

# Rose Product Data Sheet

10-29-97

P/N 690109 Rev. A

# HORIZON™

## Horizontal Lifeline Subsystem

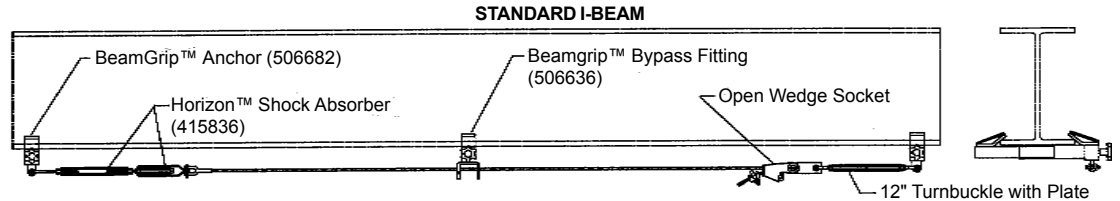
**BELOW BEAM MOUNT**



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

### Below Beam Multiple Span Horizontal Lifeline



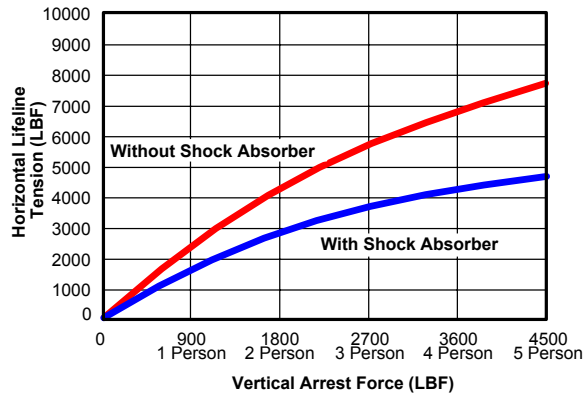
#### SPECIFICATIONS

- Lifeline Length: 20 to 280 feet in spans up to 40 feet
- Unsupported Span: 40 feet maximum
- 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 an energy absorbing lanyard that limits fall arrest forces to 900 lbf
- Min. Anchorage Strength: 12,500 lbf lateral strength required for installation

#### PRODUCT DESCRIPTION

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 line tension by up to 38% during a single fall condition. (See Anchorage Loading chart below.)

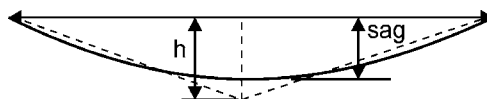
**Horizon™ Horizontal Lifeline Anchorage Loading Chart (140 ft Length - 20 ft Span)**



**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

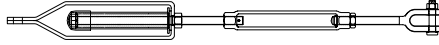
Based on 140 ft length with supported spans of 20 ft  
 F1 - Lanyard Energy Absorber rated at 900 lbf  
 F2 - With Horizon™ Shock Absorber  
 F3 - Without Horizon™ Shock Absorber



## HORIZON™ Horizontal Lifeline Subsystem Component Specifications

### Horizon™ Shock Absorber Assembly

Offers easy tensioning adjustment and constant load energy absorption to provide lower anchorage forces.

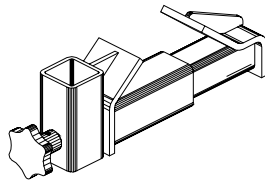


**Horizon™ HLL Shock Absorber  
with Integral Turnbuckle  
P/N 415836**

Material:	High tensile alloy & stainless steel
Strength:	12,500 lbf minimum
Adjustment:	6 inches nominal
Length:	24 inches nominal

### BeamGrip™ Anchor Assembly

Allows quick and easy installation to standard beam sizes while offering over 12,500 lbf of lateral anchorage strength.

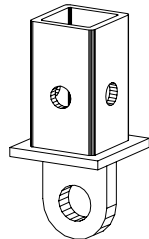


**BeamGrip™ Anchor  
P/N 506682**

Material:	Carbon steel, yellow zinc plated
Strength:	12,500 lbf
I-Beam Compatibility:	Wide range of sizes to accommodate most beams
System Compatibility:	BeamGrip™ End Fitting, Part Number 506637. BeamGrip™ Bypass Fitting, Part Number 506636

### BeamGrip™ End Fitting

Used in conjunction with the BeamGrip™ Anchor, pictured above, and is designed to allow orientation for anchorage loading in 3 directions.



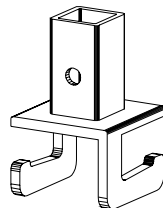
**BeamGrip™ End Fitting  
P/N 506637**

Material:	Carbon steel, yellow zinc plated
Strength:	12,500 lbf minimum
Compatibility:	BeamGrip™ Anchor assembly, Part Number 506682

*Note: Must use linkage components approved for use with the Horizon™ Horizontal Lifeline only.*

### BeamGrip™ Bypass Fitting

Allows a worker to bypass an intermediate span support without disconnecting from the horizontal lifeline.

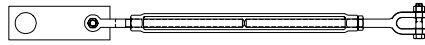


**BeamGrip™ Bypass Fitting  
P/N 506636**

Material:	Carbon steel, yellow zinc plated
Strength:	5,000 lbf vertical 5,000 lbf lateral
Compatibility:	BeamGrip™ Anchor assembly, Part Number 506682

## HORIZON™ Horizontal Lifeline Subsystem Component Specifications

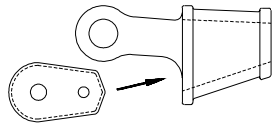
### 12" Turnbuckle with Plate



12" Turnbuckle with Plate  
P/N 506662

Material: High tensile alloy steel  
Thread: Course, 1/2 inch  
Range: Up to 12 inch adjustment  
Usage: Line tensioning

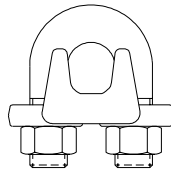
### 3/8" Open Wedge Socket



3/8" Open Wedge Socket  
P/N 506563

Usage: Secures one end of HLL  
Strength: 12,500 lbf  
Features: Adjustable for line length positioning

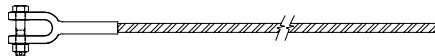
### 3/8" Wire Rope Clip



3/8" Wire Rope Clip  
P/N 506649

Usage: Secures wire rope end

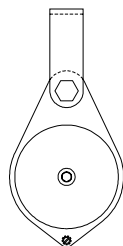
### 3/8" Galvanized Wire Rope with Jaw End



3/8" Galvanized Wire Rope with Jaw End  
P/N 506648

Type: 7x19 Galvanized steel cable  
Strength: 14,400 lbf tension  
Length: 20 feet minimum depending on application

### 3/8" Snatch Block Pulley

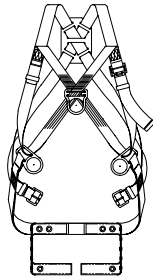


3/8" Snatchblock Pulley  
P/N 506663

Usage: Connects Rose Dyna-Locks & Dynaevacs to 3/8" dia horizontal lifeline. Can be use only on single span systems.

# **HORIZON™ Horizontal Lifeline Subsystem Component Specifications**

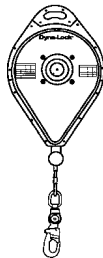
## **Full Body Harness**



**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)

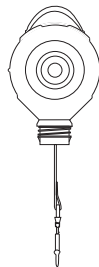
## **Self Retracting Lanyard**



**Self Retracting Lanyard  
P/N 506208/ 506204**

- 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**

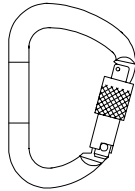


**20' Backpacker  
P/N 506619  
and  
P/N 506615**

- 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

# **HORIZON™ Horizontal Lifeline Subsystem Component Specifications**

## **Carabiner**



**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**



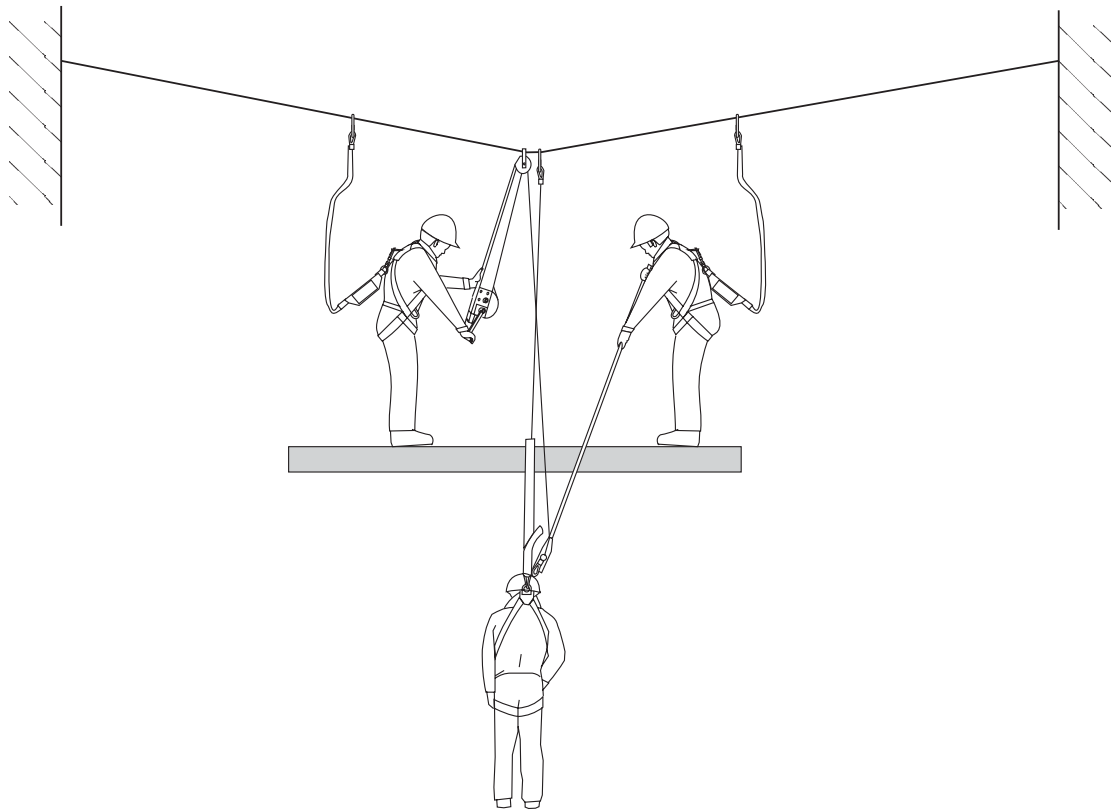
**Lanyard Shock Absorber  
P/N 501226**

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, ANSI A10.14, OSHA

## RESCUE AND EVACUATION USING HORIZON HORIZONTAL LIFELINE 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

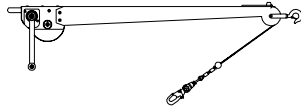


Rose Boom-mount Dyna-Hoist™ used to effect rescue of fallen worker

(Detail not shown. Drawing not to scale.)

## HORIZON™ Horizontal Lifeline Rescue Subsystem Component Specifications

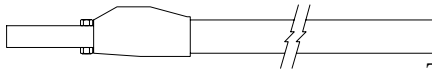
### Boom Mount Dyna-Hoist



**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

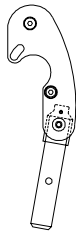
### Remote Connect/Disconnect Extension Pole



Extension Pole  
P/N 506507

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

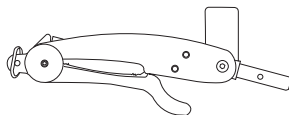
### Remote Connect Head



**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