness sets this unit apart. It also includes an impact indicator for added safety.

3101001 (3101001C in Canada) Pg 43

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety representative for more detail.



Do you require single-leg or double-leg 100% tie-off?

Single-Leg





Refineries Applications

GENERAL MAINTENANCE/OPERATIONS

Fall protection challenges

- Corrective and preventative maintenance workers find themselves working in various environments, facing different challenges day to day. Routinely duties are performed at height where workers are climbing ladders, structures, tanks and stacks; often they can be 20 to 100 feet off the ground. Fall protection must be mobile, lightweight, portable and modular in order to adapt to different applications.
- Workers often find themselves in precarious situations during refinery expansion or general shutdown services. Whether the worker is erecting a new tower or dismantling a support structure, protection is always needed. In addition, greasy pipes and dark lighting among other environmental challenges can cause trip and slip hazards.
- Whether workers find themselves performing furnace or boiler repair, general rigging, fabrication support, flange facing, cold cutting or specialized welding at height, complications can occur. Specialized fall protection and rescue equipment is needed for specialized job tasks.





For fixed connection work:

Cable Choker

Pass thru design, 7x19 3/8" (9.5mm) stainless steel cable, dual O-ring pass thru, zinc plated steel hardware, 6 ft. (1.8m) in length.

5900551 Pg 36

Fixed

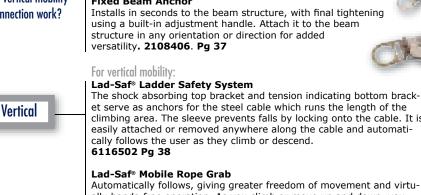
Kevlar® Tie-Off Adaptor Pass thru design provides a safe and easy way to anchor a fall protection device to an overhead location. 1-3/4" (44mm) Kevlar® strap ideal for welding or high-heat environments, zinc plated steel hardware, 6 ft. (1.8m) length. 1002202 Pg 36

Do you require vertical mobility or is it fixed connection work?

Fixed Beam Anchor

climbing area. The sleeve prevents falls by locking onto the cable. It is

Automatically follows, giving greater freedom of movement and virtually hands-free operation. As you climb or move up and down, you don't have to worry about the grab snagging all the time and hampering your productivity. This grab runs so smoothly, you'll forget it's even there. 5000335 (5000335C in Canada) Pg 39



Body Support

High Performance

Standard

Fundamental

What level of quality and durability do you require in a full body harness?

For ultimate comfort, performance and durability:

ExoFit™ XP Nomex®/Kevlar® Arc Flash Harness
Fire resistant Nomex®/Kevlar® materials with PVC coated hardware resists sparking and conductivity. Removable shoulder, back and leg padding makes this harness the ultimate in comfort. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. PVC coated back D-ring and pass thru buckles.

1110891 (1110891C in Canada) Pg 23

ExoFit™ Vest Style Harness

ExoFit™ incorporates built-in shoulder, back and leq padding with a breathable lining that draws moisture away from the body keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features back D-ring and quick connect buckles.

1107977 (1107977C in Canada) Pg 23

For reliable, workhorse performance:

Delta™ II Nomex/®Kevlar® Arc Flash Harness

Fire resistant Nomex®/Kevlar® materials with PVC coated hardware resists sparking and conductivity. PVC coated back D-ring and pass thru buckles.

1110830 (1110830C in Canada) Pg 26

For compliance and value: PRO™ Vest Style Harness

For more mobility

For economical reliability, PRO™ harnesses provide fundamental features in a comfortable fit. Built-in impact indicators and global standards in one harness model aid in maintaining compliance. Features back D-ring, pass thru buckle leg straps. AB10113 Pg 55

Ultra-Lok® Self Retracting Lifeline

Stainless steel working components, 20' (6m) galvanized wire with reserve lifeline, self-locking swivel hook, swiveling anchorage loop and impact indicator. Also available in 30' (9m), 50' (15m) and 85' (26m) lengths. 3504433 (3504433C in Canada) Pg 42

Heavy Duty Compact Self Retracting Lifeline

Compact, lightweight and very rugged aluminum housing design. 11 ft. (3.3m) galvanized cable 3/16" (5mm) lifeline with an anti-ratcheting, self adjusting disk brake system. 3506000 (3506000C in Canada) Pg 43

Provides 6' (1.8m) of mobility:

EZ Stop® II Kevlar® Shock Absorbing Lanyard

EZ Stop $^{\circ}$ II lanyards in Kevlar $^{\circ}$ webbing are tough. They feature flame-resistant Kevlar $^{\circ}$ webbing with a 800 $^{\circ}$ F (426 $^{\circ}$ C) char temperature. If you are welding or in a high temperature environment, you want the protection of Kevlar®.

1240558 (1220558C in Canada) Pg 31

ShockWave2™ Kevlar® Shock Absorbing Lanyard

Features flame-resistant Kevlar® webbing with a 800°F (426°C) char temperature. If you are welding or in a high temperature environment, you want the protection of Kevlar®. They expand to 6' (1.8m) and contract to 4-1/2' (1.4m) in reaction to your movements, reducing trip hazards. 100% tie-off twin leg version to remain connected at all times.

1244630 (Not available in Canada) Pg 32

WrapBax™2 Tie-Back Shock Absorbing Lanyard

The WrapBax™2 is specifically designed for tie-back use – eliminates the need for a separate anchorage connector, reduces inventory and cost, simplifies inspections and worker training and improves compliance.

1241906 (1221906C in Canada) Pg 32

Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety . representative for more detail.



Tanker Loading & Unloading The Portable Tanker Access

Ladder System (PTALS) is designed to provide safe access and fall protection for workers to elevated work areas such as tankers, rail cars and large platforms. Lightweight, yet rugged aluminum construction with optional wheel kits makes the system easy to move over uneven or all-terrain surfaces such as outdoor gravel lots and parking lots. These systems are available in numerous configurations including fall arrest or work positioning, and various adjustable working heights.



More than 6

Do you require extra protection while welding?

How much mobility does the worker require?

Less than 6'





Refineries Applications

SHUT DOWNS & CONFINED SPACE

Fall protection challenges

- Shutdowns can be in one section or an entire plant, conducted for a variety of reasons such as repairs, inspections, expansions or cutback. In many cases, workers can find themselves entering spaces that are complicated, dangerous and not regularly accessed.
- Workers may find themselves accessing hatches at height or setting up scaffolding to inspect and repair a variety of structures at the refinery. They can also be hindered in their activities when attempting to enter, work in or exit these types of spaces. Often they must squeeze themselves in and out through narrow openings to perform their tasks while cramped and contorted.
- Vertical or horizontal confined spaces have workers climbing down into or climbing sideways into passages and tunneling. In many cases low oxygen, chemicals, explosive environments and electrical concerns can place workers in danger. These types of working environments can lead to entrapment hazards, asphyxiating atmospheres or entanglement in moving machinery parts.





Above Ground

Is the work being

done above or

below ground

level?

For work being done above ground level:

Cable Choker

Pass thru design, 7x19 3/8" (9.5mm) stainless steel cable, dual O-ring pass thru, zinc plated steel hardware, 6 ft. (1.8m) in length. **5900551 Pg 36**

Tie-Off Adaptor

Pass thru design provides a safe and easy way to anchor a fall protection device to an overhead location. 1-3/4" (44mm) polyester strap, 3" (76mm) wear guard, zinc plated steel hardware. **1003000 Pg 36**

Fixed Beam Anchor

Installs in seconds to the beam structure, with final tightening using a built-in adjustment handle. Attach it to the beam structure in any orientation or direction for added versatility. 2108406 (Same part # in Canada) Pg 37

Glyder2™ Sliding Beam Anchor

For complete horizontal mobility, the Glyder2[™] effortlessly slides across the beam following you as you work. **2104700 Pg 37**

For confined space work being done under ground:

Under Ground Alu

Aluminum Tripod

These units are constructed of lightweight materials including high strength aluminum. Folds up for easy transport. 7 ft. height with adjustable legs. For complete system, order 8300030 which includes Tripod and Salalift® II Winch 8000000 Pg 50





High Performance

Standard

What level of quality and durability do you require in a full body harness?

Fundamental

For ultimate comfort, performance and durability: ExoFit™ XP Retrieval Harness

Stand-up back D-ring with impact indicator. Shoulder D-rings for retrieval. Removable shoulder, back, and leg padding. 3-D mesh lining with soft edging for comfort. Quick-connect buckles. Loops for body belt.

1110377 (1110377C in Canada) Pg 23

For reliable, workhorse performance: Delta™ II Vest Style Harness

Unique Delta™ pad design provides comfort and holds the shape of the harness for fast no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back D-ring, tongue buckle leg straps.

1102000 (1102000C in Canada) Pg 26

For compliance and value:

PRO™ Construction Style Harness

For economical reliability, PRO™ harnesses provide fundamental features in a comfortable fit. Built-in impact indicators and global standards in one harness model aid in maintaining compliance. Features back & side D-rings, hip pad, tongue buckle belt & leg straps.

AB140131 Pg 55

FIRST™ Vest Style Harness

For economical reliability, FIRST™ harnesses provide fundamental features with exceptional value. Features back D-ring and pass thru buckle leg straps.

AB17530 (AB17530C in Canada) Pg 56



What will the worker be connected to?

Fixed Anchor

For connection to a fixed anchor point:

JRG™ Self Retracting Lifeline

The JRG™ line provides an economical self retracting lifeline without compromising performance or safety. Lightweight with 30' (9m) of 3/16" (5mm) galvanized cable and zinc coated internal components. Begins fall arrest within 2' (0.6m).

AD212AG (AD212CS in Canada) Pg 59

Rebel™ Self Retracting Lifeline

Rebel™ 11 ft. (3.3m) Web Self Retracting Lifeline. The Rebel™ is compact and lightweight, incorporating a durable aluminum housing with 11 ft. of web lifeline and features a self locking hook. Also available with a swivel on the housing.

AD111A (AD110BC in Canada) Pg 56

FIRST™ 100% Shock Absorbing Lanyard

These FIRST™ shock absorbing lanyards provide basic options at an economical price. It features a clear cover over the shock pack, double-leg 100% tie-off, and steel rebar hooks, 6 ft. (1.8m) length. AE57620 (AE57620C in Canada) Pg 57

FIRST™ Shock Absorbing Lanyard

These FIRST™ shock absorbing lanyards provide basic options at an economical price. It features a clear cover over the shock pack, single-leg with snap hook at one end and steel rebar hook at other, 6 ft. (1.8m) length.

AE57640 (AE57640C in Canada) Pg 57

For connection to a confined space entry retrieval system:

3-Way Sealed Self Retracting Lifeline with Bracket

This 30 ft (9m) man-rated personal fall arrest component incorporates a retrieval winch suitable for raising and lowering personnel in emergency rescue/retrieval situations. In the event of a fall, the brake will stop the fall and limit arresting forces to 900 lbs. (4kN) or less. 3400853 (3400853C in Canada) Pg 50

3-Way Protecta SRL

This man-rated personal fall arrest component incorporates a retrieval winch suitable for raising and lowering personnel in emergency rescue/retrieval situations. In the event of a fall, the brake will stop the fall and limit arresting forces to 900 lbs. (4kN) or less. AD515AG (AD515CG in Canada) Pg 59



Aerial Lift Work

Workers confined to aerial lifts require the use of attached equipment to restrain them from bucket ejection. These workers can be faced with many hazardous conditions such as; lack of mobility, weather and operational differences between lifts. Dangerous practices can result in a worker being propelled out of a bucket or off a lift. Workers require mobility but must use fall protection to stay connected. Fall protection must be light, comfortable, mobile and compact so it does not get in the way while working in tight spaces for lengthy periods of time. DBI-SALA offers various equipment to suit these needs including; Talon™ Self Retracting Lifelines, EZ-Stop® RetraxT Shock Absorbing Lanyards and kits like Compliance-ina-Can™ Light containing both a harness and lanyard.



Note: All part numbers are the same in US-Canada unless otherwise noted. Recommendations in this section are for general application guidance. Product choices may vary depending on specific performance requirements. Please see the catalog product pages or consult your Capital Safety representative for more detail.



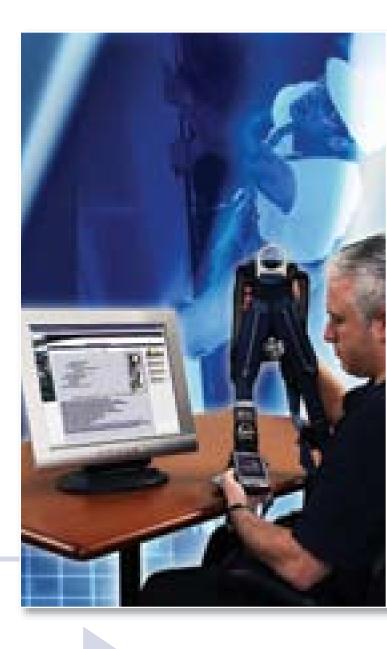
Introducing the...



INTELLIGENT SAFETY SYSTEM

The revolutionary i-Safe™ Intelligent Safety System from DBI-SALA maximizes the effectiveness and minimizes the total cost of your safety program through web-enabled intelligent technology.

The system allows you to easily record and access information on inspections, inventory and purchase information. Track equipment assignments by worker or location. View or download safety and equipment instructions, and more!



Inspection Tracking

- Up-to-date inspection logs for product reliability and safety
- Verification system to promote compliance
- Electronic record for traceability and audit

Inventory Control

- Tracks inventory on the site or around the globe
- Paperless and accurate asset management
- Easy retrieval of information for inventory control
- Theft and diversion prevention

Information Management

- Real time website support for consultative safety solutions
- Instant access to key information to streamline logistics and safety management
- Accountability by logging product and inspection status by job

An information highway for your safety program

The i-Safe™ system is enabled by RFID (radio frequency identification), a wireless data collection technology. i-Safe™ consists of passive RFID tags (transponders), scanned by PDA readers (receivers) that synchronize data with a web-enabled information portal.

i-Safe™ RFID Tags

i-Safe™ tags are now standard equipment on DBI-SALA products. Each tag is programmed with a unique ID that registers its model type and history.

PDA Readers

Tags are read by an on-site PDA that scans the piece of equipment and accounts for it by a unique number. One click entry logs inspections, equipment assignments by worker or location, and more.

Web Portal

Data is then linked from the PDA or laptop to your customized web portal. Your safety program website also provides instant access to related safety and equipment information, training records, product advisories and useful links.

Retrofitting Kits

Easy do-it-yourself retrofitting kits are available for all types of harnesses, lanyards and SRL's, allowing you to extend the benefits of your i-Safe[™] system to your entire inventory regardless of brand. Information on model number, make, date of manufacture will need to be entered for each retrofit i-Safe[™] tag.



Premium PDA & Reader Card

Universal Hard Retrofit Tag

Soft Choker Retrofit Tag

9000038: i-Safe™ Premium Handheld Personal Computer

9503818: i-Safe™ Universal Hard Retro-Fit Tag, 6-Pack w/ zip-tie, adhesive pad and key-ring **9503819**: i-Safe[™] Universal Hard Retro-Fit Tag, 25-Pack w/ zip-tie, adhesive pad and key ring 9502059: i-Safe™ Soft Choker Retro-Fit Tag, attach to most fall protection equipment, 6-Pack

9502553: i-Safe™ Soft Choker Retro-Fit Tag, attach to most fall protection equipment, 25-Pack

9502425: i-Safe™ Cable/SRL Retro-Fit Tag, fits 3/16" (5mm) to 1/4" (6.25mm) wire or synthetic rope, 4-Pack

Much of DBI-SALA's fall protection equipment is now i-Safe™ enabled as a standard feature, ready to link up to your i-Safe™ information system. Your representative will help you get the most out of your new i-Safe™ program!

DBI-SALA FULL BODY HARNESSES

Engineered for Quality

The DBI-SALA reputation for quality provides peace of mind in selecting a full body harness. Quality in a harness means maximum comfort, freedom of movement and ease of use. Industry innovations such as the spring-loaded stand-up back D-ring and the No-Tangle Delta™ Pad demonstrate DBI-SALA engineering and ingenuity.

A full body harness is designed with straps to fasten around the user in order to distribute fall arrest forces over at least the upper thighs, pelvis, chest and shoulders. This moves the impact of a fall from the internal organs to the major bone and muscle groups around the pelvis. The full body harness includes a means for attaching to the other components of a fall arrest system. Harnesses must meet strict OSHA, ANSI and CSA standards that include 5,000 lbs. (22kN) of minimum breaking strength at all attachment points and load bearing straps.

What to look for in a Full Body Harness

BACK D-RING/WEB LOOP

Every harness must have a fall arrest point located on the back, positioned between the shoulder blades. Dorsal web loop designs and PVC coated hardware offer additional resistance to conductivity and sparking.

WEBBING

Webbing is an important factor in the durability and safety of the harness. You want to ensure that the webbing is strong enough to endure rough use and exposure to sunlight and other elements without tearing or fraying, yet at the same time stay soft and not feel stiff or coarse. Speciality webbing such as Nylon or Nomex®/Kevlar® provide extra protection in arc flash applications

ADJUSTING POINTS

Whether you wear a harness four hours a day or fourteen hours, it needs to fit right for safety and comfort. Harnesses with adjusting points on the legs, waist, chest and shoulders allow for a better fit.

LEG STRAPS

Depending on worker preference, leg straps fasteners may be available in different styles, including:

- Tongue buckle
- Pass thru buckle
 Parachute buckle
- Parachute buckle
- · Quick connect buckle

PELVIC SUPPORT

An added sub-pelvic strap provides additional support, security and comfort for the user. Properly positioned, it better distributes forces during a fall.

BOOK STYLE LABELS

DBI-SALA harnesses feature book-style labels that put product and inspection information at the workers' fingertips. Pages may include sizing, operating instructions, inspection log, warning labels and compliance information. Promotes safe inspection, compliance and safety.

STITCHING

Double box stitching provides maximum strength and durability. Sewn-in quality you can trust.





ARC FLASH STANDARD

Arc flash harnesses are made from a material such as 7,000 lb. (31kN) nylon or Nomex®/Kevlar® to meet the requirements of applications such as utility work that require protection against static build-up. Options include non-conductive, non-sparking PVC coated hardware, rescue loops and back web loops. Leather insulators behind metal hardware reduce static energy transfer. Meets ASTM F887-05 40 cal/cm2 arc flash standard.

NO-TANGLE DESIGN

Donning a harness incorrectly can mean the equipment may not work properly. The patented Delta" Pad and the Exofit" exclusive wrap-around X-design make these harnesses easy to don and comfortable to wear with a wide spread over the shoulders to prevent irritating abrasion.

COMPONENTS FOR TOUGH ENVIRONMENTS

DBI-SALA offers various options for the harshest environments including resist technology webbing and stainless steel hardware.

PADDING

Cushioned shoulder, leg and hip pads keep the pressure off to provide extra worker comfort for long hours of wear. They may be built-in to avoid slipping or removable. Washable, removable padding promotes product longevity. Optional Nomex*/Kevlar* padding provides extra protection against arc flash.

LINING

The Exofit and Exofit" XP harnesses feature breathable lining that wicks moisture away from your body so you're always dry and comfortable in heat or cold. First designed for sport, recreation and work shoe linings, breathable 3-D mesh lining is rugged and resistant to odor and mildew.

IMPACT INDICATOR

Some harnesses include impact indicators to give immediate notice that the harness has been in a fall. Promotes safety and proper inspection.

STAND-UP BACK D-RING

The unique DBI-SALA patented spring-loaded D-ring makes connection easy for increased worker comfort and productivity.

INTEGRAL LANYARD KEEPER

A lanyard keeper provides a place to hook up excess line when not in use. Prevents tripping and entanglement for enhanced productivity.

QUICK CONNECT BUCKLE

The patented DBI-SALA quick connect buckle is color-coded and provides one-handed operation for fast and easy donning.

SEAT SLING

A removable seat sling provides job versatility and added comfort for long hours of use.

i-Safe"

Every DBI-SALA harness now comes with i-Safe", the Intelligent Safety System that incorporates RFID and web-enabled communications technologies, providing you with the ability to centrally track inspections, control field inventory and manage critical safety information.



FULL BODY HARNESS MODELS

DBI-SALA harnesses are available in many models with various options depending on their intended use:

8

DESCENT CONTROL HARNESS:

Has frontal attachment points for use with descent control devices.



CONFINED ENTRY/ RETRIEVAL HARNESS:

Has one attachment point located on each shoulder strap to facilitate upright retrieval from confined spaces or frontal attachment.



LADDER CLIMBING

HARNESS: Has frontal attachment point for connection to permanent ladder safety systems.



WORK POSITIONING HARNESS:

Positioning D-rings are located on the hips for use with pole straps or work positioning lanyards to allow hands-free operation. (These may include integral waist belts attached to the harness.)



MULTI-PURPOSE HARNESS:

This may include extra attachment points to allow work in a variety of situations. The dorsal D-ring must always be used for fall arrest. The belt and pad provide additional back support, positioning rings and tool carrying options.

ExoFit™ XP Harness Features

Quick Connect Buckles



Stand-up Back D-ring



Removable Shoulder, Back and Leg Padding



Built-in Impact Indicator



Lanyard Keeper





DBI-SALA Full Body Harnesses are engineered with the quality you need for dependable fall protection

	SELECTION GUIDE										
Full Body Harness	Description	Recommended For	Webbing	Padding	Quick Connect Buckle	No- Tangle Design	Back D-Ring	Hardware	Book Style Labels	Use w/ Derrick Belt	Impact Indicator
ExoFit™ XP	ExoFit ⁻ XP and ExoFit ⁻ are the premier harnesses in the industry, surpassing all other models in comfort and durability	Utility & Maintenance Tower & Ladder Climbing Drilling & Servicing Refineries	100% polyester (Arc Flash available in Nylon or Nomex®/ Kevlar®)	V Removable 3-D mesh breathable shoulder, back & leg padding	√ (also available with tongue buckle legs)	Wrap around X-design	Adjustable patented spring load- ed stand-up D-ring	Plated forged alloy steel	√		V
ExoFit™	Premium harness for long hours of comfort and durability	Utility & Maintenance Tower & Ladder Climbing Drilling & Servicing Refineries	100% poly- ester	√ sewn-in padding	√ (also available with tongue buckle legs)	Wrap around X-design	Fixed back D-ring	Plated forged alloy steel, stainless steel available	√		
ExoFit™ Derrick	Extreme Comfort harness designed for monkey board operators and harsh environ- ments	Drilling & Servicing Work at the Monkey Board Basket Work, Raising Operations	100% poly- ester	√ sewn-in pad- ding	tongue buckle legs	Wrap around X-design	18" Extension back D-ring	Plated forged alloy steel, stain- less steel available	√	√	
Delta™ II	The most popular harness in the industry featuring the patented Delta ⁻ No-Tangle design for optimum comfort and productivity	Utility & Maintenance Ladder Climbing Drilling & Servicing Refineries Shutdowns	100% polyester	Optional back and shoulder padding available — part #9501207	Optional	Delta ⁻ No- Tangle Pad	Adjustable patented spring load- ed stand-up D-ring	Plated forged alloy steel	√		
Delta™ II Derrick	Workman's har- ness designed for monkey board op- erators and harsh environments	Drilling & Servicing Work at the Monkey Board Basket Work, Raising Operations	100% polyester		tongue buckle legs	Delta No-Tangle Pad	Fixed (also available 18" extension and attached shock ab- sorbers)	Plated forged alloy steel	√	√	

HARNESS HYDRATION SYSTEM

1150174

- Incorporates a simple clip-on design that attaches to any harness.
- 50oz capacity allows worker a convenient hydration for added safety and productivity
- Zip-up nylon carrier protects the system and provides easy access for filling.
- Compact design keeps water source close to the body without getting in the worker's way.
- · Anti-microbial, taste free tubing and reservoir-dual hose ports provide access over shoulder.
- Drink tube clip and quick release hose prevent entanglements.
- No-leak bite valve delivers liquid easily hands free and the bite valve cover keeps dirt away
 50oz (1.5L) capacity, 38" drink tube, 0.75lbs when empty

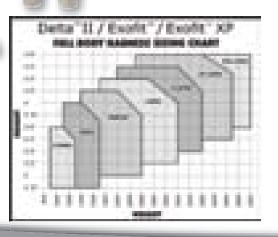
SUSPENSION TRAUMA SAFETY STRAP

Allows suspended worker to stand up in their harness to relieve pressure. Continuous loop design allows for either one or two foot suspension relief without pinching. Can be quickly attached to most harness brands right in the field—just choke off to strap and it's ready to go.

- Extremely compact and lightweight design stays out of the worker's way.
- Foolproof deployment and operation—unzip and hook straps together.

9501403 (9501403C in Canada)







EXOFIT™XP STANDARD HARNESS: Ideal harness for all general purpose applications 1110100 (1110100C in Canada)

The **ExoFit**^{**}**XP** is the most comfortable, user-friendly harness ever built from the ground up.

Removable shoulder, back and leg padding with breathable 3-D mesh lining makes this harness the ultimate in comfort and safety. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Stand-up back D-ring enables connections to be made without straining.

- Industry's first truly washable harness with removable padding
- Breathable 3-D mesh lining with soft edging for comfort
- Unique spring-loaded stand-up back D-ring with impact indicator
- Integral lanyard keeper to prevent trip-fall hazards
- i-Safe[™] Every DBI-SALA harness now comes with i-Safe[™], the Intelligent Safety System that incorporates RFID and web-enabled communications technologies, providing you with the ability to centrally track inspections, control field inventory and manage critical safety information.

The **ExoFis**TM Full Body Harness features a wrap around, No-Tangle design that slips on like a vest, making it quicker and easier to put on while providing ventilation, comfort, padding and security.

The materials are soft and lightweight, yet extremely durable. The shoulder, hip and leg padding is built-in so it can't slip. The breathable lining helps ensure you'll stay dry and comfortable every day. And the quick-connect buckles are fast, efficient and totally secure!

- Incorporates a breathable lining that immediately draws moisture away from the body keeping the worker dry and comfortable all day
- Ergonomic design incorporates built-in shoulder, hip and leg padding that always stays in place enhancing comfort and worker satisfaction
- Soft edging moves with you preventing uncomfortable rubbing or chafing, enhancing comfort and mobility
- i-Safe[®] RFID enabled (See above description)

EXOFIT™ XP FULL BODY HARNESSES



EXOFIT™ - LADDER CLIMBING HARNESS

Front D-ring ideal for ladder climbing **1110200** (Not available in Canada)



EXOFIT™ XP TOWER CLIMBING HARNESS

Seat sling with positioning rings, hip pad and body belt for added versatility and comfort **1110300** (1110300C in Canada)



EXOFIT™ XP ARC FLASH NOMEX®/KEVLAR® HARNESS

Ideal for utility and welding applications **1110893** (1110893C in Canada)

EXOFIT™ XP FULL BODY HARNESSES

Model & Size S M L XL	Style	D-Rings	Buckle Type	Hip Pad/ Belt	Belt Loops
1110100 (01)(02)(03) (1110100C in Canada) (01C) (02C) (03C)	ExoFit™ XP Vest	Back	Quick Connect		√
1110375 (76) (77) (78) (1110375C in Canada) (76C) (77C) (78C)	ExoFit™ XP Retrieval	Back, Shoulders	Quick Connect		√
1110200 (01) (02)(03)	ExoFit™ XP Vest	Back, Front	Tongue Buckle		√
1110300 (01)(02)(03) (1110300C in Canada) (01C) (02C) (03C)	ExoFit™ XP Tower Climbing	Back, Front, Side & Seat Sling	Quick Connect	√	√
1100690 (91) (92) (93) (1100690C in Canada) (91C) (92C) (93C)	Wrap around hip pad Crossover	Back & Belt Extensions, Front	Tongue Buckle	√	√
1110225 (26)(27)(28) (1110225C in Canada) (26C) (27C) (28C)	ExoFit™ XP Positioning	Back, Side	Quick Connect		√
1110150 (51) (52) (53) (1110150C in Canada) (51C) (52C) (53C)	ExoFit™ XP Construction	Back, Side	Quick Connect	√	√
1110893 (90) (91) (92) (1110893C in Canada) (90C) (91C) (92C)	Vest Nomex®/Kevlar®	PVC coated back	PVC Coated Pass thru		

EXOFIT™ FULL BODY HARNESSES



EXOFITTM OFFSHORE HARNESS Stainless Steel hardware ideal for offshore applications. 1111425 (Not available in Canada)



EXOFIT™ CONSTRUCTION HARNESS

Hip pad and belt for use with tool pouches and side D-rings for positioning **1108500** (1108500C in Canada)



EXOFIT™ CONSTRUCTION HARNESS

Side d-rings allow convenient positioning **1108581** (1108581C in Canada)

EXOFIT™ FULL BODY HARNESSES

EXOLLL LATT RADA HAKNE22E2								
Model & Size S M L XL	Style	D-Rings	Buckle Type	Hip Pad /Belt	Belt Loops			
1107975 (76) (77) (81) (1107975C in Canada) (76C) (77C) (78C)	ExoFit™ Vest	Back	Quick Connect		√			
1111425 (26) (27) (28) (1111425C (26C) (27C) (28C) in Canada	Offshore Vest Style	Back Stainless Steel	Quick Connect Stainless		√			
1108525 (26)(27)(32) (1108525C (26C) (27C) (32C) in Canada	ExoFit™ Climbing	Back, Front	Quick Connect		√			
1108700 (01)(02)(06) (1108701C (02C) (03C) (06C) in Canada)	ExoFit™ Climbing	Back, Front, Side	Quick Connect		√			
1108575 (76) (77) (81) (1108575C (76C) (77C) (81C) in Canada)	ExoFit™ Positioning	Back, Side	Quick Connect		√			
1108500 (01)(02)(07) (1108500C (01C) (02C) (07C) in Canada)	ExoFit™ Construction	Back, Side	Quick Connect	√	√			
1108650 (51)(52)(57) (1108650C (51C) (52C) (57C) in Canada)	ExoFit™ Tower Climbing	Back, Front, Side, Seat Sling	Quick Connect	√	√			



The ultimate for comfort and durability for monkey board operation - ExoFit™ and Delta™ II Derrick Harnesses.

These variety of harnesses are designed for the oil industry and more specifically for the worker who operates the monkey board. DBI-SALA offers a range of models for the user's needs. Our ExoFit™ offers comfort, padding, and security with easy donning and our range of Delta™ II models offer versatility and durability while working the tubing board. These models include connection for optional derrick belt which provides comfort while positioning for the next drilling pipe.

Additional ExoFit™ Features

- Wrap around no-tangle design slips on like a vest making it quick and easy to put on
- Built in shoulder, hip and leg padding enhancing comfort and worker satisfaction
- Breathable lining that immediately draws moisture away from the body helping the worker stay dry
- I-Safe Enabled

Additional Delta™ II Features

- Delta[™] No-tangle design for added comfort and easy donning
- Polyester webbing for long lasting performance and added durability
- Tongue buckle leg straps for fast & easy donning
- I-Safe Enabled



Spring-loaded stand-up back D-ring for quick and easy connection.

EXOFIT™ II & DELTA™II DERRICK HARNESSES



EXOFIT™ DERRICK HARNESS

- Mating buckles on chest area to connect to derrick belt
- Back 18" (46cm) D-ring extension for ease of connecting
- Seat sling with positioning/ suspension D-rings to reduce fatigue
- Belt with back D-ring for additional positioning option
- Tongue buckle leg straps for fast & easy donning 1100300 (1100300C in Canada)



DELTA™ II DERRICK HARNESS

- Mating buckles on chest area
 to connect to derrick belt
- to connect to derrick belt

 Back 18" (46cm) d-ring ext.
 for ease of connecting
- Seat sling with positioning/ suspension d-rings to reduce fatigue
- Belt with back d-ring for additional positioning option
 Tongue buckle leg straps
- Tongue buckle leg straps for fast & easy donning
 1106112 (Not available in Canada)



DELTA™ II DERRICK HARNESS

Tongue buckle straps attached to the harness to connect to derrick belt. Optional derrick belt 1000554 incorporates tongue buckle adjustment, tongue buckles to connect to harness and two fixed front rings for positioning. 1104800 (Not available in Canada)



DELTA™ II DERRICK HARNESS

Mating buckles to connect to derrick belt. Optional derrick belt 1000544 incorporates tongue buckle adjustment, mating buckles to connect to harness and two fixed front rings for positioning. **1105825** (1105825C in Canada)



DELTA™ II DERRICK HARNESS

Tongue buckles to connect to derrick belt. Optional derrick belt 1003221 incorporates tongue buckle adjustment, tongue buckle straps to connect to harness and two fixed front rings for positioning. 1106353 (Not available in Canada)

	EXOFIT ™ & DELTA™ II DERRICK HARNESSES								
Model & Size S M L XL	Style	D-rings Buckle Type		Belt	Seat Sling	Use with Derrick Belt			
1100300 (01) (02) (03) (1100300 in Canada) (01C) (02C) (03C)	ExoFit™ Derrick	Back 18" Ext, Back of Belt and Lifting	Tongue Buckle	√	√	1000570			
1110914 (10) (11) (12)	ExoFit™ Derrick	Back 18" Ext, Front, Back of Belt	Tongue Buckle	√	√	1000570			
1106112 (08) (06) (07)	Delta™ II Derrick	Back 18" Ext, Back of Belt	Tongue Buckle	√	√	1000570			
1104803 (04) (00) (01)	Delta™ II Derrick	Back, Lifting	Tongue Buckle			1000552 (53) (54) (55)			
1105826 (27) (25) (28) (1105826C in Canada) (27C) (25C) (28C)	Delta™ II Derrick	Back, Lifting	Tongue Buckle			1000552 (53) (54) (55)			
1105837 (32) (36) (35)	Delta™ II Derrick	Back 18" Ext, Lifting	Tongue Buckle			1000552 (53) (54) (55)			
1106357 (50) (53) (54)	Delta™ II Derrick	Back, Lifting	Tongue Buckle			1003230 (20) (21) (22)			
1109076 (77) (75) (78) Delta™ Lime Green Web Derrick		Back 18" Ext, Front, Back of Belt	Tongue Buckle			1000552 (53) (54) (55)			
1106365 (L)	Delta™ II Derrick	Back 18" Ext, Front, Lifting	Tongue Buckle			1003221			

NOTE: Available in Canada where specified above.

BELTS & BOATWAIN'S CHAIRS



BODY BELT

- Side D-rings for connection to
- restraint lanyard 3" (8cm) body pad for added comfort Tongue buckle belt adjustment for
- fast & easy donning Sturdy polyester webbing construction for added durability

- Size Large
 Also available with back D-ring only (#1000004 size Large)

1000024 (1000024C in Canada)



BODY BELT

- Basic belt with NO D-ring or body pad
- Tongue buckle belt adjustment for fast & easy donning
- Sturdy polyester webbing construction for added durability
- Size Large

1000054

Monkey Board Belts provide the worker with fall protection and comfort with the large frontal pad while positioning for the next drilling pipe. It incorporates tongue buckle adjustment, mating or tongue buckles to connect to different harness styles and two fixed front rings for positioning.



Pass Thru Connection 1000570 Universal Size (Not available in Canada)



Tongue Buckle Connection 1000552 (SM), 53 (M), 54 (LG), 55 (XL) (Not available in Canada)



Pass Thru Connection 1003230 (SM), 20 (M), 21 (LG), 55 (XL) (Not available in Canada)



Tongue Buckle Connection 1000542 (SM), 43 (M), 44 (LG), 45 (XL) (1000544 in Canada)

BOATWAIN'S CHAIR WITH CUSHION AND SIDE SNAPS (shown)

- Seat board (12"x24"x1") with cushion for adde support and
- Integrated side snaps to hang equipment or tools
- 1-3/4" wide latex treated polyester webbing construction for added durability 1001190

BOATWAIN'S CHAIR WITH BOARD SEAT & TONGUE BUCKLE BODY BELT

- Seat board (12"x24"x1") for added support and comfort
 Integrated tongue buckle body belt with back D-ring for
- added support and versatility
- 1-3/4" wide latex treated polyester webbing construction for

added durability 1001132 (SM) 1001133 (M) 1001134 (LG) 1001135 (XL)





The **Delta™II** full body harnesses feature the patented Delta™ No-Tangle Pad for extra comfort throughout the neck, shoulders and back.

This design holds the shape of the harness, making it easier to put on. This added comfort and ease of donning has greatly improved worker acceptance and reduced the probability of improper usage. Our patented spring-loaded "stand-up" back D-ring ensures quick and easy connection to your fall arrest device. A wide variety of models and options lets you find just the right harness for almost any work application.

- Patented spring-loaded stand-up back D-ring for quick and easy connection
- Book-style labels keep information and inspection logs readily available
- Forged alloy steel hardware for maximum strength and durability
- i-Safe"

Every DBI-SALA harness now comes with i-Safe", the Intelligent Safety System that incorporates RFID and web-enabled communications technologies, providing you with the ability to centrally track inspections, control field inventory and manage critical safety information.



Spring-loaded stand-up back D-ring for quick and easy connection.

DELTA™ II FULL BODY HARNESSES



DELTA™ || CONSTRUCTION HARNESS Hip pad and belt for use with tool pouches and side D-rings for positioning 1101655 (1101655C in Canada)



STANDARD HARNESS
Ideal harness for all general purpose applications
1102000 (1102000C in



CLIMBING HARNESS
Seat sling with positioning rings, hip pad and body belt for added versatility 1107775 (in Canada)



DELTATM II
POSITIONING HARNESS
Side D-rings ideal for work positioning applications
1102008 (1102008C in Canada)



DELTATM || RETRIEVAL HARNESS Shoulder D-rings for retrieval and rescue 1101254 (1101254C in Canada)



CROSS-OVER HARNESS Cross-over style with front D-ring ideal for ladder climbing 1102950 (1102950C in



DELTATM II NOMEX®/ KEVLAR® HARNESS Arc flash and flame resistant Nomex®/Kevlar® webbing and non-conductive non-sparking PVC coated hardware 1110830 (1110830C

in Canada)



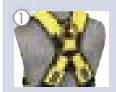
RESIST HARNESS
RESIST technology for protection against grease, oil, dirt and grime with front and side D-rings
1110930 (1110930C in Canada)



BOSUN CHAIR HARNESS High visibility orange web and built in seat board for added support and comfort 1108125 (1108125C in Canada)

	DELTA™ II FULL BODY HARNESSES										
Model & Size	Style	D-rings	Buckle Type	Hip Pad/Belt	Belt Loops	Additional					
1102000 (U) Vest Back		Back	Tongue Buckle								
1103321 (U)	Vest	Back	Pass Thru								
1110600 (U)	Vest	Back	Quick Connect								
1102008 (U)	Positioning Vest	Back, Side	Tongue Buckle								
1103875 (U)	Positioning Vest	Back, Side	Pass Thru								
1102526 (U)	Vest	Back	Tongue Buckle		√						
1103513 (U)	Vest	Back	Pass Thru		√						
1110830 (L)	Nomex®/Kevlar® Vest	Back	Pass Thru		√	Heat Resistant, Non Conductive/Sparking, Arc Flash Rated					
1102025 (U)	Positioning Vest	Back, Side	Tongue Buckle		\checkmark						
1103512 (U) (Not Available in Canada)	Positioning Vest	Back, Side	Pass Thru		√						
1107404 (L)	Hi Vis Vest	Back	Tongue Buckle			Hi-Vis Web & Hi-Vis Vest					
1101254 (U)	Retrieval Vest	Back, Shoulder	Tongue Buckle								
1102950 (U)	Cross-over	Back, Front	Tongue Buckle								
1102010 (U)	Cross-over	Back, Front	Pass Thru								
1106375 (L)	Cross-over	Back, Front, Side	Tongue Buckle	√	√	18" Extension off Back D- ring, Back D-ring on Hip Pad					
1103270 (U)	Cross-over	Back, Front, Side	Pass Thru								
1101655 (L)	Construction	Back, Side	Tongue Buckle	√	\checkmark	Shoulder pads					
1110577 (L)	Construction	Back, Side	Quick Connect	√	√	Shoulder pads					
1107775 (L)	Tower Climbing	Back, Front, Side & Seat Positioning	Tongue Buckle	√	√	Seat Sling with Suspension D-rings					
1110930	RESIST Cross-over	Back, Front, Sides	Tongue Buckle			RESIST Technology Webbing					
1110990	RESIST Vest	Back	Tongue Buckle	√	√	RESIST Technology Webbing					
1108125	Bosun Chair Vest	Back, 18" Ex- tension, Front, Sides, Seat Positioning	Tongue Buckle	√	√	Hi-Vis Web, Attached Seat Board					

NOTE: In Canada, add a "C" at end of part number. e.g. 1102000C. U size = Universal Size – one size fits most; Medium & Large range. - L size = Large













DELTA® II HARNESS ACCESSORIES

- 1 9501207 Delta" Comfort Back Pad 2 1231117 18" (45cm) D-Ring Extension (1201117C in Canada)

- 3 9502006 Foam Shoulder Pad 4 9504374 Lanyard Keeper 5 9504066 11 Pocket Tool Bag 9504072 15 Pocket Tool Bag
- 6 9511597 Harness & Lanyard Bag, 7-1/2" x 6-1/2" x 15-1/2" (19cm x 17cm x 40cm)



OFF-SHORE LIFEJACKET FOR USE WITH HARNESS

- Off-Shore Lifejacket with back D-ring opening may be used with a variety of harnesses including our Delta No-Tangle™ harnesses that offer greater comfort and added safety
- Constructed from CERTIFIED Hi-Vis orange fabric and 62 square inches of solas
- grade reflective tape
 Foam filled head support collar with two vertical adjustable straps and hinged back panel for comfort includes safety whistle
- Polyvinyl chloride foam buoyant material provides a minimum buoyant force of 22 pounds (98 newtons)
 • Size = Universal (Adult)
- Inspected and tested in accordance with U.S. Coast Guard regulations. Catalog No. 1600 Type 1, U.S. Coast Guard Approval No. 160.055/187/0. UL listed Issue No. B-8050

9500468

NOTE: All part numbers above are the same in Canada except 1201117C.



SHOCK ABSORBING LANYARDS

Innovation for Ease-of-use and Durability

DBI-SALA is known as an innovator who can design and build the products you need for all your fall protection challenges. The patented DBI-SALA snap hook with easy one-hand operation is the most popular in the industry. It's just one of the lanyard features that have enhanced worker productivity and safety. Available with over 20 different connectors to fit the application, DBI-SALA lanyards promote safety and enhance productivity.

Lanyards are flexible lines with a connector at each end used to connect the anchorage to the body support of a fall protection system. Lanyards should be connected to the back D-ring for fall arrest, located between the shoulder blades and ideally should be anchored above the worker to minimize fall distance. The worker should not walk too far from the overhead anchorage or a swing fall may occur.

SHOCK ABSORBING LANYARDS

Lanyards used for fall protection must include a shock absorber to dissipate the energy of the fall, limiting the forces on the body of the falling worker.

SHOCK ABSORBING STRETCH LANYARDS

For added flexibility and safety, the DBI-SALA ShockWave" and EZ-Stop* Retrax" lanyards are available with an expansion and contraction feature that allows them to be extended when length is needed and then contracted with the movement of the worker to avoid trips, falls and snags.

POSITIONING LANYARDS

Rope or web lanyards without shock absorbers may be used for applications that require positioning or restraint of a worker or if the fall possibility is less than 2' (0.6m).

DOUBLE LEG LANYARDS OR 100% TIE-OFF LANYARDS

(Two lanyards that are connected at one end.) This style of lanyard is used to provide 100% tie-off. It allows you to stay protected while you move from one location to another.





SPECIALTY SHOCK ABSORBING LANYARDS:

Tie-back Lanyards

When a qualified anchorage connector is not available, a tie-back lanyard acts as both a connecting means and an anchorage connector. There are two styles—one incorporates a movable D-ring on the lanyard for attaching the snap hook, and the other is designed for the hook to go around the webbing itself. This requires a specialty hook with a gate strength capacity of 5,000 lbs. (22kN).

Lanyards for Tying Off at the Feet

The DBI-SALA Force2" shock absorbing lanyard allows for a 12' (3.7m) free fall and keeps the forces below the 1,800 lb. (8kN) OSHA limit.

Kevlar® Lanyards

Kevlar® is a special material that is safe for high temperature environments. Also available is a Nomex®/Kevlar® shock pack cover option for extra durability.



Resist Technology Lanyards

Resist technology allows the user to easily wipe away grease and dirt while providing additional resistance against abrasion and tears.



SRL Connection Lanyard

Double leg lanyards with attached D-ring for connection to SRL, provides 100% tie-off and an anchor point for an SRL for greater versatility while working.

What to look for in a Shock Absorbing Lanyard

Webbing is an important factor in the durability and safety of the lanyard. You want to ensure that the webbing is strong enough to endure rough use and exposure to sunlight and other elements without tearing or fraying. Nomex®/Kevlar® webbing is used for specialty applications such as welding that require fire resistance or when extra protection is need against arc flash hazards. Webbing may also be coated with polyurethane to provide protection against grease, oil, dirt and grime.

i-Safe"

Some lanyards are made of vinyl-covered cable for extra durability or when working in high heat environments.

SHOCK ABSORBER

Lanyards designed for use as part of a personal fall arrest system must contain an energy absorbing unit that will limit the force on the worker to below 1,800 lbs. (8kN) with up to a 6' (1.8m) free fall. Most manufacturers now keep the arresting forces below 900 lbs. (4kN). Shock absorbers come in pack or tubular styles depending

IMPACT INDICATOR

If the lanyard has been used to arrest a fall or if the energy absorber has been deployed, the lanyard must be retired immediately. An impact indicator gives easy visual reference of a blown shock.

on user preference.

Standard lanyard length is 6'. A lanyard should be long enough to be user-friendly, but kept as short as possible to minimize the free fall distance. Knots should never be tied in lanyards to reduce their length as this can reduce the strength by 50%.

CONNECTOR/HOOK

Most lanyards are available with traditional auto-locking snap hooks. The popular patented DBI-SALA snap hook allows one-handed use with no pinching of thumbs or fingers. Lanyards can also be fitted with larger snap hooks or carabiners for connection to larger anchorages.

Every DBI-SALA lanyard now comes with i-Safe™ the Intelligent Safety System that incorporates RFID and web-enabled communications technologies, providing you with the ability to centrally track inspections, control field inventory and manage critical safety information.

> One-handed, easy connections even with your gloves on! Open and close without getting your fingers in the way!

DBI-SALA patented snap hooks are preferred in the industry!

Every DBI-SALA lanyard combines super strength and ease of use. All hardware is proof tested to industry standards, and our patented, user-friendly self-locking snap hooks are standard on all DBI-SALA lanyards. They allow you to open and close the hook even with gloves on without getting your thumb or fingers in the way. All lanyards exceed industry standards, including OSHA and ANSI Z359.1, CSA and CE approved models also available.



Shock absorbing lanyards are available in multiple configurations with a variety of anchorage hooks:

- A. Standard DBI-SALA patented snap hook with 3/4" (19mm) gate opening
- B. Aluminum rebar hook with 2-1/4" (57mm) gate opening C. Flat steel rebar hook with 2-1/2" (62.5mm) gate opening

NEW ANSI Z359 STANDARD

Under the new standard, snap hook and carabiner gates must withstand a 3,600 lb. load, Both DBI-SALA and PROTECTA branded products are available to meet the new standard. We've made ordering the 3,600 lb. hook gate option easy; 120 series lanyards will change to 123 and 122 series changes to 124 (ex. 1224306 with 3,600 lb. gate hooks would be 1244306)





Every DBI-SALA Lanyard delivers quality in design, materials and manufacture

		S	ELECTION GUIDE				
Product	Description	Recommended For	Line	Patented DBI-SALA Snap Hook	Tie-back	Retraction & Expansion	Resist Technology
Shock- Wave2™	Shock- Wave2™ Stretchable to provide freedom of movement with unique inner core that limits arresting forces to no more than 900 lbs. (4kN) • Utility & Maint • Tower & Ladde • Drilling & Serv • Refineries		1" (25mm) polyester webbing	V		√	
EZ STOP® II	EZ STOP® Designed for versatility and available in many variations for optimum safety		1" (25mm) polyester, 1" (25mm) polyurethane coated webbing,1-3/4" (44mm) Kevlar®, 7/32" (5.5mm) cable	√	AVAILABLE		AVAILABLE
EZ STOP® Retrax™ The first shock absorbing lanyard that retracts automatically to fit the working area		Lift Work Utility & Maintenance Monkey Board Work	1" (25mm) polyester webbing	V		√	
WrapBax™ 2	Unique hook to provide 360°, 5,000 lb. (22nK) protection in any direction for safe tie-back	Rig Up/Down Work on BOP's Utility & Maintenance	Heavy duty 13,000 lb. (57kN) webbing	V	√ 5,000 lb. (22kN) hook capacity		
lányard rated for 12' (3.7m) free fall on the market		When no overhead anchorage is available Use as a standard lanyard for increased capacity for 311-420 lbs. (141-190kg)	1" (25mm) polyester webbing	√	Force2 [™] , WrapBax [™] 2 AVAILABLE		
Designed for versatility and available in many variations for optimum safety Designed for versatility and available in many variations for optimum safety • Utility & Maintenance • Drilling & Servicing • Refineries		1-3/8" (35mm) tubular webbing	√				
Positioning	Durable, high quality lanyards for non-fall arrest applications	Monkey Board Work Utility & Maintenance Refineries	Various Lengths available	√			AVAILABLE

EZ STOP® SHOCK ABSORBING LANYARDS

The EZ Stop® Shock Absorbing Lanyards are manufactured with the highest quality to ensure safety and meet the strictest standards. EZ Stop® II lanyards utilize a controlled tearing action when subjected to fall arrest forces that limits arresting forces to 900 lbs. (4 kN) or less.

- DBI-SALA patented double locking snap hooks
- · Soft cover shock absorber for comfort
- Many lengths & hook options available to fit your job site needs

EZ STOP® II SHOCK ABSORBING LANYARDS

Heavy, double woven 1" (25mm) polyester webbing and box stitching for durability and longevity.

Single-Leg **1240006**

(1220006C in Canada)

Double-Leg 100% Tie-Off **1241220** (1241220C in Canada)





EZ STOP® RETRAX™ SHOCK ABSORBING LANYARDS

EZ Stop® Retrax™ is the first shock absorbing lanyard that retracts automatically to fit the working area. It is a unique alternative to elasticized lanyards.

- Unique spring technology retracts and expands from 2-1/2' to 6' (0.6 to 1.8m)
- Smooth retraction without irritating lock-ups
- Adjustable retraction length to allow the user to limit retraction

Single-Leg **1241460** (1221460C in Canada)

Retrax[™] Double Leg **1241480** (1221480C in Canada)

Retrax™ in Motion 🧪

EZ STOP® II SPECIALTY SHOCK ABSORBING LANYARDS

Often derrick operators, roustabouts, welders, electricians, machinists and pipe fitters require special protection to keep them safe while working at heights. DBI-SALA offers a wide range of specialty crafted items for maximum comfort and safety that are built to last in the harsh reality of oil and gas.

Arc Flash Single Leg 1240861

(1220861C in Canada)



Kevlar® Web **1240558** (1220558C in Canada)

Resist Technology **1240850** (1220850C in Canada)

Model # Type Leg Leg Tie-back		Tie-back	Length	Connectors	Additional			
1240006	EZ Stop® II	√			6' (1.8m)	Standard hooks, 3600 lb. Gates		
1240256	EZ Stop® II	√			6' (1.8m) adj.	Standard hooks, 3600 lb. Gates	Adjustable	
1240706	EZ Stop® II	√			6' (1.8m)	Standard hooks, 3600 lb. Gates	7/32" (6mm) vinyl coated cable	
1240558	EZ Stop® II	√			6' (1.8m)	Standard hooks, 3600 lb. Gates	Kevlar® webbing	
1240406	EZ Stop® II		√		6' (1.8m)	Standard hooks, 3600 lb. Gates		
1240416	EZ Stop® II	√ 6′ (1.8m) 1 Standard/2 Alum, rebar, 3600 lb. Gates						
1241106	EZ Stop® II	√		√, D-ring	6' (1.8m) Standard hooks, 3600 lb. Gates		Abrasion resistant tubular wear jacket	
1241206	EZ Stop® II		√	√, D-ring	6' (1.8m)	Standard hooks, 3600 lb. Gates	Abrasion resistant tubular wear jacket	
1240860	EZ Stop® II Arc Flash	√			6' (1.8m)	Standard hooks, 3600 lb. Gates	Coated web & Nomex*/Kevlar* shock pack, ASTM F887-05	
1240861	EZ Stop® II Arc Flash	√			6' (1.8m)	Nomex®/Kevlar® choker web loop, standard hook, 3600 lb. Gates	Coated web & Nomex*/Kevlar* shock pack, ASTM F887-05	
1241460	EZ Stop® Retrax™	√			6' (1.8m)	Standard hooks, 3600 lb. Gates	Retracts automatically	
1241480	EZ Stop® Retrax®		√		6' (1.8m)	3 Standard hooks, 3600 lb. Gates	Retracts automatically	
1240850	EZ Stop® II Resist	√			6' (1.8m)	Standard Hooks, 3600 lb. Gates	Resist Coated Web	
1240526	EZ Stop® II Resist		√		6' (1.8m)	Standard Hooks, 3600 lb. Gates	Resist Coated Web	
1241219	EZ Stop® II		√	√, D-ring	6' (1.8m)	1 Standard/2 Alum. rebar, 3600 lb. Gates		
1241220	EZ Stop® II		√	√, D-ring	6' (1.8m)	2 Standard/2 Steel rebar, 3600 lb. Gates		

NOTE: All part numbers above are available in Canada with standard gated hooks. To order, change (124) to (122) and add a $^{\circ}$ C" at end of part number. e.g. 1220006C.



SHOCKWAVE2™ SHOCK ABSORBING LANYARDS

The ShockWave™ is uniquely designed to expand and contract with use in reaction to the worker's movements. It stays out of the worker's way when not in use, avoiding trips and snags. The ShockWave2™ impact indicator provides easy visual evidence if the shock has been blown through a fall or improper use. Limits arresting forces to 900 lbs. (4kN) or less.

- Expands to 6' (1.8m) and contracts to 4.5'(1.4m)
- Unique inner core that immediately extends and absorbs energy during a fall
- Impact indicator allows user to visually inspect unit
- Available in twin-leg 100% tie-off style
- Standard web is polyester, our flame resistant/arc flash models incorporate Nomex®/Kevlar® web, with a 800°F char temperature and arc tested to 40 cal/cm2 to meet the ASTM F887-05 standard.



	SHOCKWAVE2™										
Model #	Single Leg	Double Leg	Nomex®/ Kevlar®Web	Retraction & Expansion	Length	Connectors					
1244306 (1224306C in Canada)	√			√	6' (1.8m)	Standard hooks, 3600 lb. Gates					
1244310	√				6' (1.8m)	Choker web loop, standard hook, 3600 lb. Gates					
1244311	√			√	6' (1.8m)	1 standard/1 aluminum rebar hook, 3600 lb. Gates					
1244321	√			√	6' (1.8m)	1 standard/1 flat steel rebar hook, 3600 lb. Gates					
1244406 (1224406C in Canada)		√		√	6' (1.8m)	3 standard hooks, 3600 lb. Gates					
1244413		√		√	6' (1.8m)	Choker web loop, standard hooks, 3600 lb. Gates					
1244409		√		√	6' (1.8m)	1 standard/2 aluminum rebar hooks, 3600 lb. Gates					
1244412		√		√	6' (1.8m)	1 standard/2 flat steel rebar hooks, 3600 lb. Gates					
1244456		√		√	6' (1.8m)	1 Standard/2 flat steel rebar hooks + D-ring, 3600 lb. Gates					
1244610	√		√	√	6' (1.8m)	Standard hooks, 3600 lb. Gates					
1244611	√		√	√	6' (1.8m)	Nomex/Kevlar Choker web loop, standard hooks, 3600 lb. Gates					
1244630		√	√	√	6' (1.8m)	Standard hooks, 3600 lb. Gates					
1244633		√	√	√	6' (1.8m)	1 standard hook/2 flat steel rebar hooks, 3600 lb. Gates					
1244650	√			√	6' (1.8m)	1 standard hook, 3600 lb. gate, 1 tie-back carabiner, 5000 lb. gate					
1244675		√		√	6′ (1.8m)	1 standard hook, 3600 lb. gate, 2 tie-back carabiner, 5000 lb. gate					

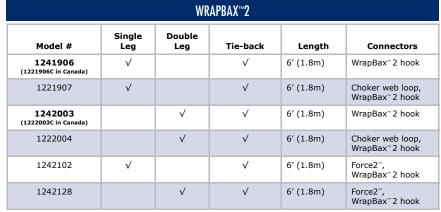
NOTE: Available in Canada with standard gated hooks where specified above.

WRAPBAX™2 TIE-BACK SHOCK ABSORBING LANYARDS

WrapBax"2 provides the worker with a tool they will use safely, eliminating the need for a separate anchorage connector, reducing inventory and cost, simplifying inspections, training and improving compliance. The WrapBax 2 hook offers a unique look to easily differentiate from standard hooks and provides true 5,000 lbs. (22kN) strength—even on the gate. Limits arresting forces to 900 lbs. (4kN) or less; Force2™ style limits forces to 1,800 lbs. (7kN) or less.

- 5,000 lb. (22kN) hook capacity from every direction, including the gate
- Heavy duty webbing provides five times more abrasion resistance, making it ideal for tying off on rough surfaces
- Industry preferred easy-to-use, one-handed operation found on DBI-SALA patented snap hooks
- · Unique hook design makes it easily differentiated from standard snap hooks to eliminate confusion on the jobsite for added safety

WrapBax™2 Tie-Back Single Leg 1241906



NOTE: Available in Canada where specified above.



WrapBax™2 Tie-Back Double Leg 1242003

EZ STOP® III SHOCK ABSORBING LANYARDS

 ${\sf EZ\ Stop}^{\circledast}\ III\ shock\ absorbing\ lanyards\ are\ lightweight\ and\ compact;\ their\ simple\ design\ integrates\ the$ shock absorber for reduced weight and bulk. They utilize a stretching action (instead of tearing action) when subjected to fall arrest forces, limiting arresting forces to no more than 900 lbs. (4kN). 1-3/8" (35mm) tubular webbing for durability and strength.



EZ STOP® III									
Model #	Single Leg	Length	Connectors						
1244006	√	6′ (1.8m)	Standard hook, 3600 lb. Gates						
1244103	√	6′ (1.8m)	Choker web loop, standard hook, 3600 lb. Gates						

NOTE: EZ STOP® III lanyards not available in Canada.

FORCE2™ SHOCK ABSORBING LANYARD

Force2[™] shock absorbing lanyard is used when there is no overhead anchorage and your only option is to tie-off at your feet. It can be used for up to a 12' (3.7m) free fall and limits the arresting forces below OSHA's limits. It can also be used as a standard lanyard for workers that require a capacity of 311 lbs. to 420 lbs. (141kg to 190kg).

- OSHA approved for tying off at the feet
- Soft shock absorber cover for comfort
- Dual Capacity Rating:
 - Up to 310 lbs. (140kg) capacity-can be used for a 12' (3.7m) fall
 - 311 lbs. to 420 lbs. (141kg to 190kg) capacity-can be used as a standard lanyard for a 6' (1.8m) free fall.
- · Limits arresting forces to 1,800 lbs. (7kN) or less.



	FORCE2™										
Model #	Single Leg	Double Leg	Tie-off at Feet	Length	Connectors						
1245006	√		√	6' (1.8m)	Standard hook, 3600 lb. Gates						
1245013	3 √		√	6' (1.8m)	Choker web loop, aluminum carabiner, 3600 lb. Gates						
1245176		√	√	6' (1.8m)	3 Standard hooks, 3600 lb. Gates						

NOTE: FORCE2™ Lanyards are not CSA approved.

POSITIONING & RESTRAINT LANYARDS

These lanyards provide the ultimate in durability and safety for non-fall arrest applications.

Rope Lanyards

- Nylon or polyester rope with five-tuck splice and exclusive seizing method to hold the connection and prevent unweaving.
- Various lengths Available

Web Lanyards

- Built-in wear indicator in the webbing alerts when there is excess abrasion.
- Various lengths Available

Rebar Hook Assemblies

Made of twist link chain for strength and durability. Variety of hooks provide safe and compatible connections to many types of structures. Web option also available

POSITIONING & RESTRAINT										
Model #	Туре	Single Leg	Double Leg	Length	Connectors					
1231106 (1201106C in Canada)				6' (1.8m)	Standard hook, 3600 lb. Gates					
1231016 (1201016C in Canada)	Positioning web	√		6' (1.8m) adjustable	Standard hook, 3600 lb. Gates					
1232354 Positioning 1/2" (12.7mm) twisted rope		√		6' (1.8m)	Standard hook, 3600 lb. Gates					
1232209	Positioning 1/2" (12.7mm) twisted rope	√		6' (1.8m) adjustable	Standard hook, 3600 lb. Gates					
1232402	Positioning ½" (12.7mm) twisted rope	√		15' (4.5m)	Standard Hook, 3600 lb. Gates					
5920050	Chain rebar assembly		√	20.5" (51cm)	2 standard, 1 flat steel rebar hook, 3600 lb. Gates					
1231380 (1201380 in Canada)	Web rebar assembly		√	18" (45cm)	2 standard, 1 aluminum rebar hook , 3600 lb. Gates					

NOTE: Available in Canada with standard gated hooks where specified above.



Web Rebar Assembly 1" (25mm) polyester webbing 1231380 (1201380 in

Rope Lanyard ½" (12.7mm) nylon rope 1232354 (Not available in

Web Lanyard 1" (25mm) polyester constructed webbing 1231106 (1201106C in Canada)

DBI-SALA

ANCHORAGES AND ANCHORAGE CONNECTORS

Security to Match the Task

Anchorage connectors are greatly dependent on the specific requirements of the purchaser, including the type of attachment, the environment and the connecting system. DBI-SALA offers the most complete line of anchorage connectors available, rigorously tested to ensure the strength you need. This means you can always find the best product to fit your requirements.

Anchorages

An anchorage is a secure point of attachment for the fall arrest system. The anchorage must be capable of supporting a load of 5,000 lb. (22kN) per worker attached to the anchorage or shall be designed, installed and used as part of a complete personal fall arrest system which maintains a safety factor of at least 2.

Anchorages may be certified (designed or engineered on site for fall protection) or non-certified (beams, trusses or other suitably strong structures). Certified anchorages should be identified with paint or special markings and kept on a site location list.

Anchorage Connectors

Anchorage connectors provide a means of attaching the system to the anchorage. These vary widely depending on application. Some of the common types are anchor slings, roof anchors, beam clamps, rail sliders, trolleys, eyebolts and shepherd hooks.





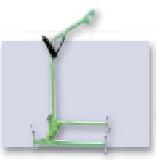
ANCHORAGE CONNECTORS FOR GENERAL PURPOSE

Tie-off adaptors and scaffold chokers are alternative anchorage connectors for a fall arrest system. They may be made of different materials, including cable, web and chain. Kevlar® tie-off adaptors should be used when working with high temperatures.



ANCHORAGE CONNECTORS FOR CLIMBING

Ladder safety systems provide complete safety while climbing. The shock absorbing top bracket and tension indicating bottom bracket serve as the anchors for the cable which runs the length of the climbing area.



ANCHORAGE CONNECTORS FOR UNDERGROUND CONFINED SPACES

Davit arms and tripods are ideal anchorage systems for mechanical advantage devices such as winches in confined space entry/rescue scenarios. Various models and configurations are available to suit specific site needs.



ANCHORAGE CONNECTORS FOR HORIZONTAL MOBILITY

Horizontal lifeline systems provide complete safety for personnel who require horizontal mobility while working at height. The steel cable or kernmantle rope system is attached to standard 5,000 lb. anchorage connectors and provides the user with 100% protection from one end of the system to the other.

What to look for in an Anchorage Connector

Anchorage Connectors are Sold by:

- What they connect to (steel, concrete, wood)
- · Whether they are fixed or mobile
- Whether they are permanent or portable

Experienced DBI-SALA technicians can provide guidance on which anchorage connector will best fit your applications.

Testing

Anchorage connectors are a critical part of a fall protection system. They must be tested to ensure that they have the strength to withstand the tremendous forces that can be generated by a fall. DBI-SALA anchorage connectors are rigorously tested both in-house and by SEI, an independent, non-profit testing and certification company accredited by ANSI and the Standards Council of Canada (SCC).

VACUUM ANCHORS

With a Vacuum Anchor System at your workers' side, they can anchor to virtually any smooth, non-porous surface simply by flipping a switch and waiting for the green light. So whether they need to work on a tank, vessel or large steel structure, they'll always be able to quickly, easily put themselves where they need to be—without putting themselves in danger.





WHAT TO LOOK FOR IN A SNAP HOOK AND CARABINER

OK And (

Self-locking

Snap hooks and carabiners used in fall protection or rescue operations must be self-locking. Non-locking hooks must not be used for fall protection because of the danger of rollout—the accidental disengagement of a connector from whatever it is attached to. The unique DBI-SALA snap hook is an industry favorite.

One-handed Operation

Snap hooks should be simple to operate in order to ensure that they are used properly, even when wearing gloves.

Materials

DBI-SALA snap hooks and carabiners are made of high tensile alloy steel or aluminum.

Standards

Snap hooks and carabiners used for fall protection must be capable of withstanding a 5,000 lb (22kn) load, be proof tested to at least 3,600 lbs. (16kn), and now have a self locking/self closing gate capable of withstanding a load of 3,600 lbs. (16kn). Many connectors manufactured outside the United States will not meet these strict requirements.

Features	Benefits	SAFLOK® CARABINERS	PATENTED SNAP HOOKS
Maximum strength	Safety	√	√
One- handed Operation	Ease of use	√	√
Range of gate openings	Versatility	√	
Self-locking & closing	Safety	√	√
Corrosion resistant	Durability	√	√
Meets ANSI Z359.1-2007	Safety	√	√

NEW ANSI Z359 STANDARD

Under the new standard, snap hook and carabiner gates must withstand a 3,600 lb. load. Both DBI-SALA and PROTECTA branded products are available to meet the new standard. We've made ordering the 3,600 lb. hook gate option easy; 120 series lanyards will change to 123 and 122 series changes to 124 (ex. 1224306 with 3,600 lb. gate hooks would be 1244306)



DBI-SALA offers the industry's widest range of anchorage devices

DBI-SALA offers the industry's widest range of anchorage connectors combining ease of use, lightweight and 5,000 lb. (22kN) minimum tensile strength to meet or exceed OSHA and ANSI Z359.1 requirements. CE and CSA compliant models are also available.





Scaffold Choker	1" (25mm) polyester strength member, 17" (43 cm) length, fits 3" (76mm) max. dia. structure, zinc plated steel hardware	1201390	17" (43cm) length
Cable Choker	Pass thru design, 7 x 19-3/8" (9.5mm) stainless steel cable, dual O-ring pass thru, zinc plated steel hardware	5900550	4' (1.2m) length
		5900551	6' (1.8m) length
D-ring Anchorage Plate	Bolted or weld on, two 1/2" (12mm) attachment holes, 1/4" x 2" x 4-1/4" (6mm x 50mm x 108mm)	2101630	Stainless steel plate, zinc plated D-ring
		2101634	Raw steel
		2101632	Painted
		2101636	All stainless steel
First-Man-Up™ System	Provides a complete system to mount a tie-off adapter to an overhead anchorage	2104519	6'-12' (1.8m-3.6m) pole, original hook
		2104520	8'-16' (2.4m-4.8m) pole, original hook
		2104527	6'-12' ft (1.8-3.6m) pole, 3600 lbs Hook
		2104528	8'-16' ft (2.4-4.8m) pole, 3600 lbs Hook
		2104530	6'-12' ft (1.8-3.6m) pole, 3600 lbs & original hook
		2104531	8'-16' ft (2.4-4.8m) pole, 3600 lbs & original hook
		2104522	Snap Hook Connector Tool,

ANCHORAGE CONNECTORS						
Product	Description	Model #	Additional			
Tie-Off Adaptor	Pass thru design provides a safe and easy way to	1003000	3' (.9m) length			
	anchor a fall protection device to an overhead location and beyond normal reach. 1-3/4" (44mm) polyester strap, 3" (76mm) wear guard, zinc plated steel hardware	1002103	3' (.9m) length Adjustable			
		1003006	6' (1.8m) length			
		1002106	6' (1.8m) length Adjustable			
Kevlar® Tie-Off Adaptor	Pass thru design provides a safe and easy way to anchor a fall protection device to an overhead location. 1-3/4" (44mm) Kevlar* strap ideal for welding or high-heat environments, zinc plated steel hardware.	1002202	6' (1.8m) length			
		1002200	3' (.9m) length			
		1002201	4' (1.2m) length			
Scaffold Choker	1" (25mm) polyester strength member, 17" (43 cm) length, fits 3" (76mm) max. dia. structure, zinc plated steel hardware	1201390	17" (43cm) length			
Cable Choker	Pass thru design, 7 x 19-3/8" (9.5mm) stainless steel cable, dual O-ring pass thru, zinc plated steel hardware	5900550	4' (1.2m) length			
		5900551	6' (1.8m) length			
D-ring Anchorage Plate	Bolted or weld on, two 1/2" (12mm) attachment holes, 1/4" x 2" x 4-1/4" (6mm x 50mm x 108mm)	2101630	Stainless steel plate, zinc plated D-ring			
		2101634	Raw steel			
		2101632	Painted			
		2101636	All stainless steel			
First-Man-Up™ System	Provides a complete system to mount a tie-off adapter to an overhead anchorage	2104519	6'-12' (1.8m-3.6m) pole, original hook			
		2104520	8'-16' (2.4m-4.8m) pole, original hook			
		2104527	6'-12' ft (1.8-3.6m) pole, 3600 lbs Hook			
		2104528	8'-16' ft (2.4-4.8m) pole, 3600 lbs Hook			
		2104530	6'-12' ft (1.8-3.6m) pole, 3600 lbs & original hook			
		2104531	8'-16' ft (2.4-4.8m) pole, 3600 lbs & original hook			
		2104522	Snap Hook Connector Tool, Original			
		2104529	Snap Hook Connector Tool, 3600 lbs			

ANCHORAGES AND ANCHORAGE CONNECTORS



BEAM ANCHORS				
Product	Model #	Description		
Fixed Beam Anchor	2108406	Works horizontally or vertically. Fits 1-1/2" (38mm) thick flange, 2-1/2 to 12" (63 to 304mm) wide, larger models available		
Glyder2" Sliding Beam Anchor	2104700	For complete horizontal mobility, designed for use with the Force2" shock absorbing lanyard when used at the worker's feet. Easily installed and easily removed and taken to a new site. Integrated ratcheting adjustment system provides quick and easy installation and removal. NO MORE PINS AND CHAINS! Extremely lightweight at only 3.7 lbs. (1.66 kg), with a user capacity of 420 lbs. (189 kg). Fits flange 3-1/2" to 14" (9cm to 35 cm) wide, up to 1-1/4" (3cm) thick		
Glyder" Sliding Beam Anchor	2110941	For complete horizontal mobility, designed for use with the Force2" shock absorbing lanyard when used at the worker's feet. Easily installed and easily removed and taken to a new site. Fits flange 6" to 18" (15cm to 45cm) wide, up to 2-1/2" (6.3cm) thick		
Man Rated I-Beam Trolley	2103143	Designed for use on I-Beam Flanges ranging from 3" to 8" (7.6cm to 20.3cm) wide, up to 11/16" (17.5mm) thick. This anchorage connector rolls along an I-Beam providing horizontal mobility		

NOTE: All part numbers are the same in Canada.



	PORTABLE MAST & BASE SYSTEM					
Product	Description		Additional			
Portable	The bases can be welded into place anywhere along the	8000050	Portable Mast for use with 8000051			
Mast & Base System	platform flush with the decking, the mast is slid into the base. The system provides a tie-off point for your self retracting lifeline for 360 degrees of mobility or a lanyard.	8000051	Base for use with 8000050 Portable Mast			

NOTE: All part numbers are the same in Canada.





















	CARABINERS					
Product	Description	Model #	Additional			
Saflok®	Self-closing/self-locking gate for increased	2000106	1-3/16" (30mm) gate opening			
Carabiners	safety and security, steel construction, user friendly even with gloves. Compatible	2000113	1-3/16" (30mm) gate opening, 3,600 lb rated gate			
	with most connecting rings	2000108	2-3/16" (55mm) gate opening			
		2000114	2-3/16" (55mm) gate opening, 3,600 lb rated gate			
		2000523	11/16" (17mm) gate opening			
		2000112	11/16" (17mm) gate opening, 3,600 lb rated gate			
		2000200	11/16" (17mm) gate opening, stainless steel			
		2000300	2" (50mm) gate opening			
		2000301	2" (50mm) gate opening, stainless steel			
Spreader Hook	Dual self locking snap hook assembly for positioning use. Simply connect each hook to side D-rings of harness, and attach carabiner at center and to structure.	2108403	3/4" (19mm) gate opening			



Lad-Saf® Ladder Safety Systems

With DBI-SALA's Lad-Saf® flexible cable ladder safety systems you are always assured of complete safety and security when climbing fixed ladders on poles, towers, tanks, etc. Every system is engineered to your specific requirements while meeting or exceeding OSHA and ANSI standards. The shock absorbing top bracket and tension indicating bottom bracket serve as the anchors for the steel cable which runs the length of the climbing area. Non-metallic cable guides reduce cable wear, permitting you to ascend or descend unhindered. The economical, easy to use systems are available for straight or curved ladders and for connection to wood, concrete or steel structures.

LAD-SAF® FLEXIBLE CABLE **LADDER SAFETY SYSTEM**

The Lad-Saf® shock absorbing design uses an elastomeric impact attenuator to reduce the forces imposed on the ladder structure.

The swiveling Lad-Saf® sleeve prevents falls by locking onto the cable. It is easily attached or removed anywhere along the cable and automatically follow as vou climb or descend.

Easily install the Lad-Saf® system with standard wrenches. The unique built-in tension indicator tells you precisely when the system is at the proper tension.

System is galvanized for a maintenance free life. For harsh environments, use the complete stainless steel system.

Non-metallic cable guides reduce cable wear, permitting you to ascend or descend unhindered. They also protect both the Lad-Saf® system and the climbina structure.



Lad-Saf® Attachment Brackets





Typical Lad-Saf®

Install

Diagram

Lad-Saf® **Cable Guide**

SSB Climb Assist System

The DBI-SALA SSB Climb assist system with external counterweight aids workers and provides fall protection while climbing lengthy ladders and towers. It is ideal for use on land-based and offshore drilling platforms where environmental and work conditions can make climbing ladders hazardous, and the unlimited length of the system makes it ideal for use in any environment.

SSB CLIMB ASSIST SYSTEM

3511063

- · Provides fall protection while climbing
- Climb assist system ideal for climbing lengthy ladders and towers
- Incorporates an external counterweight to keep the cable under tension
- Counterweight includes a runaway brake for added safety
- No limit to length of system for ultimate flexibility
- Durable aluminum housing & steel drum for durability and corrosion resistance
- · Meets or exceeds all applicable industry standards including OSHA and ANSI

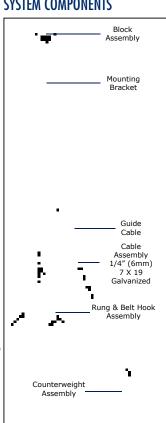
Items Required for System:

3511063 : Safety block assembly

3512000: Cable assembly (by length) with 1/4" (6mm) galvanized 7x19 cable with rung and belt hook assembly (3530000 - stainless cable assembly)

3511783: Mounting bracket assembly 3511598 : Counterweight assembly Order harness separately

SYSTEM COMPONENTS



ROPE LIFELINE ASSEMBLIES DBI-SALA's blended lifeline

DBI-SALA's blended lifeline assemblies offer additional abrasion and UV resistance for added durability, longevity and safety. Our patented snap hook allows for one-handed, easy connections—even with your gloves on! Various styles and lengths are available to suit any need.



	ROPE LIFELINES						
Model #	Length	Rope Type	Connectors				
1202753	30' (9m)	5/8" (16mm) blended polyester/polypropylene	Snap hooks at both ends				
1202754	1202754 30′ (9m) 5/8″ (16mm) blended polyester/polypropylene		Snap hook at one end, taped at other end				
1202790	50' (15m)	5/8" (16mm) blended polyester/polypropylene	Snap hooks at both ends				
1202794	50' (15m)	5/8" (16mm) blended polyester/polypropylene	Snap hook at one end, taped at other end				
1202823	75′ (22m)	5/8" (16mm) blended polyester/polypropylene	Snap hooks at both ends				
1202821	75′ (22m)	5/8" (16mm) blended polyester/polypropylene	Snap hook at one end, taped at other end				
1202842	100' (30m)	5/8" (16mm) blended polyester/polypropylene	Snap hooks at both ends				
1202844	100' (30m)	5/8" (16mm) blended polyester/polypropylene	Snap hook at one end, taped at other end				

NOTE: In Canada, add a "C" at end of part number. e.g. 1202754C.



Rope Grab 5000335 (5000335C in Canada)







ROPE GRABS						
Туре	Model #	Lifeline	Lanyard	Description		
Static Wire Rope Grab	Static Wire Rope Grab 5000338 3/8" (9.5 galvanized steel		Use 4' (1.2m) max length shock absorbing cable	Wire Rope Grab with patented wedging action that grips and locks onto cable lifeline; attach/detach anywhere along lifeline, stainless steel construction		
Mobile Rope Grab	5000335 (5000335C in Canada)	5/8" (16mm) rope	Use 3' (.9m) max length shock absorbing lanyard	Mobile design with hands-free operation automatically follows the user providing maximum freedom of movement. It utilizes both inertia and cam locking systems for added safety and to prevent "panic-grab" situations. The energy absorbing design reduces the forces generated upon a worker in the event of a fall. For added flexibility, it can be attached or removed anywhere along the lifeline. It is constructed from durable but lightweight stainless steel and thermoplastic to stand up to the harshest environments.		



SELF RETRACTING LIFELINES

Industry Leaders

DBI-SALA has been the industry leader in the development of reliable, versatile self retracting lifelines (SRL's). DBI-SALA SRL innovations include the patented Sealed SRL and the impact indicator, an important safety innovation which has now been widely adopted across the industry.

An SRL is a flexible lifeline attached to a mechanism that allows it to extend and retract under slight tension when the user moves away from and toward the device. This enables a user to work safely while moving within a recommended area at normal speeds.



SRL's can be used in a variety of situations, but are primarily used to provide movement and protection of users in a vertical work area. SRL's can also be used with a horizontal lifeline to improve the overall mobility of the system, both vertically and horizontally.

What to look for in an SRL



SEALED DESIGN

DBI-SALA's sealed SRL design is field proven, operating safely on some of the world's most challenging work sites for over a decade. They incorporate a patented concept, all dynamic components including the motor spring and brake system are isolated (environmentally sealed) from foreign elements (ex. grease, moisture, dirt, etc.). You always know your SRL is operating at peak efficiency, without worries about what is happening inside the housing, no matter how dirty or damp your environment. It will maintain consistent lifeline retraction, proper fall arrest distances and forces providing added worker satisfaction, productivity and safety. In addition, the sealed design will lower your overall cost of ownership by extending maintenance intervals and product longevity.

HOUSING

The SRL casing protects the inner parts of the SRL and holds the excess line when not in use. Durable, impact-resistant housings offer longer wear and greater protection of the brakes and retraction springs. DBI-SALA developed the industry's only fully Sealed SRL that isolates the critical working components, protecting them from the dirt, oil or grease that the retracted cable can bring inside.

i-Sate"

Every DBI-SALA SRL now comes with i-Safe", the Intelligent Safety System that incorporates RFID and web-enabled communications technologies, providing you with the ability to centrally track inspections, control field inventory and manage critical safety information.

LIME

SRL lines can be made from cable, webbing or synthetic rope. Cable is considered for rugged, outdoor applications or where the line may be in touch with sharp objects. Web lifeline models are for temporary, portable applications where additional mobility is needed such as for general maintenance activities, rig up and rig down and equipment installations. Stainless steel offers the ultimate in corrosion resistance, reliability and longevity.

IMPACT INDICATOR

SRL's should be inspected before each use and annually by the customers' designated competent person. Inspections are made easier with an impact indicator that immediately shows an orange or red band if the SRL has been loaded or has arrested a fall. All SRL's should be removed from service following the arrest of a fall and if the impact indicator is visible. In most cases the unit will have to be returned to an authorized service center for servicing or replacement.

SNAP HOOK

The snap hook affects ease and speed of connection. A swivel snap hook provides versatility to allow the SRL to be easily connected to a wide variety of anchorages, making it adaptable to different work structures. The patented DBI-SALA self-locking snap hook opens and connects without thumbs or fingers getting in the way.

RESERVE LIFELINE

Some SRL's have an emergency reserve lifeline feature which means that if a worker has nearly all the line extended and experiences a fall, the unit will still be capable of absorbing energy and keeping the arresting forces to a minimum.

3-WAY RETRIEVAL OPTION

Some SRL's incorporate a built-in winch retrieval mechanism. These units not only provide fall protection as a worker enters a confined space such as a tank or bin, but also allow activation of a retrieval mechanism for fast, convenient rescue.

QUICK ACTIVATING BRAKING SYSTEM

Many industry SRL's use a seat-belt type extension and retraction mechanism which can malfunction and lock-up when you don't want them to. DBI-SALA SRL's feature an anti-racheting, twin disc brake mechanism that provides smooth operation and locks only when you are ready. Once the mechanism engages, it stays locked, ensuring that the worker is not racheted down to the ground. The system limits arresting forces to 900 lbs. (4kN) or less. Because fall arrest begins within 2' (.6m), the required clearance distance is reduced when using DBI-SALA SRL's.





DBI-SALA SRL's...smooth, safe operation and built to last!

	SELECTION GUIDE							
Product	Description	Recommended For	Housing	Impact Indicator	Anti- Racheting	Swivel Hook	Reserve Lifeline	
Ultra- Lok® SRL's	Rugged, highly engineered devices that can be counted on for user safety, efficiency and comfort	General Maintenance Refinery Work Monkey/Tubing Board & Basket Work	Heavy duty poly- urethane	V	V	√ (cable) OPTIONAL (web)	√	
Sealed SRL's	Patented technology separates components from grease, moisture and dirt for the most durable, rugged unit available on the market	Climbing the Derrick Monkey/Tubing Board & Basket Work General Maintenance, Off- Shore Work Output Description:	Heavy gauge stainless steel and aluminum	V	V	V	√	
Heavy Duty Compact SRL's	Rugged, highly engineered devices that can be counted on for user safety, efficiency and comfort	General Maintenance Refinery Work Monkey/Tubing Board & Basket Work Platform Work	Heavy duty aluminum	V	V	√ (cable) OPTIONAL (web)	√	
Talon™ Web SRL's	Compliant and dependable quality SRL's, yet economical	General Maintenance Maintenance and Servicing on Pipe Racks Refinery Work	Nylon	√	√	OPTIONAL		

ULTRA-LOK® SELF RETRACTING LIFELINES

The Ultra-Lok® web and cable SRL's are rugged, highly engineered devices that can be counted on for user safety, efficiency and comfort.

- Maximum durability with minimal weight
- Stainless steel working components for corrosion resistance
- Durable polyurethane housing and aluminum side plates
- Anti-racheting, twin disc brake system limits arresting forces to 900 lbs. (4kN) or less
- Smooth performance
- · Fast, easy connection and greater flexibility



Ultra-Lok® Self Retracting Lifeline 30′ (9mm) 3/16″ (5 mm) galvanized wire rope. Also available in 20′ (6m), 50′ (15 m) and 85′ (25m) lengths. **3504430**



ULTRA-LOK® SELF RETRACTING LIFELINES — WEB							
Model #	Connector						
3103107	3103107 11' (3.3m)		Standard hook				
3103108	11' (3.3m)	Web 1" (25mm) nylon	Swivel hook				
3103207	20' (6m)	Web 1" (25mm) nylon	Standard hook				
3103208	3103208 20′ (6m)		Swivel hook				

UL	ULTRA-LOK® SELF RETRACTING LIFELINES — CABLE							
Model #	Length	Line Type	Connector					
3504433	20' (6m)	Galvanized 3/16" (5mm)	Swivel hook					
3504434	20' (6m)	Stainless 3/16" (5mm)	Swivel hook					
3504437	20' (6m)	20' (6m) Stainless 3/16" (5mm)						
3504430	30′ (9m)	Galvanized 3/16" (5mm)	Swivel hook					
3504431	30' (9m)	Stainless 3/16" (5mm)	Swivel hook					
3504432	30′ (9m)	Stainless 3/16" (5mm)	Stainless Swivel hook					
3504450	50' (15m)	50' (15m) Galvanized 3/16" (5mm)						
3504451	50' (15m)	Stainless 3/16" (5mm)	Swivel hook					
3504485	85' (26m)	Galvanized 3/16" (5mm)	Swivel hook					
3504486	85' (26m)	Stainless 3/16" (5mm)	Swivel hook					

NOTE: In Canada, add a "C" at end of part number. e.g. 3504430C.

SEALED SELF RETRACTING LIFELINES

DBI-SALA Sealed SRL's incorporate a revolutionary patented sealed technology that separates all dynamic components from foreign elements such as grease, moisture and dirt. Unparalleled in the industry, this true-seal equipment ensures efficient, safe operation under all working conditions.

- Most durable, rugged unit available on the market
- Self-adjusting disc brake limits arresting forces to 900 lbs. (4kN) or less
- Aluminum and stainless steel, heavy gauge housing that resists damage from impacts and ensures long lasting, reliable performance
- 50' (15m) 3/16" (5mm) galvanized steel wire rope for durability. Available in 30' (9m), 85' (25m), 130' (39m) lengths and 175' (53m) non-sealed version
- Optional 3-way retrieval winch mechanism for efficient and convenient rescue operations



Sealed-Blok™ Self Retracting Lifeline 30' (9m) cable 3400800

SEALED SELF RETRACTING LIFELINES						
Model #	Length	Line type	Connector/Other			
3400800	30' (9m)	Galvanized 3/16" (5mm)	Swivel hook			
3400801	30' (9m)	30' (9m) Stainless 3/16" (5mm) Swivel				
3400802	30' (9m)	9m) Stainless 3/16" (5mm) Stainless Swivel I				
3400850	30' (9m)	Galvanized 3/16" (5mm)	Swivel hook - with retrieval winch			
3400851	30' (9m)	Stainless 3/16" (5mm)	Swivel hook			
3400852	30' (9m)	Stainless 3/16" (5mm)	Stainless Swivel hook - with retrieval winch			
3400853	30' (9m)	Galvanized 3/16" (5mm)	Swivel hook - with retrieval winch & mounting bracket			
3403400	3403400 50′ (15m) Galv		Swivel hook			
3403401	50' (15m)	Stainless 3/16" (5mm)	Swivel hook			
3400006	50' (15m)	Stainless 3/16" (5mm)	Stainless Swivel hook			
3403402	50' (15m)	Galvanized 3/16" (5mm)	Swivel hook with Retrieval Winch			
3400109	50′ (15m)	Stainless 3/16" (5mm)	Stainless Swivel hook with Retrieval Winch			
3403500	85' (26m)	Galvanized 3/16" (5mm)	Swivel hook			
3403501	85' (26m)	Stainless 3/16" (5mm)	Swivel hook			
3400205	85' (26m)	Stainless 3/16" (5mm)	Stainless Swivel hook			
3403600	130' (39m)	Galvanized 3/16" (5mm)	Swivel hook			
3403601	130' (39m)	Stainless 3/16" (5mm)	Swivel hook			
3400407	130' (39m)	Stainless 3/16" (5mm)	Stainless Swivel hook			
3400610	175' (53m)	Galvanized 3/16" (5mm)	Swivel hook			
3400611	175' (53m)	Stainless 3/16" (5mm)	Swivel hook			
3400612	175' (53m)	Stainless 3/16" (5mm)	Stainless Swivel hook			

NOTE: In Canada, add a "C" at end of part number. e.g. 3403400C. The 3400612 is not CSA approved.

HEAVY DUTY COMPACT SELF RETRACTING LIFELINES

These compact self retracting lifelines are built to last and incorporate a high strength aluminum housing.

- Compact and lightweight design
- Durable aluminum housing
- Web or cable lifeline for versatility
- Anti-ratcheting, self-adjusting disk brake limits arresting forces to 900 lbs. (4kN) or less

Heavy Duty Self Retracting Lifeline 39' (11.7m) stainless cable **3000151**



HEAVY DUTY COMPACT SELF RETRACTING LIFELINES						
Model #	Length	Line type	Connector			
3103020	11' (3.3m)	Web 1" (25mm) nylon	Standard hook			
3506000	11' (3.3m)	Galvanized 3/16" (5mm)	Swivel hook			
3506001	11' (3.3m)	Stainless 3 /16" (5mm)	Stainless swivel hook			
3506002	11' (3.3m)	Stainless 3 /16" (5mm)	Swivel hook			
3000058	20' (6m)	Stainless 3 /16" (5mm)	Swivel hook			
3000151	39′ (11.7m)	Stainless 3 /16" (5mm)	Swivel hook			

NOTE: In Canada, add a "C" at end of part number. e.g. 3506000C. The 3000058 and 151 are not CSA approved.

TALON™ WEB SELF RETRACTING LIFELINES

Talon Self Retracting Lifelines are engineered for reliable protection that locks when it should, won't lock when it shouldn't.

Dependable quality in an economical model. Antiratcheting brake system limits arresting forces to 900 lbs. (kN) or less.

- Extremely lightweight design—under 3 lbs.!
- Direct harness attachment option
- Built in anchorage connector
- Greater freedom of movement without compromising safety
- Maintains compact size and weight for comfort and convenience

Talon™ Twin Leg Self Retracting Lifeline 6' (1.8m) 3102000



Talon™ Self

TALON™ SERIES SELF RETRACTING LIFELINES							
Single/ Model # Length Twin leg Line type Co							
3101000	8' (2.4m)	Single	Standard hook				
3101001	8′ (2.4m)		3/4" (19mm) Nylon web	Swivel hook			
3101051	16' (4.8m)	6' (4.8m) Single 3/4" (19mm) Nylon web		Swivel hook			
3102000	3102000 6' (1.8m) Twin		1" (25mm) Nylon web	Rebar aluminum hook			
3102003	6′ (1.8m)	Twin	1" (25mm) Nylon web	Rebar steel hook			

NOTE: Part Numbers 3102000 and 3102003 are the same in Canada. All other numbers add a "C" at the end. e.g. 3101001C.



HORIZONTAL LIFELINE SYSTEMS

The Most Thoroughly Engineered On The Market

For years safety engineers and site directors have put their trust in the highly engineered DBI-SALA horizontal lifeline systems for superior technology and service. With the largest range of systems to fit the variety of applications, DBI-SALA horizontal lifelines offer significant benefits to enhance safety and productivity.

A horizontal lifeline is a complex system comprised of a flexible line with connectors at both ends for securing it horizontally between two anchorages or anchorage connectors. These systems are used to protect workers operating in the horizontal plane who may not have continuous access to suitable anchorage points. Horizontal lifeline systems include the lifeline component, necessary connectors and anchorages, and may include an energy absorbing component.



What to look for in a Horizontal Lifeline

LINE

Most horizontal lifelines are made from galvanized metal or stainless steel to prevent the system from wearing out through constant use or environmental factors. Synthetic lines are often used in temporary and indoor applications because they are lightweight and easy to install.

SWAGED ENDS

Swaging or welding guarantees a faultless link between the cable and the anchorage points, preserving the strength of the cable at its connection.

ENERGY ABSORBER

Some systems have in-line energy absorbers to reduce the overall forces on the system. The DBI-SALA Zorbit™ energy absorber begins to pay out at a higher force than other industry models. This means in case of a fall, there will be less slack on the line for less fall distance. One energy absorber is used for units under 60′ (18m). If over 60′ (18m), a unit is used at each end.

ADJUSTABLE TERMINATION

Adjustable Termination construction practices are fast moving so your equipment needs to be as well. The wedge grip termination allows the user to easily adjust and install cable type horizontal lifeline systems.

PRECISION ENGINEERING

A horizontal lifeline system may appear to be a basic line strung between two anchors. It is not! Proper engineering is critical to ensure a safe lifeline. Typical failures involve improper calculation of clearance, no account for sag in the lifeline, misunderstanding of anchorage strength and location. When a fall is experienced on a horizontal lifeline, the load is magnified back to the anchorage point generating tremendous force. The amount of sag amplifies the forces on the end anchors. Other factors include the number of workers using the system, overall length and the material used. Precision engineered systems that have endured rigorous testing and meet OSHA and ANSI requirements take the guesswork out of putting together a horizontal fall protection system.



Evolution™ Permanent Horizontal Lifeline Systems

Evolution is a permanently installed horizontal lifeline system that is completely customizable—straight or curved systems and unlimited length. The system offers multiple users the ability to be fully protected, working hands-free, bypassing intermediate bracket points without unhooking from the lifeline. The system can be installed in various orientations to suit site requirements including above or at the user's feet. We have a complete network of certified installers to custom design, price and install these systems. Please call us for details or visit www.horizontallifeline.com to locate an installer near you.



Permanent vs. Portable

Horizontal lifelines systems are classified as permanent or portable. Portable systems must be easy to install and remove. DBI-SALA portable lifeline systems are affordable and lightweight for quick installation and versatile use. Evolution™ is a particularly flexible system for companies seeking a permanent solution. It provides protection of their workplaces without any damage to the buildings or the structures into which the lifeline has to be incorporated.

STANCHIONS

Stanchions are usually included as part of a complete and portable horizontal system. The style of stanchions affects the distance of the span, the weight and portability of the system, and what the system connects to.





Superior DBI-SALA technology for more confidence in your horizontal fall protection



	SELECTION GUIDE						
	Product	Description	Recommended For	Installation	Energy Absorber	Cable	No. of Users Up to:
	Evolution™ Horizontal Lifeline System	Permanent Customizable system for any application	Plant/Facility Maintenance Pipe Racks	Performed by Certified Installers	High Tension System	7x7 – 8mm Stainless Steel Cable	5 Users
0	Sayfline™ Horizontal Lifeline System - Synthetic	Temporary The lightest synthetic portable horizontal lifelines available	Plant/Facility Maintenance Pipe Racks	Easy with no special tools or equipment	In-line energy absorber	Kernmantle rope	2 users
	Sayfline™ Horizontal Lifeline System - Cable	Temporary The lightest cable portable horizontal lifelines available	Plant/Facility Maintenance Pipe Racks	Easy with no special tools or equipment	Zorbit™	7x19 - 3/8" (9.5mm) galvanized	2 users
	SecuraSpan®	Temporary Extremely lightweight and affordable engineered system	Plant/Facility Maintenance Pipe Racks	Single clamp anchor on stanchion base	Zorbit™	7x19 - 3/8" (9.5mm) galvanized	6 2 per span
	EZ-Line™ Horizontal Lifeline System - Cable	Temporary The easiest horizontal lifeline to install today	Plant/Facility Maintenance Pipe Racks	Very easy – no special tools required	Internal friction brake	7x19 - 1/4" (6.25mm) galvanized 7x19 - 5/16" (8mm) galvanized (Canada)	2 users
	evolution200™ Horizontal Lifeline System - Cable	Permanent Single span system with up to 200 ft. (61m) length	Railcar loading and unloading	Installed by user or Certified Install- ers	High Tension System	5/16" (8mm) stainless steel	1 User (2 Users if second HLL system installed)

SECURASPAN® HORIZONTAL LIFELINE SYSTEM

The SecuraSpan® horizontal lifeline system was developed to provide an economical and safe solution to non-engineered homemade systems. The system and all components have been rigorously tested to exceed the unique dynamic, performance and strength requirements involved with horizontal systems. The extremely lightweight stanchions can be configured into a complete engineered fall protection system for steel erectors. With optional "bypass" bracket, the system can be configured to run indefinitely for ultimate jobsite flexibility. Spans between intermediates can be as great as 60' (18m) depending on your clearance requirements.

- Temporary system can be moved from one location to another for added productivity
- Simple, fast installation with a simple clamp anchor on the stanchion base
- Unlimited system length provides 100% protection and flexibility
- Zorbit[™] energy absorber with turnbuckle
- Standard size fits flanges up to 12" (30cm) wide and 2-1/4" (5.7cm) thick. Optional base clamps available to fit 18", 24" or 36" (45, 60 or 91cm) beams, up to 3-3/8" thick
- Custom length requirements available in 10' (3m) increments

SECURASPAN® CLEARANCE					
1-2 Users Span Length 6' (1.8m) Lanyard 1-2 Users SR					
0-10' (3m)	14'-2" (4.3m)	10'-9" (3.2m)			
10'-20' (3-6m)	15'-5" (4.6m)	11'-11" (3.6m)			
20'-30' (6-9m)	16' (4.8m)	13'-2" (3.9m)			
30'-40' (9-12m)	17'-10" (5.4m)	14'-6" (4.4m)			
40'-50' (12-15m)	19' (5.7m)	15'-7" (4.7m)			
50'-60' (15-18m)	20'-2" (6.1m)	16'-8" (5m)			

SecuraSpan® Systems

7400120 20' (6m) system **7400130** 30' (9m) system **7400140** 40' (12m) system **7400150** 50' (15m) system **7400160** 60' (18m) system

Customize Your System

7400001: Stanchion, its flange up to 12" (30cm) wide & 2-1/4" (5.7cm) thick

7400035: Stanchion, fits 18" (45cm) wide & 2-1/4" (5.7cm) thick **7400031:** Stanchion, fits 24" (60cm) wide & 2-1/4" (5.7cm) thick

7400036: Stanchion, fits 36" (91cm) wide & 2-1/4" (5.7cm) thick

7400015: Stanchion, fits flange up to 12" (30cm) wide & 3-3/8" (8.4cm) thick

7400032: Stanchion fits 18" (45cm) wide & 3-3/8" (8.4cm) thick **7400033:** Stanchion fits 24" (60cm) wide & 3-3/8" (8.4cm) thick **7400034:** Stanchion fits 36" (91cm) wide & 3-3/8" (8.4cm) thick

7400008: Intermediate Bypass bracket kit

7400009: Clamp assembly up to 18" (45cm) wide flange, 2-1/4" (5.7cm) thick

7400010: Clamp assembly up to 24" (60cm), 2-1/4" (5.6cm) thick **7400011:** Clamp assembly up to 36" (91cm), 2-1/4" (5.6cm) thick

7400017: Clamp assembly up to 12" (30cm) wide flange, 3-3/8" (5.7cm) thick

7400018: Clamp assembly up to 18" (45cm) wide flange, 3-3/8" (8.4cm) thick

7400019: Clamp assembly up to 24" (60cm) 3-3/8" (8.4cm) thick

7400021: Clamp assembly up to 36" (91cm) wide flange, 3-3/8" (8.4cm) thick

7403020: 20' (6m) cable assembly with turnbuckle and Zorbit" (last 3 digits in Part # detail length)

SAYFLINE™ SYNTHETIC HORIZONTAL LIFELINE SYSTEMS

The Sayfline" horizontal lifeline systems are not only lightweight and easy to install, they are also extremely portable. Just disassemble and take to the next job. Engineered with DBI-SALA attention to quality and detail, the Sayfline" system is a complete kit in its own carrying bag that is easily installed with no special tools or equipment.

- Complete with kernmantle rope lifeline assembly with a tensioning device for ease-of-use
- Two 6' (1.8m) tie-off adaptors are included to anchor the system to a structure

Sayfline™ Systems

7600502 20' (6m) long 7600503 30' (9m) long 7600504 40' (12m) long 7600505 50' (15m) long 7600506 60' (18m) long 7600507 70' (21m) long 7600508 80' (24m) long 7600509 90' (27m) long 7600510 100' (30m) long

SYNTHETIC SAYFLINE™ CLEARANCE								
	(required above lower level or obstruction)							
Span Length	Span Length 1 User 6' (1.8m) Lanyard 2 Users 6' (1.8m) Lanyard 1 User SRL 2 Users SRL							
0-10' (3m)	19'-1" (5.7m)	19'-5" (5.8m)	7'-11" (2.4m)	8'-11" (2.7m)				
10'-20' (3-6m)	19'-5" (5.8m)	21'-5" (6.4m)	8'-5" (2.5m)	10'-3" (3.1m)				
20'-30' (6-9m)	19'-9" (5.9m)	23'-4" (7m)	8'-10" (2.7m)	11'-6" (3.5m)				
30'-40' (9-12m)	21'-3" (6.4m)	25'-9" (7.7m)	9'-4" (2.8m)	12'-9"(3.8m)				
40'-50' (12-15m)	22'-6" (6.8m)	27'-11" (8.4m)	11'-3" (3.4m)	15'-6" (4.7m)				
50'-60' (15-18m)	23'-10" (7.2m)	30'-2" (9.1m)	13'-2" (4m)	18'-3" (5.5m)				

NOTE: All part numbers shown are the

Please note: See product instruction manuals for complete clearance information or different user scenarios.

SAYFLINE™ CABLE HORIZONTAL LIFELINE SYSTEM

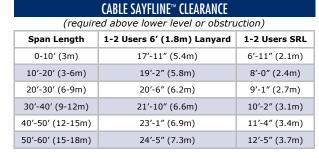
The cable Sayfline" system is highly portable and ideal for use in situations where welding, sparks or harsh environments are present or where minimal clearance exists. This all-metal system is durable enough to be left in place for long periods of time and light enough to be moved easily from one job to another. Engineered with DBI-SALA attention to quality and detail, the Sayfline" system is a complete kit that is easily installed with no special tools or equipment.

- Lightweight and extremely portable allowing you to move it and reuse it over and over again
- · Cable lifeline assembly and wedgegrip termination for easy adjustability and installation
- Zorbit[™] shock absorber for added safety, it allows you to use a standard 5,000 lb. (22.24kN) rated anchorage connector such as our tie-off adaptor, fixed beam anchor, D-ring anchorage plate, etc.

Sayfline™ Cable Systems

7602020 20' (6m) long 7602030 30' (9m) long 7602040 40' (12m) long 7602050 50' (15m) long 7602060 60' (18m) long 7602070 70' (21m) long 7602080 80' (24m) long 7602090 90' (27m) long 100' (30m) long 7602100

NOTE: All part numbers shown are the



Please note: See product instruction manuals for complete clearance information or different user scenarios.

EZ-LINE™ CABLE RETRACTABLE HORIZONTAL LIFELINE SYSTEM

The EZ-Line™ horizontal lifeline system is retractable, making it the fastest system to install, remove and store on the market today. The 60′ (18m) cable lifeline is neatly stored in an easy to carry case. Because of its compact and lightweight design, there are no more bulky coils of cable that are difficult to handle, install and store!

- Retractable lifeline is simply pulled out for installation and retracted with builtin winch for dismantle
- Customize your system length in any increment up to 60' (18m) for complete jobsite flexibility (40' [12.2m] in Canada)
- Attaches to any 5,000 lb. (22.24kN rated anchorage connector or stanchion for added versatility
- Built-in pretension and impact indicators
- 33% lighter than conventional systems

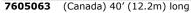
EZ-LINE™ CLEARANCE

(required above lower level or obstruction)

(required above terror or observation)						
Span Length	1 User 6' (1.8m) Lanyard	2 Users 6' (1.8m) Lanyard	1 User SRL	2 Users SRL		
0-10' (3m)	18'-2" (5.5m)	19' (5.8m)	7′-5″ (2.3m)	8'-2" (2.5m)		
10'-20' (3-6m)	18'-10" (5.7m)	20'-3" (6.2m)	8' (2.4m)	9'-0" (2.7m)		
20'-30' (6-9m)	19'-6" (5.9m)	21'-6" (6.6m)	8'-7" (2.6m)	9'-10" (3.0m)		
30'-40' (9-12m)	20'-2" (6.1m)	22'-10" (7m)	9'-2" (2.8m)	10'-8" (3.3m)		
40'-50' (12-15m)	20'-10" (64m)	24'-1" (7.3m)	9'-10" (3m)	11'-6" (3.5m)		
50'-60' (15-18m)	21'-6" (6.6m)	25'-4" (7.7m)	10'-4" (3.1m)	12'-4" (3.8m)		

EZ-Line™ Cable Systems

7605060 60′ (18m) long







DBI-SALA

CONFINED SPACE ENTRY, RESCUE & DESCENT EQUIPMENT

Reliability When You Need It the Most

When it comes to rescue, it is essential that equipment operates perfectly...and fast. DBI-SALA has developed a complete line of rescue and retrieval systems that are more effective than any other in the industry. Safety engineers and site directors trust DBI-SALA for the type of high quality, rugged systems that will ensure top performance when it is needed.

Rescue and retrieval are critical components of any fall protection program. The fast and effective performance of these tasks often means the difference between a non-injury fall and one resulting in serious worker harm. Often the longer a fallen employee remains suspended or trapped, the worse his injuries.

Rescue and descent equipment choices depend on the job site, the tasks being performed and the available manpower. Rescue and descent equipment includes tripods, davit arms, winches, comprehensive rescue systems and descent devices.

Rescue Basics

- If a fallen worker can be accessed using a lift, bucket or ladder, one of these should be used. In some cases industrial sites may rely on local fire departments to assist in rescue, but in-house rescue response times are usually much shorter.
- Rescuers should always be backed up with a secondary redundant system such as a belay system or SRL that is totally independent of the primary means of rescue.
- All rescue team members should receive training and practice on a regular basis.

Confined Space Rescue

Confined spaces, such as stacks, vaults, and pits, are one of the most challenging of rescue situations. Cramped space and narrow openings can make access by rescuers difficult. At the same time, these situations often present problems such as inadequate ventilation or noxious air that make immediate rescue imperative. Generally a person without oxygen for four minutes will die or suffer brain damage.

The critical nature of these rescues sometimes leads to poorly planned attempts. Two-thirds of deaths in confined space rescue occur to people trying to rescue someone else. Proper equipment to perform quick, safe rescue is essential in any operation where confined spaces must be entered. DBI-SALA confined space and rescue equipment is engineered for perfect performance in critical emergency situations.



What to look for in a Confined Space Entry & Escape System

EASE-OF-USE

During an emergency, speed and safety is your primary concern and decisions must be made quickly. There is no room for error! DBI-SALA Rescue Systems provide you with the confidence to handle crisis in a confined space.

MECHANICAL SYSTEMS

The mechanical device is one of the most critical parts of the rescue system. It provides the means to retrieve an incapacitated worker to safety. Lifeline type and length are just a few of the options. In some situations, a secondary or back-up system is required.

DURABILITY

Confined space systems have to be built to stand up to the harshest environments. Components must be designed from quality materials strong enough to endure rough use and exposure to the elements.

VERSATILITY

The confined space system should be adjustable, readily adapting to extreme environment and uneven terrain. A modular design is also helpful, allowing you to add-on to the system over time.

STRENGTH

The system you choose must be rated for the application you plan on using it for, such as fall arrest, rescue, man-riding or material handling. Choose a system that has been designed to maximize strength and minimizes weight.

PORTABILITY

The portability of a rescue system is an important factor. It must be lightweight, easy to transport, set-up and store. Remember, in an emergency situation, every second counts.

ACCESSORIES

Boatswain's Chair is ideal for confined space entry. 1001140

> Y-Lanyard connects to shoulder D-ring harness 1231460



What to look for in a Rescue/Descent System

The DBI-SALA product line includes a number of high angle rescue and positioning systems, as well as descent and escape systems that are safe, easy to use and allow maximum control during use.

VERSATILITY

Systems like the Rollgliss R350 series provide ultimate versatility You can change hauling ratios on the fly with a variety of pulleys. Often used by fully trained rescue teams.



EASE-OF-USE

Rollgliss® descent units automatically control the rate of descent regardless of what the operator/user does. Automatic and manually retracting escape units are available for vertical or sloped descents.



PORTABILITY

Rollgliss® rescue kit is packaged in easy to carry bags. The light weight kit is easy and fast to set up. Extendable pole helps you to reach victims and perform rescue while in a safe and secure location.





DBI-SALA is the name to trust for Confined Space Rescue Equipment

Whether raising, lowering or supporting personnel or materials, our confined space rescue and retrieval systems are designed for versatility and ease of use. They serve as true workhorses, providing routine work support and fall protection, and perform as perfectly engineered rescue and retrieval systems during emergencies in areas such as manholes, tanks, bins, vaults, etc



TRIPOD & SALALIFT® II SYSTEM

This DBI-SALA system is ideal for typical manholes and combines our lightweight and portable aluminum tripod with the SALALIFT®II Winch. The system is easily set-up by one worker and can be transported from one location to another.

- Complete confined space entry/retrieval system
- Includes UL Classified aluminum tripod, winch and/or self retracting lifeline
- Rated working load is 350 lbs. (157kg) for work support or rescue
- Adjustable locking legs with safety chains
- Rubber safety shoes containing spiked edges for uneven surfaces
- All mounting hardware and brackets are included

Model #	Tripod	Winch	SRL	Weight
8000000	7′ (2.1m)	N/A	N/A	47 lbs. (21kg)
8000010	9′ (2.7m)	N/A	N/A	56 lbs. (25kg)
8300030	7′ (2.1m)	60' (18m) 1/4" (6.25mm) Galvanized	N/A	83 lbs. (37.4kg)
8300032	7′ (2.1m)	90' (27m) 3/16" (5mm) Galvanized	N/A	82 lbs. (36.9kg)
8300034	7′ (2.1m)	120' (36m) 3/16" (5mm) Galvanized	N/A	84 lbs. (37.8g)
8301000	7′ (2.1m)	N/A	50' (15m) 3/16" (5mm) Galvanized	94 lbs. (42.4g)
8304010	7′ (2.1m)	60' (18m) 1/4" (6.25mm) Galvanized	50' (15m) 3/16" (5mm) Galvanized	133 lbs. (59.9kg)
8304012	9′ (2.7m)	60' (18m) 1/4" (6.25mm) Galvanized	50' (15m) 3/16" (5mm) Galvanized	146 lbs. (65.7kg)

NOTE: All part numbers shown are the same in Canada



SALALIFT® II WINCH

This man-rated work support and rescue winch is lightweight and easy to use. It is manually operated by simply rotating the handle to raise or lower personnel or materials. Galvanized cable is standard, stainless and rope available.

- Gear ratio is 6:1 with an average lifting speed of 12.75'/min
- Quick-mount bracket for attachment to tripod and safety hook with impact indicator
- Free-wheel mode for operator maneuverability and overload clutch for added safety
- Polyethylene housing for reduced weight and superior corrosion resistance

Model #	Description	Length	Lifeline Type	Weight
8102001	SALALIFT® II Winch	60' (18m)	1/4" (6.25mm) Galvanized cable	36 lbs. (16.2kg)
8102009	SALALIFT® II Winch	90' (27m)	3/16" (5mm) Galvanized cable	36 lbs. (16.2kg)
8102005	SALALIFT® II Winch	120' (36m)	3/16" (5mm) Galvanized cable	36 lbs. (16.2kg)

 $\label{eq:note:normalisation} \textbf{NOTE: All part numbers shown are the same in Canada.}$



3-WAY SEALED SELF RETRACTING LIFELINE (SRL)

This man-rated personal fall arrest component incorporates a retrieval winch suitable for raising and lowering personnel in emergency rescue/retrieval situations. In the event of a fall, the brake will stop the fall and limit arresting forces to 900 lbs. (4kN) or less.

- Quick-mount bracket for attachment to tripod and carrying bag
- Sealed design for the ultimate in durability and corrosion resistance
- Aluminum and stainless steel construction for added corrosion resistance
- Safety hook with impact indicator
- Galvanized and Stainless cable available

Model #	Description	Length	Lifeline Type	Weight
3400853	Sealed SRL	30' (9m)	3/16" (5mm) Galvanized cable	24 lbs. (10.8kg)
3400115	Sealed SRL with bracket	50′ (15m)	3/16" (5mm) Galvanized cable	41 lbs. (18.5kg)
3400311	Sealed SRL with bracket	85' (26m)	3/16" (5mm) Galvanized cable	59 lbs. (26.5kg)
3400509	Sealed SRL with bracket	130' (39m)	3/16" (5mm) Galvanized cable	83 lbs. (37.4kg)

NOTE: In Canada, add a "C" at end of part number. e.g. 3400850C.



ADVANCED BASIC HOIST SYSTEMS

These systems are the most efficient and economical confined space entry and retrieval alternative to a tripod. The Advanced Basic Hoist features a 5,000 lb. anchor point, overload indicator and lightweight construction. The high-visibility fluorescent green Advanced Basic Hoist features a collapsible base to reduce storage and transport space.

- Lightweight aluminum construction
- Includes 5,000 lbs. (22kN) anchor point for fall-arrest devices
- All hardware is zinc plated for corrosion resistance
- Top pulley assembly for routing of lifeline
- See page 52 for winch options

Model #	Description	Weight
8517069	Advanced Basic Hoist (order winch separately)	58 lbs. (26.1kg)
8525001	Advanced Basic Hoist with Basic Winch	80 lbs. (36kg)



Permanent Mount Application with 8511233 Arm, 8514796 Post, and 8510101 Extension. Permanent Mount Base shown is model 8512831

SIDE ENTRY SYSTEM

The Side Entry System is designed for confined space entry/retrieval and rescue operations involving horizontal entries with vertical positioning or retrieval required inside the space. The Side Entry System may be used with the model 8511231 External Adjustable Tank Collar for adaptation to different manways. It may also be used with a permanently mounted base and extension post. The Side Entry System features flexible setup options and a fully articulating boom system. It is fully adaptable to an infinite number of manway designs and surrounding configurations.

SIDE ENTRY SYSTEM					
Model #	Description	Weight			
8511233	Arm Assembly for the Side Entry System for use with External Adjustable Tank Collar or permanently mounted bases	69 lbs. (31kg)			
8511231	External Adjustable Tank Collar	52 lbs. (23.4kg)			
8514796	Support Post: 38" to 53.5" (965mm to 1359mm) for use with Permanent Base (see belor for base options)	35 lbs. (15.8kg)			
8510101	24" (610mm) Mast Extension for use with Permanent Base	19 lbs. (8.6kg)			

NOTE: All part numbers shown are the same in Canada.



POLE HOIST SYSTEM

The Pole Hoist System is an extremely versatile piece of confined space entry/retrieval and rescue equipment. Simply carabineer the universal bracket to a suitable anchor point, and you're ready to work in any direction from any angle. The Pole Hoist System has a unique swivel head that rotates 360 degrees, providing unparalleled flexibility in both vertical and horizontal confined space entries. Overall length adjusts from either 4' to 7' (1.2m to 2.13m) or 6' to 10' (1.8m to 3.05m) for positioning attendant for working in close quarters. Custom Pole Hoist sizes are available – please call for details. Order winch separately.

Model #	Description	Weight
8510409	4' to 7' (1.2m to 2.13m) Pole Hoist with Swivel Head and Hardware	12 lbs. (5.4kg)
8510476	6' to 10' (1.8m to 3.05m) Pole Hoist with Swivel Head and Hardware	5 lbs. (2.3kg)
8511235	T-bar Leg Assembly for Pole Hoist	7 lbs. (3.2kg)

NOTE: All part numbers shown are the same in Canada.



8518000

ADVANCED 5-PIECE HOIST SYSTEMS

These units are constructed of lightweight materials including high strength aluminum. The davit pivots for ease of rescue and the base adjusts to fit most standard entries. Other bases available.

System comes complete with:

- 12"- 29" (30-72mm) Adjustable Offset Mast **8518001**
- 33" (82.5cm) Lightweight Lower Mast **8518002**
- Three-Piece Lightweight Base **8518005**
- · Winch and SRL's sold separately

Model #	odel # Description	
8518000	Advanced 5-Piece Hoist System	100 lbs. (45kg)
8518001	Adjustable Upper Davit Arm, 12"-29" (30-72mm)	22 lbs. (9.9kg)
8518002	Lower Mast Extension, 33" (82.5cm)	18 lbs. (8.1kg)
8518005	3-Piece Base	60 lbs. (27kg)
8512285	Adj. Barrel Mount Sleeve, 24" (60cm) max opening	56 lbs. (25.2kg)
8510140	8510140 Vehicle Hitch Mount Sleeve	
8510109	Core Mount Sleeve Fixed Base	8 lbs. (3.6kg)
8516190	Floor Mount Sleeve Fixed Base	13 lbs. (5.9kg)
8516191	Wall Mount Sleeve Fixed Base	12 lbs. (5.4kg)







ADVANCED DIGITAL SERIES WINCHES

These winches are rated for 450 lbs. (204kg) with an 11:1 safety factor. It offers 2 cranking speeds capable of retrieval/descent at average speeds from 13'/min up to 30'/min.

- · Digital usage indicator counts revolutions of drum for servicing
- · Braking system with 3 independent working pawls and centrifugal back-up system
- · Lifeline includes swiveling snap hook with overload indicator
- Includes mounting bracket
- Various models and lengths available

Model #	Description	Length	Lifeline Type	Weight
8518558	Advanced Digital 100 Winch	60' (18m)	3/16" (5mm) Stainless	31 lbs. (14kg)
8518559	Advanced Digital 100 Winch	90' (27m)	3/16" (5mm) Stainless	33 lbs. (14.9kg)

NOTE: All part numbers shown are the same in Canada.



BASIC SERIES WINCHES

Basic winch includes a permanently mounted handle to the 5.1:1 hub drive with an average speed of 30'/min (9m/min). The handle is simple to use and features a foldaway crank.

- Zinc plated winch with bolt on plate and mating bracket
- · Comes with load limiter clutch to indicate a fall or misuse

	Model #	Description	Length	Lifeline Type	Weight
	8518669	Basic Winch	40' (12m)	3/16" (5mm) Galvanized	22 lbs. (9.9kg)
I	8518670	Basic Winch	40' (12m)	3/16" (5mm) Stainless	22 lbs. (9.9kg)

NOTE: All part numbers shown are the same in Canada.



RPD - RESCUE POSITIONING DEVICE

The RPD system was designed to provide a safe and simple rescue system and incorporates features for general raising/lowering and positioning during normal work activities. The RPD unit includes a speed sensing lock for added safety, as well as to allow the worker to manually lock off the device once you reach a work level. It is ideal for servicing buildings, bridges, dams as well as within confined spaces. The device may be operated by the user or a second standby worker. Comes complete with unit, rescue and anchor slings, two carabiners and storage bag.

Model #	Description	Travel Length	Lifeline Type
3600050	RPD System, 3:1 Ratio	50' (15m)	200' of 3/8" Rope
3600100	RPD System, 3:1 Ratio	100' (30m)	400' of 3/8" Rope
3602050	RPD System, 4:1 Ratio	50' (15m)	250' of 3/8" Rope
3602100	RPD System, 4:1 Ratio	100' (30m)	500' of 3/8" Rope

NOTE: Last three digits in part number indicates length of travel



ROLLGLISS® RESCUE SYSTEM

The Rollgliss® system includes the patented one way top shive (only turns when raising) providing efficient hauling, but more inportantly very controlled lowering (a finger and thumb are all that is required to hold a load). This system also allows you to change the hauling ratios on the fly with a quick release double locking button on the top and auto locking carabiners on the bottom. This allows for rigging the system for a roof top rescue, tower rescue, or two person rescue. Standard system comes complete with the Rollgliss® device, rope control device, anchor sling and carrying bag.

Model #	Description	Travel Length	Lifeline Type
8902004	Rollgliss® Rescue System, 3:1 Ratio	50' (15m)	200' of 3/8" Rope
8902006	Rollgliss® Rescue System, 3:1 Ratio	100' (30m)	400' of 3/8" Rope
8900249	Rope Control Device Only	N/A	N/A

NOTE: All part numbers shown are the same in Canada.

NOTE: Rope sold in increments of 10', many other accessories, including pulleys for ratios of 2:1, 4:1 and 5:1 and winch handles available — call for details.



ROLLGLISS® RESCUE KIT

The DBI-SALA Rollgliss® rescue kit is ideal for use as a peer rescue system in industrial environments. The system is specifically designed for workers who don't perform rescue as part of their normal job functions. The system is extremely simple, yet completely safe and efficient. It will enable the rescuer to remove a person from danger without putting themselves at risk by descending to them. The kit comes complete with descender with carabiner, rope and safety hook, extension pole, mini-haul system anchorage strap, and two carrying bags .

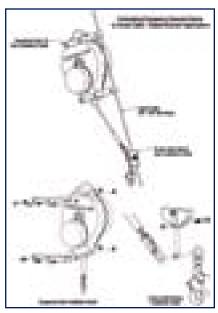
Model #	Description	Travel Length	Lifeline Type
8900292	Rollgliss® Rescue Kit	33 ft. (10 m)	7/16" (11mm) Nylon Rope
8900293	Rollgliss® Rescue Kit	66 ft. (20 m)	7/16" (11mm) Nylon Rope
8900294	Rollgliss® Rescue Kit	99 ft. (30 m)	7/16" (11mm) Nylon Rope

DESCENT DEVICES FOR SLOPED OR VERTICAL DESCENT

The Rollgliss® Descent Device will get personnel down safely from high places when quick escape is vital. Either angled or sloped descent models are available to provide complete versatility and flexibility for any job site or work environment.

The Rollgliss Descent Device is also extremely easy to operate. No power source or special skills or tools are required. Once the unit is secured to an anchorage, connect the snap hook to the D-ring on your safety harness and step off the structure. If using a sloped descent model, connect the emergency descent device with the guide cable sleeve or braking trolley and suspension bars to a user supplied and installed guide cable.





Model #	Description	Lifeline Type	Retraction Type	Descent Type
3303000	Rollgliss® Descent Device, snap hook attached to cable	115' (35m) of 3/16" (5mm) Galv. Cable	Automatic	Vertical – Low Speed
3303001	Rollgliss® Descent Device, linkage, guide cable sleeve, suspension bars	115' (35m) of 3/16" (5mm) Galv. Cable	Automatic	Sloped – Low Speed
3303002	Rollgliss® Descent Device, snap hook attached to cable	115' (35m) of 3/16" (5mm) Stainless Cable 3/16" (5mm) Galv. Cable	Automatic	Vertical – Low Speed
3303003	Rollgliss® Descent Device, linkage, guide cable sleeve, suspension bars	115' (35m) of 3/16" (5mm) Stainless Cable	Automatic	Sloped – Low Speed
3303015	Rollgliss® Descent Device, linkage, braking trolley, suspension bars	200' (61m) of 3/16" (5mm) Galv. Cable	Manual	Sloped – High Speed
3303016	Rollgliss® Descent Device, linkage, braking trolley, suspension bars	200' (61m) of 3/16" (5mm) Stainless Cable	Manual	Sloped – High Speed
3303017	Rollgliss® Descent Device, snap hook attached to cable	200' (61m) of 3/16" (5mm) Galv. Cable	Manual	Vertical – Low Speed
3303018	Rollgliss® Descent Device, snap hook attached to cable	200' (61m) of 3/16" (5mm) Stainless Cable	Manual	Vertical – Low Speed
3303019	Rollgliss® Descent Device, linkage, guide cable sleeve, suspension bars	200' (61m) of 3/16" (5mm) Stainless Cable	Manual	Sloped - Low Speed

NOTE: All part numbers shown are the same in Canada.

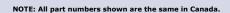
TENSION LIMITER

Unique Device Attaches to Man-Riding System to Warn Operator and Limit Forces on an Entangled Worker. The Tension Limiter is designed to be mounted in-line between the person and the raising/lowering winch line. Should the person being raised become entangled, the Tension Limiter device will begin to pay out a high visibility lifeline (BRIGHT YELLOW) warning the operator and limiting the forces on the worker. The winch operator would stop the raising operations immediately and free the entangled person.

- Limits loading on person to 400 lbs. (182 kg) to prevent severe injury when entangled
- High Visibility line is easy to see should deployment occur
- Portable and lightweight for easy transport and quick set up
- System is easily reset in the field

The Tension Limiter is not designed to be a fall arrest device for personnel. It is designed to limit the loading force a person could be subjected to should they become entangled in the structure while the main winch line continues to operate. Always use a separate back up fall protection device with the tension limiter device.

Model #	Description	Lifeline Type	Weight
5900177	Tension Limiter	30' (9.1m) 3/16" (5mm) S.S. Cable, Hi-Vis Yellow	15 lbs. (6.8kg)





PROTECTA

Safe, practical, user friendly equipment at a great price.

For over 50 years the PROTECTA brand has represented fall protection equipment of superior quality and at a great price. We've pioneered many of the concepts that are standard practice in today's workplace.

The PROTECTA line has a broad portfolio of fall protection equipment from basic harnesses and lanyards to complex industry specific anchorage connectors.

We understand that it's important to meet the bottom line and show cost efficiency, without compromising your workers safety at height. That's why the PROTECTA line of fall protection provides many of the additional features and benefits only found in high quality equipment, such as impact indicators, serial numbers on all harnesses, steel hardware, ergonomic designs and a myriad of accessories and options to meet many specialized needs and budgets.

Quality is guaranteed by our choice of materials, meticulous assembly and thorough inspections. The PROTECTA brand focuses on complete fall protection solutions designed for any industry.

Like all of our brands at Capital Safety, the PROTECTA brand is engineered and manufactured to the highest quality to meet and exceed the toughest standards and codes in the world, such as OSHA, ANSI CSA, CE, AUZ, as well as your local provincial or state codes.





	SELECTION GOIDE								
Webbing	X-Design with Padding	Buckle	Adjustment Points	Back D-Ring	Hardware	Labels	Integral Lanyard Keeper	Impact Indicator	
100% Polyester	√ PRO™ with Comfort Padding	Quick Connect, Pass Thru, Tongue Buckle	5 point	ADJUSTABLE	Plated forged alloy steel	Book style covered	√ some models	V	
100% Polyester		Pass Thru,	3 point or 5 point	ADJUSTABLE	Stamped forged	Vinyl			

ADJUSTABLE

alloy steel

Stamped

forged alloy steel

FIRST™ Compliance in a Can"

Product

PRO"

FIRST

Easy, convenient, economical personal fall protection package for compliance and reliability

with dependable quality, yet economical

Description

Dependable,

comfortable

fall protection

at an

economical

price

Compliant

- Maintenance Refineries
 - Shut-Downs · Aerial lift work

Recommended

For

Ladder climbing

• Maintenance

Servicing

Maintenance

· Shut-Downs

Refineries

100%

Polyester

· Refineries

Drilling

PRO™ FULL BODY HARNESSES



PRO™ **CONSTRUCTION HARNESS** Construction style with hip pad and removable belt ΔR140131



Tongue

Buckle

Pass

Thru

3 point

or 5 point

PRO™ CLIMBING HARNESS Vest style with front D-ring ideal for ladder climbing AB13313



HARNESS Vest style with back Dring and pass thru legs AB10113



COMFORT PADDING Comfort Padding on shoulders, back and legs and quick connect buckles AB21013

DOOM EILLI DOON HADNECCEC

PRO™ Line Harnesses provide greater comfort and added safety—which translates to reduced worker fatigue and increased productivity.

The great fit and lightweight hardware provides added safety, value and design without compromise. Protected labels, global certification and a variety of styles and sizes are some of the features that make the PRO™ Harness an easy choice.

- Built-in impact indicators for easy inspection
- Spring loaded torso buckles for quick and easy adjustment
- Globally accepted standards including ANSI, OSHA, CSA & CE with one harness
- PRO™ Harnesses with Comfort Padding features padding on shoulders, back and legs and quick connect buckles



PRO™ 2 **Positioning Belt** tongue buckle with 2 D-rings and hip pad AB021221 (S), AB021231 (M/L), AB021241 (XL)

LKO_LOTT RODA HAKNE22F2								
Model & Size	Style	D-rings	Buckle Type	Hip Pad/ Belt	Belt Loops	Additional		
AB10113 (M/L)	Vest	Back	Pass Thru					
AB13013 (M/L)	Vest	Back	Tongue Buckle					
AB15013 (M/L)	Vest	Back, Shoulder	Pass Thru					
AB13313 (M/L)	Vest	Back, Front	Tongue Buckle					
AB11123 (M/L)	Vest	Back, Side	Pass Thru					
AB104131 (M/L)	Construction	Back, Side	Pass Thru	√	√	Shoulder pads, Lanyard keeper		
AB140131 (M/L)	Construction	Back, Side	Tongue Buckle	√	√	Shoulder pads, Lanyard keeper		
AB21013 (M/L)	Vest Comfort Padding	Back	Quick Connect			Comfort Padding		
AB240131 (M/L)	Construction Comfort Padding	Back, Side	Quick Connect	√	√	Comfort Padding, tongue bucket belt		





FIRST™ full body harnesses provide fundamental fall protection with exceptional value.

A variety of features allows the user to choose the right model for personal preference and job constraints.

- Economically priced yet meets ANSI & OSHA performance standards
- Polyester webbing for durability
- Adjustable dorsal D-ring for proper fit
- Available in 3-point or 5-point adjustment

FIRST™ FULL BODY HARNESSES



FIRST™
VEST STYLE HARNESS
Pass thru leg straps and back D-ring
AB17530
(AB17530C in Canada)



VEST STYLE HARNESS
Tongue buckle leg straps
and back & side D-rings
AB17560
(AB17560C in Canada)



FIRST™
VEST STYLE HARNESS
3-point adjustment, pass thru leg straps & back
D-ring AB17510
(AB17510C in Canada)

FIRST™ FULL BODY HARNESSES								
Model & Size	Style	D-rings	Buckle Type	Adjustment				
AB17530 (U)	Vest	Back	Pass Thru	5-Point				
AB17540 (U)	Vest	Back & Side	Pass Thru	5-Point				
AB17550 (U)	Vest	Back	Tongue Buckle	5-Point				
AB17560 (U)	Vest	Back & Side	Tongue Buckle	5-Point				
AB17510 (U)	Vest	Back	Pass Thru	3-Point				
AB17520 (U)	Vest	Back & Side	Pass Thru	3-Point				

NOTE: In Canada, add a "C" at end of part number (e.g. AB17530C)

COMPLIANCE IN A CAN™

Complete fall protection system in one handy container!

PROTECTA engineered the creation of this economical complete set-up for convenient compliance and safety on the job. Kits include one full body harness, one combined rope grab and shock absorber and rope lifeline with attached double locking snap hook (or one self retracting lifeline) and one anchor.

- Economical solution for short term jobs or stand-by inventory
- Available with different anchorage devices to fit different applications
- Available in 3-point and 5-point adjustment models

COMPLIANCE IN A CAN™ LIGHT

- One **AB17530** harness (5-point)
- One AE57610 shock absorbing lanyard

AA7010AS

AA7010BS comes in a bag, not a bucket

(COMPKIT11 in Canada Includes AB10113 harness and AE542CPW2-6 lanvard)



COMPLIANCE IN A CAN™ COMPONENTS

All Compliance in a Can" versions are configured from a combination of the following items. See table.

AB17510 3-Point Harness **AB17530** 5-Point Harness

1330096 5/8" (16mm) Grab and 2' (0.6m)

Shock Lanyard

AC27352 5/8" (16mm) Diameter Lifeline

50' (15m) & Snap Hook

AJ47410 Webstrap Anchor Sling **AJ47406** Wire Rope Sling



COMPLIANCE IN A CAN™

Model #	Harness	Anchor Type	Rope & Rope Grab	SRL
AA7044A	3-point	Wire Rope Sling	√	
AA7046A	3-point	Webstrap Sling	√	
AA7057A	5-point	Webstrap Sling		11' (3.4m) Web
AA7061A	3-point	Temporary HLL/Wire Rope Sling		
AA7062A	3-point	Temporary HLL/Wire Rope Sling		

NOTE: The Compliance In A Can models listed above are not CSA approved.

Every Protecta Lanyard delivers quality in design, materials and manufacture

	SELECTION GUIDE									
Product	Description	Recommended For	Line	Connector	Impact Indicator	Tie-back	Retraction & Expansion			
PRO™	Compliant and dependable quality, yet economical	Maintenance Ladder climbing Drilling & Servicing Refineries	1" (25mm) Nylon web 1-3/4" (44mm) Polyester web	Self-locking hook	Clear plastic cover over shock	AVAILABLE				
FIRST™	Compliant and dependable quality, yet economical	Maintenance & Lift Work Shut-Downs Refineries	1-3/4" (44mm) Polyester web	Self-locking hook	Clear plastic cover over shock		AVAILABLE			

PROTECTA SHOCK ABSORBING LANYARDS

The Protecta shock absorbing lanyards provide high quality at an economical price. They feature a clear cover over the shock pack to enable easy inspection of stitching. Available in a variety of different hook options and configurations to meet your job site needs. Standard snap hooks have a gate opening of 3/4" (19mm), rebar hooks are 2-1/4" (57mm) and tie-back hooks have a 5,000 lb. (22kN) strength.



	PRO™ SHOCK ABSORBING LANYARDS									
Model #	Canada #	Material	Single Leg	Double Leg	Tie-back	Length	Connectors			
AE542AW1	AE542CW1-6	1" (25mm) Nylon web	√			6′ (1.8m)	2 Standard hooks			
AE550AW1	AE550CW1-6	1" (25mm) Nylon web		√		6′ (1.8m)	3 Standard hooks			
AE549AW1	AE549CW1-6	1" (25mm) Nylon web		√		6′ (1.8m)	1 Standard, 2 rebar hooks			
AE542AW2	AE542CPW2-6	1-3/4" (44mm) Polyester web	√			6' (1.8m)	2 Standard hooks			
AE542AW2T	AE542CPW2TD-6	1-3/4" (44mm) Polyester web	√		√, D-ring	6′ (1.8m)	2 Standard hooks			
AE550AW2	AE550CW1-6	1-3/4" (44mm) Polyester web		√		6′ (1.8m)	3 Standard hooks			
AE549AW2	AE549CW1-6	1-3/4" (44mm) Polyester web		√		6′ (1.8m)	1 Standard, 2 rebar hooks			
AE550AW2T	AE550CW2TD-6	1-3/4" (44mm) Polyester web		√	√, D-ring	6′ (1.8m)	3 Standard hooks			
CE542AW1-518	AE542CPW2T-6	1" (25mm) Heavy Duty Nylon web	√		√, Carabiner	6′ (1.8m)	1 Standard, 1 tie-back			
CE550AW1-SN	AE550CW2T-6	1" (25mm) Heavy Duty Nylon web		√	√, Carabiner	6′ (1.8m)	1 Standard, 2 tie-back			
AE560A6	AE560C-6	1" (25mm) Tubular Nylon web	√			6' (1.8m)	2 Standard hooks			

NOTE: In Canada, the AE542CPW2T-6 and AE550CW2T-6 are constructed from 1-3/4" (44mm) polyester web.

FIRST™ SHOCK ABSORBING LANYARDS

The FIRST[™] line of shock absorbing lanyards provide basic options at an economical price. A stretch model is available to prevent trips and snags. They feature a clear cover over the shock pack to enable easy inspection of stitching. Standard snap hooks have a gate opening of 3/4" (19mm), rebar hooks are 2-1/4" (57mm).



FIRST" Shock Absorbing Lanyard with Rebar Hook AE57620

(AE57620C in Canada)

	FIRST™ SHOCK ABSORBING LANYARDS									
Model #	Туре	Material	Single Leg	Double Leg	Length	Connectors				
AE57610	Pack	1-3/4" (44mm) Polyester web	√		6' (1.8m)	2 Standard FIRST™ hooks				
AE57620	Pack	1-3/4" (44mm) Polyester web		√	6' (1.8m)	1 Standard FIRST™ hook, 2 rebars				
AE57630	Pack	1-3/4" (44mm) Polyester web		√	6' (1.8m)	3 Standard FIRST™ hooks				
AE57640	Pack	1-3/4" (44mm) Polyester web	√		6' (1.8m)	1 Standard FIRST™ hook, 1 rebar				
AE57700	Tubular jacket	1-3/8" (34mm) Tubular jacket	√		6' (1.8m)	2 Standard FIRST™ hooks				
AE57701	Tubular jacket	1-3/8" (34mm) Tubular jacket	√		6' (1.8m)	1 Standard FIRST™ hook, 1 flat steel rebar				
AE57800	Stretch	2" (50mm) Tubular jacket	√		6' (1.8m)	2 Standard FIRST™ hooks				
AE57801	Stretch	2" (50mm) Tubular jacket	√		6' (1.8m)	1 Standard FIRST™ hook, 1 flat steel rebar				
AE57830	Stretch	2" (50mm) Tubular jacket		√	6' (1.8m)	3 Standard FIRST™ hooks				
AE57831	Stretch	2" (50mm) Tubular jacket		√	6′ (1.8m)	1 Standard FIRST™ hook, 2 flat steel rebars				

NOTE: In Canada, add a "C" at end of part number (ex. AE57610C). The AE57800, 801, 830 and 831 are not available in Canada.





	POSITIONI	NG & REST	RAINT		
Model #	Туре	Single Leg	Double Leg	Length	Connectors
AL305AW16 (AL305CPW-6 in Canada)	Nylon web (Polyester in Canada)	√		6' (1.8m)	2 standard hooks
AL305A6 (Not Available in Canada)	Twisted rope	√		6' (1.8m)	2 standard hooks
AF77710 (Not Available in Canada)	Rebar chain		√	20" (51cm)	2 standard FIRST™, 1 rebar hook

Protecta offers a wide range of anchorage devices

Protecta offers the industry's widest range of anchorage connectors combining ease of use, lightweight and 5,000 lb. (22kN) minimum tensile strength to meet or exceed OSHA and ANSI Z359.1 requirements. CE and CSA compliant models are also available.



		ANCHORAGE CONNECTORS	
Model #	Product	Description	Length
AJ450A (AJ450C-3 in Canada) AJ450A6 (AJ450C-6 in Canada)	Web Sling	1-3/4" (4.4cm) Wide nylon webstrap, 3" (7.5 cm) scuff guard, 2" & 3" (5cm & 7.6cm) pass thru D-rings	3' (.9m) length 6' (1.8m) length
AJ408AG (AJ408CG-6 in Canada)	Cable Sling	6' X 1/4" (1.8m X 6.4mm) Diameter coated wire rope, galvanized finish, one standard snap hook, one 3" (7.6cm) dia. pass thru ring	6' (1.8m) length
AJ301A	Handgrip	Attaches around piping up to 2" (5cm) in diameter	N/A
AN112A (AN112C in Canada)	Eyebolt Anchor	D-ring anchor with threaded bolt, nut and lockwasher	N/A



		CAF	RABINERS
Model #	Product	Description	Length
AJ593A (AJ593C in Canada)	Twist Lock Carabiners	5,000 lb. (22kN) Anchor	2" (5cm) Diameter opening, carbon steel, zinc plated, captive-eye option, 1.4 lbs. (.63kg)
AJ514A	Twist Lock Carabiners	5,000 lb. (22kN) Anchor	3/4" (19mm) Diameter opening, forged steel, galvanized finish, .4 lbs. (.18kg)

		RUPE GRABS
Model #	Product	Description
AC202D (AC202C in Canada)	Static/Mobile Rope Grab	Attach or detach anywhere along the lifeline for vertical hands free operation. Fits 5/8" (16mm) diameter rope. Use with 3' (9mm) shock lanyard and can be used as a static rope grab

Protecta SRL's...smooth, safe operation and built to last!

		SELECTIO	ON GUIDE				
Product	Description	Recommended For	Housing	Impact Indicator	Connector	Swivel Hook	Housing Carabiner
JRG™	Compliant and dependable quality SRL's, yet economical	Refinery Turn-Arounds General Maintenance Climbing	Extruded aluminum or thermoplastic		Self-locking snap hook	√	√
Rebel™	New bestseller in lightweight, shorter length SRL's—fits into the tightest project budget!	Maintenance Inspection Rig Up and Rig Down	Extruded aluminum or thermoplastic	V	Available with snap hook, swivel hook or rebar hook	OPTIONAL	√

JRG™ SELF RETRACTING LIFELINES

JRG™ Self Retracting Lifelines provide fall protection dependability in an economical unit.

- Energy absorption system to arrest a fall in less than 2' (.6m)
- Smooth deceleration
- · Lighter weight housing

Protecta Self Retracting Lifeline 100' (30m) Web AD230AG

Protecta Self Retracting Lifeline 30' (9m) Cable AD212AG

Protecta Self Retracting Lifeline 50' (15m) Cable Rescue Winch AD515AG



	PRO1	TECTA SELF RETRACTING L	IFELINES	
Model #	Length	Line Type	Connector	Housing
AD212AG (AD212CS in Canada)	30' (9m)	3/16" (5mm) Galvanized cable	Standard hook	Thermoplastic
AD215AG (AD216CG in Canada)	50' (15m)	3/16" (5mm) Galvanized cable	Standard hook	Thermoplastic
AD222AG (AD222CG in Canada)	66' (20m)	3/16" (5mm) Galvanized cable	Standard hook	Thermoplastic
AD230AG	100' (33m)	3/16" (5mm) Galvanized cable	Standard hook	Thermoplastic
AD515AG (AD515CG in Canada)	50' (15m)	3/16" (5mm) Galvanized cable	Twist-lock hook	Aluminum w/retrieval

NOTE: In Canada, the AD212CS has stainless steel cable and the AD230AG is not CSA Approved.

REBEL™ SELF RETRACTING LIFELINES

The Rebel™ Self Retracting Lifeline is low priced and lightweight, yet rugged enough to withstand rough use. The unique thin webbing enables a compact size that is easy to wear.

- Moderately priced to give great value with superior features
- Compact and lightweight under 3 lbs. (1.4kg) best length to weight ratio in the industry
- Durable aluminum housing
- Web model weighs only 2.7 lbs. (1.2kg)!



	REE	BEL™ SELF RETRACTING LII	FELINES	
Model #	Length	Line Type	Connector	Housing
AD111A (Not Avail in Canada)	11' (3.3m)	1" (25mm) Polyester web	Standard hook	Aluminum
AD111AR (Not Avail in Canada)	11' (3.3m)	1" (25mm) Polyester web	Standard hook	Aluminum w/swivel
AD111BR (AD110BRC in Canada)	11' (3.3m)	1" (25mm) Polyester web	Swivel hook	Aluminum w/swivel
AD111E (AD110EC in Canada)	11' (3.3m)	1" (25mm) Polyester web	Rebar hook	Aluminum
AD111ER (AD110ERC in Canada)	11' (3.3m)	1" (25mm) Polyester web	Rebar hook	Aluminum w/swivel
AD115B (AD115BC in Canada)	15' (4.5m) 10' (3m) in Canada	3/16" (5mm) Galvanized cable	Rebar hook	Aluminum
AD211B (AD210BC in Canada)	11' (3.3m)	3/16" (5mm) Galvanized cable	Swivel hook	Aluminum
AD120A (AD120AC in Canada)	20' (6m)	1" (25mm) Polyester web	Standard hook	Aluminum
AD120E (AD120EC in Canada)	20' (6m)	1" (25mm) Polylester web	Rebar hook	Aluminum

NOTE: All 11' (3.3m) models are 10' (3m) in Canada.



TRAINING & CONSULTING

Anytime, Anywhere... Our Site or Yours!

Capital Safety recognizes that our commitment to the life-and-death field of fall protection means that every product we produce must meet or exceed the toughest standards. But we also know that even the best equipment must be used correctly. This is why we have established our training division with the same care and attention that is critical in our manufacturing process.

Effective training means hands-on experience

The key to effective fall protection training is practical, hands-on experience. We offer a full range of fall protection and industrial rescue courses on-site or at one of our four state-of-the-art training centers located throughout North America.

Courses on-site apply professional training to your specific daily work activities. Courses at our institutes provide controlled environments uniquely designed to offer practical experience with scaffolding, fixed ladders, towers, sloped roofs, rebar and climbing walls, elevated catwalks, I-beams and confined spaces.



Capital Safety Comprehensive Training Programs

Product	Length	Audience	Benefit	Open Enroll-	Site Specific
Authorized Person	4 hours	Workers that work at heights and are trained on specific products supplied by the employers.	Complies with OSHA and ANSI regulations for an authorized user.		√
Confined Space Access/Egress	2 days	Workers who use a single pre-engineered and pre-installed fall protection system.	Provides the skills and theory necessary for that single system.	√	√
Competent Inspector	4 hours	Workers who will/may be involved in the rescue of a co-worker from within a confined space	Provides the skills necessary for both team development and establishment of peer rescue programs. Competent Person training is a required prerequisite.	√	√
Competent Person Refresher	1 day	Has a pre-requisite of being a previous competent person who needs refresher training under ANSI.	Meets requirements of ANSI for refresher training as a competent person.	√	√
Competent Person	2.5 days	Supervisors of authorized users who implement and monitor a managed fall protection program.	Develop the necessary skills and knowledge base to meet the require- ments for a competent person as defined by OSHA and ANSI.	√	√
Competent Climber/ Competent Rescuer	2 days	Workers who are required to climb and work on towers or specific site and individuals responsible for rescue methods.	Skills to properly protect oneself when working on the tower and while performing a rescue on the tower or specific site.	√	√
Program Administrator	4 days	Person responsible for the develop- ment and assignment of duties and responsibilities of individuals qualified to meet the needs of their program.	Learn the skill set necessary to implement and develop a comprehensive managed fall protection program.	√	√
Qualified Person	5 days	Engineers charged with the design and setup of engineered fall protection systems.	Details the technical requirements to design engineered systems.	\checkmark	√
Competent Person Trainer	5 days	Responsible for the training of all authorized users and competent persons at a specific site or location.	Advanced training in fall protection regulations, standards, equipment and systems.	√	√
Competent Rescuer Trainer	4 days	Individual interested in training competent rescuers shall have the ability to evaluate the rescue and fall protection knowledge of a competent rescuer.	Advanced training in fall protection rescue standards, equipment and techniques.	V	V

USA 651.388.8282

www.capitalsafety.com

Canada 905.795.9333

Custom Courses

If standard courses don't fit your needs, Capital Safety will customize courses for your organization and your specific site requirements.

Specialty Courses

In addition to the basic courses, our fall protection experts have developed specialty courses designed for a particular trade or industry's work requirements.

These include: Confined Space Entry and Retrieval, Oilfield Rig Workers Awareness, Rig Rescue, Tower Climbing/Rescue and more.



Capital Safety Demonstration Vehicles Bring Vital Training to Your Workforce

Capital Safety helps protect your workers by bringing its expertise and training right to your site. Workers from all over the world enjoy the experience of our hands-on demonstrations of our fall arrest, restraint and rescue equipment. Our Mobile Demonstration Vehicles show drop-tests and force measuring instruments to demonstrate arresting forces workers would experience during a fall. The presentation provides an excellent introduction to fall protection.



Training Tools Provide Fall Protection Basics

As part of the ongoing Capital Safety commitment to improving on-the-job safety, our experts have developed a booklet and video giving a fall protection overview that serves as the foundation of an effective fall protection program. Available in English or Spanish.

Thinking About Fall Protection

The 20-page full cover booklet Thinking About Fall Protection includes:

- Fall Protection Terminology
- Fall Prevention and Types
- Fall Arrest Systems
- Calculating Fall Clearance
- Swing Fall Hazards
- Equipment Inspection and Maintenance
- 8-Step Fall Protection Plan
- Understanding Fall Protection Applications
- Harness Sizing and Donning
- · Compatibility of Connectors
- · Training, Regulations and Standards

In video or DVD!

The 20-minute video presentation includes many of the same topics and an in-depth review of the ABCD's of fall protection.

Order Thinking About Fall Protection today!

- Booklet English (9700041)
- Booklet Spanish (9700068)
- Video VHS (9700070)
- Video DVD (9700071)





- Training from top industry professionals and technicians
- Backed by decades of company experience
- State-of-the-art training facilities
- Sample and experience the broadest fall protection equipment line in the industry
- Easy-to-understand training manuals
- Bilingual or all-Spanish instruction available

For more details on Capital Safety training programs, customized site specific training and specialty courses, please contact us!



SELECTED OSHA FALL REGULATIONS

Fall Protection Requirements for Steel Erection (OSHA Subpart R1926.760)

(a) General requirements. (1) Except as provided by paragraph (a) (3) of this section, each employee engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet (4.6m) above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems or fall restraint systems.

Safety Standards for Fall Protection in the Construction Industry (OSHA 1926.501 - Duty to have fall protection)

(a) General. (1) This section sets forth requirements for employers to provide fall protection systems. All fall protection required by this section shall conform to the criteria set forth in 1926.502 of this subpart.

(b)(1) Unprotected sides and edges. Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

Editors Note: The requirements stated in (b)(1) are similar for: leading edges, hoist area, holes, formwork and reinforcing steel, ramps, runways and other walkways, excavations, dangerous equipment, overhead bricklaying and related work, roofing work on low-slope roofs, steep roofs, precast concrete erection, residential construction and wall openings.

(OSHA 1926.502 - Fall protection system criteria and practices)

- (a) General. (1) Fall protection systems required by this part shall comply with the applicable provisions of this section.
- (2) Employers shall provide and install all fall protection systems required by this support for an employee, and shall comply with all other pertinent requirements of this subpart before that employee begins the work that necessitates the fall protection.
- (d) Personal fall arrest systems. Personal fall arrest systems and their use shall comply with the provisions set forth below. Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable and is regulated under paragraph (e) of this section.
- (5) Snaphooks shall be sized to be compatible with the member to which they are connected to prevent unintentional disengagement of the snaphook by depression of the snaphook keeper by the connected member, or shall be a locking type snaphook designed and used to prevent disengagement of the snaphook by the contact of the snaphook keeper by the connected member. Effective January 1, 1998, only locking type snaphooks shall be used.
- (15) Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows: (i) as part of a complete personal fall arrest system which maintains a safety factor of at least two; and (ii) under the supervision of a qualified person.
- (16) Personal fall arrest systems, when stopping a fall, shall:
 (i) limit maximum arresting force on an employee to 900 pounds (4 kN) when used with a body belt; (ii) limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness; (iii) be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level; (iv) bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet (1.07m); and, (v) have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet (1.8m), or the free fall distance permitted by the system, whichever is less.
- (e) Positioning device system. Positioning device systems and their use shall conform to the following provisions: (1) Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet (.9m). (2) Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds (13.3 kN), whichever is greater.

(OSHA 1926.503 - Training requirements)

(a) Training Program. (1) The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

Fixed Ladders (OSHA 1910.27)

(d.5) Ladder safety devices may be used on tower, water tank and chimney ladders over 20 feet in unbroken length in place of cage protection. No landing platform is required. All ladder safety devices, such as those that

Powered Platforms For Building Maintenance (OSHA 1910.66)

(j) Personal Fall Protection. Employers must provide personal fall arrest systems meeting the requirements outlined. Requirements include the following:

Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, under the supervision of a qualified person. Personal fall arrest systems shall, when stopping a fall: 1) limit maximum arresting force on an employee to 900 pounds (4 kN) when used with a body belt; and 2) limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness.

Personal fall arrest systems shall be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level.

Personal fall arrest systems or components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection unless inspected and determined by a competent person to be undamaged and suitable for reuse.

Before using a personal fall arrest system, and after any component or system is changed, employees shall be trained in accordance with the requirements of paragraph 1910.66(i)(1), in the safe use of the system.

Personal fall arrest systems shall be inspected prior to each use for mildew, wear, damage and other deterioration. Defective components shall be removed from service if their strength or function may be adversely affected.

Permit-Required Confined Spaces (OSHA 1910.146)

- (a) Scope and application. This section contains requirements for practices and procedures to protect employees in general industry from the hazards of entry into permit-required confined spaces.
- (k)(3) To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant.

Retrieval systems shall meet the following requirements:
(i) Each authorized entrant shall use a chest or full body harness, with a

- (1) Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant. Wristlets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.
- (ii) The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

SELECTED ANSI STANDARDS

Definitions and Nomenclature Used for Fall Protection and Fall Arrest (ANSI Z359.0-2007)

 $1.1\ \mbox{Scope}$ - This standard establishes the definitions and nomenclature used for fall arrest and fall protection.

Safety requirements for Personal Fall Arrest Systems, Subsystems and Components (ANSI Z359.1-2007)

- 1.1 Scope This standard establishes requirements for the performance, design, marking, qualification, instruction, training, inspection, use, maintenance and removal from service of connectors, full body harnesses, lanyards, energy absorbers, anchorage connectors, fall arresters, vertical lifelines, and self-retracting lanyards comprising personnel fall arrest systems for users within the capacity range of 130 to 310 lbs (59 to 140 kg).
- 1.2.1 This standard addresses only personal fall arrest systems(PFAS) incorporating full body harnesses. Whenever the term "system" is used in the standard it refers to a personal fall arrest system.
- 3.1.4 A PFAS which incorporates a horizontal lifeline (outside the scope of this standard) shall be evaluated in accordance with acceptable engineering practice to determine that such system will perform as intended.
- 3.1.2 When subjected to tests contained in 4.2, a personal fall arrest system in which a full body harness is used shall produce a maximum arrest force (MAF) of no more than 1,800 pounds (8.0 kN) and shall bring the fall to a complete stop with a deceleration distance of not more than 42 inches (1,067 mm). In suspension, after the fall is arrested, the angle at rest which the vertical center line of the test torso makes with the vertical shall not exceed 30 degrees.

- 3.2.1.4 Snaphooks and carabiners shall be self-closing and self-locking and shall be capable of being opened only by at least two consecutive deliberate actions. When tested in accordance with 4.3.1.1.1, snaphooks and carabiners shall be capable of withstanding a 5,000 pound (22.2 kN) tensile load without breaking or distortion sufficient to release the gate. When tested in accordance with 4.3.1.1.2, the gate of a snaphook or carabiner shall be capable of withstanding a minimum load of 3,600 pound (16 kN) without the gate separating from the nose of the snaphook or carabiner body by more than 0.125 inches (3.1 mm). When tested in accordance with 4.3.1.1.3 the gate of the snaphook or carabiner shall be capable of withstanding a minimum side load of 3,600 pounds (16 kN) applied to a point midway between the nose and gate hinge without breaking, permanent deformation greater than 0.125 inches (3.1 mm), or separating from the nose of the snaphook or carabiner body by more than 0.125 inches (3.1mm). When tested in accordance with 4.3.1.1.4 the gate of the snaphook or carabiner shall be capable of withstanding a minor axis load of 3,600 pounds (16 kN) applied to a point midway between the nose and gate hinge without breaking or distor tion sufficient to release the gate. Testing in the minor axis is not required for carabiners or snaphooks which are designed with a permanent, captive eye.
- 3.2.2.4 The harness shall provide support for the body harness across the lower chest, over the shoulders and around the thighs when a tensile load is applied to the fall arrest attachment element. The harness, when properly fitted and used, shall prevent fallout. The fall arrest attachment shall be located at the back (dorsal) location.
- 3.2.2.5 When more than one attachment element exists on a harness, the purpose and limitations of each element shall be designated by the manufacturer.
- 3.2.2.5a Harnesses equipped with a front-mounted attachment element for fall arrest shall be used only as part of a personal fall arrest system that limits the maximum free fall distance to two feet (0.6m) and limits the maximum arrest force to 900 pounds (4 kN).
- 3.2.4.7 When energy absorbers are dynamically tested in accordance with 4.3.5.2, the maximum arrest force shall not exceed 900 lbs (4kN).
- 3.2.8.7 Static Strength. When tested in accordance with 4.3.7.3, the SRL shall withstand a tensile load of 3,000 pounds (13.3kN) statically applied directly to the point of SRL line connection to the SRL drum.
- 3.2.8.9 Dynamic Performance. When tested in accordance with 4.3.7.1, the SRL shall lock and remain locked until released. The arrest distance shall not exceed 54 inches (1,372mm). Maximum arrest force shall not exceed 1,800 pounds (8kN).
- 3.3.4 Lanyard with Integral Energy Absorber (L + EA). The lanyard and Energy absorber constituents of (L + EA) integral systems, when independently evaluated and tested, shall meet the requirements of 3.2.3.2 to 3.2.3.7 and 3.2.4, respectively. When the complete integral system is tested in accordance with 4.2.9, the maximum arrest force (MAF) shall not exceed 1,800 pounds (8.0kN) and the fall shall be brought to a complete stop with a deceleration distance of not more than 42 inches (1.067mm).
- 3.3.6 Fall Arrester Connecting Subsystem (FACSS). Component comprising a FACSS shall meet the respective requirements for the FACSS component parts set forth in this standard. Subsystem connectors shall be geometrically compatible to reduce the possibility of rollout. Integral connections (e.g. splicing) shall be made in accordance with the requirements for lanyards, vertical lifelines, vertical lifelines subsystems or energy absorbers, as applicable, set forth herein. The length of that portion of the FACSS between the fall arrest attachment on the harness shall not exceed 36 inches (914mm).
- 5.1.2 The legibility and attachment of required markings shall endure for the life of the component, subsystem, or system being marked.
- 5.2.1 Connectors. Connectors shall be marked to identify the following: Year of manufacture; manufacturer's identification; part number; Load rating of the major axis of the connector stamped or otherwise permanently marked on the device; Load rating for gate stamped or otherwise permanently marked on the gate mechanism; markings for connectors shall be sufficient to provide traceability; For connectors that are non-integral, include the standard number, "2359.1(07).
- 5.2.3 Lanyards. In addition to the requirements in 5.1, lanyards shall be marked to identify: the material of construction; the length; the need to avoid contact with sharp edges and abrasive surfaces; the need to make only compatible connections. For lanyards with two, integrally connected legs, a warning to attach only the snaphook at the center of the lanyard to the fall arrest attachment element of the harness.
- 5.3.1 Instructions shall be provided to the user printed in English and affixed to the equipment at the time of shipment from the manufacturer.

Minimum Requirements for a Comprehensive Managed Fall Protection Program (ANSI Z359.2-2007)

- 1.1.1 This standard establishes guidelines and requirements for a employer's managed fall protection program, including policies, duties and training; fall protection procedures; eliminating and controlling fall hazards; rescue procedures; incident investigations; and evaluating program effectiveness.
- 3.2.1.4 Employers shall develop and maintain written fall protection and rescue procedures for every location where an active fall protection system is used to control a fall hazard.
- 3.2.1.6 Employers shall provide authorized persons with continuous fall protection at locations owned or operated by the employer.

Safety Requirements for Positioning and Travel Restraint Systems (ANSI Z359.3-2007)

- 1.1 Scope. This Standard establishes requirements for the performance, design, marking, qualification, test methods, and instructions of lanyards and harnesses comprising personal positioning and travel restraint systems.
- 1.2.1 This standard addresses minimum guidelines for the system design, manufacture, and testing of personal work positioning and travel restraint equipment for authorized persons at work weighing between 130 and 310 pounds including tools.
- 1.2.3 This standard addresses work positioning systems and travel restraint systems. These systems shall not be used as a primary fall arrest system. Positioning systems shall be supplemented with a secondary fall protection system.
- 1.3.2 Body belts are not addressed by this standard for work positioning or travel restraint unless incorporated into a work positioning harness or full body harness.
- 3.2.2 The use of a travel restraint system is only permitted on a walking/working surface that has a slope between zero and 18.4 degrees.
- 3.3.2 Lanyards and positioning lines that incorporate a rope adjuster, shall maintain their adjusted length (disregarding elastic stretch) up to a load of 1,000 pounds (8.8kN) within three inches when tested in accordance with section 4.2.1.2
- 3.6.3 The positioning harness shall provide support for the body around the abdomen and around the thighs when a tensile load is applied to the work positioning attachment elements.
- 3.8.4 All snaphooks and carabiners used in load bearing components shall comply with the requirements as outlined in ANSI/ASSE Z359.1
- 5.1.2 The legibility and attachment of required markings shall endure for the life of the component, subsystem, or system being marked.
- 5.1.3 Except for connectors, as set forth in section 5.2.1, equipment shall be marked with the following: part number and model designation; year of manufacture; manufacturer's name or logo; capacity; standard number (Z359.3); warning to follow manufacturer's instructions included with the equipment at time of shipment from the manufacturer; for products not meeting the requirements of ANSI/ASSE z359.1, a statement similar to: "Use this product for positioning only, not for fall arrest. If possible, the use of fall arrest equipment is highly recommended in addition to this equipment".
- 5.2.2 Positioning Harness. In addition to the requirements in section 5.1, Positioning Harnesses and belts shall be marked to identify: the fiber used in the material of construction; the size of the harnesses to suit the range of population; the positioning and/or travel restraint and fall arrest attachment elements; the purpose of any other attachment elements.
- 5.3.1 Instructions shall be provided to the authorized person, printed in English, and affixed to the equipment at the time of shipment from the manufacturer.

Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components (ANSI Z359.4-2007)

- 1.1 This standard establishes requirements for the performance, design, marking, qualification, instruction, training, use, maintenance,, and removal from service of connectors, winches/hoists, descent control devices, rope tackle blocks, and self-retracting lanyards with integral rescue capability comprising rescue systems, utilized in pre-planned self-rescue and assisted-rescue applications for 1-2 persons.
- 3.2 The capacity of a one person rescue system shall range from 130 to 310 pounds (59 to 140kg). The capacity of a two person rescue system shall range from 130 to 620 pounds (59 to 280kg). The maximum and minimum rated working loads for each system component shall encompass the capacity range of the assembled system.
- 3.2.5.2 Operation. It shall be possible to engage the RSRL (Self-Retracting Lanyard Component with integral Rescue Capability) into its rescue mode of operation at any time, subject to the manufacturer's instructions. It shall not be possible to inadvertently change to or from rescue mode. The RSRL



shall be capable of raising or lowering the load to effect rescue. The minimum mechanical advantage offered by the RSRL in rescue mode shall be 3:1, neglecting frictional losses. When in rescue mode, the RSRL device shall automatically stop and hold the load if the rescuer intentionally or unintentionally relinquishes control. The RSRL devise shall have a means to stabilize the device during use in rescue mode.

- 3.2.5.3 Powered Operation Devices that are operational by use of a power source other than manual, shall have means to limit applied lifting force and speed. A manual back-up means of operation shall be provided.
- 3.2.6.2 Rope tackle blocks shall have a secondary means to prevent uncontrolled lowering of the load. Rope tackle blocks shall have a minimum theoretical mechanical advantage of 3:1.
- 3.2.7.1 Descent Energy and Capacity The capacity of decent devices addressed by this standard shall be 310 pounds (140kg), see capacity, one person.

Ladder Safety Devices (ANSI A14.3-2002)

- 7.1.3 The ladder safety system shall be designed to absorb the impact of a solid object weighing at least 500 pounds in a free fall of 18 inches.
- 7.1.4 Design and installation of mountings shall not reduce the strength of the fixed ladder.
- 7.3.1 The safety sleeve shall be a type which can be operated entirely by the person using the ladder safety system. It shall permit the person using the ladder safety system to ascend or descend without having to continually manipulate the safety sleeve.
- 7.3.3 The maximum length of the connection between the centerline of the carrier and the point of attachment to the full body harness shall not exceed 9 inches.

Standard for Personal Fall Protection Used in Construction and Demolition Operations (ANSI A10.32-2004)

- $1.1\ \mbox{Scope}$ This standard establishes performance criteria for personal fall protection equipment and systems in construction and demolition and provides guidelines, recommendations for their use and inspection. It includes, but is not limited to; fall arrest, restraint, positioning, climbing, descending, rescue, escape and training activities.
- 1.4.1 Only full body harnesses shall be used for fall arrest. The fall arrest attachment point of the body harness shall be at the center of the user's back near shoulder level.
- 1.4.2 Maximum arresting force imposed on the user's body shall not
- 3.4 Fall protection equipment shall be removed from service upon evidence of defects, damage or deterioration; once it has been subjected to impact loading; or upon expiration of the manufacturer's specified service limits, whichever comes first.
- 4.1 Anchorage Anchorage shall be capable of supporting at least 5,000 lbs. per user attached, or shall be designed, installed and used under the supervision of a Qualified Person as part of a complete system which maintains a safety factor of at least two.
- 4.2.1 Personal fall arrest systems, when stopping a fall, shall be rigged such that an employee can neither free fall more than 6 feet (1.8m), nor contact any lower level or obstruction.
- 6.1.1 The employer shall provide a training program for each employee $\,$ who might be exposed to fall hazards.
- 6.3.2 Formal inspections shall be made by either a Competent or Qualified Person on at least a semi-annual basis

SELECTED ASTM STANDARDS

SELECTED ASTM STANDARDS

Standard Specifications for Personal Climbing Equipment
(ASTM F 887-05)

This material has been extracted, with permission from ASTM F 887-05 Standard
Specifications for Personal Climbing Equipment, copyright ASTM International, 100 Barr
Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be
obtained from ASTM International (Phone: 610-832-9585, fax: 610-832-9555, email:
service@astm.org, website: www.astm.org."

1. Scope

- 1.1 These specifications cover acceptance testing of climbers and climber straps, body belts and positioning straps with locking snaphooks, harnesses and shock absorbing lanyards used by workers in the climbing of poles, trees, towers, and other structures. Minimum performance criteria for arc resistance of harnesses are included for workers who may be exposed to thermal hazards of momentary electric arcs or flame
- 1.5 Two types of harnesses, Types A and B, are covered.
 1.6 Two types of shock absorbing lanyards, Types A and B, are covered.

HARNESSES

- 16. Classification
- 16.1.1 Type A-Full body harness.
- 16.1.2 Type B-Full body harness with body belt attachment.

- 18.1 Sizes—Harnesses may be manufactured and designated by the sizes small, medium, large, X-large, and XXlarge. The manufacturer's harness design shall accommodate the height and chest sizes shown in Table 4. (Table 4 not shown in this summary)
- 18.2 Harnesses manufactured under these specifications shall be labeled as meeting the standard and shall meet the specifications, tests and requirements of ANSI Z359.1 (current revision) with the exception that the webbing used in the construction of harnesses shall have a minimum breaking strength of 7000 lb (31.14 kN) and harnesses shall meet the Electric Arc Performance criteria outlined in Section 22.

SHOCK ABSORBING LANYARDS

- 19. Classification
- 19.1.1 Type A—Deceleration force reduction by separation of woven
- 19.1.2 Type B—Deceleration force reduction by stretch of woven material.
- 19.2 Additional designs or modifications of equipment or hardware may be specified by the user for a particular application providing equipment or hardware meets the performance requirements of this standard.

22. Electric Arc Performance

- 22.1 Electric Arc Test-Harnesses and shock absorbing lanyards shall be electric arc tested using the Test Method F 1958/F 1958M mannequin test
- 22.2 Harnesses-Six test specimens shall be placed on mannequins as normally worn and exposed to a 40 cal/cm2 6 5 cal/cm2 arc. Three of the test specimens shall be exposed on the front and three of the test specimens shall be exposed on the back. The arc shall be centered on the class in the case of a harness front exposure or on the fall arrest attachment in the case of a back exposure.
- 22.2.1 Harness Accessories, Loops, etc—Three test specimens of each accessory, loop, etc., shall be exposed to a 40cal/cm2 6 5 cal/cm2 arc. The accessory sory, loop, etc., need not be attached to a complete harness but may simply be attached to a piece of the approved harness webbing and placed over the shoulder of the mannequin so that the accessory, loop, etc., is on the chest of the mannequin approximately 12 in. (30.5 cm) from the center of the arc. When performing this test, two accessories, loops, etc., (maximum) may be placed on a manneguin at any one time, one over each shoulder.
- 22.3 Shock Absorbing Lanyards—Three test specimens (see Note 3) shall be placed over the shoulder of the mannequin so that the shock absorbing material is on the chest of the mannequin approximately 12 in. (30.5 cm) from the center of the arc as shown in Fig. 21 (Fig. 21 is not shown in this document) and exposed to a 40 cal/cm2 6 5 cal/cm2 arc. When performing this test, six lanyards (maximum) may be placed on a mannequin at any one time, three over each shoulder separated by a minimum of 1 in. (25.4 mm).
- NOTE 3—Three test specimens are required for this test unless there is a difference between the front and back of the specimen in which case six test specimens will be required such that three of the test specimens shall be exposed on the front and three of the test specimens exposed on the back.
- 22.4 This is a design test and need not be retested unless components change. Specimens shall be chosen to represent load bearing materials and any permanently attached options or accessories.
- 22.5 The arc material response characteristics for personal climbing device materials, including afterflame time, electric arc ignition, and dripping, shall be reported for all exposures.
- 22.6 When arc testing according to Test Method F 1958/F 1958M, dripping shall be determined by observing all arc test specimen exposures. There shall be no dripping for arc test specimen exposures
- 22.7 The exposed test specimens shall be exposed to the required drop test (ANSI Z359.1) after the arc exposure as soon as is practically possible.
- 22.8 To meet these specifications, exposed test specimens shall pass the following criteria in addition to the other test criteria in the standard:
- 22.8.1 No electric arc ignition as defined by Specification F 1891.
- 22.8.2 No melting and dripping as defined by Specification F 1891.
- 22.8.3 Pass specified drop test after electric arc exposure defined above.
- 22.8.4 No greater than 5 s of afterflame as defined by Specification F 1891.

SELECTED CSA FALL PROTECTION STANDARDS

Body belts and saddles for work positioning and travel restraint (CSA Z259.1-05)

- 1.1 Scope The standard specifies requirements for the performance, design, testing, marking and instructions of body belts and saddles.

 1.4 Body belts and saddles are not intended for use as body support in the arrest of a worker's fall, due to the possibility of injury or death resulting from a) impact on the body or death when the fall is arrested b) fallout from a body belt; or c) effects of a extended static suspension in a body belt
- 4.3.2.1 Body belt for linemen Type 1 The belt shall include the following components: a) a strap with buckle b) at least 2 D-rings that meet the requirements of CAN/CSA-Z259.12 Class I connectors; c) a strap keeper d) a body pad
- 4.3.2.1 Body belt for work positioning and travel restraint Type 2 The belt shall include the following components: a) a strap with buckle b) at least 2 D-rings that meet the requirements of CAN/CSA-Z259.12 Class I connectors; or a load bearing element for the connection of other components; and c) a strap keeper
- 4.4.1.1 General (Saddle Classifications) Saddles shall be classified as follows: a) Group P work positioning b) Group D descent; and c) Group PD work positioning and descent
- 4.4.1.2 Group P Group P saddles shall have two D-rings mounted at waist level.
- 4.4.1.3 Group D Group D saddles shall have front or side-mounted attachment points. The side-mounted attachment points for Group D shall not be at waist level.
- 4.4.1.4 Hybrid saddles designed to be used for both positioning and descent shall have both front-mounted and side-mounted attachment points. The side-mounted attachment points shall not be used for descent.

Fall Arresters, Vertical Lifelines, and Rails (CSA Z259.2. 1-98)

- $1.1\ Scope$ This standard provides design and performance requirements for manufactured fall-arresting devices, vertical lifelines, and rigid sections, including mounting components.
- 3.1 Classifications- Fall arresters shall be classified as follows: Class AD-(automatic-dorsal). Class AS- (automatic- sternal). Class ADP (automatic- dorsal panic hardware). Class MDP (manual dorsal panic hardware).
- $4.2.5 \; \text{Class AD fall arresters}$ shall have an integral connecting linkage of 0.6m or less.
- $4.2.6.1\ \mbox{Class}$ AS fall arresters shall be used with a connecting linkage of 0.2m or less.

Full Body Harnesses (CSA Z259.10-06)

- 1 Scope 1.1 General This Standard specifies requirements for the performance, design, testing, marking, and information for use of full body harnesses. Full body harnesses are intended for use as body supports in personal fall arrest systems and in other work situations that involve the risk of falling.
- 4.7 Classification A full body harness can have more than one classification; however, all full body harnesses shall meet the requirements of Class A. Full body harnesses shall be classified as follows: (a) Class A: Fall arrest; (b) Class D: Suspension and controlled descent; (c) Class E: Limited access; (d) Class L: Ladder climbing; and (e) Class P: Work positioning.
- $4.8\ Class\ A-$ Fall arrest Class A full body harnesses are designed to support the body during and after the arrest of a fall. Class A full body harnesses shall (a) have one dorsal Class I connector affixed to both shoulder straps; or (b) be integrally attached to other certified subsystems or elements with a dorsal Class I or II connector affixed directly to both shoulder straps. Where Class II connectors are used in this integral attachment, the connection shall be designed such that if the subsystem or element is removed from the full body harness, there shall be no means remaining on the full body harness for the attachment of a Class I connector. It is recommended that Class A full body harnesses be provided with a sub-pelvic strap and that the dorsal connector be a sliding D-ring. Where such a connector is provided, there shall be a means of limiting the downward creep of the sliding D-ring towards the waist of the user.
- $4.9~{\rm Class~D}$ Suspension and controlled descent Class D full body harnesses are designed for suspension or controlled descent from a height. In

addition to the connector required for Class A, all Class D full body harnesses shall have (a) one or two frontal Class I connectors; (b) two side-mounted Class I connectors which originate below waist level; or (c) one sternal Class I connector.

- 4.10 Class E Limited access Class E full body harnesses are designed to support a worker in a position that reduces the worker's profile during passage through a limited access area. Hoisting of the worker is usually involved. In addition to the connector required for Class A, all Class E full body harnesses shall have two Class I connectors. A connector as required for Class E shall be located on each shoulder strap with a provision for the connector to slide on the shoulder strap.
- 4.11 Class L Ladder climbing Class L full body harnesses are designed for use with fall restrict systems involving the use of a Class AS or FRL fall arrester that travels on a vertical lifeline or rail, as described in CAN/CSA-Z259.2.1. These systems are typically mounted on or adjacent to ladders or towers. In addition to the connector required for Class A, all Class L full body harnesses shall have (a) one Class I connector attached to the waist belt; or (b) one or two Class I connectors attached to the shoulder straps or to the chest strap in the sternal or frontal location. When attachment of the connector(s) is to the chest strap, the chest strap shall be attached to the harness in a fixed, non-sliding position.
- 4.12 Class P Work positioning Class P full body harnesses are designed to position the worker during a work operation. In addition to the connector required for Class A, all Class P full body harnesses shall have two Class I connectors mounted at waist level.
- 6.1.1 Test mass The test mass for testing all classes of full body harnesses shall (a) be torso shaped in accordance with parameters given in Figures 6 and 7; (b) be constructed of rigid material; (c) have hard wood surfaces in contact with the full body harness webbing straps; and (d) have a mass of $160 \pm 1 \ kg \ (352 \pm 2 \ lb).$
- 7 Marking and information -- 7.1 Marking The following markings shall appear in both English and French on a durable label intended to last the life of the product, and shall be affixed to the full body harness: (a) identification of the manufacturer and/or vendor; (b) model number; (c) proof of certification by the Certification Organization, as required; (d) the designation "CSA Z259.10-05"; (e) the applicable class(es) marked in words in accordance with the titles of Clauses 4.8 to 4.12 and in pictograms with a minimum height of 20 mm (0.8 in) in accordance with Figures 1 to 5; (f) size (the words "size" and "grandeur" shall appear on the label); (g) date of manufacture (by year and month); and (h) space for personal identification.

Shock Absorbers for Personal Fall Arrest Systems (CSA Z259.11-M92)

- 1.1 Scope This standard outlines the requirements for testing the performance and strength for shock absorbers that absorb and dissipate kinetic energy when used as a component of a personal fall arrest system (FAS).
- 5.3 Dynamic Drop Testa shock absorber shall limit the maximum arrest force to 4.0 kN.
- 5.4 Final Static Resistance Testa shock absorber must be capable of supporting a load of 22 kN for a period of 5 min.

Self-Retracting Devices for Personal Fall-Arrest Systems (CSA-Z259.2.2-98)

- 1.1 Scope This standard specifies the requirements for all self-retracting devices (SRDs) used as connecting components in personal fall-arrest systems. SRDs are further classified in this Standard according to method of use and effective length.
- 3.1 Classification Self-retracting devices (SRDs) shall be classified by type as follows: a) Type 1 (SRL) A Type 1 device shall be classified as a self-retracting lanyard (SRL). A SRL shall have a working length of between 1.5 and 3.0m. b) Type 2 (SRL) A Type 2 device shall be classified as a self-retracting lanyard (SRL). A Type 2 SRL shall generally have a working length of more than 3.0m. c) Type 3 (RSRL) A Type 3 device shall be classified as a self-retracting lanyard with retrieval function (RSRL). A RSRL shall have a working length of more than 3.0m and be fitted with a retrieval device.
- 5.2.1 Dynamic Performance When tested... the Type 1 SRL shall successfully arrest the fall.The arrest distance shall not exceed 1.0m.
- 5.3.1 Dynamic Performance When tested...the Type 2 SRL/Type3 RSRL shall remain locked until released. When released the Type 2 SRL/Type 3RSRL shall exhibit normal operation. The arrest distance measured when the test weight comes to reat shall not exceed 1.4m The maximum arrest force (MAF) measured by the load cell shall not exceed 8kN.



NOTES

NOTES



Leaders in safety innovation

Capital Safety, home of the DBI-SALA and PROTECTA brands is the world's leading manufacturer dedicated solely to fall protection. We are also the pioneer in the development of intelligent safety technology, leading the way toward a new era of safety management solutions. We are committed to providing new and improved systems to give you the complete confidence you need in your safety program.

- QUALITY for the performance you can trust.
- BREADTH for the best and most cost effective solutions.
- EXPERTISE to meet your unique fall protection requirements.
- TRAINING to ensure and motivate safety compliance.
- INNOVATION to improve your safety and productivity.



Contact Us Today

Capital Safety - USA 3833 SALA Way, Red Wing, MN 55066-5005

Phone: 651-388-8282 • Toll Free: 800-328-6146 • Fax: 651-388-5065 Web Site: www.capitalsafety.com • Email: info@capitalsafety.com

Canada : 800 387 7484 • Asia : +65 6558 7758 • Australia : 1800 245 002 New Zealand : 0800 212 505 • Europe, Middle East, Africa : +33 (0)4 97 10 00 10

Northern Europe: +44 (0) 1928 571324