

## LAD-SAF™ X2

Detachable Cable Sleeve

**SECURITY AND  
CONFIDENCE  
AT HEIGHT**

Capital Safety is a global company solely dedicated to fall protection and rescue. Our focus is clear. It continually drives us to design and manufacture safer gear that workers want to wear.

Innovation means understanding the industries we serve. We listen to the workers in the field, employ the most engineers, customize solutions, register more new patents and introduce more products. To date, Capital Safety has the best quality and largest breadth of products in the industry.

But we're more than a product company. We take an innovative approach in bringing our products to the field. We have created international partnerships and a vast network of certified installers and service centers. We offer on-site and in-house training.

And we're ISO9001:2008 certified for customer service, as well as manufacturing and engineering.

Capital Safety is one of the world's leading manufacturers in fall protection and rescue equipment, with decades of experience and a legacy of innovation. Look for complete solutions in our extensive line of DBI-SALA® and Protecta® products.



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# LAD-SAF™ X2



## THE DANGERS OF WORKING AT HEIGHT

Every day, workers around the world climb ladders to great heights to get their job done.

Working at heights creates danger, and a need for maximum security. A fall can happen at any time and on any structure, during the climb to the top or on the way down.

## THE SOLUTION

The Lad-Saf™ X2 Detachable Cable Sleeve is part of a permanently installed ladder safety system that offers complete fall protection for the worker. It is designed to work with many different styles and lengths of ladders on structures like wind turbines, communication towers, buildings, water towers and more.





### **EASY TO CLIMB**

The Lad-Saf™ X2 Detachable Cable Sleeve is a portable connection device that connects the worker's harness to the ladder cable and glides freely up or down the cable as the worker climbs. Once attached, the sleeve does not require any further handling by the climber and allows the climber to move up and down the entire length of the ladder safety system with ease and confidence.

### **EASY TO INSTALL AND DETACH**

The Lad-Saf™ X2 is designed for one-handed attachment or detachment anywhere along the cable.

### **PRIMARY AND SECONDARY LOCKING SYSTEMS**

In the event of a fall, the sleeve immediately locks into place and remains locked until the user can regain his footing. Even if something interferes with the primary locking system, a secondary locking system will engage to lock the sleeve onto the cable.

### **INTEGRATED ENERGY ABSORBER/FALL INDICATOR**

The integrated energy absorber limits the maximum fall arrest force to 1,350 pounds (6 kN) or less, which meets or exceeds applicable standards. This absorber also acts as a fall indicator, showing the device has been deployed and needs to be taken out of service.





# LAD-SAF™ X2

## Detachable Cable Sleeve

## Features and Benefits



### EASY TO CLIMB

The Lad-Saf™ X2 sleeve automatically follows the climber during ascent or descent.

### EASY TO INSTALL AND DETACH

One-handed attachment or removal from the cable delivers fast, easy and safe connections. The sleeve can be attached anywhere along the cable for added versatility.

### PRIMARY AND SECONDARY LOCKING SYSTEMS

Two independent locking systems, including a mechanical and inertia locking system, in the event of a fall.

### INTEGRATED ENERGY ABSORBER/FALL INDICATOR

Deploys in the event of a fall, limits the maximum fall arrest force to 1,350 pounds (6 kN) or less, and shows the device must be taken out of service.

### COMPACT AND CORROSION RESISTANT

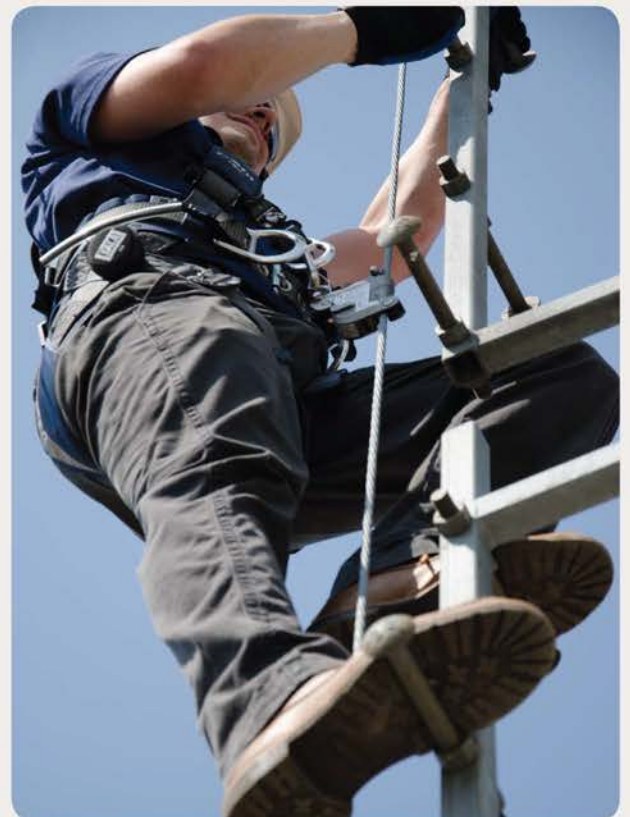
Compact and lightweight design has stainless steel construction to stand up to harsh environments.

### GENERAL SPECIFICATIONS:

- For use with 3/8 inch (9.5 mm) or 5/16 inch (8 mm) diameter 1x7 or 7x19 solid core cable
- Capacity = 1 user of 310 lbs. (140.6 kg)
- Mechanical and inertia locking system
- Size = 5 inches (12.7 cm) x 6 inches (15.24 cm)
- Weight = 2.5 lbs. (1.13 kg)

### MATERIALS AND CONSTRUCTION

- Body: Heat Treated Stainless Steel
- Rivets: Stainless Steel
- Locking Cam: Heat Treated Stainless Steel
- Springs: Stainless Steel
- Side Plates and Ext. Pieces: Stainless Steel
- Construction: Riveted Assembly



## LAD-SAF™ FLEXIBLE CABLE LADDER SAFETY SYSTEM

The Lad-Saf™ Flexible Cable Ladder Safety System consists of a top and bottom bracket that act as anchors for a steel cable that runs the length of the climbing area. The Lad-Saf™ X2 sleeve, attached by carabiner to the harness, arrests falls by locking onto the cable.

Designed for ease of use, economy and versatility, optional brackets/designs are available for bolting or welding the system. There is a choice of rung clamp sizes/styles and there are systems for straight ladders and for connection to wood, concrete or steel structures.

### TENSION INDICATOR

Integrated tension indicating bottom bracket takes the guesswork out of installation.

### CUSTOMIZABLE

Hundreds of different brackets, styles and configurations for any application.

### CORROSION RESISTANT CONSTRUCTION

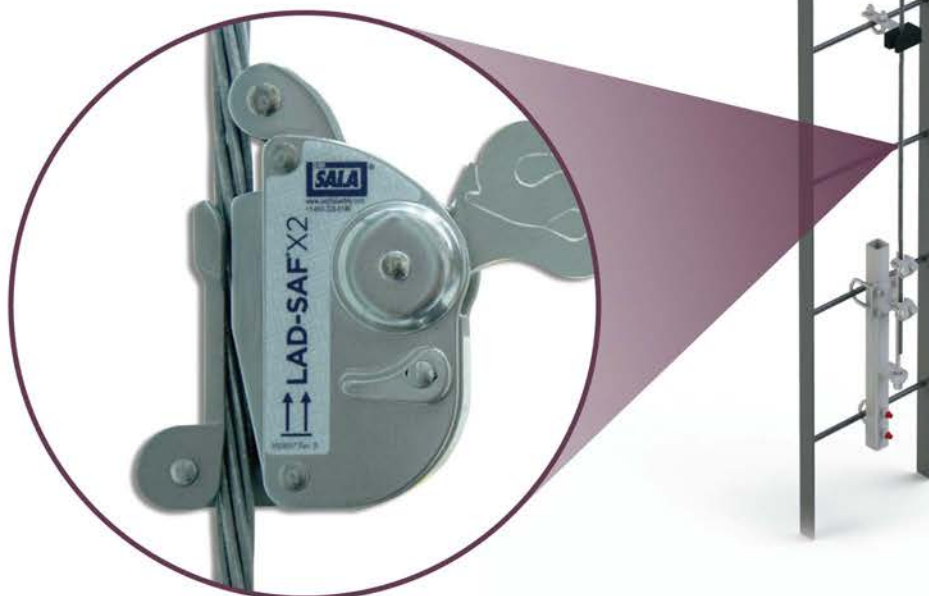
Galvanized and stainless steel construction stands up to harsh environments for maintenance free longevity.

### SHOCK ABSORBING DESIGN

Integrated shock absorbing top bracket reduces forces imposed on ladder structure during a fall.

### INTERMEDIATE CABLE GUIDES

Non-metallic cable guides prevent cable wear against the ladder and permits the climber to bypass without disconnecting.



### STANDARD TOP BRACKET

Galvanized top bracket with mounting hardware. For systems up to 499 ft. (152m) high, fits up to 1-1/8" (2.85 cm) rung diameter and attaches to 3 rungs. Includes built-in energy absorber.

6116280

Standard top bracket and hardware for systems over 500 ft. (152.4 m).

6116410

### CABLE LIFELINE

Galvanized cable, 3/8" (9.5mm) diameter, 1x7 type. Last 3 digits in part number indicate length.

6110000

### CABLE GUIDE

Non-metallic cable guide with mounting hardware. For systems up to 199 ft. (60.6 m), fits up to 1-1/8" (2.85cm) rung diameter. Must have 1 every 25 ft. (7.6 m).

6110400

Cable guide (L-shaped) and hardware for systems over 200 ft. (61 m).

6110515

### LAD-SAF X2 DETACHABLE CABLE SLEEVE

Climbing sleeve for easy to climb operation and fall protection.

6160030

### STANDARD BOTTOM BRACKET

Fits up to 1-1/8" (2.85cm) rung diameter and attaches to 2 rungs. Galvanized bottom bracket includes built-in tension indicator.

6100090



# LAD-SAF™

## Cable Ladder System Components

## Features and Benefits



### LAD-SAF™ TOP BRACKET

Standard galvanized top bracket with mounting hardware. For systems up to 499 ft. (152m) high, fits up to 1-1/8" (2.85cm) rung diameter, attaches to 3 rungs, built-in energy absorber.

6116280

### CORROSION RESISTANT CONSTRUCTION

Galvanized construction stands up to harsh environments for maintenance-free longevity.

### SHOCK ABSORBING DESIGN

Integrated shock absorbing top bracket reduces forces imposed on ladder structure during a fall. Bracket distributes load over several rungs of ladder.

### EASY TO INSTALL

Standard tools install bracket to ladder. No swaging necessary, system carrier clamp (strandvise) provides easy top bracket cable termination with no tools.

### i-SAFE™ EQUIPPED

Includes an i-Safe™ radio frequency identification (RFID) to simplify inspection and inventory control and provide records for your fall protection equipment.

### GENERAL SPECIFICATIONS:

- Load Requirements; the top bracket is supplied with three rung connections, the load required for each rung for a single user system is 1,125 lbs. (5.0 kN) per rung (3,375 lbs. {15.0 kN}/3) - see details below:
- Capacity = 1 to 4 user(s) at 310 lbs. (140.6 kg) each.
- Ladder rung strength requirements for;
  - One user on system; \*3,375 lbs. (15.0 kN)
  - Two users on system; \*4,350 lbs. (19.3 kN)
  - Three users on system; \*5,325 lbs. (23.7 kN)
  - Four users on system; \*6,300 lbs. (28.0 kN)  
\*includes safety factor
- Size = 1-1/2 inch (3.81 cm) x 62 inches (157.48 cm)
- Weight = 23 lbs. (10.43 kg)

### MATERIALS AND CONSTRUCTION

- Galvanized 1-1/2" (3.81 cm) square 11 gauge hot rolled tube
- Galvanized 2" SCH. 40 pipe
- Galvanized SAE Grade 2, U-bolt
- Elastomeric impact attenuator
- Carrier clamp (cable grip strandvise)
- Stainless steel system label with i-Safe™ RFID tag



### LAD-SAF™ BOTTOM BRACKET

Standard galvanized bottom bracket with mounting hardware. Fits up to 1-1/8" (2.85cm) rung diameter, attaches to 2 rungs, built-in tensioning device.

6100400

### CORROSION RESISTANT CONSTRUCTION

Galvanized construction stands up to harsh environments for maintenance free longevity.

### INTEGRATED CABLE TENSION SYSTEM

Integrated cable lifeline adjustment system provides a fast, easy and visual indication of a properly tensioned system.

### EASY TO INSTALL

Standard tools install bracket to ladder. No swaging necessary, carrier cable tensioner and saddle clips provide easy bottom bracket cable termination.

### GENERAL SPECIFICATIONS:

- Simple bolt and clamp plate fasteners install bracket to 2 rungs of ladder
- Bottom bracket should be positioned to allow user(s) safe access when connecting/disconnecting from the system
- Bottom bracket must be mounted in-line (vertically) with the top bracket (6116280)
- Size = 1-1/2 inch (3.81 cm) x 19 inches (48.26 cm)
- Weight = 8 lbs. (3.63 kg)

### MATERIALS AND CONSTRUCTION

- Galvanized 1-1/2" (3.81 cm) square 11-gauge hot rolled ASTM-A-500 Grade B tube
- Fasteners: U-bolts, nuts and washers are galvanized per ASTM-A-153



### LAD-SAF™ CABLE GUIDE

Non-metallic cable guide with mounting hardware. For systems up to 199 ft. (60.6m), fits up to 1-1/8" (2.85cm) rung diameter. Must have 1 every 25 ft. (7.6m).

6100400

### INTERMEDIATE CABLE GUIDE

Prevents cable wear against the ladder and permits the climber to bypass without disconnecting.

### NON-METALIC DESIGN

Prevents metal-to-metal contact and abrasion, cable rests in guide slot and does not rub on abrasive objects.

### EASY TO INSTALL

Standard tools install guides to ladder. Complete with necessary fastening hardware.

### GENERAL SPECIFICATIONS:

- Molded polyurethane elastomer guide with steel fastening hardware
- Protects cable from rubbing on abrasive objects
- Slight body pressure releases cable from guide and allows climber to pass by
- One cable guide is positioned approximately every 25 feet of length of system (7.6 m)
- Size = 6.875 inches (17.5 cm) x 1.25" (3.17 cm)
- Weight = 0.70 lbs. (0.32 kg)

### MATERIALS AND CONSTRUCTION

- Guide Material: Black Urethane
- Bar Material: Galvanized HR steel

### LAD-SAF™ CABLE LIFELINE



1 x 7 Strand



7 x 19 Strand

### DURABLE HIGH STRENGTH STEEL CONSTRUCTION

High strength solid core steel construction for maximum durability, longevity and added safety.

### 1 x 7 or 7 x 19 STRAND TYPE

Options available in galvanized or stainless steel.

### CORROSION RESISTANT CONSTRUCTION

Stainless steel construction options stand up to harsh environments for maintenance-free longevity.

### GENERAL SPECIFICATIONS AND MATERIALS

	9500098	9500099	9500396	9500397	9501591
DIAMETER	3/8"	3/8"	3/8"	3/8"	5/16"
STRAND	7 x 19	7 x 19	1 x 7	1 x 7	7 x 19
STEEL	Galvanized	Stainless	Galvanized	Stainless	Galvanized
PREFORMED	Right Regular Lay	Right Regular Lay	Left Regular Lay	Left Regular Lay	Right Regular Lay
COMPLIANCE	RR-W-410	RR-W-410	ASTM A475	ASTM A368	RR-W-410
LUBRICATION	No	Dry	Dry	Dry	No
BREAKING STRENGTH	14,400 LBS minimum	12,000 LBS minimum	15,400 LBS minimum	18,000 LBS minimum	9,800 LBS minimum