

# Rose Product Data Sheet

10-29-97

P/N 690110 Rev. B

# HORIZON™

## Horizontal Lifeline Subsystem

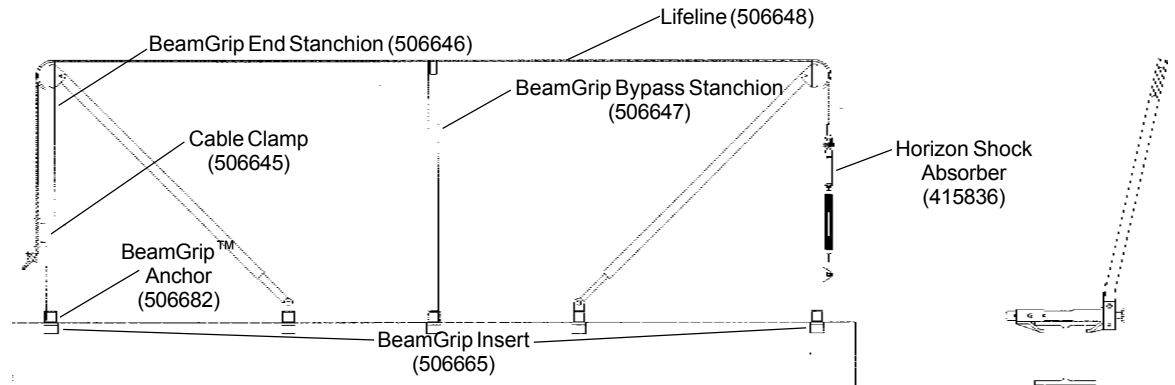
**STANCHION MOUNT**



The Name in Safety at Heights And Confined Spaces  
Rose Manufacturing Company ■ 2250 S. Tejon ■ Englewood, CO 80110  
800-722-1231

## HORIZON™ Horizontal Lifeline Subsystem Component Specifications

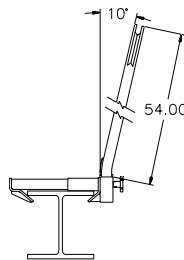
### STANCHION MOUNTING FOR MULTIPLE SPANS



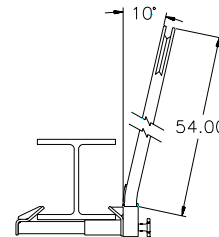
### SPECIFICATIONS

- Lifeline Length: 20 to 280 feet in 20 to 40 foot spans
- Max. Unsupported Span: 40 feet
- Cable: 3/8" 7x19 Galvanized wire rope - minimum breaking strength rated at 14,400 lbf
- Compatibility: Available for all standard I-beams, complex steel I-beams and custom shapes
- Support Equipment: Requires the use of a 900 lb lanyard energy absorber, or equivalent, rated at 900 lbf
- Min Anchorage Strength: 12,500 lbf required for installation
- Stanchion Height: 52 inches minimum

**Above Beam Mounting**



**Below Beam Mounting**



### PRODUCT DESCRIPTION

#### The BeamGrip™ Anchorage System

Available for most standard I-beams up to 12 inch flange width, for both above beam and below beam installations. Beamgrips for I-beams larger than 12 inch flange widths are available on a custom-order basis. The supporting structure must be capable of withstanding anchorage loads.

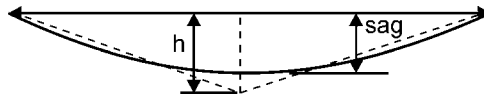
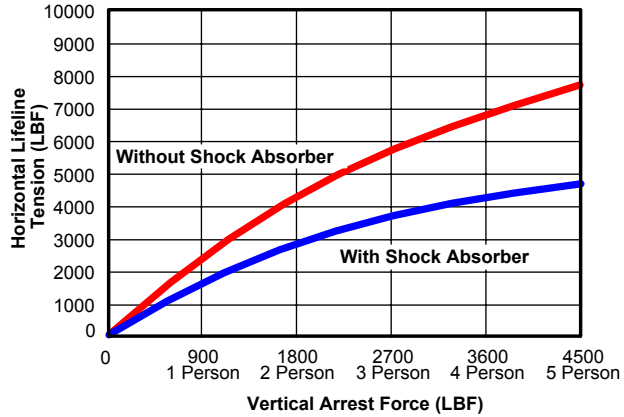
#### The Horizon™ Horizontal Lifeline with integral in line shock absorber.

Provides complete freedom of movement for the entire length of the lifeline without having to detach the workers' personal fall arrest system. The Horizon™ Shock Absorber reduces the amount of force seen at the anchorage points up to 37% during a single fall condition. (See anchorage loading chart next page.)

# HORIZON™ Horizontal Lifeline Subsystem

## HORIZON™ Horizontal Lifeline Subsystem Component Specifications

**Horizon™ Horizontal Lifeline Anchorage Loading Chart (140 ft Length - 20 ft Span)**



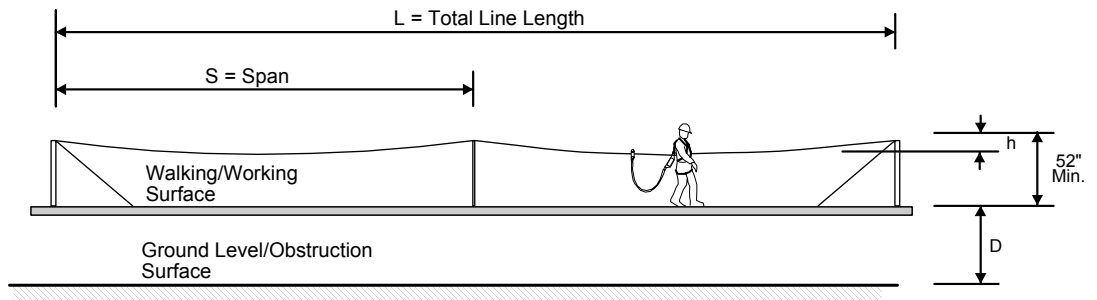
**Horizon™ Shock Absorber Load Chart**

With Horizon Shock Absorber      W/out Horizon Shock Absorber  
(140 ft Length - 20 ft Span)

Input Force	Line Tension (F2)	Change of Elevation (h1)	Line Tension (F3)	Change of Elevation (h)
1 Person	1,860 lbf	27 inches	2,280 lbf	38 inches
2 Person	3,000 lbf	39 inches	3,840 lbf	38 inches
3 Person	3,460 lbf	42 inches	4,480 lbf	42 inches
4 Person	4,000 lbf	44 inches	6,880 lbf	42 inches
5 Person	4,720 lbf	48 inches	7,640 lbf	48 inches

Based on 140 foot length with supported spans of 20 feet  
 F1 - Lanyard Shock Absorber using 900 lb DynaBrake  
 F2 - With Horizon™ Shock Absorber  
 F3 - Without Horizon™ Shock Absorber

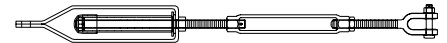
### HORIZONTAL LIFELINE STANCHION MOUNTING SUBSYSTEM



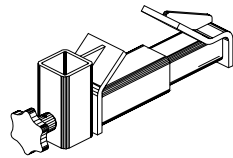
# HORIZON™ Horizontal Lifeline Subsystem

## Horizon Shock Absorber Assembly

Offers easy tensioning adjustment with a pretensioning indicator taking the guess work out of setting line tension and proper sag angle. It absorbs and reduces impact forces that are transmitted to the BeamGrip anchorage connectors and anchorage points. The system has a capacity of up to five workers when used in conjunction with Rose Dyna Brake® shock absorbing lanyards or Rose Dyna-Lock® self retracting lanyards. Attaches to the BeamGrip end fitting - no tools required. One Horizon shock absorber is required with each horizontal lifeline system.



P/N 415836



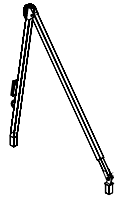
P/N 506682

## BeamGrip Anchorage Connector

For stanchions permits quick and easy installation to a wide range of horizontal standard I-beams while offering over 12,500 lbf of lateral anchorage strength. Modular design permits attachment of End and Bypass stanchions. Installation requires no tools. One BeamGrip required for each end of system and at 40 ft intervals.

## BeamGrip End Stanchion

Used in conjunction with the BeamGrip anchorage connector and provides an attachment point for the Horizon shock absorber assembly and cable clamp. 52 inch nominal height, keeps lifeline (tie off point) close to the workers' back reducing free fall distance. Two BeamGrip end stanchions are required for each system.



P/N 506646



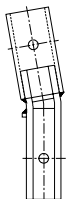
P/N 506647

## BeamGrip Bypass Stanchion

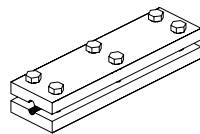
Used in conjunction with the BeamGrip anchorage connector. Permits workers to bypass intermediate span supports without disconnecting from the horizontal lifeline system permits continuous safety at heights. One BeamGrip bypass required every 40 ft.

## BeamGrip Stanchion Insert

Used in conjunction with the BeamGrip anchorage connector and provides an attachment point for BeamGrip end stanchion (P/N 506646). One BeamGrip stanchion insert required for each end stanchion and each bypass stanchion.



P/N 506665



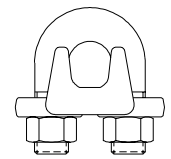
P/N 506645

## Cable Clamp

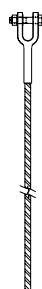
Used to secure the end of the lifeline to the BeamGrip™ end stanchion. Mounting hardware is included. One cable clamp is required for each system.

## 3/8" Wire Rope Clip

Used to secure the end of the wire rope. One wire rope clip is required for each assembly.



P/N 506649



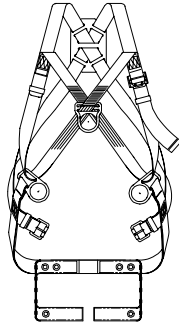
P/N 506648

## 3/8" Galvanized Wire Rope w/Jaw End

Used as a horizontal lifeline in conjunction with the Horizon shock absorber and other components of the Horizon system. The lifeline is available in lengths to fit single or multi-span system. Mounting hardware includes a forged steel jaw on one end. The opposite end connects to the Rose cable clamp (P/N 506645). One wire rope lifeline is required for each horizontal lifeline system.

## Personnel Fall Arrest Subsystem Specifications

### Full Body Harness



P/N 502733

Sizes:	x-small, standard, x-large, super x-large
System Usage:	Fall arrest, controlled descent, ladder climbing, confined space entry and exit and worker positioning
D-ring locations:	Back, chest and 2 hip
Weight:	3.5 lbs
Standards:	Meets ANSI Z359.1, ANSI A10.14, CSA Z259.10, OSHA
Capacity:	310 lbs including clothes, tools and other user borne objects
Material:	Nylon (polyester 502734)

### Self Retracting Lanyard



P/N 506208 (30 m)  
506204 (16 m)

Usage:	Single span systems
Max. Arrest Distance:	24 inches
Capacity:	310 lbs including clothes, tools and other user borne objects
Standards:	Meets ANSI Z359.1, ANSI A10.14, OSHA

### Self Retracting Lanyard



P/N 506615 and 506619

Usage:	Single span systems
Max. Arrest Distance:	24 inches
Capacity:	310 lbs including clothes, tools and other user borne objects
Standards:	Meets ANSI Z359.1, ANSI A10.14, OSHA

### Carabiner



P/N 506572

Material:	High tensile alloy steel
Strength:	5,000 lbf
Proof Load:	3,600 lbf
Throat Opening:	.875 inch minimum
Length:	3.7 nominal
Weight:	0.6 lbs

### Lanyard Shock Absorber



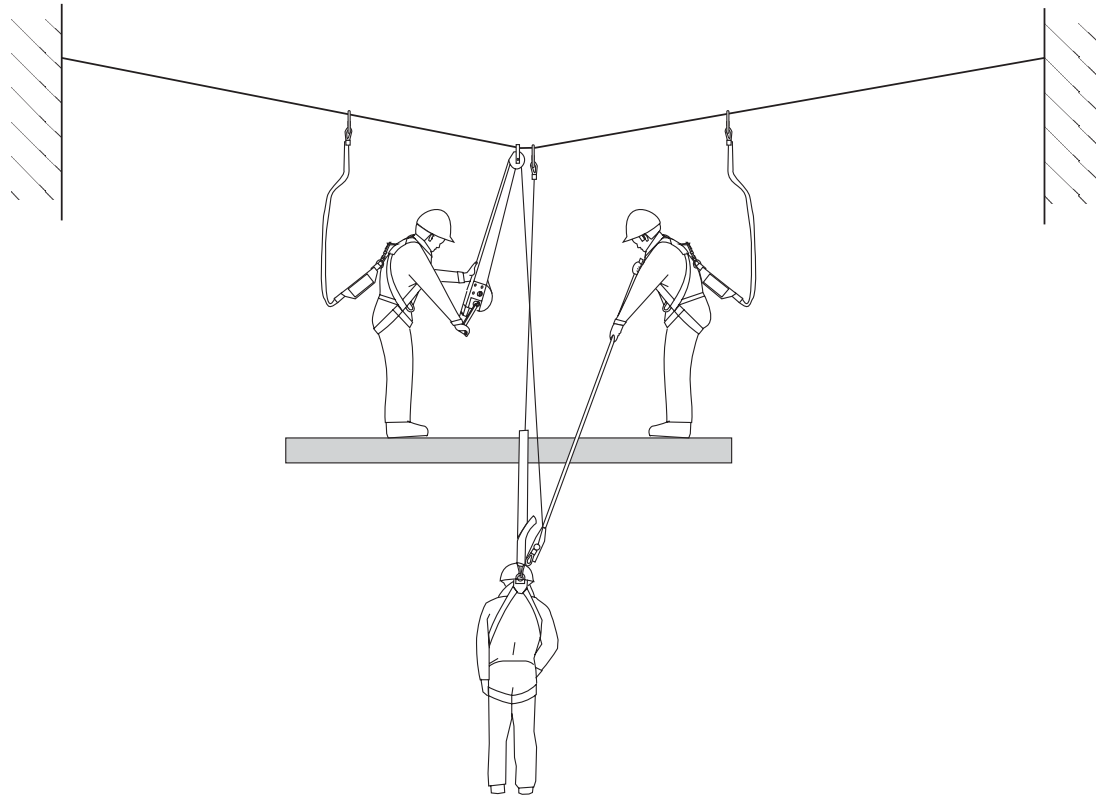
P/N 501226

Max. Arrest Distance:	42 inches
Max. Arrest Force:	900 lbf
Capacity:	130 to 310 lbs including clothes, tools and other user borne objects
Material:	Nylon or polyester
Compatibility:	Equipped with snaphook or webbed loop
Standards:	Meets ANSI Z359.1, A10.14, OSHA

## RESCUE AND EVACUATION USING THE HORIZON HLL SUSPENSION ANCHORAGE

The user must have a rescue plan and the means at hand to implement it. The plan must take into account the equipment and special training necessary to effect prompt rescue under all foreseeable conditions. Although a rescue plan and the means to implement it must always be in place, it is a good idea to provide means for user evacuation without assistance of others. This will usually reduce the time to get to a safe place and reduce or prevent the risk to rescuers. Rose Manufacturing Company offers a complete Rescue and Evacuation subsystem for use with the HORIZON horizontal lifeline subsystem, see diagram for subsystem components. Contact Rose for more information.

Example of Rescue Scenario



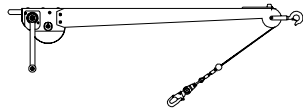
Rose Boom-mount Dyna-Hoist™ used to effect rescue of fallen worker.

(Detail not shown. Drawing not to scale.)

# **HORIZON™ Rescue Subsystem**

## **Component Specifications**

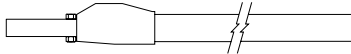
### **Boom Mount Dyna-Hoist**



**Boom Mount Dyna-Hoist**  
**P/N 415774**

- Load Capacity: 600 lbs
- Weight: 45.9 lbs nominal
- Payout: 50 ft (available up to 105 ft)
- Cable: 7x19 Galvanized wire rope
- Compatibility: Standard Rose RL-20 snaphook with 3/4" throat opening

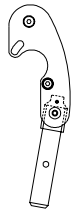
### **Remote Connect/Disconnect Extension Pole**



**Extension Pole**  
**P/N 506507**

- Length: Adjustable from 8 feet to 15 feet in 6 inch increments
- Weight: 4.1 lbs nominal
- Attachments: Remote connect head, lanyard knife
- Usage: Rescue operation, overhead connect
- Material: Fiberglass shell with aluminum inner extension member

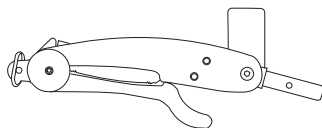
### **Remote Connect Head**



**Remote Connect Head**  
**P/N 506589**

- Usage: Performs remote connection of Rose RL-20 snaphook
- Weight: 0.5 lbs nominal
- Material: Cast aluminum

### **Lanyard Knife**



**Lanyard Knife**  
**P/N 506591**

- Usage: Used to cut lanyard and strapping
- Weight: 0.5 lbs nominal
- Material: Cast Aluminum
- Blade: Surgical stainless steel