

Fall Protection **Custom Solutions Catalog**

Volume 2



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*These products are available through MSA Systems Integrators and are not available direct from MSA.

Express warranty

MSA warrants that the MSA components furnished by our Custom Solutions installers are free from defects or faulty workmanship for a period of one (1) year from date of first use, or eighteen (18) months from date of shipment, whichever comes first, provided they are maintained and used in accordance with MSA user instructions and/or recommendations. MSA shall be released from all obligations under this warranty in the event repairs or modifications are made by persons other than its own authorized service personnel or if the warranty claim results from misuse of the product. No agent, employee or representative of MSA may bind MSA to any affirmation, representation or modification of the warranty concerning components or accessories not manufactured by MSA, but will pass on to the Purchaser all warranties of manufacturers of such components. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, AND IS STRICTLY LIMITED TO THE TERMS HEREOF. MSA SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. For additional information, please contact the Customer Service Department at 1-800-672-2222.

MSA Custom Solutions

Every business is unique, and MSA recognizes that YOUR Fall Protection systems need to be custom-designed and installed to meet YOUR needs.

To help you, we have carefully selected and trained specially qualified contractors, who can personally work with YOU to deliver exactly the services your hazardous situations demand.

These MSA Fall Protection System Integrators are independent organizations throughout North America whose local specialists can provide one or more customized MSA Fall Protection solutions for your business. Your MSA System Integrators will combine their experience and knowledge of practical applications with MSA Fall Protection products to meet your specific needs for any industry, including forestry, construction, oil & gas, petrochemical, mining, manufacturing, utilities, entertainment, and transportation.

Whether you choose complete turnkey services or individual services, you'll receive experienced application and design, fabrication, and installation of whatever MSA Fall Protection systems you need.

Engineering Services

Registered professional engineers will visit your site to analyze and determine the scope of work. Then they will design and draft engineering drawings, and later, follow up with a construction site review to ensure that your Fall Protection system has been installed as designed.

Installation

Factory-trained and certified installation technicians will execute the design specifications and carry out the manufacturer's instructions. Technicians can also inspect and re-certify an existing MSA Fall Protection system.

Fabrication

Knowledgeable fabricators will build all structural components that are required to support your primary MSA Fall Protection system, from simply connecting brackets that attach to your building columns or beams, to assembling complete free-standing support structures. You can trust that your fabricated components will comply with all applicable governing codes and standards.

Training

High quality training programs at a reasonable cost will be tailored to the unique issues of your industry and installation. MSA's commitment to increasing demands for technical training in Fall Protection, post-fall retrieval, and rescue will be fulfilled at your facility.



Why Choose MSA Custom Solutions?

- You get the broadest product range, to ensure the best possible fall hazard solution for your specific application.
- MSA System Integrators work directly for you and are responsive to your project requirements.
- MSA System Integrators offer cost-effective services direct to you, the MSA customer.
- You will benefit from dedicated regional System Integrators as well as nationally prominent organizations that specialize in particular industry applications.

How?

It's easy! To receive your quotation from MSA CUSTOM SOLUTIONS:

1. Contact your local MSA distributor, MSA Sales Associate, or call our MSA Customer Service at 1-800-672-2222.
2. Your request will be forwarded to the MSA System Integrator, who will contact you about your project's specific requirements.
3. You will receive a written estimate for your system.

For more information call MSA Customer Service Center at 1-800-672-2222 and request the Custom Solutions Catalog (Bulletin #2300-100).

Rigid Rail Vertical Systems

Dyna-Glide® Climbing Protection System

What is the Dyna-Glide Climbing Protection System?

The Dyna-Glide Climbing Protection Systems are used to prevent and/or arrest falls from heights and also enhance the way a climber is able to perform the necessary work. Our systems can be mounted to already-installed ladders, to corners of lattice towers, and to almost any other suitably strong structure your crew needs to climb. Systems can also be constructed to continuously protect climbers—whether they're traveling vertically, horizontally, or around curves, corners or obstacles.

Why use the Dyna-Glide Climbing Protection System?

Whatever configuration works for you, the Dyna-Glide System:

- Limits total fall distance to inches
- Offers components for complete rescue systems
- Allows for vertical and horizontal mobility
- Uses galvanized or stainless steel for corrosion resistance
- Offers your choice of Ladder Rail Combination (LRC) or Rail only
- Provides smooth travel – there's no binding of the fall arrester inside the rail
- Rails are available in straight or curved sections – enough choices to fit almost any size or shape of structure
- Offers many different configurations – plus all of the accessories and mounting brackets to fit virtually any application
- Eliminates concern of system slippage found in frictional design systems—all because of our mechanical fall arrester design
- Offers product life of 20+ years
- Optional fixed ladder section meeting OSHA and ANSI A 14.3 standards with an integral rail mounted in the center of the ladder (Ladder Rail Combination)
- Offers sufficient foot-clearance on either side of rail for easy climbing (Integral rail of Ladder Rail Combination)
- Reduces stress, and prevents damage, to structure during climbing operations
- Orients fallen worker in upright position, face towards climbing structure
- Uses detachable, lightweight, stainless steel and aluminum mechanism for hands-free ascent and descent
- Shows a decade-plus track record of performing in some of the most severe weather conditions in the world
- Can be used by more than one worker at a time
- Is CSA certified

Taken together, the Dyna-Glide System is designed to be installed without modification to the structure and can be assembled with simple hand tools.

For more information concerning the Dyna-Glide System contact our Customer Service Center at 1-800-672-2222 and ask for the Dyna-Glide Catalog, Bulletin No. 2300-22-MC.

We offer Field Rigging Crews so you'll have the manpower needed to get the job done. Or, if you prefer, we have As Built Documentation for every aspect of the product. We also offer full training by a "competent" person—either at our training facility or on your job site. Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.



LRC Combination

- Rungs incorporate skid-resistant surface
- Can be curved or bent for your specific application
- Constructed of galvanized steel
- Standard length: 7' 4-3/16"
- Standard width: 18"

Fall Arrester

- Mechanical locking mechanism to reduce fall distance
- Permits hands-free ascent and descent
- Constructed of aluminum and stainless steel
- Carabiner not included



Flexible Cable Vertical Systems

Sure-Climb™ Permanent Cable System

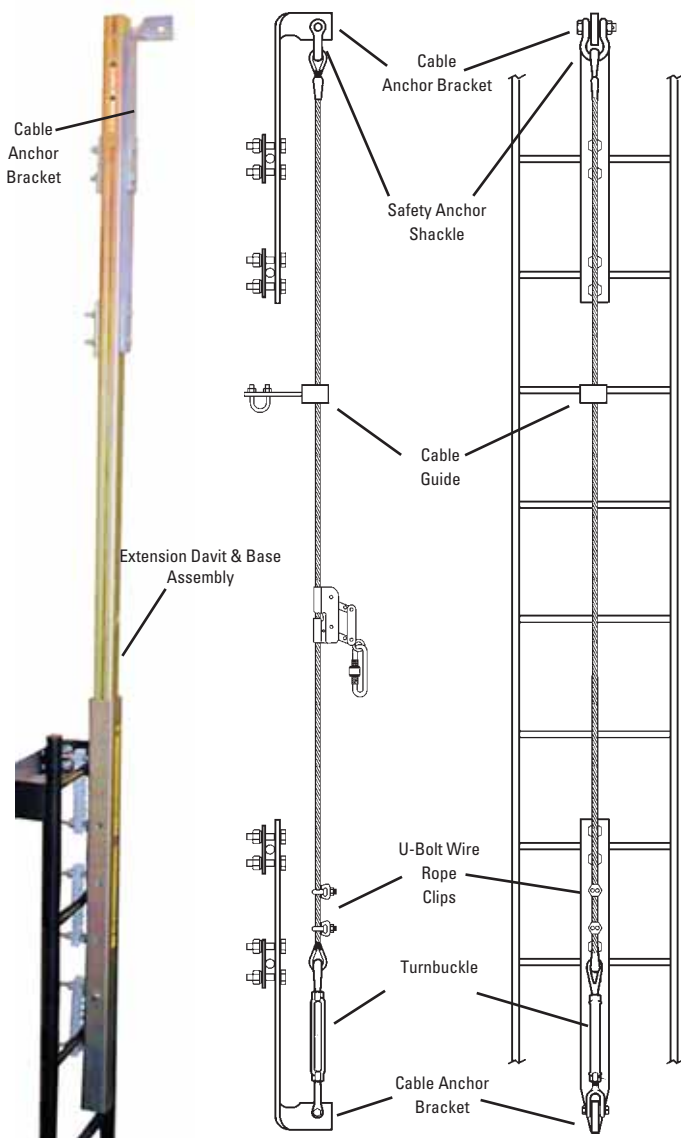
The Sure-Climb Permanent Ladder Cable System is designed to provide fall protection when climbing or descending ladders or vertical structures up to 300' in height. Applications include telecommunications towers, light poles, water towers, hydroelectric towers, stacks, and any other climbable structure. The Sure-Climb permanent system:

- Includes energy-absorbing, galvanized steel top and bottom mounting brackets
- Uses a 5/16" galvanized steel cable
- Incorporates cable guides to minimize cable vibration and wear
- Uses a stainless steel fall arrester (ordered separately)
- Meets all applicable OSHA regulations and ANSI standards
- CSA certified

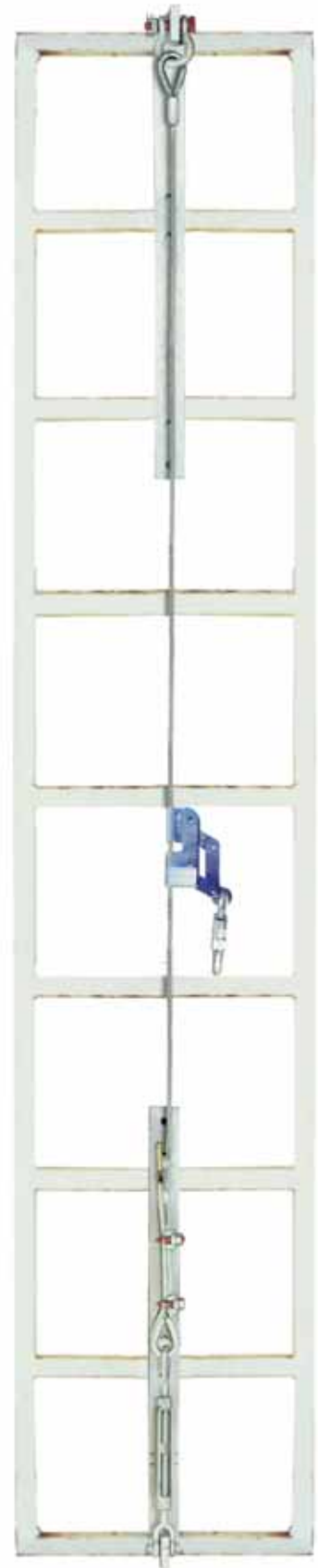
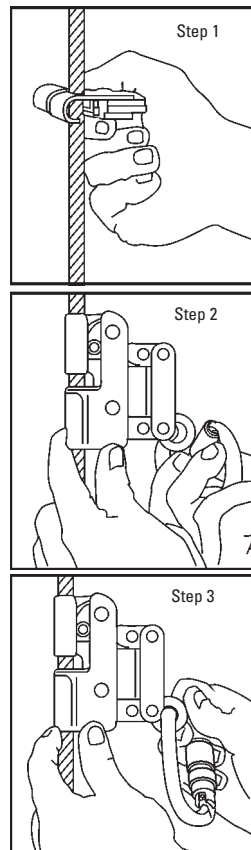


All Sure-Climb systems include: anchor bracket, anchor shackle, cable guides, wire rope clips, turnbuckle, and cable.

Fall Arrester must be ordered separately.



Sure-Climb Slider can be attached and removed anywhere along the length of cable



Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.

Horizontal Systems

Rigid Rail Horizontal Systems

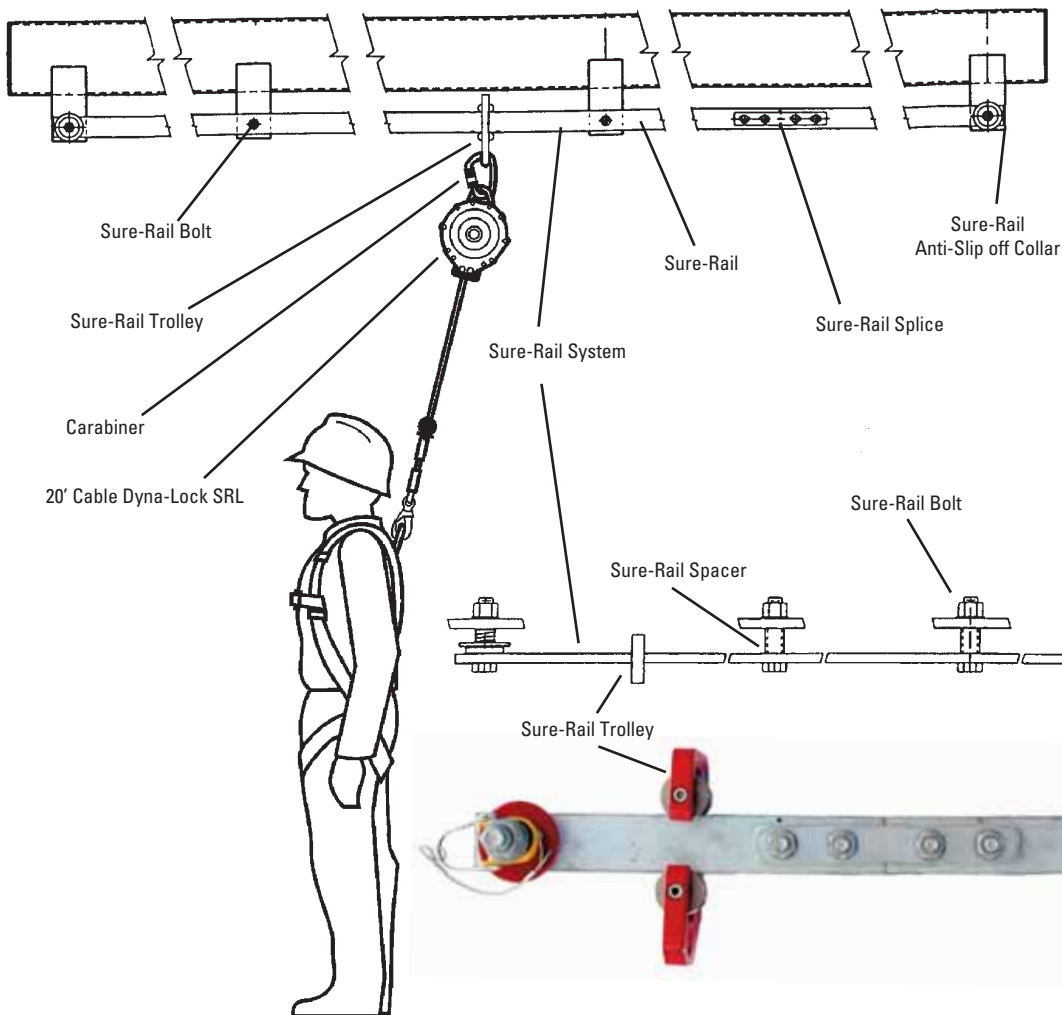
Sure-Rail™ Horizontal Lifeline*

The Sure-Rail system is a rigid rail horizontal lifeline system typically used in areas when there is limited clearance below the working surface. The system consists of galvanized steel ½" x 2" x 10' rail sections, a rail trolley, end stops, and various mounting hardware. The rails are anchored to a supporting structure, while the trolley provides a mobile connection point for the user. The rail sections are affixed to an approved anchorage at 5 ft intervals. End-stops prevent accidental detachment of the trolley from the rail.

The Sure-Rail system is available in many standard configurations, but can also be customized to fit your application. For example, a swing arm option can be installed that allows the system to retract against a wall when not in use with the assistance of pneumatic cylinders (Possible interference that would require this option, would be an overhead crane moving in a perpendicular direction to the fall protection system).

In addition, the Sure-Rail system provides:

- Ease of movement (smooth trolley action)
- Little or no deflection in the rail limits fall distance and fall arrest forces on the body
- Even distribution of fall arrest forces to the structure
- Twin track configuration that allows users to bypass each other without having to disconnect and re-connect
- Spring loaded end –stops for easy insertion/removal of the trolley
- Aluminum trolley with stainless steel wheels
- Bent rails available for travel around corners
- Support for up to 4 workers on the system simultaneously. (Additional capacity can be added.)
- Meets all applicable OSHA regulations



Sure-Rail Trolley

The Sure-Rail horizontal rail system is installed by attachment to intermediate support members that act to stabilize the rail during normal flex and movement of the building structure. The intermediate supports are fabricated from hollow structural shapes (HSS). The HSS supports are connected to the rail by welded tabs at five-foot (1.5 m) intervals. The design of the HSS supports are the responsibility of a qualified engineer familiar with the project and manufacturer's requirements.

Sure-Rail is an engineered system and must be designed, installed and used under the supervision of a qualified structural engineer, as required by US Federal OSHA and Canadian Provincial regulations.

Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.

*This product is available through MSA Systems Integrators and is not available direct from MSA.

Flexible Cable Horizontal Systems

Sure-Line™ Horizontal Lifeline

The Sure-Line temporary Horizontal Lifeline is a lightweight cable system that is suspended between two approved anchor points to provide worker fall protection during horizontal movement. Designed for quick and easy installation at temporary or permanent work sites, the Sure-Line system:

- Includes an integral shock absorber
- Available in lengths up to 200 ft (60 m)
- Uses a 3/8", 6X36 galvanized cable
- Meets all applicable OSHA regulations
- Available in 2 models, with or without turnbuckle
- Rated for up to 2 people
- Incorporates a combination clamp/thimble that allows for effortless tensioning of lifeline

Sure-Line Steel Cable System



Sure-Line Iron Worker Cable System

Horizon® Horizontal Lifeline

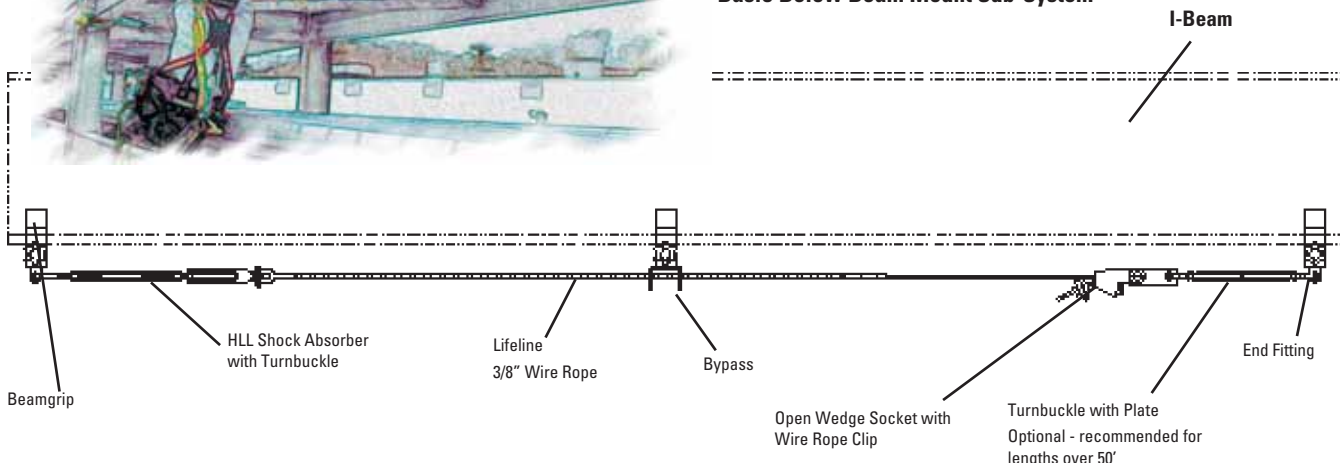
The MSA Horizon Horizontal Lifeline anchorage connecting system is designed for portability, versatility, ease of installation and ease of use. The system may be mounted to existing overhead steel beams or to newly constructed steel structure where overhead anchorage points are not available. Horizontal travel through intermediate supports is achieved without disconnection of the worker's personal fall arrest system. The system may accommodate up to five persons. The unique shock absorber reduces dynamic forces transmitted to the anchorage points. Stanchion system may be installed on the top or bottom flange of an I-beam. Typical applications include new construction (steel erection), inspection and maintenance operations, loading bays, bridges, overpasses, aircraft hangars, manufacturing, petrochemical, chemical and food processing plants. Meets OSHA requirements.

⚠ WARNING

OSHA regulations state "Horizontal Lifeline Systems shall be designed, installed and used under supervision of a qualified person, as part of a complete fall arrest system, which maintains a safety factor of at least two." A qualified person is defined as "one with a recognized degree or professional certificate and/or extensive knowledge and experience in the subject field, who is capable of design, analysis, evaluation and specifications in the subject work, project or product." MSA can provide a qualified person to design and install a Horizontal Lifeline System. Contact the MSA Engineering Service Department.



Basic Below Beam Mount Sub-System



Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.

Horizontal Systems

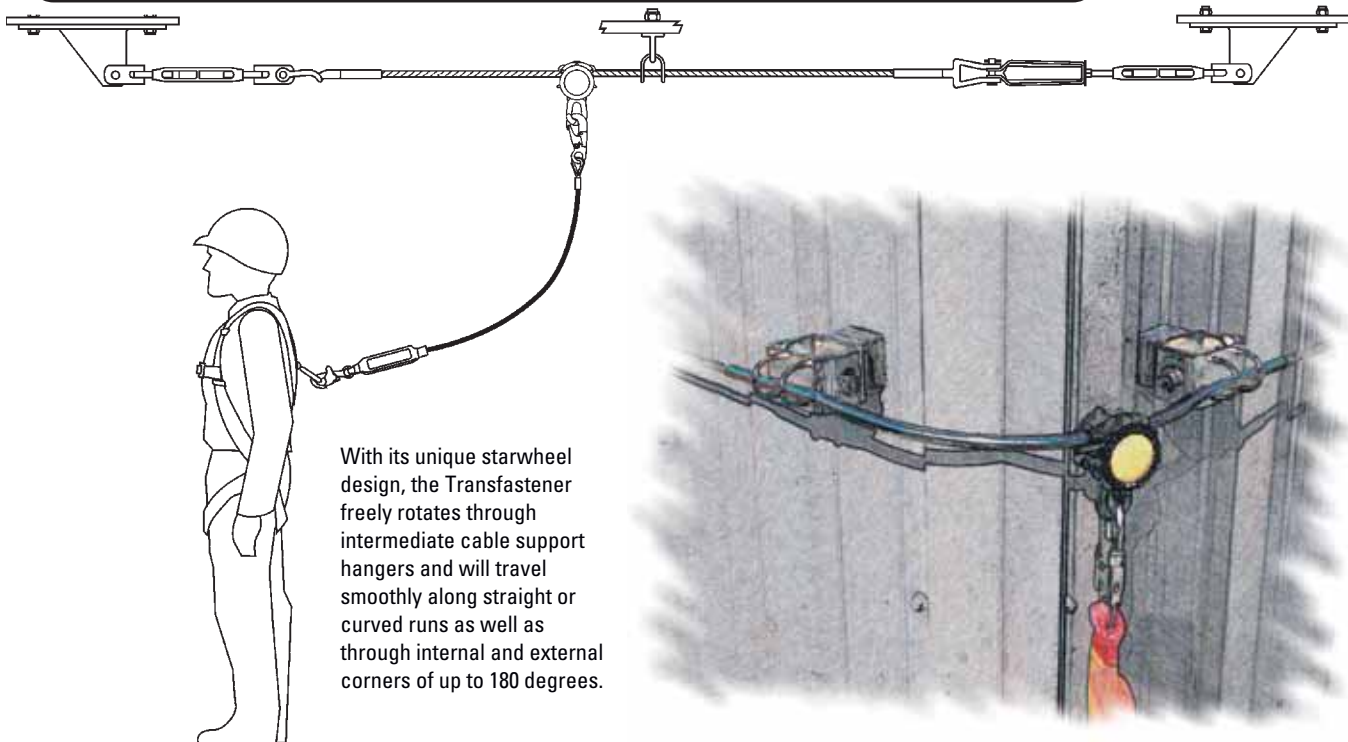
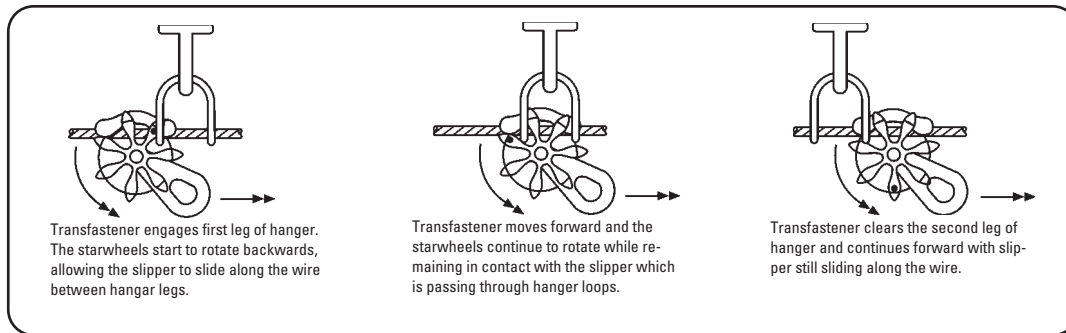
Latchways Mansafe® Horizontal Lifeline

The Latchways ManSafe® Horizontal Lifeline systems are designed to operate horizontally, around corners, and up or down inclines to offer continuous worker protection regardless of the building type or structure. ManSafe Horizontal Lifeline features include:

- Unsurpassed system flexibility
- Ability to support up to 6 workers per lifeline
- Unique Latchways Transfastener rotates freely through intermediate supports to enable hands-free operation
- Transfastener can be removed/installed at any point along the lifeline
- Integral shock absorber limits fall arrest forces
- Stainless steel components for durability
- 8mm, 7 x 7 stainless steel cable
- Mounting hardware to install the system to almost any type of structure

As an authorized Latchways installer, MSA can provide the fall hazard analysis, engineering services, custom product fabrication, system installation, system certification, and training necessary to make your fall protection program a success.

Each Latchways Mansafe system must be individually designed to meet your specific application. The Latchways Horizontal Lifeline systems can only be installed by Latchways trained and certified professionals.



With its unique starwheel design, the Transfastener freely rotates through intermediate cable support hangers and will travel smoothly along straight or curved runs as well as through internal and external corners of up to 180 degrees.

Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.

*This product is available through MSA Systems Integrators and is not available direct from MSA.

Flexible Cable Roof-Mounted Systems

Latchways Constant Force™ System for Roof Mounting*

The Constant Force system employs a mechanism to provide a consistent way of absorbing mechanical energy and controlling tension within the system to a pre-determined constant force. In the event of a fall, the Constant Force Posts deploy to absorb energy (limits the load to 2250 pounds force (10 kN)), leaving the roof panel intact. The Constant Force system is designed for use on most common roof types including:

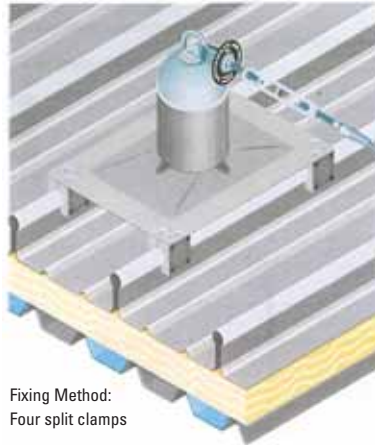
- standing seam roof (attached using clamp)
- composite roof (attached using weather tight screws)
- built-up on-site roof (attached using weather tight screws)
- single-ply membrane roof (attached using toggle bolts)

Additional features of the Constant Force system:

- can be located anywhere on the roof
- does not need to be attached to structural steel or purlins, avoiding costly and potentially damaging roof penetrations
- can be used in both fall arrest and fall restraint systems
- can be powder coated or color matched to your roof profile
- design is smaller and more unobtrusive than other brackets
- blends with overall building design, maintaining architectural integrity
- Meets applicable OSHA regulations and is CE approved and certified to EN 795.



Constant Force post on standing seam roof



Fixing Method:
Four split clamps

Constant Force post on composite roof



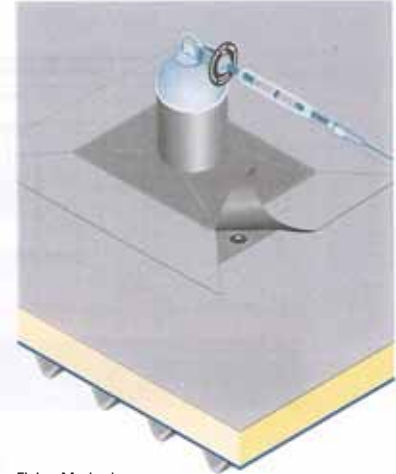
Fixing Method:
Sixteen stitching screws

Constant Force post on built up on site roof

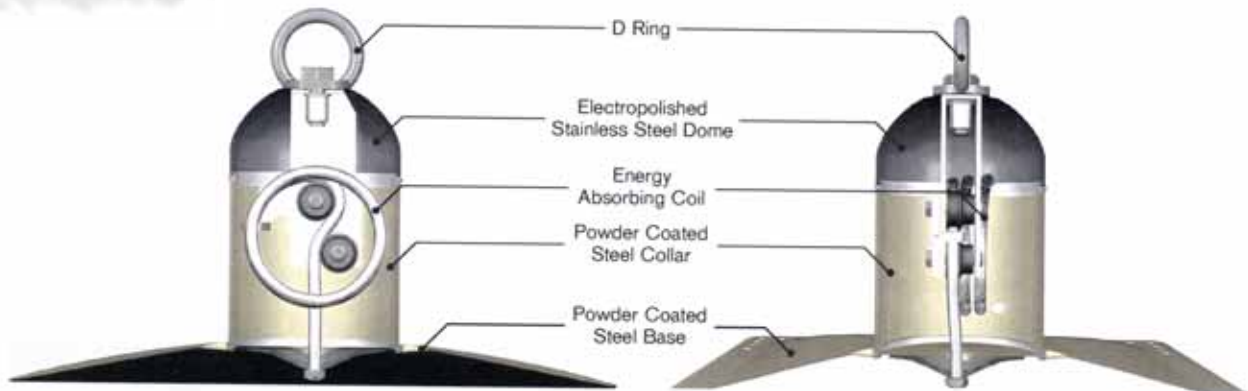


Fixing Method:
Sixteen stitching screws

Constant Force post on single ply membrane roof



Fixing Method:
Four toggle bolts



Please call 1-800-672-2222 and let us help you specify the system that will meet your needs.

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Roof-Mounted Systems

Freestanding Anchor Roof Mounted System

Latchways ManSafe Freestanding Constant Force Post

The Freestanding Constant Force Post provides stability, versatility, and mobility, all in one easy to install station.

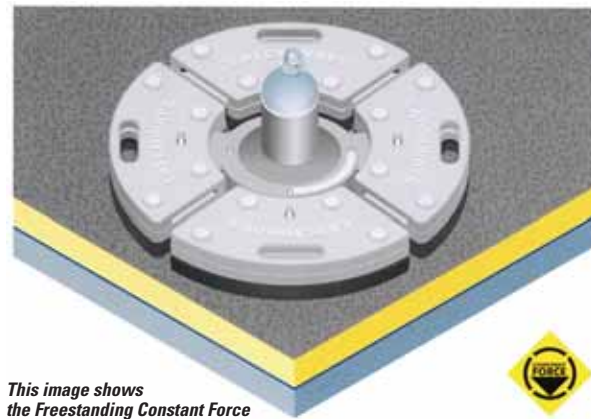
- Does not attach to the working surface, limiting the possibility of damage to surface in the event of a fall
- Due to its modular design, the installer will never have to lift more than 55 lbs (25 kg) at any given time
- Used on nominally flat roofs up to a maximum pitch of 5 degrees
- Tested and approved for use on concrete, single ply membrane, asphalt-sanded, asphalt-stone chipped, and steel roof profiles
- Interlocking segments are arranged in a circular form, ensuring that the post is omni-directional
- Meets EN 795 Class E

The freestanding post is supplied in component part form and requires assembly before the device can be used. Different models are available depending upon your particular needs.

- **880 lb (400 kg) post** is for use as a single point anchor or as the end posts within a horizontal cable system
- **660 lb (300 kg) post** is for use only as a single point anchor
- **440 lb (200 kg) post** is for use only as an intermediate anchor within a horizontal cable system
- **220 lb (100 kg) upgrade kit** converts the 660 lb (300 kg) post to a 880 lb (400 kg) post



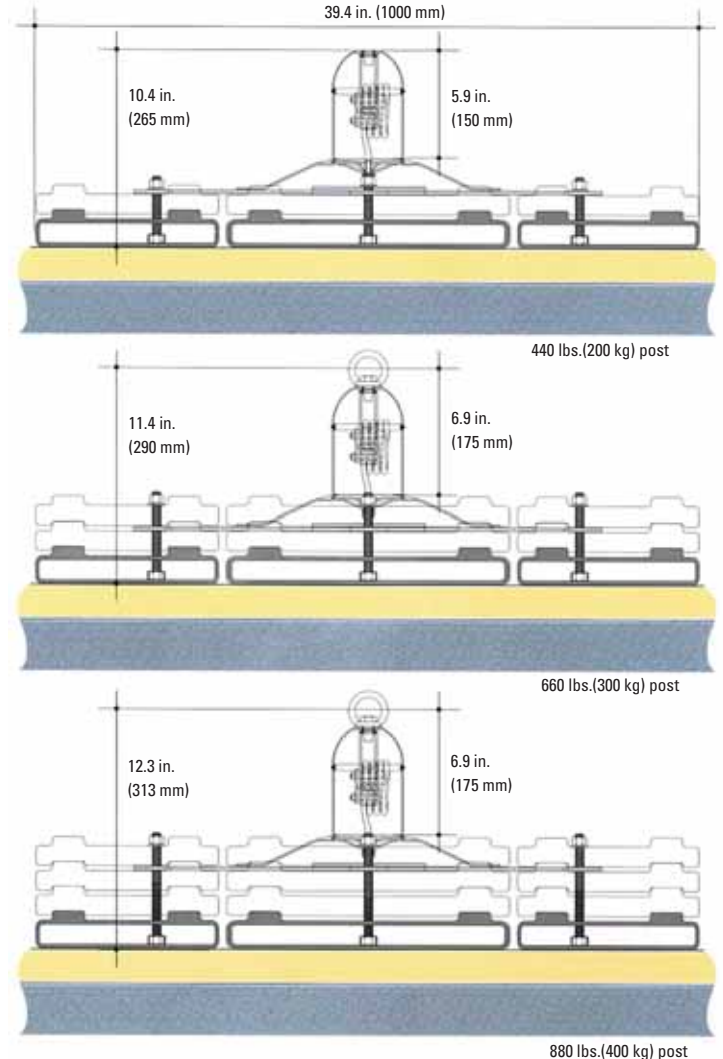
Freestanding Constant Force Post Component Details



This image shows the Freestanding Constant Force post on a cutaway section of a Bituminous Concrete Deck roof profile.

For more information about the ManSafe Freestanding Constant Force Post, contact the MSA Customer Service Center at 1-800-672-2222 and ask for bulletins #2300-74, #2300-75, #2301-59.

Base plate dimensions
39.4 in. (1000 mm)



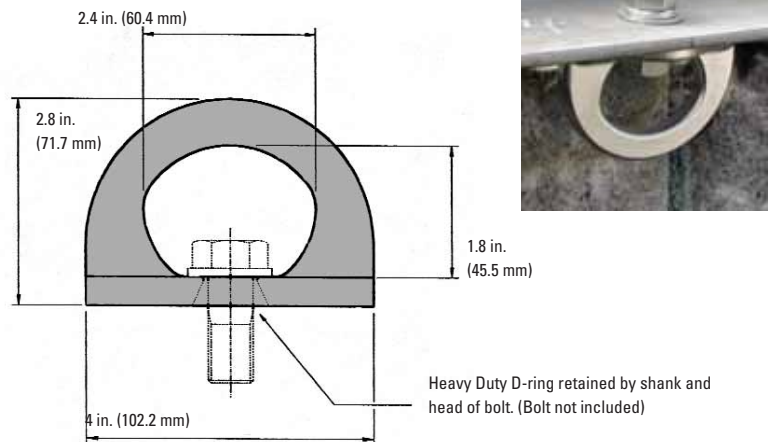
D-Ring Single Point Anchor

Latchways Heavy Duty D-Ring

The Latchways Heavy Duty D-Ring is designed for attachment of one personal fall arrest system with a capacity of up to 400 pounds. It is recommended for permanent, outdoor installations where prolonged weathering and exposure to adverse environments demands a high-tensile, corrosion-resistant steel anchorage connector. It is also suitable as an end-anchor for engineered horizontal lifeline systems.

Other features include:

- constructed of Stainless Steel Grade 316S (electro polished)
- Minimum breaking strength is 10,000 lbs force (45 kN)
- Meets all applicable OSHA regulations and is certified to EN795.



Removeable Single Point Anchor

Latchways PushLock™ Eyebolt*

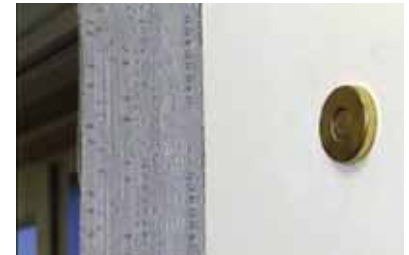
The PushLock safety eyebolt offers a removable and unobtrusive solution to unsightly eyebolts. It is used in building structures to allow safe access for window cleaning and exterior maintenance. The pushlock Eyebolt consists of two components, a socket and an eyebolt. The socket remains in the wall and has a low visual-impact cover that is available in stainless steel or brass (or it can be color matched to the building design). A worker using the system carries the removable eyebolt which is inserted into the socket for anchorage connection.

Sockets are available for installation into a variety of materials, including:

- brick
- masonry
- concrete
- steel

Other features include:

- All stainless steel construction
- Resists a 5,000 pound force in any direction of loading
- Suitable as a single-point anchorage connector for one worker weighing up to 400 pounds
- The eyebolt requires two, separate and distinct hand motions to guard against accidental disengagement
- Meets all applicable OSHA regulations and is CE approved and certified to EN795



*This product is available through MSA Systems Integrators and is not available direct from MSA.

Learn from the *Experts*

MSA training courses are compliant to the new ANSI Z359-2007 family of fall protection standards and meet **"ANSI Z490.1 2001 Criteria for Accepted Practices in Safety, Health, and Environmental Training."**

Custom Training Courses

MSA has designed many types of custom training courses and interactive training programs for a wide range of industries including:

- Mining Industry
- Utilities Industry
- Automotive Industry
- Telecommunications Industry
- Railroad Industry

MSA also offers the following Fall Protection training courses:

Fundamentals of Safety At Heights

Competent Person for Equipment Inspection

Safety At Heights Program Management & Rescue Planning

Competent Person for Safety At Heights

Industrial Rescue

Tower Climbing Safety & Rescue

Confined Space Entry and Retrieval

Fall Protection & Rescue for Railway Bridges

With MSA, you have the experts to help you find the best solution for your Safety At Heights training needs.



**HANDS-ON
COMPREHENSIVE
COURSES**

Registration Information

We invite you to attend our next training session, which will prove to be a comprehensive and valuable experience. For registration information, please contact the MSA Customer Service Center by phone (1-800-672-2222) or by fax (1-800-967-0398), or log onto our web site at www.MSAnet.com.

**LET US TRAIN YOU
AT YOUR FACILITY!**



Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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