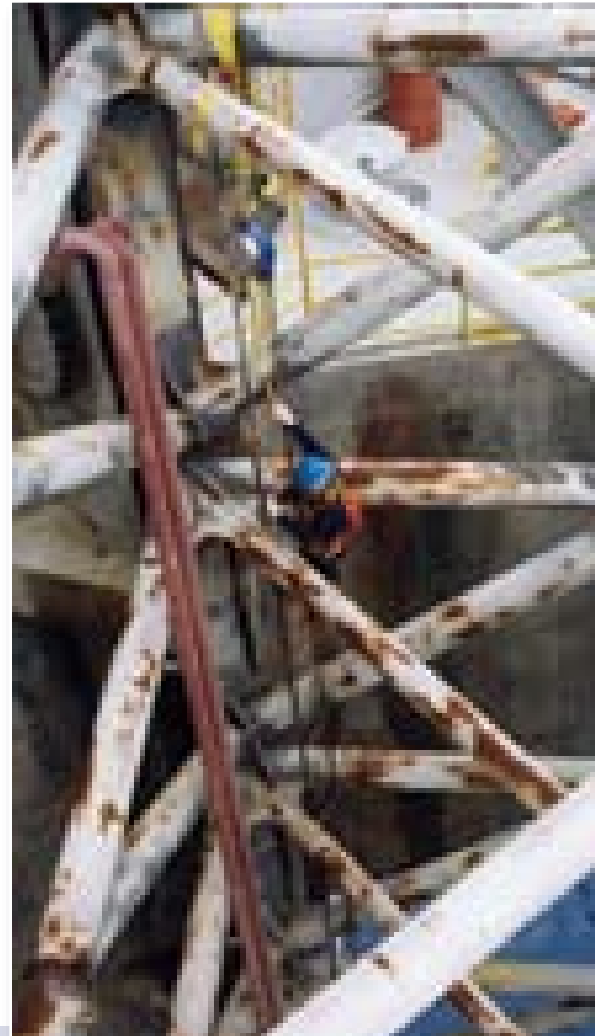


## Drilling/Service Rig Applications

# 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 slip.
- 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.



## A Anchorage

### Permanent

Do you want a permanent ladder safety system?  
Do you want a temporary climbing system?

### Temporary

Permanent anchorage/system that attaches to the ladder:

#### Lad-Saf® Ladder Safety System

The shock absorbing top bracket and tension indicating bottom bracket serve as anchors for the steel cable which runs the length of the climbing area. The sleeve prevents falls by locking onto the cable. It is easily attached or removed anywhere along the cable and automatically follows the user as they climb or descend.

**6116502 Pg 38**

#### 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 Pg 36**

Also available in stainless steel.

Temporary system for climbing structure:

#### Lad-Saf® Static Wire Rope Grab

The static type design stays where you want it and moves when you move it. Attach/detach anywhere along the cable. Wedging action grips and lock onto cable. Fits 3/8" (9.5mm) diameter 7x19 galvanized steel cable.

**5000338 Pg 39**

#### SAFLOK® Carabiners

Self-closing / self-locking gate for increased safety and security, steel construction, user friendly even with gloves. Compatible with most connecting rings.

**2000113 Pg 37**

Also available in stainless steel.



## B Body Support

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

### High Performance

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**

### Standard

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**

### Fundamental

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**



## C Connectors

Is the structure you are climbing long in length?

### Non-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**

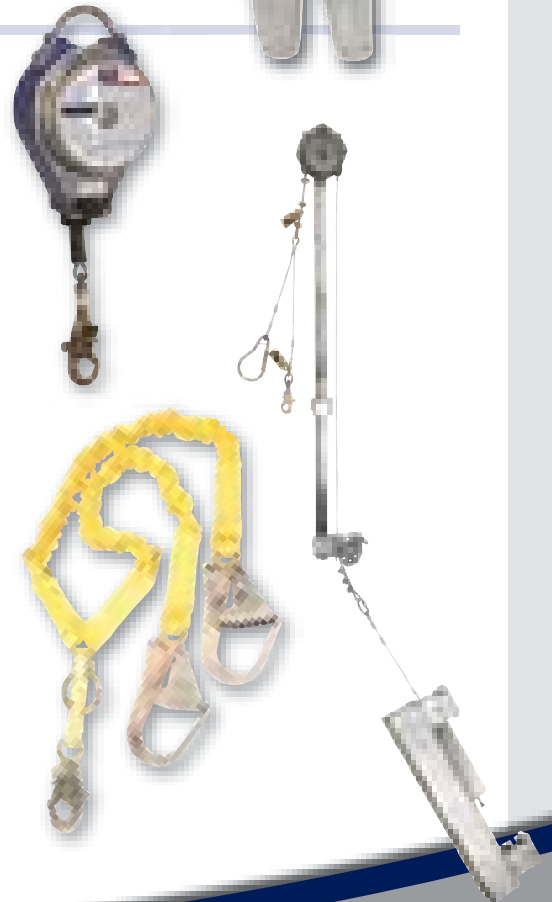
Do you want assistance climbing?

### Assisted

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/Service 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.



## A Anchorage

Temporary

Do you want a temporary or permanent anchorage?

Permanent

#### Temporary anchorage systems:

##### 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**

##### 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.

#### Permanent anchorage systems:

##### D-ring Anchorage Bolt

Forged steel zinc coated D-ring anchor with 1/2" x 1-3/8" bolt for installation through steel plate or beam.

**AN112 (AN112C in Canada) Pg 58**

##### 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 Pg 36**

Also available in stainless steel.



## B Body Support

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

High Performance

For ultimate comfort, performance and durability:  
**ExoFit™ Derrick Harness with Seat Sling**  
 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 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**

Standard

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)

## C Connectors

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/Service 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.



## A Anchorage

Are you performing raising operations, rescue or escape?

Rescue

For rescue applications:

#### 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**

Escape

For escape applications:

#### 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**

Raising

For raising operations:

#### Lad-Saf® Mobile Rope Grab

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**

Connections

For connecting components of your system together:

#### 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.



## B Body Support

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

High Performance

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**

Standard

For reliable, workhorse performance:

### Delta™ II Bosun Chair Harness

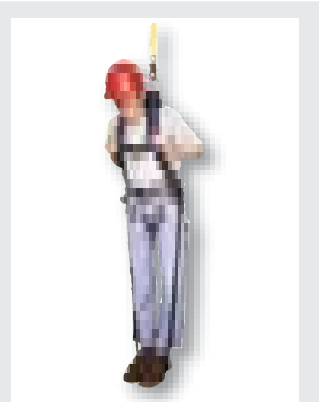
Vest style with back D-ring with 18" (46cm) extension, tongue buckle body belt with pad and side D-rings, seat board with suspension D-rings for added support and comfort, tongue buckle leg straps.

**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**

## C Connectors

Escape

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**

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.

Are you escaping from the rig at heights?

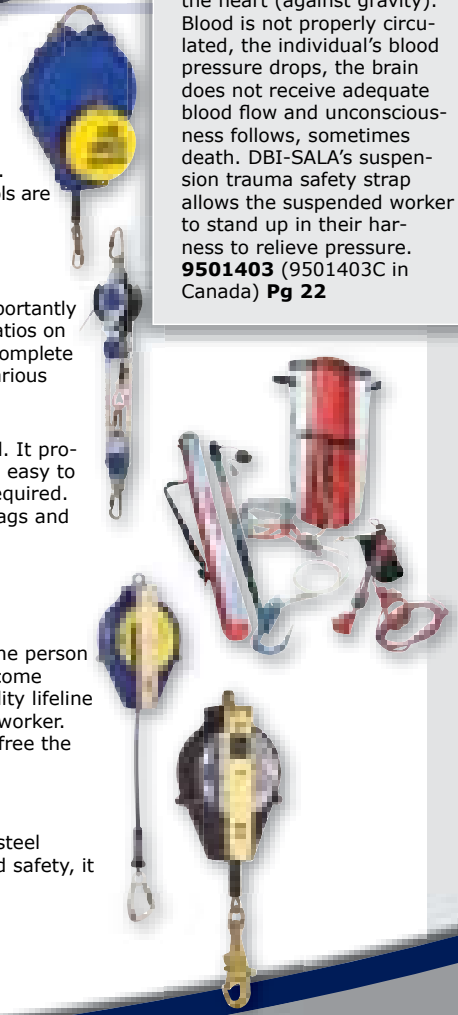
Rescue

Are you rescuing a fallen worker?

Raising

Are you raising a worker on a hoist line?

Back-Up System



**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/Service 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.



## A Anchorage

Fixed

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.

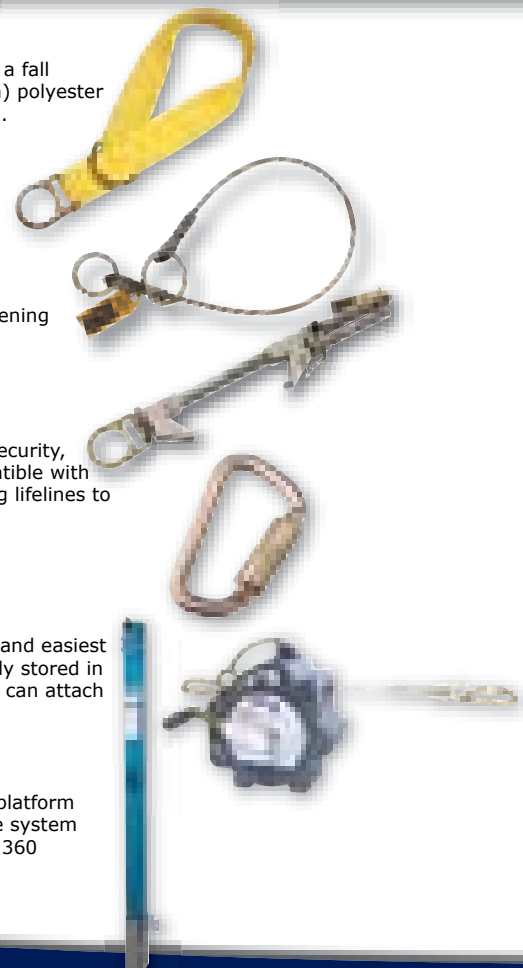
**7605060** (7605063, 40 ft. [12.2m] in Canada) **Pg 47**

#### 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**

Horizontal



## B Body Support

### High Performance

What level of quality and durability do you 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**



### 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**

## C Connectors

How much mobility does the worker require?

### More 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.**



## 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.



## A Anchorage

### Fixed

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

### 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:

#### Sayflite™ Horizontal Lifeline System

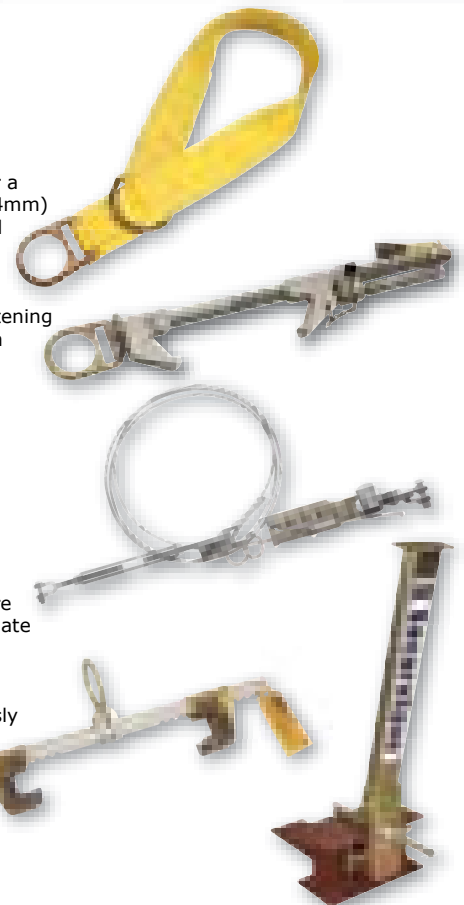
Durable and lightweight horizontal system that utilizes easy to adjust wedge grip termination for easy installation. **7602060 Pg 47**

#### 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 Pg 37**



## B Body Support

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

High Performance

For ultimate comfort, 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 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 side D-rings and quick connect buckles. **1108577** (1108577C in Canada) **Pg 23**

Standard

For reliable, workhorse performance:

### Delta™ II Positioning Harness

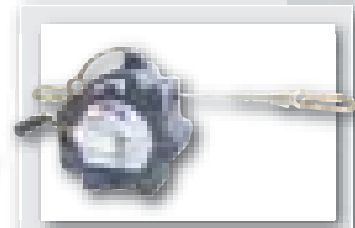
Unique Delta™ pad design provides comfort and holds the shape of the harness for fast no-tangle donning. Stand-Up back D-ring enables connections to be made without straining. Features back & side D-rings, tongue buckle leg straps. **1102008** (1102008C in Canada) **Pg 26**

Fundamental

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 Lifeline System

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**

## C Connectors

Double-Leg

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) **Pg 31**

### 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**

### 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 multiple hook options. **3102000** **Pg 43**

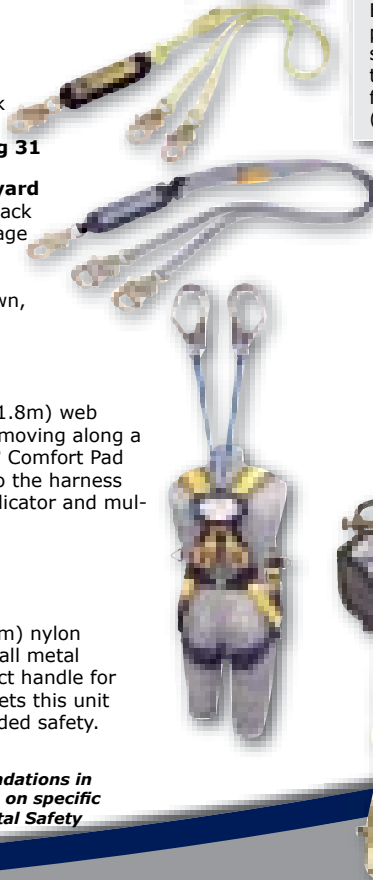
Single-Leg

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.**

## 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.



## A Anchorage

Fixed

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

Vertical

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**

#### 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**

#### 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**

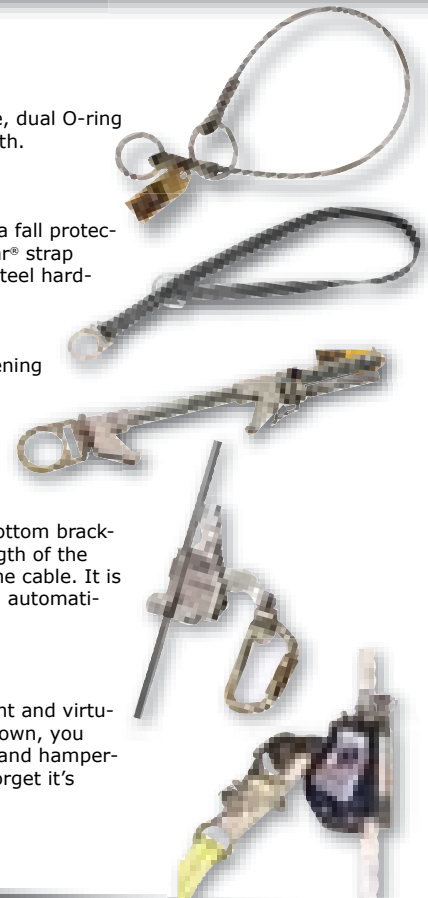
For vertical mobility:

#### Lad-Saf® Ladder Safety System

The shock absorbing top bracket and tension indicating bottom bracket serve as anchors for the steel cable which runs the length of the climbing area. The sleeve prevents falls by locking onto the cable. It is easily attached or removed anywhere along the cable and automatically follows the user as they climb or descend. **6116502 Pg 38**

#### Lad-Saf® Mobile Rope Grab

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**



## B Body Support

### High Performance

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

### Standard

### Fundamental

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**

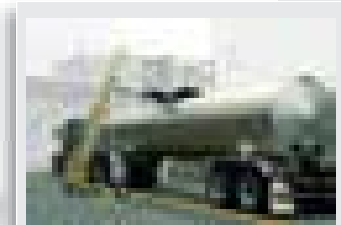
**ExoFit™ Vest Style Harness**  
ExoFit™ incorporates built-in shoulder, back and leg padding with a breathable lining that draws moisture away from the body keeping the worker dry and comfortable. The padding is constructed in the shape of an "X" that wraps around you for no-tangle donning. Features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

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 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**



### 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.



## C Connectors

### More than 6'

Do you require extra protection while welding?

How much mobility does the worker require?

### Less than 6'

For more mobility:

**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® II lanyards in Kevlar® webbing are tough. They feature 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®.  
**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**



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## 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.



## A Anchorage

Above Ground

Is the work being done above or below ground level?

Under Ground

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:

#### 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**



## B Body Support

High Performance

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**

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**

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

Fundamental

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**

## C Connectors

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**

Confined Space

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® Retrax™ Shock Absorbing Lanyards and kits like Compliance-in-a-Can™ Light containing both a harness and lanyard.

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