



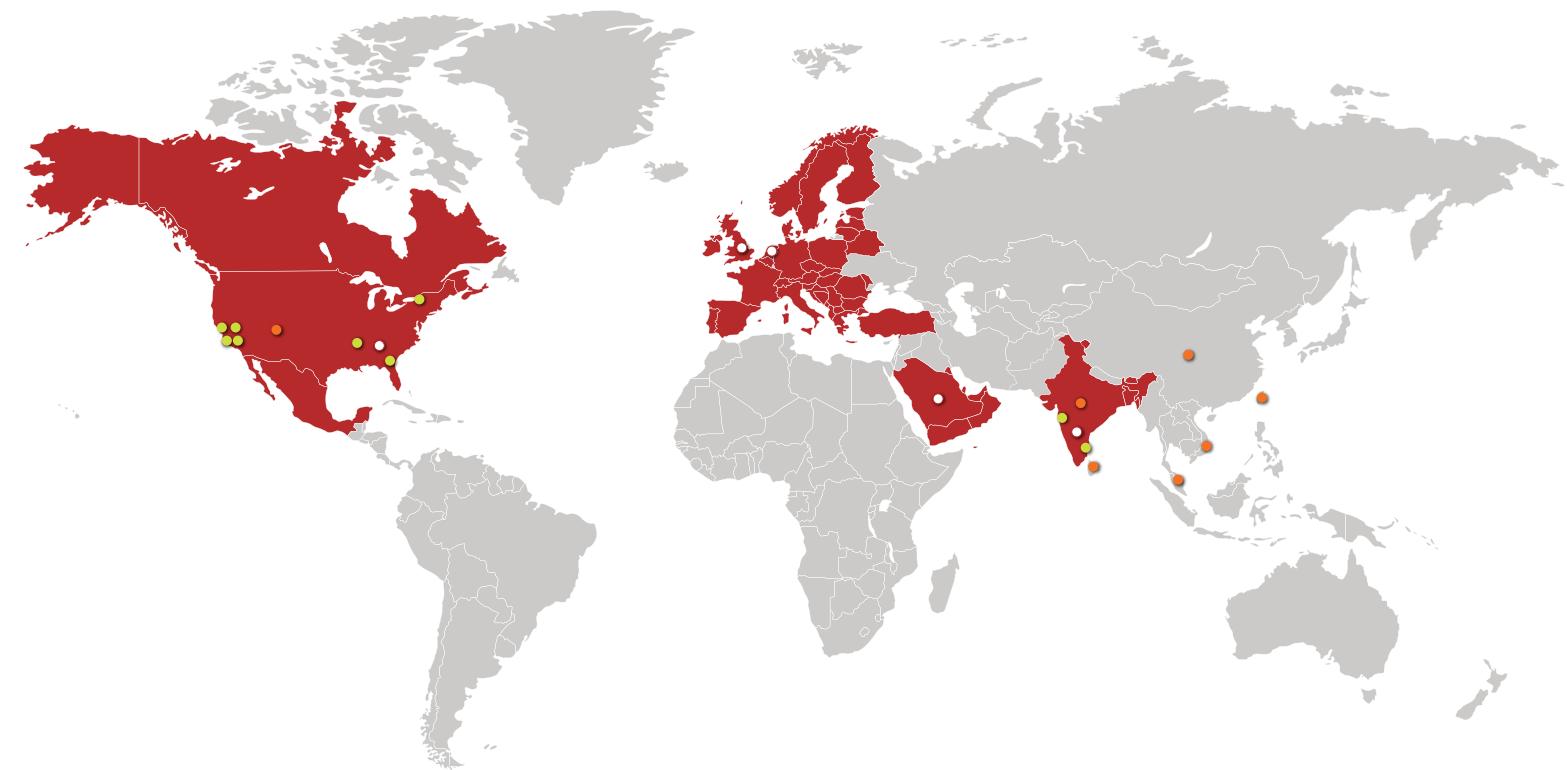
## FALL PROTECTION SOLUTIONS

Designed For Safety. Value For Life.<sup>®</sup>

# History

In 2009, during the height of a global recession an idea was born on an extremely cold winter night in Wyoming. Drawing inspiration from the resilience of a herd of bison huddled in the cold, the founder had a vision to build an organization that could stand the test of time. From humble beginnings starting with 6 products the company has grown to several thousand products shipping to customers globally. Looking forward, the organization continues to grow by becoming a one-stop shop for the ever evolving needs of various industries and sectors worldwide. Designed for Safety, Value for Life®

# WORLD OF BISON LIFE



## Global Foot Print

## ○ Headquarters

## Global Corporate

Bison Life® USA, Alpharetta, GA

## Regional

Bison Life® India, Bengaluru | Bison Life® UK, London  
Bison Life® Europe, Netherland | Bison Life® UAE, Middle East

## Manufacturing

USA | India | Taiwan | Malaysia | Sri Lanka | PRC

## Warehouse

Colton, California | Little Rock, Arkansas  
Corona, California | Morristown, New Jersey  
Forest Park, Georgia | Laverne, California  
Ontario, California | Bhiwandi, Mumbai  
Sholavaram, Chennai

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# What is Fall Protection

Fall protection is the back-up system prearranged for a worker who could lose his or her balance while working at height, in order to control or eliminate potential injuries or even death.

A fall protection system is a combination of equipment, procedures, and practices designed to prevent or minimize injuries from falls, especially for workers operating at height.

These systems are crucial for ensuring worker safety and complying with regulations, particularly when working near edges or openings where a fall could be dangerous.

- **FALL PREVENTION:** refers to the systems and techniques that eliminate the possibility of a fall. The most desirable method of fall prevention is to engineer out or modify the work plan to eliminate the hazard.

Ex – Guard Rails, Hand Rails.



- **FALL RESTRAINT SYSTEMS:** use lanyards or some kind of tethering system measured so that workers cannot go beyond the edge where a potential for a fall exists.

- **FALL ARREST SYSTEMS:** protect the worker after a fall from hitting the ground or obstructions below the work platform. Passive systems require no personal involvement from the user. Active systems require the user to actively use the system.



- **RESCUE:** refers to the ability to retrieve or rescue an individual from confined spaces or heights and must always be a component of any fall protection program.



## Breakdown of some key EN standards:

### ● Personal Fall Arrester Equipment:

- **EN 361:** Specifies requirements for full body harnesses used in fall arrest systems.
- **EN 354:** Covers lanyards, which are used to connect a harness to an anchor point.
- **EN 355:** Deals with energy absorbers, which reduce the impact force on a worker during a fall.
- **EN 358** focuses on work positioning and restraint, which are used to prevent falls, rather than arrest them.
- **EN 362:** Addresses connectors, such as carabiners, used to join components of a fall arrest system.
- **EN 363:** Outlines requirements for fall arrest systems as a whole, including their components.
- **EN 360:** Specifies requirements for retractable type fall arrestors, which automatically retract a lanyard as the user moves.
- **EN 353-1 & EN 353-2:** These cover guided type fall arresters, which are systems that move along a rigid or flexible anchor line, respectively, in vertical plane
- **EN 358:** Deals with belts and lanyards used for work positioning and restraint, preventing falls rather than arresting them after they occur.

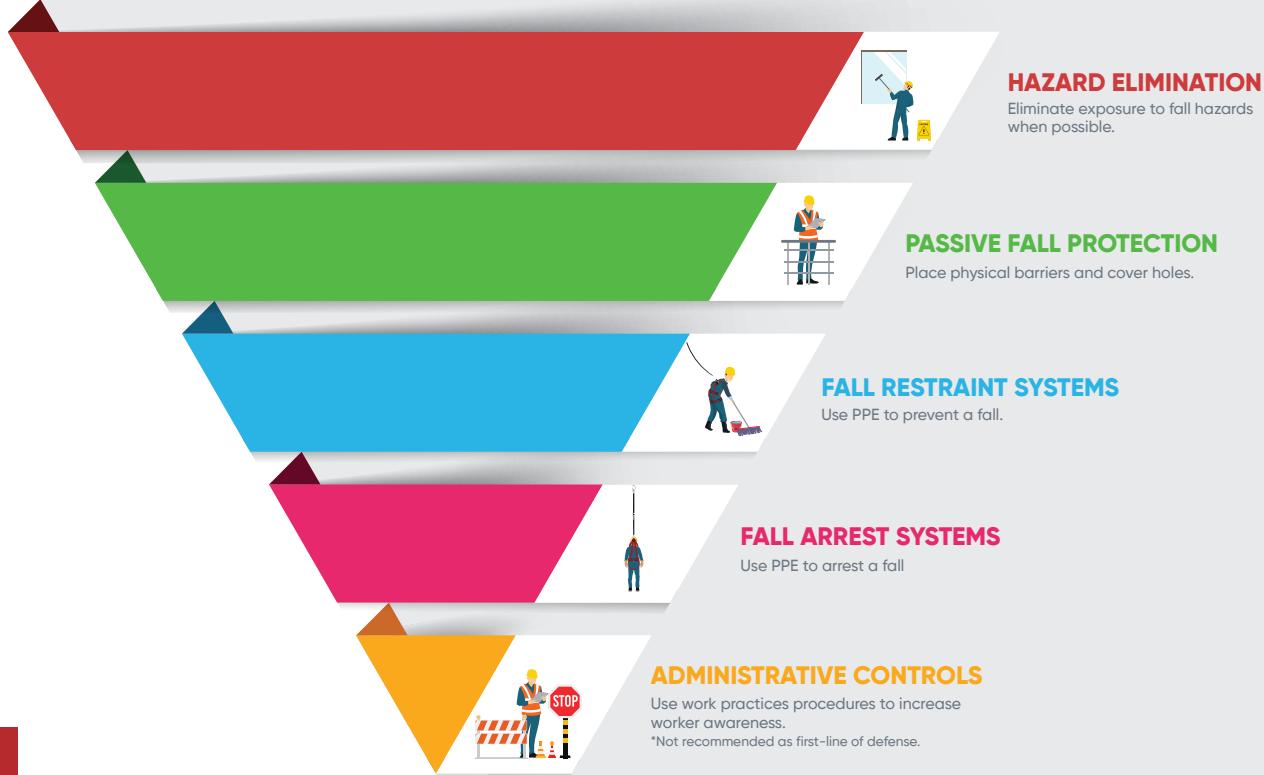
### ● Anchor Devices and Systems:

- **EN 795:** Defines technical requirements and test methods for anchor devices. It distinguishes between different types of anchor devices (Type A to E) and focuses on single-user applications.
- **CEN/TS 16415:** A technical specification that certifies anchor devices designed for multiple users.
- **EN 1263-1 & EN 1263-2:** These standards cover safety nets used as a passive fall protection measure.

### ● Other Relevant Standards:

- **EN 341:** Covers descender devices, used for controlled descent.
- **EN 364:** Specifies test methods for fall protection equipment.
- **EN 365:** Personal protective equipment against falls from a height — General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging
- **EN 892:** Mountaineering equipment — Dynamic mountaineering ropes — Safety requirements and test methods
- **EN ISO 9227:** Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)
- **ISO 2232:** Round drawn wire for general purpose non-alloy steel wire ropes and for large diameter steel wire ropes — Specifications
- **EN 1263-1 & EN 1263-2:** cover safety nets which are a passive method of fall protection.

## HIERARCHY OF FALL PROTECTION



## Importance of fall protection

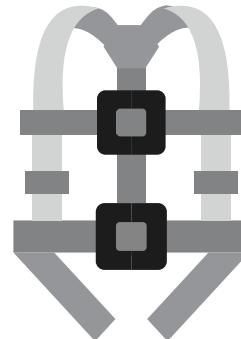
Falls from heights are a leading cause of workplace fatalities and injuries in various industries. Implementing robust fall protection measures offers significant benefits:

- Saving lives: Fall protection systems are designed to prevent workers from experiencing fatal or severely injurious falls.
- Reducing injuries and disabilities: Minimizing the risk and severity of falls contributes to a healthier workforce and fewer long-term health complications.
- Increased productivity: Fewer accidents and injuries translate to less downtime, delays, and disruptions to work schedules.
- Cost savings: Preventing falls helps avoid expenses related to medical treatment, workers' compensation claims, legal fees, and lost productivity.
- Improved morale and retention: Prioritizing worker safety fosters a positive work environment, leading to increased employee morale, job satisfaction, and reduced turnover.
- Compliance with regulations: Following fall protection standards set by agencies like OSHA (Occupational Safety and Health Administration) is crucial to avoid fines, penalties, and legal liabilities.

Working at heights is a common practice in many industries, from construction to utilities. However, it also presents significant fall hazards, leading to serious injuries or fatalities if proper safety measures are not in place. To minimize these risks and ensure workers' safety, it's crucial to understand the principles of fall protection and the components of a personal fall arrest system (PFAS).

## ABCs Of Fall Protection (PFAS)

The ABCs of fall protection is a common way to remember the essential components of a PFAS: Anchorage (A), body wear (B), and connecting devices (C). When used together correctly, these elements form a comprehensive system that can arrest a fall and protect the worker.



### ● A – Anchorage

The anchorage is a secure point of attachment for the PFAS, capable of supporting the worker and the forces generated during a fall. Anchorages can be permanent structures like steel beams or concrete columns, or temporary options like roof anchors, depending on the work environment.

#### Key features of anchorages:

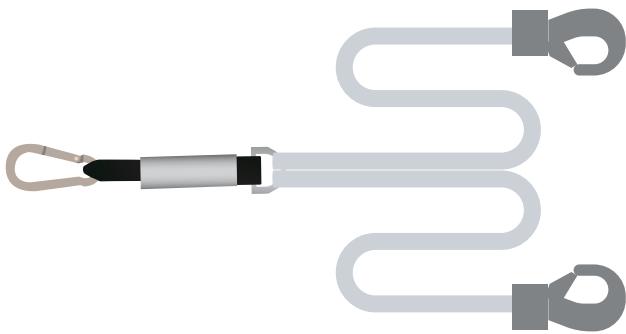
- **Strength:** Must support at least 5,000 pounds per attached worker or twice the intended load.
- **Height:** Must be positioned high enough to prevent contact with a lower level in case of a fall.
- **Location:** Ideally positioned directly overhead to minimize swing fall hazards (pendulum effect).
- **Inspection:** Requires regular inspection to ensure structural integrity and compliance with safety standards.

### ● B – Body Support

The body support refers to the full-body harness worn by the worker. This harness distributes the forces of a fall across the thighs, pelvis, and shoulders, reducing the risk of injury.

#### Key features of body support:

- **Type:** Only full-body harnesses are acceptable for fall arrest applications.
- **Fit:** Must be properly fitted to the worker for maximum protection.
- **D-rings:** Include D-shaped metal rings for connecting to the fall arrest system.
- **Inspection:** Requires pre-use inspection to check for damage or defects.



## ● C – Connecting devices

Connecting devices are the link between the body harness and the anchorage point. They are crucial for arresting a fall and limiting the fall distance.

### Common types of connecting devices:

- **Lanyards:** Flexible lines of rope or webbing that connect the harness to the anchorage. Energy-absorbing lanyards help reduce the impact forces during a fall.
- **Self-Retracting Lifelines (SRLs):** These devices retract and extend automatically as the worker moves, minimizing free-fall distance and energy loads.

### Important considerations for connecting devices:

- **Strength:** Must have a minimum breaking strength of 5,000 pounds.
- **Compatibility:** Components must be compatible with each other and the entire system.

**Inspection:** Requires regular inspection for wear and tear.

## ● D – Descent and rescue

Beyond the initial "ABCs," it's crucial to acknowledge the importance of descent and rescue devices (D) in a comprehensive fall protection program. These devices are essential for safely retrieving a fallen worker after a fall arrest incident.

### Types of rescue and retrieval:

- **Self-rescue:** The worker is able to ascend or descend to safety on their own.
- **Assisted self-rescue:** A co-worker assists the fallen worker in reaching a safe location using equipment like ladders or ropes.
- **Mechanically-aided rescue:** When the worker cannot participate in the rescue, mechanical equipment like aerial lifts are used.
- **Rescue pick-offs:** A more complex rescue method requiring specialized skills, where a rescuer lowers a fallen worker to safety.

### Key aspects of descent and rescue:

- **Rescue Plan:** A detailed and site-specific rescue plan is mandatory to ensure a swift and effective response in case of a fall.
- **Training:** All workers, particularly those responsible for rescue, must receive proper training in using rescue equipment and executing rescue procedures.
- **Emergency Procedures:** The plan must account for potential complications like suspension trauma, which can occur when a worker is left suspended in a harness for an extended period.

## Conclusion

- Understanding and properly implementing the ABCs (and D) of fall protection is paramount for ensuring worker safety in environments with fall hazards. By focusing on proper equipment selection, inspection, and rigorous training, employers can create a safer work environment and prevent serious injuries or fatalities caused by falls from height.

FallSafe™

ANCHORAGE



# Anchors - EN795:2012

- **Anchor system**

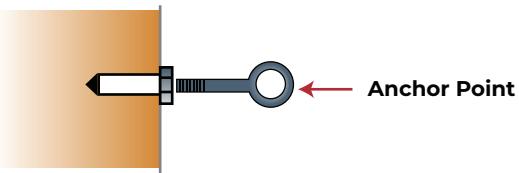
A system intended for use as part of a personal fall protection system that incorporates an anchor point or points and/or an anchor device and/or an element and/or a fixing element and/or a structural anchor

- **Anchor device**

An assembly of elements which incorporates one or more anchor points or mobile anchor points that can include a fixing element, is intended for use as part of a personal fall protection system, is intended to be removable from the structure and to be part of the anchor system

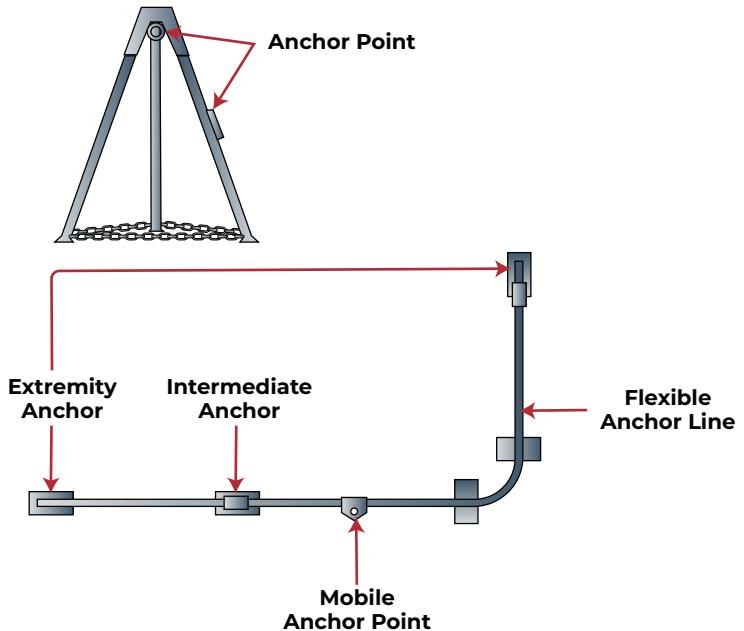
## Type A anchor device

An anchor device with one or more stationary anchor points, while in use, and with the need for a structural anchor(s) or fixing element(s) to fix to the structure



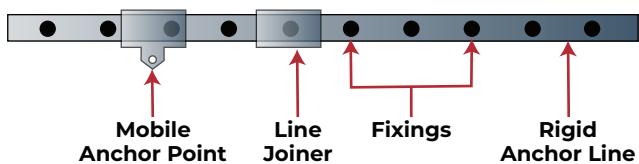
## Type B anchor device

An anchor device with one or more stationary anchor points without the need for a structural anchor(s) or fixing element(s) to fix it to the structure



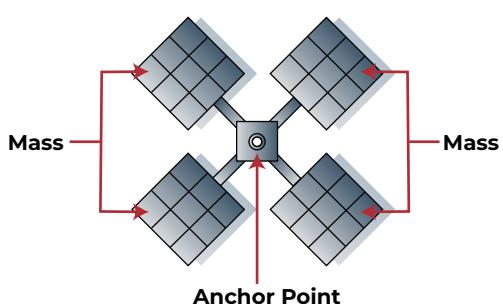
## Type C anchor device

An anchor device employing a flexible anchor line which deviates from the horizontal by not more than 15° (when measured between the extremity and intermediate anchors at any point along its length)



## Type D anchor device

An anchor device employing a rigid anchor line which deviates from the horizontal by not more than 15° (when measured between the extremity and intermediate anchors at any point along its length)



## Type E anchor device

An anchor device for use on surfaces up to 5° from the horizontal where the performance relies solely on mass and friction between itself and the surface

Each of the types (or classes) indicated has its advantages and disadvantages, depending on the situation for which an anchor device is required.

- Types C and D allow for greater manoeuvrability compared with A, B and E devices, as they allow the user to move quickly along a line without having to swap or move anchorage points. They can also be used as multi user systems.
- Type B anchor devices are designed to be easily transported when compared to other types, as they normally require minimal installation or can be broken down and moved quickly.
- Type A devices are normally small and lower cost compared with the four other types.
- Type E anchor devices are created by connecting multiple sections of mass to create a large deadweight and, in many cases, are designed to be used on multiple roof surfaces without the need to affect the roof integrity.

## Multi-user anchor devices

In many situations, anchor devices are required for use by more than one person. This is because certain jobs need to be carried out by different people, while ensuring that everyone has the same level of protection from falling. The technical specification is PD CEN/TS 16415:2013. Most of the methods within it are the same – or use test principles from – EN 795:2012, but with more severe requirements to ensure that the anchor devices are capable of withstanding several users falling on them. The dynamic performance test requires a 200 kg test mass to represent two simultaneous users. For each additional user, a further dynamic performance test using a 100 kg mass is carried out on the same system to simulate multiple users falling on the same anchor device. The static strength test increases the usual single-user requirement in EN 795:2012 by 1 kN per extra user claimed.

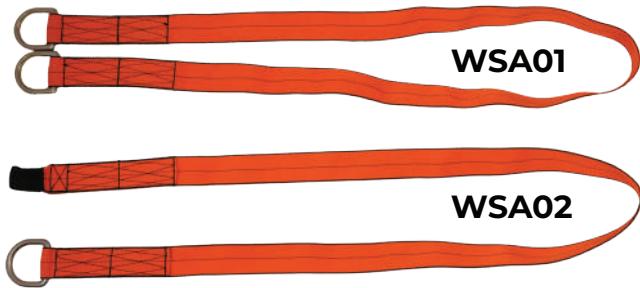


### WSA01 / WSA02

Web Sling Anchorage

CE EN 795:2012 Type B

ANSI Z 359.1:2007



#### Application

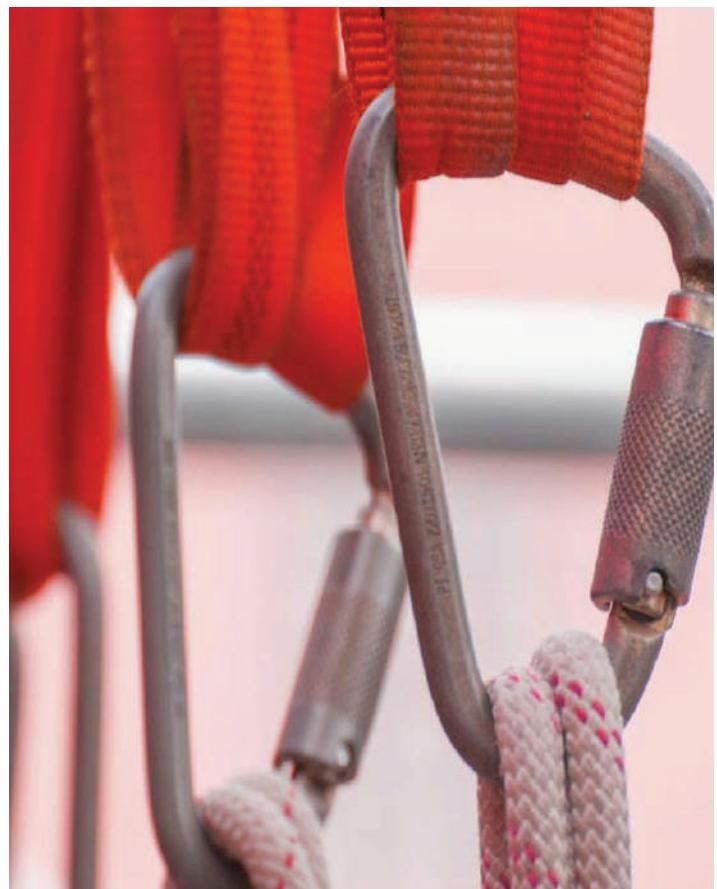
- Construction Sites
- Work at Height

#### Key Features

We provide a wide range of Anchorage Webbing Slings of various configurations and lengths that can be altered in length as per the requirement.

- 140 kg

Model No:	Product SKU	Colour	Product Description
WSA01	BLSH-FP-WSA01	Red	Webbing Sling both side D ring - 2mtrs
WSA02	BLSH-FP-WSA02	Red	Webbing Sling one side loop other side D ring



### SPA01

Single Point Anchorage

CE EN 795:2012 Type A

ANSI Z 359.1:2007



#### Application

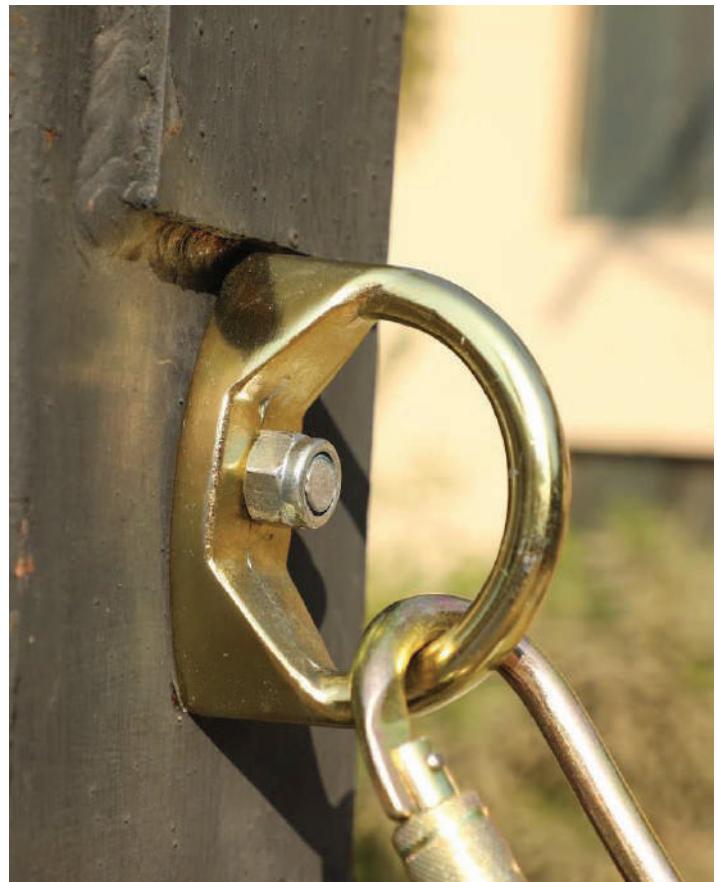
- Steel Structures
- Roof Tops
- Wall
- Ceiling

#### Key Features

A forged single point anchor designed to be fixed on roof-tops, walls, steel structures & ceiling.

- 140 kg

Product SKU	Colour
BLSH-FP-SPA01	Yellow



### FBA01

Fixed Beam Anchor

CE EN 795:2012 Type B ANSI Z 359.1:2007



#### Application

- Metal Beam
- Work at Height

#### Key Features

- Made from High strength steel & Aluminium Fixed with 70mm to 520mm wide I-beam flange
- Light weight & compact design
- Anchor in any direction

Product SKU	Colour
BLSH-FP-FBA01	White



### PA01

Parapet Anchor

CE EN 795:2012 Type B ANSI Z 359.1:2007



#### Application

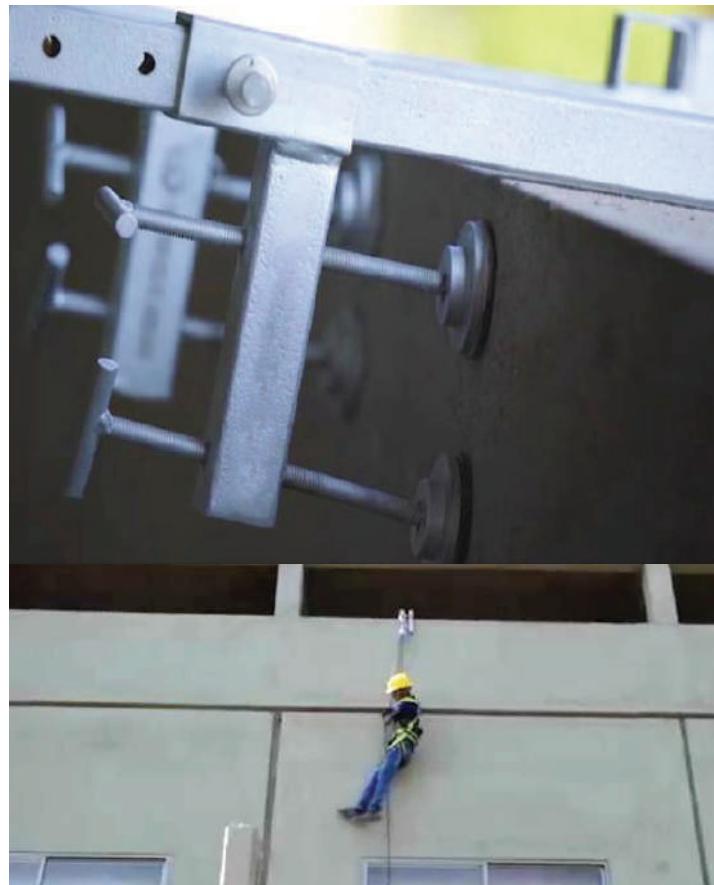
- Work at Height

#### Key Features

- This anchor provides a quick & safe anchorage wall parapets.
- It has an extensive arm which can be extended to suit the size of the parapet.
- High strength steel powder coated to provide maximum roof protection.

- 140 kg

Product SKU	Colour
BLSH-FP-PA01	Black



### DWA01

Door/Window Anchor

CE EN 795:2012 Type B

ANSI Z 359.1:2007



#### Application

- Work at Height

#### Key Features

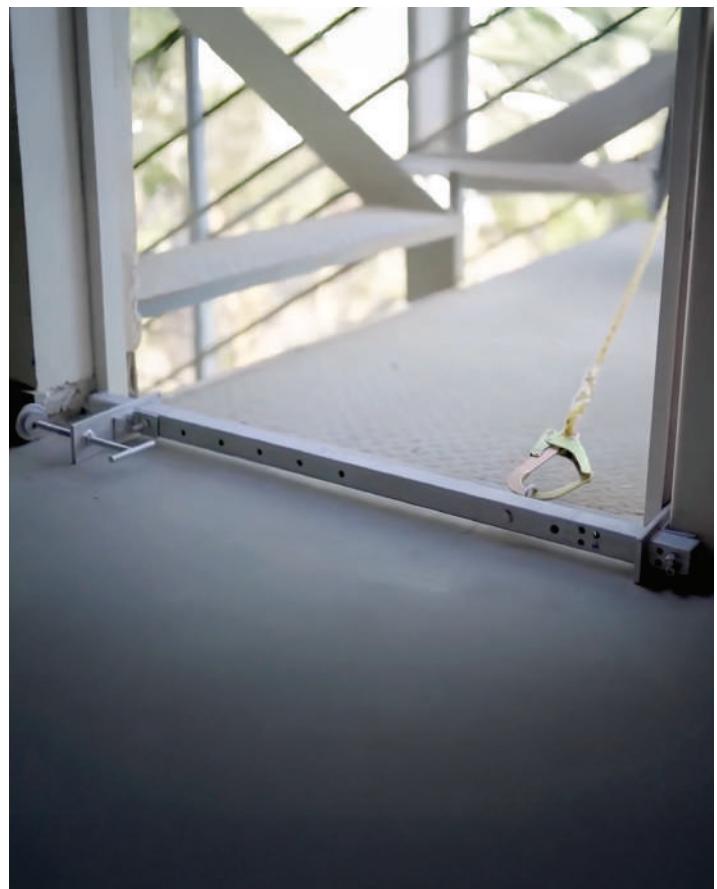
- This anchor provides a quick & safe anchorage to locations where door/ window frames are available.
- Width from 610mm to 1210mm of door / window frames.
- It easily jams between the frame of door/ window thereby providing rigid anchorage.

Product SKU

Colour

BLSH-FP-DWA01

White



### UP01

Universal Post

CE EN 795:2012 Type B



#### Application

- Shipping Containers
- Rooftop



#### Key Features

- This anchor is designed to provide a safe anchor point for working on containers.
- This is a non-penetrating anchor which does not damage the container.

Product SKU

Colour

BLSH-FP-UP01

White

### RRA01

Reusable Roof Anchor

 ANSI Z 359.1:2007



#### Application

- Work at Height

#### Key Features

This anchor provides anchoring on roof.



### FSTL400 Series

Temporary Lifeline System

ANSI Z359.7-2019

Temporary Lifeline Rope is a means of anchoring for Four individual fall arrest systems that require fast setup and take down. Use Temporary Lifeline Rope where workers move multiple sites requiring horizontal mobility and fall protection during their work.

#### Application

- Agriculture
- Chemical
- Construction
- Food services
- Forestry
- Manufacturing
- Mining
- Municipal services
- Oil and gas
- Pharmaceutical
- Steel and metals

#### Key Features

- Light Weight
- Easy an quick installation
- Came with tension knob



#### Product Specification

Material	16mm Green polytech braided rope and Zinc plated steel
Length	20 Meters
Number of users	4 Users maximum
Maximum weight range	40 to 140 kg (Per User)

Model number	Product description	Product SKU
FSTL400 Series	Temporary Lifeline - 4 User - (Rope) 20 mtrs	BLSH-FS-TL400-20

### FSTL200 Series

Temporary Lifeline System

CE EN795 Class B

Temporary Lifeline Webbing is Horizontal temporary anchorage life line made up of 35 mm Polyester Webbing equipped with the Ratchet Tensioner that allows easy tensioning of the lifeline between two structures. Both the ends are provided with Steel Carabiners. The integrated bag allows the excess webbing to be stored in there that is not being used. This can prevent damage from foot traffic, dirt and wear, thus improving the lifespan of the line. Connection to the line is made by attaching the Carabiner of a shock absorbing, or fall arrest lanyard directly to the line, again, reducing the potential for lost or damaged Component.

- There are many instances where a horizontal lifeline to ensure the safety of a user is the best practical option, but the time spent assembling and installing the system make it impractical to do so. What is needed is a quick means of installing the system so work is unaffected.
- The whole system is supplied in a bag, which is permanently attached to the assembly and also enables the user to easily carry the system with the help of comfortable shoulder hanging straps provided in the bag.
- Once fitted, you can easily put back the extra webbing not deployed along the length, into the Bag.

#### Application

- Agriculture
- Chemical
- Construction
- Food services
- Forestry
- Manufacturing
- Mining
- Municipal services
- Oil and gas
- Pharmaceutical
- Steel and metals

#### Key Features

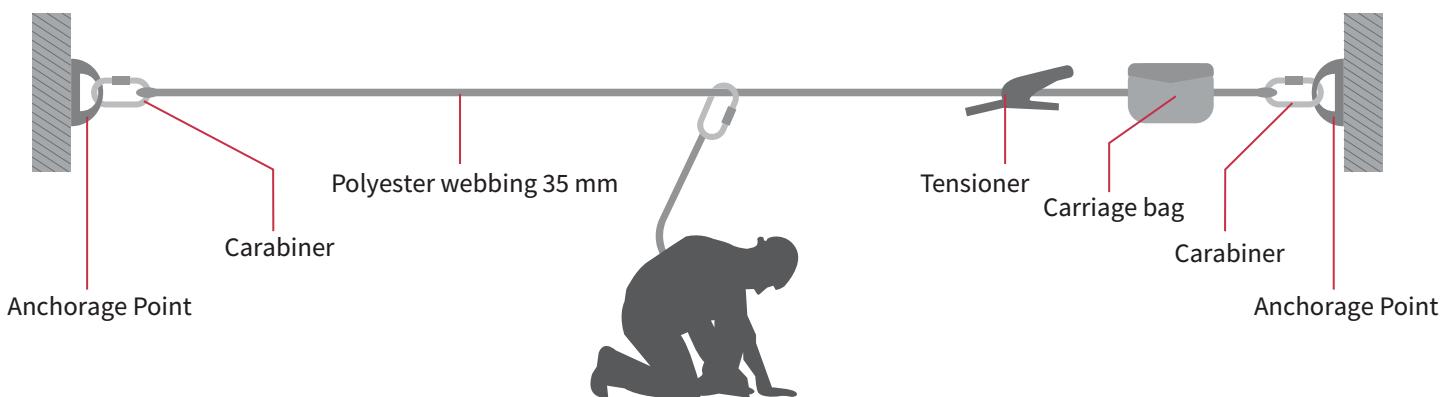
- Light Weight
- Easy an quick installation
- Came with tension knob



#### Product Specification

Webbing	35mm polyester webbing
Length	20 / 30 Meters
Number of users	2 Users maximum
Deflection	2 Meters Maximum

Model number	Product description	Product SKU
FSTL200 Series	Temporary Lifeline - 2 User - (Webbing) 20 mtrs	BLSH-FS-TL200-20
FSTL200 Series	Temporary Lifeline - 2 User - (Webbing) 30 mtrs	BLSH-FS-TL200-30



### Vertical Life Line System - Flexible Polyamide Rope

CE EN 353-2:2002

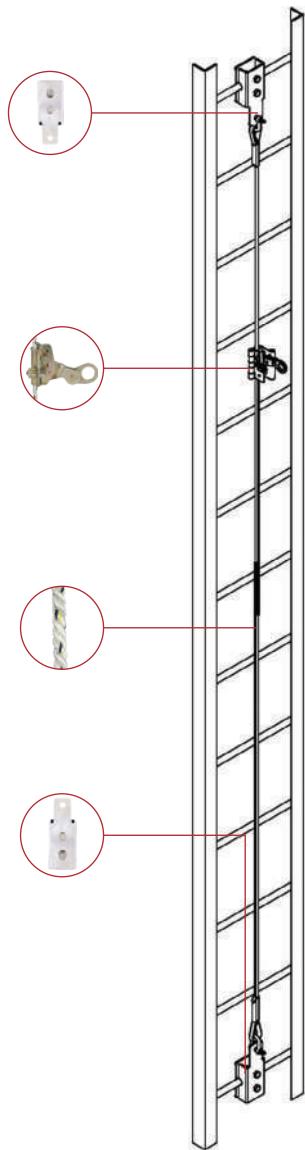


#### Product Specification

Flexible Rope	Polyamide Rope
Fall Arrestor	MS Alloy

#### Top Bracket

Standard galvanized / stainless steel bracket with mounting hardware. Fits with wide variety of ladder rungs & can be attached with 1 or 2 rungs, depending on the type of bracket.



#### Rope Grab

For use with 14mm to 16mm dia polyamide rope. Openable design. Carabiner to be fixed additionally.

#### Polyamide Rope

Polyamide twisted rope of 14mm to 16mm diameter. Has colored tracer yarn which loses its color in due course of time to indicate that the rope requires replacement.

#### Bottom Bracket

Standard galvanized / stainless steel bracket with mounting hardware. Fits with wide variety of ladder rungs & can be attached with 1 or 2 rungs, depending on the type of bracket.

#### Key Features

- 100% Positive locking
- Continuous movement with complete fall protection
- Quick & easy installation & de-installation.
- Dual action opening

#### Application

- Ladders
- Scaffolds
- Temporary Installations

Part number	Product description	Product SKU
TB01	Top Bracket	BLSH-FP-VFA-TB01
RG01	Rope Grab (For Polyamide Rope)	BLSH-FP-VFA-RG01
PR01	Polyamide Rope	BLSH-FP-VFA-PR01
BB01	Bottom Bracket	BLSH-FP-VFA-BB01



### Vertical Life Line System - Rigid Cable

CE EN 353 - 1:2014 + A1 2017



#### Key Features

- Complete corrosion free SS316 grade material
- 100% Positive locking
- Continuous movement with Complete fall protection
- Virtually no maintenance

#### Application

- Ladders
- Wind Mills
- Chimney Stacks
- Transmission Towers
- Telecommunication Towers
- FM Towers
- Television Transmission
- Towers

Part number	Product description	Product SKU
TB01	Top Bracket	BLSH-FP-VFA-TB01
SAB01	Shock Absorber	BLSH-FP-VFA-SAB01
WR01	Wire Rope	BLSH-FP-VFA-WR01
PTB01	Pass Through Bracket	BLSH-FP-VFA-PTB01
RG02	Rope Grab ( For Rigid Cable)	BLSH-FP-VFA-RG02
TN01	Tensioner	BLSH-FP-VFA-TN01
EXA01	Extension Arm	BLSH-FP-VFA-EXA01
BB01	Bottom Bracket	BLSH-FP-VFA-BB01

#### Top Bracket

Standard galvanized / stainless steel bracket with mounting hardware. Fits with wide variety of ladder rungs.



#### Shock Absorber

Made from Stainless Steel 316 grade to provide high corrosion resistance. Absorbs shock generated during a fall to avoid load transfer to the user and the structure.



#### Extension Arm

Made from galvanized / stainless steel. Provides extension to the lifeline in cases where the ladder terminates before the landing point.



#### Wire Rope

Stainless Steel 316 grade to provide high corrosion resistance and long life in harsh environments. Diameter 08mm.



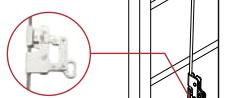
#### Pass Through Bracket

Galvanised / Stainless steel bracket with mounting hardware. To ensure cable remains in position. Recommended every 10mtrs. Fits with wide variety of ladder rungs & attaches with 1 rung.



#### Rope Grab

Made from Stainless Steel 316 grade to provide high corrosion resistance and long life in harsh environments. Fits 08 mm diameter cable. Carabiner to be additionally fixed.



#### Tensioner

Made from Stainless Steel 316 grade to provide high corrosion resistance. Provides & maintains required tension to the cable. Provides swageless termination to the cable. Fits 08mm diameter cable.



#### Bottom Bracket

Standard galvanized / stainless steel bracket with mounting hardware. Fits with wide variety of ladder rungs.



### Vertical Life Line System- Rigid Rail

CE EN 353 - 1:2014 + A1 2017



#### Key Features

- 100% Positive locking
- Continuous movement with complete fall protection
- Corrosion free anodized Aluminum rail/GI Rails/SS
- Virtually no maintenance

#### Application

- Ladders
- Wind Mills
- Chimney Stacks
- Transmission Towers
- Telecommunication towers
- Television transmission
- FM towers

Part number	Product description	Product SKU
FR01	Fixed Rail	BLSH-FP-VFA-FR01
RJP01	Rail Joint Piece	BLSH-FP-VFA-RJP01
RS01	Rail Sleeve	BLSH-FP-VFA-RS01
LC01	Ladder Clamps	BLSH-FP-VFA-LC01

#### Fixed Rail

Made from galvanized steel / stainless steel /aluminum. Comes in sections of 03mtrs for ease of handling & transportation.



#### Rail Joint Piece

Provides smooth & easy joining of two sections of rails. Made from galvanized steel / stainless steel.



#### Rail Sleeve

Made from Stainless Steel. Provides positive locking to the user in case of a fall. The locking mechanism senses a fall and locks on to the notches on the rail. Carabiner to be separately attached



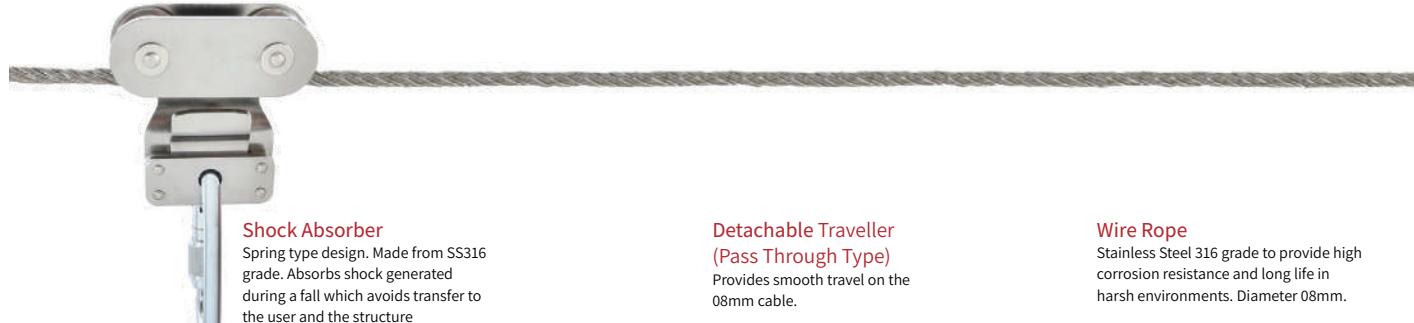
#### Ladder Clamps

Made from galvanized steel / stainless steel. Attaches the rail to the ladder rungs. Suits different diameter of ladder rungs.



## Horizontal Life Line System - Over the Head

CE EN 795:2012 CLASS C



### Shock Absorber

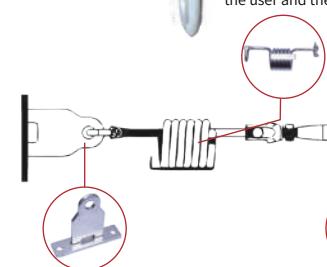
Spring type design. Made from SS316 grade. Absorbs shock generated during a fall which avoids transfer to the user and the structure

### Detachable Traveller (Pass Through Type)

Provides smooth travel on the 08mm cable.

### Wire Rope

Stainless Steel 316 grade to provide high corrosion resistance and long life in harsh environments. Diameter 08mm.

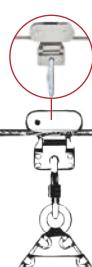


### Extremity Anchor

Made from SS316 grade. Fixes with different types of structures.

### Tensioner

316 grade to provide high corrosion resistance. Provides & maintains required tension to the cable. Provides swageless termination to the cable. Fits 08mm diameter cable.



### Intermediate Bracket

Stainless steel bracket with mounting hardware. To reduce cable sag. Fits with 08mm dia cable. Recommended to be installed every 10 to 15mtrs.



### Cable Extremity

Made from Stainless Steel 316 grade to provide high corrosion resistance. Provides swageless termination to the cable. Fits 08mm diameter cable. Fixed at one end of the lifeline.

## Detachable traveller type varies based on project



Detachable Traveller  
(Non Pass Through Type)



Detachable Traveller  
(Pass Through Type)

### Key Features

- Complete SS316 system
- Continuous movement with complete fall protection over long Span.
- Shock Absorber to reduce jerk load on user & Structure
- ATEX approved for use in Potentially Explosive areas

### Application

- Truck Loading/Unloading
- Train Top Work
- EOT Cranes
- Awkward work places where
- Horizontal & Vertical safety is required
- Pipe racks

Part number	Product description	Product SKU
EA01	Extremity Anchor	BLSH-FP-HFA-EA01
SAB02	Shock Absorber	BLSH-FP-HFA-SAB02
TN01	Tensioner	BLSH-FP-HFA-TN01
CE01	Cable Extremity	BLSH-FP-HFA-CE01
PTDT01	Pass Through Type Detachable Traveller	BLSH-FP-HFA-PTDT01
DT01	Detachable Traveller	BLSH-FP-HFA-DT01
IB01	Intermediate Bracket	BLSH-FP-HFA-IB01
WR01	Wire Rope	BLSH-FP-HFA-WR01



### TNH01(S)

CE EN 795 Type A

#### Swaging Tensioner For Hll



##### Product Specification

Wire Rope Termination Type	Swaging Type Termination Via Crimping Nozzle
Applicable For Wire Rope	8 mm Diameter, 7x7 or 7x19 Construction
Adjustable Range	400mm to 540mm
Material of Construction (MOC)	SS 316
Weight	1.4 ±0.05 Kgs
Overall Dimensions	400 x 50 x 50 mm
Temperature Range	-40° C to +60° C
Minimum Braking Strength	36 KN

### TNH01(S)

CE EN 795 Type A

#### Swaging Cable Extremity



##### Product Specification

Wire Rope Termination Type	Swaging Type Termination Via Crimping Nozzle
Applicable For Wire Rope	8 mm Diameter, 7x7 or 7x19 Construction
Material of Construction (MOC)	SS 316
Weight	0.4 ±0.05 Kgs.
Overall Dimensions	160 x 50 x 50 mm
Temperature Range	-400 C to +600 C
Minimum Braking Strength	35 KN

### SAB02

CE EN 795 Type A

#### Shock Absorber for HLL



##### Product Specification

Design Type	Spring Type Design
Material of Construction (MOC)	SS 316
Weight	1.8±0.05 Kgs.
Overall Dimensions	L 340 x B 96 x H 85 mm
Temperature Range	-40° C to +60° C
Minimum Braking Strength	35 KN

### Shock Absorber With Compression Technology

CE EN 795:2012 Type C, TS 16415:2013



##### Application

- Horizontal Lifeline Systems (single span and multiple span)
- Rooftop safety systems
- Industrial maintenance and construction sites

##### Product Specification

Material – Energy Absorbing Element	Galvanized Steel Coil / Stainless Steel Coil
Material – Outer Housing	Stainless Steel 304 / Hot-dip Galvanized Mild Steel
Users	1 - 4
Cable Tension Without Fall	As per EN 795 Class C standards
Corrosion Resistance	EN 795:2012 Type C, TS 16415:2013
Material Strength	> 500 hrs Salt Spray Test (ASTM B117)
Rated Load Capacity	≤ 6 kN
Operating Temperature	-30° C to +60° C

### Shock Absorber cum Tensioner with Indicator

CE EN 795:2012 Type C

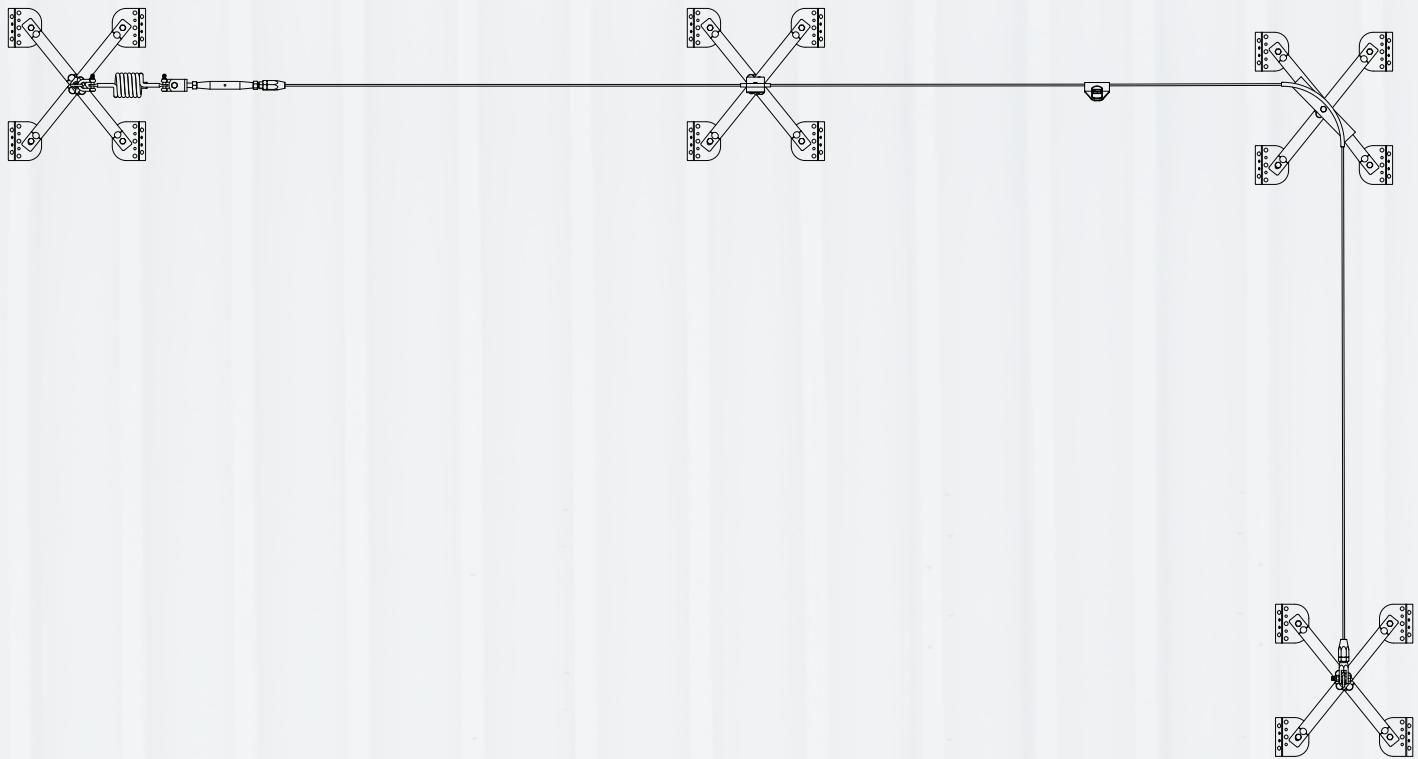


##### Features

- It functions as shock absorber, Tensioner & Fall indicator

##### Product Specification

Material of Construction (MOC)	SS 316
Weight	2.3±0.05 Kgs.
Overall Dimensions	L 340 x B 96 x H 55mm
Temperature Range	-400 C to +600 C



## Designing A Roof Lifeline

While designing a roof lifeline, following factors must be considered:

- **Location of Access Point / Ladder.**

The design should be such that where the Ladder ends, roof lifeline must start. This will ensure that the user will remain anchored to some point on any given time and he should not disengage from ladder without connecting to lifeline.

- **Length of Rope:**

Rope provided to reach the extreme end of the building should not be more than the height of the building. Lifeline should be designed in such a way that at whatever time the length of the rope should always be shorter than the height of the building+user height+safety margin. If this factor is not considered than the user can fall from the edge and hit the ground below (as shown in the figure), which can result in death of the person.

- **Frequency of Roof sheet change:**

If roof sheets are changed periodically (every 2 years), then the system should be installed using Purlin supported posts. Only when the sheet are changed at an interval of more than 10 years, should the system be installed on roof sheet.

### Horizontal Life Line System - Over the Roof

CE EN 795:2012 CLASS C

#### Shock Absorber

Spring type design. Made from SS316 grade. Absorbs shock generated during a fall which avoids transfer to the user and the structure.

#### Tensioner

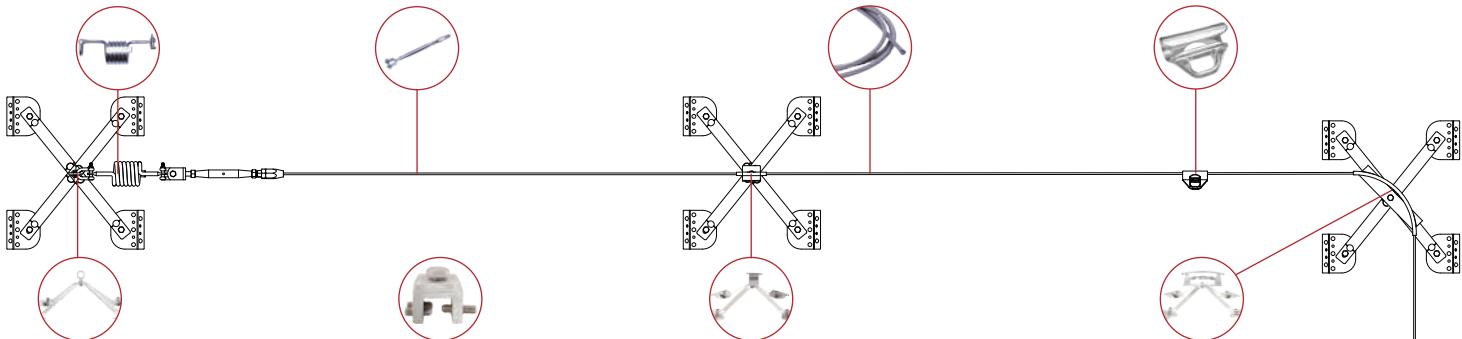
Made from Stainless Steel 316 grade to provide high corrosion resistance. Provides & maintains required tension to the cable. Provides swageless termination to the cable. Fits 08mm diameter cable.

#### Wire Rope

Stainless Steel 316 grade to provide high corrosion resistance and long life in harsh environments. Diameter 08mm.

#### Pass Through Detachable Trolley

Provides smooth travel on the 08mm cable. The trolley passes through intermediate bracket cable. Fixed at one end of the lifeline.



#### Roof Top Anchor Post Extremity

Made from SS316 grade. Fixes with standing seam and regular galvalume roof sheets.

#### Standing Seam Clamps

Made from Aluminum. These clamps provide rigid anchorage with roofs having standing seams.

#### Roof Top Anchor Post Intermediate

Made from SS316 grade. Fixes with standing seam and regular galvalume roof sheets. Has intermediate bracket to reduce cable sag.

#### Key Features

- Complete SS 316 system
- Continuous movement with complete fall protection over long spans.
- 100% water proofing
- Available for standing seam roofs
- Shock absorber provided to reduce impact load on user & structure.

#### Application

- Roof
- Horizontal & Vertical safety is required

Part number	Product description	Product SKU
CE01	Cable Extremity	BLSH-FP-HFA-CE01
PTDT02	Pass Through Detachable Trolley (Over the Roof)	BLSH-FP-HFA-PTDT02
RTAPI01	Roof Top Anchor Post Intermediate	BLSH-FP-HFA-RTAPI01
WR01	Wire Rope	BLSH-FP-HFA-WR01
TN01	Tensioner	BLSH-FP-HFA-TN01
SAB02	Shock Absorber	BLSH-FP-HFA-SAB02
RTAPE01	Roof Top Anchor Post Extremity	BLSH-FP-HFA-RTAPE01
CNRP01	Corner Post	BLSH-FP-HFA-CNRP01
SSC01	Standing Seam Clamps	BLSH-FP-HFA-SSC01

#### Corner Post

Made from SS316 grade. Fixes with standing seam and regular galvalume roof sheets. Has a corner piece to provide uninterrupted movement to the user to all parts of the roof.

#### Cable Extremity

Made from Stainless Steel 316 grade to provide high corrosion resistance. Provides swageless termination to the cable. Fits 08mm diameter cable. Fixed at one end of the lifeline.



### Roof Post Trapezoidal

CE EN 795 Type A CEN/TS 16415 (Multi User)



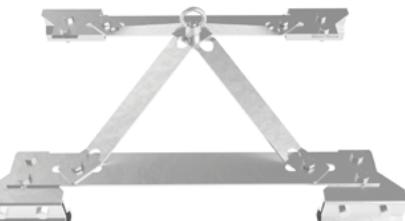
#### Product Specification

Material	Stainless Steel 316
Finish	Electroplated
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	4.2 Kg Approx

Part number	Product description	Product SKU
RTAPI01	Roof Top Anchor Post (T) - Intermediate	BLSH-FP-HFA-RTAPI01
RTAPE01	Roof Top Anchor Post (T) - Extremity	BLSH-FP-HFA-RTAPE01
CNRP01	Roof Top Anchor Post (T) - Corner	BLSH-FP-HFA-CNRP01

### Roof Post Standing Seam

CE EN 795 Type A CEN/TS 16415 (Multi User)



#### Product Specification

Material	Stainless Steel 316
Finish	Electroplated
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	4.2 Kg Approx

Part number	Product description	Product SKU
RTAPI02	Roof Top Anchor Post (SS) - Intermediate	BLSH-FP-HFA-RTAPI02
RTAPE02	Roof Top Anchor Post (SS) - Extremity	BLSH-FP-HFA-RTAPE02
CNRP02	Roof Top Anchor Post (SS) - Corner	BLSH-FP-HFA-CNRP02

### Shielded Roof Post Trapezoidal

CE EN 795 Type A CEN/TS 16415 (Multi User)



#### Product Specification

Material	Stainless Steel 304
Finish	CED Coated Black
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	4.2 Kg Approx

Part number	Product description	Product SKU
RTAPI01-C	Shielded Roof Post (T) - Intermediate (CED Coated)	BLSH-FP-HFA-RTAPI01-C
RTAPE01-C	Shielded Roof Post (T) - Extremity (CED Coated)	BLSH-FP-HFA-RTAPE01-C
CNRP01-C	Shielded Roof Post (T) - Corner (CED Coated)	BLSH-FP-HFA-CNRP01-C

### Shielded Roof Post Standing Seam

CE EN 795 Type A CEN/TS 16415 (Multi User)



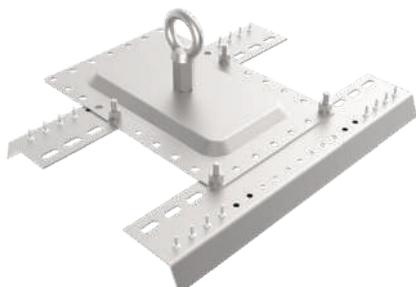
#### Product Specification

Material	Stainless Steel 304
Finish	CED Coated Black
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	4.75 Kg Approx

Part number	Product description	Product SKU
RTAPI02-C	Shielded Roof Post (SS) - Intermediate (CED Coated)	BLSH-FP-HFA-RTAPI02-C
RTAPE02-C	Shielded Roof Post (SS) - Extremity (CED Coated)	BLSH-FP-HFA-RTAPE02-C
CNRP02-C	Shielded Roof Post (SS) - Corner (CED Coated)	BLSH-FP-HFA-CNRP02-C

### SRT Roof Post Trapezoidal

CE EN 795 Type A CEN/TS 16415 (Multi User)



#### Product Specification

Material	Stainless Steel 304
Finish	Electroplated
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	3 Kg Approx

Part number	Product description	Product SKU
RTAPI01-SR	SRT Roof Top Anchor Post (T) - Intermediate	BLSH-FP-HFA-RTAPI01-SR
RTAPE01-SR	SRT Roof Top Anchor Post (T) - Extremity	BLSH-FP-HFA-RTAPE01-SR
CNRP01-SR	SRT Roof Top Anchor Post (T) - Corner	BLSH-FP-HFA-CNRP01-SR

### SRT Roof Post Standing Seam

CE EN 795 Type A CEN/TS 16415 (Multi User)



#### Product Specification

Material	Stainless Steel 304
Finish	Electroplated
Confirms to	EN 795:2012 Type A & CEN/TS 16415 (Multi User)
Weight	5 Kg Approx

Part number	Product description	Product SKU
RTAPI02-SR	SRT Roof Top Anchor Post (SS) - Intermediate	BLSH-FP-HFA-RTAPI02-SR
RTAPE02-SR	SRT Roof Top Anchor Post (SS) - Extremity	BLSH-FP-HFA-RTAPE02-SR
CNRP02-SR	SRT Roof Top Anchor Post (SS) - Corner	BLSH-FP-HFA-CNRP02-SR

### Shock Absorbing Extremity End

CE EN 795 Type A CEN/TS 16415 (Multi User)

Designed for use with all types of Bison Life rooftop anchor posts. The Shock Absorbing Extremity End mounted at each end of the lifeline system. They are capable of supporting a minimum static load and the impact load calculated for the entire system in any direction of pull, with proper provision to accept a lifeline connection. It absorbs a minimum of 100 kg and a maximum of 400 kg of impact load.

#### Product Specification

Material of Construction (MOC)	SS 316
Weight	0.5 ±0.05 Kgs.
Overall Dimensions	100 x 40 x 108 mm
Temperature Range	-40° C to +60° C
Minimum Braking Strength	36 KN
Confirms to	EN 795 Type A & CEN/TS 16415

Part number	Product description	Product SKU
SEN01	Shock Absorbing Extremity End	BLSH-FP-SEN01



### Shock Absorbing Intermediate Bracket

CE EN 795 Type A CEN/TS 16415 (Multi User)

Designed for use with all types of Bison Life rooftop anchor posts. These are provided on the lifeline after every 10 to 15 meters to prevent slack in the rope and ensure the Trolley passes through it. It absorbs a minimum of 100 kg and a maximum of 400 kg of impact load.

#### Product Specification

Material of Construction (MOC)	SS 316
Weight	0.25 ±0.05 Kgs.
Overall Dimensions	55 x 50 x 106 mm
Temperature Range	-40° C to +60° C
Minimum Braking Strength	36 KN
Confirms to	EN 795 Type A & CEN/TS 16415

Part number	Product description	Product SKU
SINBR01	Shock Absorbing Intermediate Bracket	BLSH-FP-SINBR01



### Shock Absorbing Corner Piece

CE EN 795 Type A CEN/TS 16415 (Multi User)

Designed for use with all types of Bison Life rooftop anchor posts. It mounted on the corner of the lifeline to provide uninterrupted turning features to the lifeline and ensure the Trolley passes through it. It absorbs a minimum of 100 kg and a maximum of 400 kg of impact load.

#### Product Specification

Material of Construction (MOC)	SS 316
Weight	1 ±0.05 Kgs.
Overall Dimensions	120 x 31.5 x 106 mm
Temperature Range	-40° C to +60° C
Minimum Braking Strength	36 KN
Confirms to	EN 795 Type A & CEN/TS 16415

Part number	Product description	Product SKU
SCP01	Shock Absorbing Corner Piece	BLSH-FP-SCP01

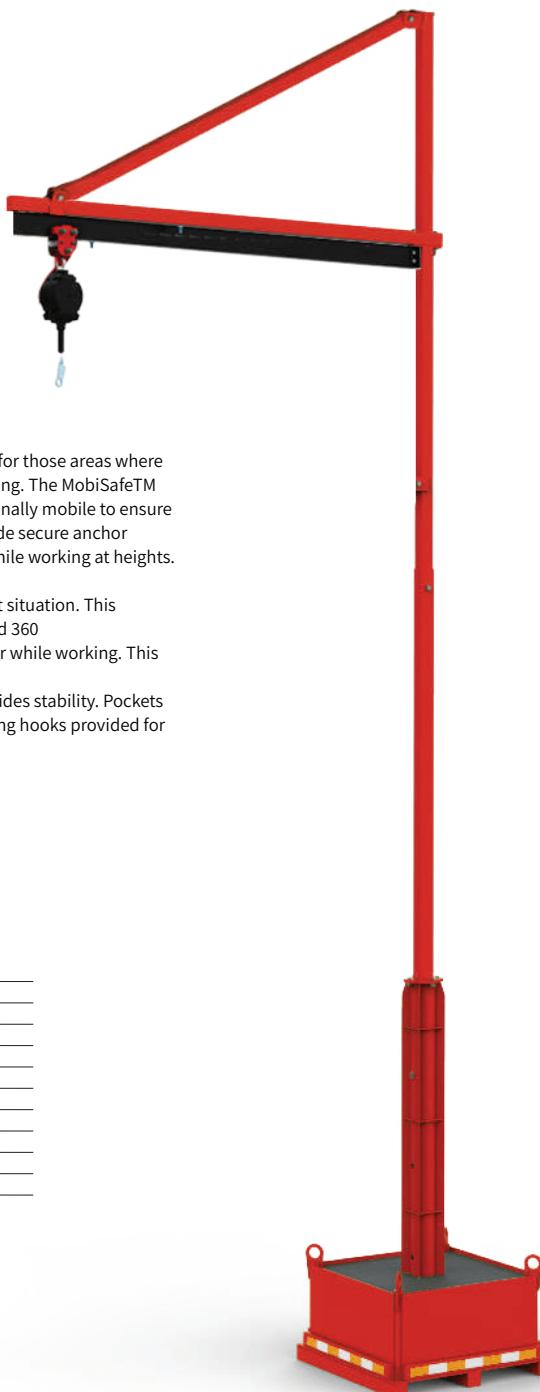


# MOBILE ENGINEERED ANCHORAGE SYSTEMS





**MS100**



### Fixed Counter Pod system

MobiSafe™ Fixed Counter Pod System is perfectly designed to provide anchoring for those areas where overhead obstructions such as high-tension cables, EOT, etc. May prevent anchoring. The MobiSafe™ Fixed Counter Pod System was designed to be versatile, lightweight, and exceptionally mobile to ensure worker safety in various challenging situations. Our preengineered systems provide secure anchor points and spacious safe working areas to help the worker to focus on the workwhile working at heights.

This system is capable of supporting the weight of only one workers in a fall arrest situation. This MobiSafe™ Fixed Counter Pod System is available with single point anchorage and 360 degree of rotatable, Providing optimal mobility and reliable fall protection for user while working. This mobile system is classified for single users and can be installed for permanent or temporary use. Specially designed counterweight box filled with RCC or PCC provides stability. Pockets provided to allow forklift forks to access for lifting. Additional four heavy duty lifting hooks provided for easy lifting.

#### Product Specification

Anchor Height	6 meter
Cantilever Length	2 meter
Size of Counterweight Base	1 x1 Meter
Counterweight	RCC/ PCC Filled Approx 900 Kgs.
Anchorage	Single Point Anchor
Lifting Arrangement	Forklift Pocket and Four Lifting Hook
Max. Number of Users	1 Person
Max. Weight Capacity	150 kg
Power Required for movement	Forklift/ Overhead Crane
Material of Construction	High strength steel sections
Compatible Devices	Retractable Fall arrest block with Full body safety harness

#### Product SKU

BLSH-AS-MS100

### Key Features

- Overhead anchoring provides safety at height work; an effective, economical fall arrest system.
- Single Point Anchor for anchorage and RCC/ PCC filled Counterweight Box.
- Telescopic Mast can be adjustable using overhead crane or forklift.
- 360 Degree Rotatable Mast with Superior durability and weather resistance.
- Pockets for Forklift access and additional four lifting hook provided for portability.
- Superior durability and weather resistance.
- Suitable for Mining Industries, General Industrial, Transportation Industries, Construction Industries.

### Industries

- Mining Industries
- General Industrial
- Transportation Industries
- Construction Industries

### MS101



### Mobile Counter Weighted Pod system

MobiSafe™ Mobile Counter Weighted Pod System is perfectly designed for areas where there is limited space or insufficient overhead anchoring structures. The MobiSafe™ Mobile Counter Weighted Pod System was designed to be versatile, lightweight, and exceptionally mobile to ensure worker safety in various challenging situations. Our pre-engineered systems provide secure anchor points and spacious safe working areas to help the worker to focus on the work while working at heights.

This system is capable of supporting the weight of only one workers in a fall arrest situation. MobiSafe™ Mobile Counter Weighted Pod System is available with single point anchorage and 360 degree of rotatable mast and trolley Mounted System Providing optimal mobility and reliable fall protection for user while working. This portable system is classified for single users and can be installed for permanent or temporary use. Specially designed metal counterweight block with handle facilitates removal of the counterweight. The trolley mounted system allows for easy portability. Four heavy duty jacks are provided for extra stability.

#### Product Specification

Anchor Height	6 meter
Cantilever Length	2.5 meter
Size of Counterweight Trolley/ Carriage	2 x 1 Meter
Counterweight	40 nos of Metal Counterweight Blocks (20kgs Each)
Anchorage	Single Point Anchor
Lifting Arrangement of Mast	Overhead Crane or Forklift (One Time process)
Max. Number of Users	1 Person
Max. Weight Capacity	150 kg
Power Required for movement	One Person
Material of Construction	High strength steel sections
Compatible Devices	Retractable Fall arrest block with Full body safety harness

#### Product SKU

BLSH-AS-MS101



### Key Features

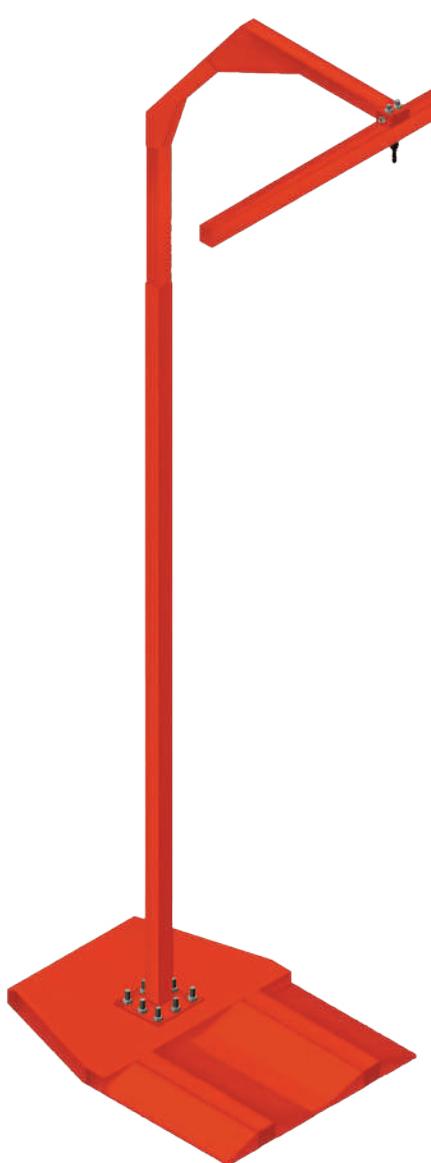
- Overhead anchoring provides safety at height work; an effective, economical fall arrest system.
- Single Point Anchor for anchorage and Metal Counterweight Block with handle.
- 360 Degree Rotatable Mast can be adjustable using overhead crane or forklift.
- Wheels made of Cast iron core and Pu molded for better grip and portability on uneven surfaces.
- Locking system for steer handle and three wheel type steer system for easy moving of system.

### Industries

- Railway workshops
- Mining Industries
- General Industrial
- Transportation Industries
- Construction Industries

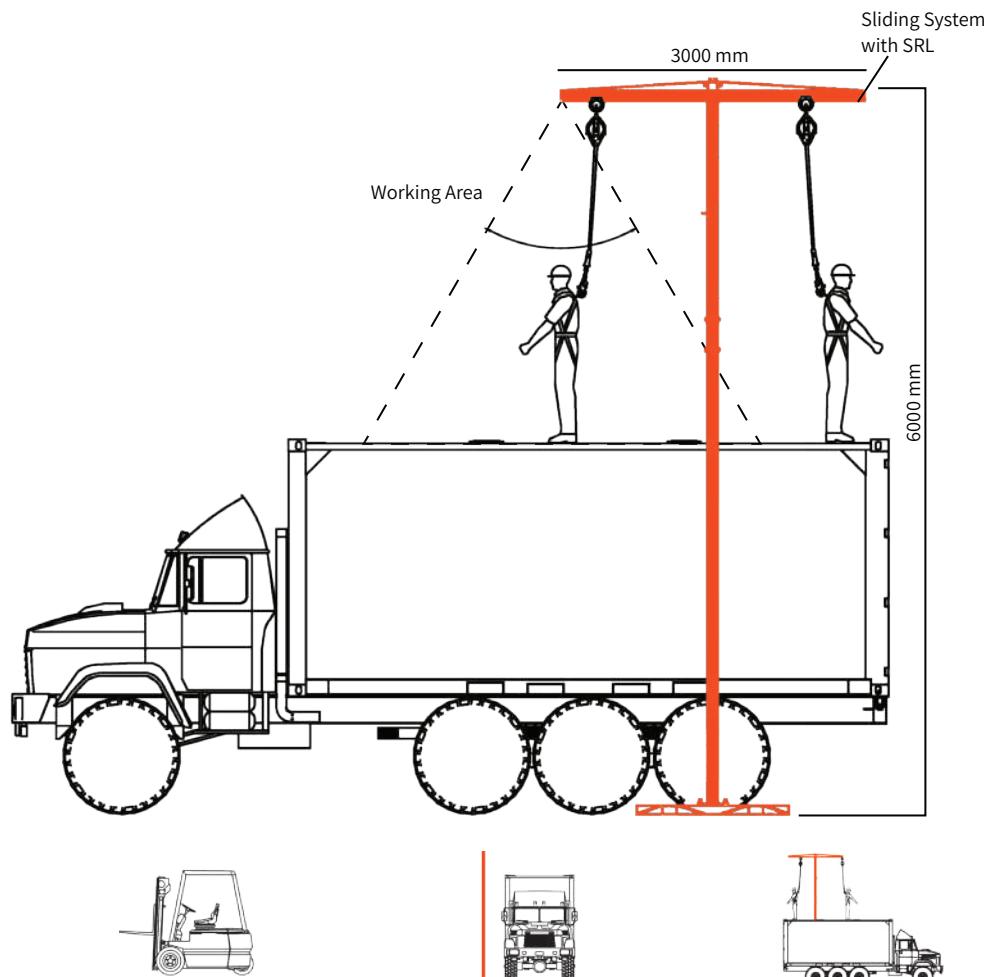
### MS102

CE EN 795:2012 Type B & CLASS E



### Mobile Truck Counter weighted Anchor system

MobiSafe™ Mobile Truck Counter weighted Anchor system provides a fixed overhead anchor point for two workers up to 6 meters in the air and uses the weight of your truck/fork lift as counterweight.



#### Product SKU

BLSH-AS-MS102

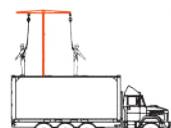
Can be lifted & moved around by any standard forklift. Portable and easy to store



Just drive truck/forklift onto the built-in wheel ramp for proper orientation of tire



Once vehicle is secured, pull the tagline of Self Retractable & anchor to back D ring of harness



### Key Features

- Quick assembly
- Avoids free fall
- Versatile & convenient
- Easy to manoeuvre

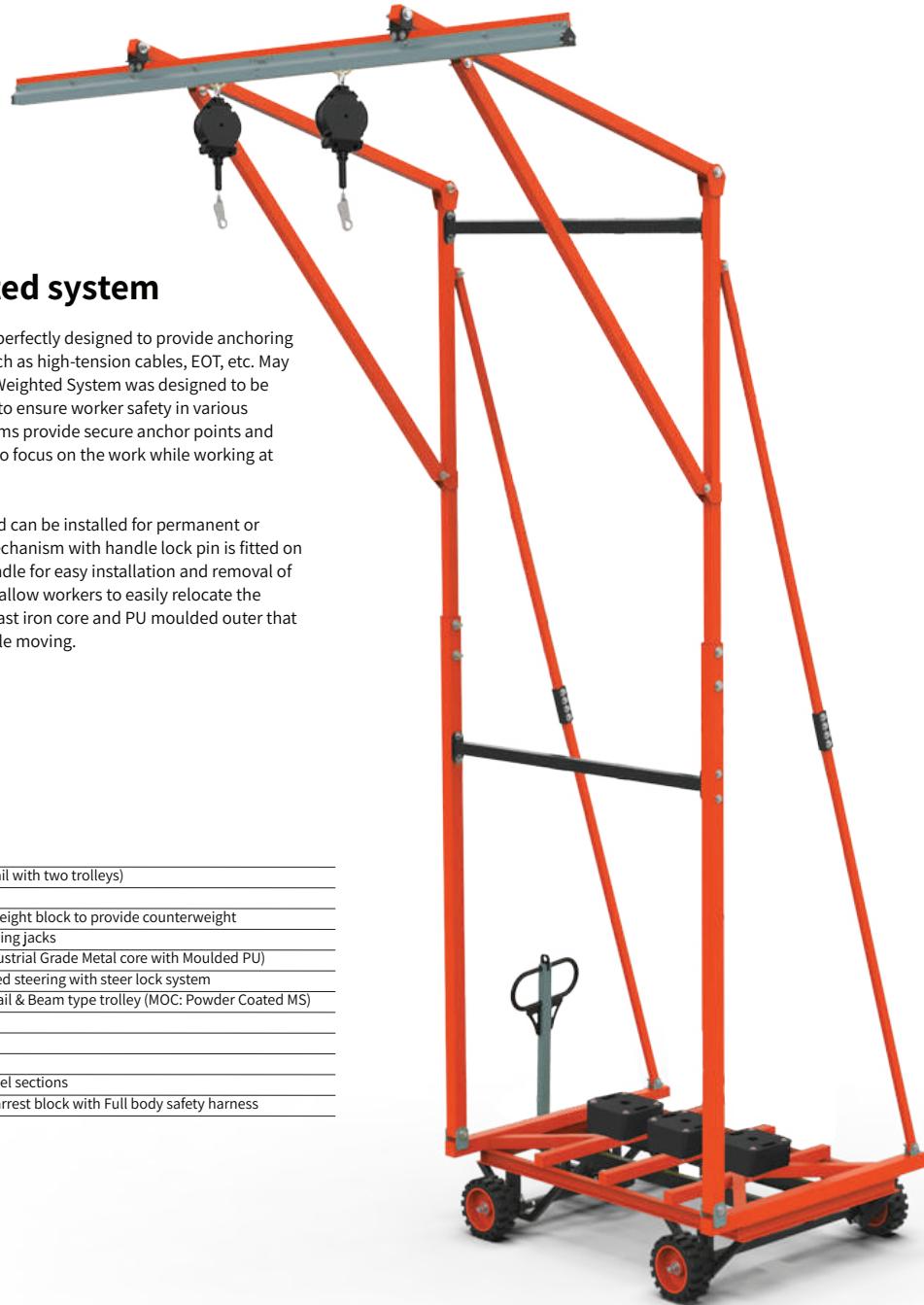
### Product Specification

Weight	1030kg
Working Height (max)	6.5m
Anchor Point Capacity (max)	140kg
Allowable Users (max)	2 Users
Width	2.3m
Reach	5.5m

### Industries

- Railway workshops
- Logistic
- General Industrial
- Construction Industries

### MS200



### Mobile Counter Weighted system

MobiSafe™ Mobile Counter Weighted System is perfectly designed to provide anchoring for those areas where overhead obstructions such as high-tension cables, EOT, etc. May prevent anchoring. MobiSafe™ Mobile Counter Weighted System was designed to be versatile, lightweight, and exceptionally mobile to ensure worker safety in various challenging situations. Our preengineered systems provide secure anchor points and spacious safe working areas to help the worker to focus on the work while working at heights.

This mobile system is classified for two users and can be installed for permanent or temporary use. A specially designed steering mechanism with handle lock pin is fitted on the front side of the device. Metal block with handle for easy installation and removal of counterweight. Industrial grade durable wheels allow workers to easily relocate the portable structure as needed. The wheel has a cast iron core and PU moulded outer that makes it easy to not damage floor and quite while moving.

#### Product Specification

Anchor Height	6 meter
Rail Length	5 meter (single rail with two trolleys)
Size of Base Trolley	2 x 1.2 meter
Counterweight	48 nos of 20 kg weight block to provide counterweight
Height Adjustment Foot	Heavy duty levelling jacks
Wheel	7" Diameter (Industrial Grade Metal core with Moulded PU)
Steering Type	Specially designed steering with steer lock system
Trolley & Stopper	Beam Channel Rail & Beam type trolley (MOC: Powder Coated MS)
Max. Number of Users	2 Person
Max. Weight Capacity	190 kg
Power Required for movement	2 Person
Material of Construction	High strength steel sections
Compatible Devices	Retractable Fall arrest block with Full body safety harness

#### Product SKU

BLSH-AS-MS200

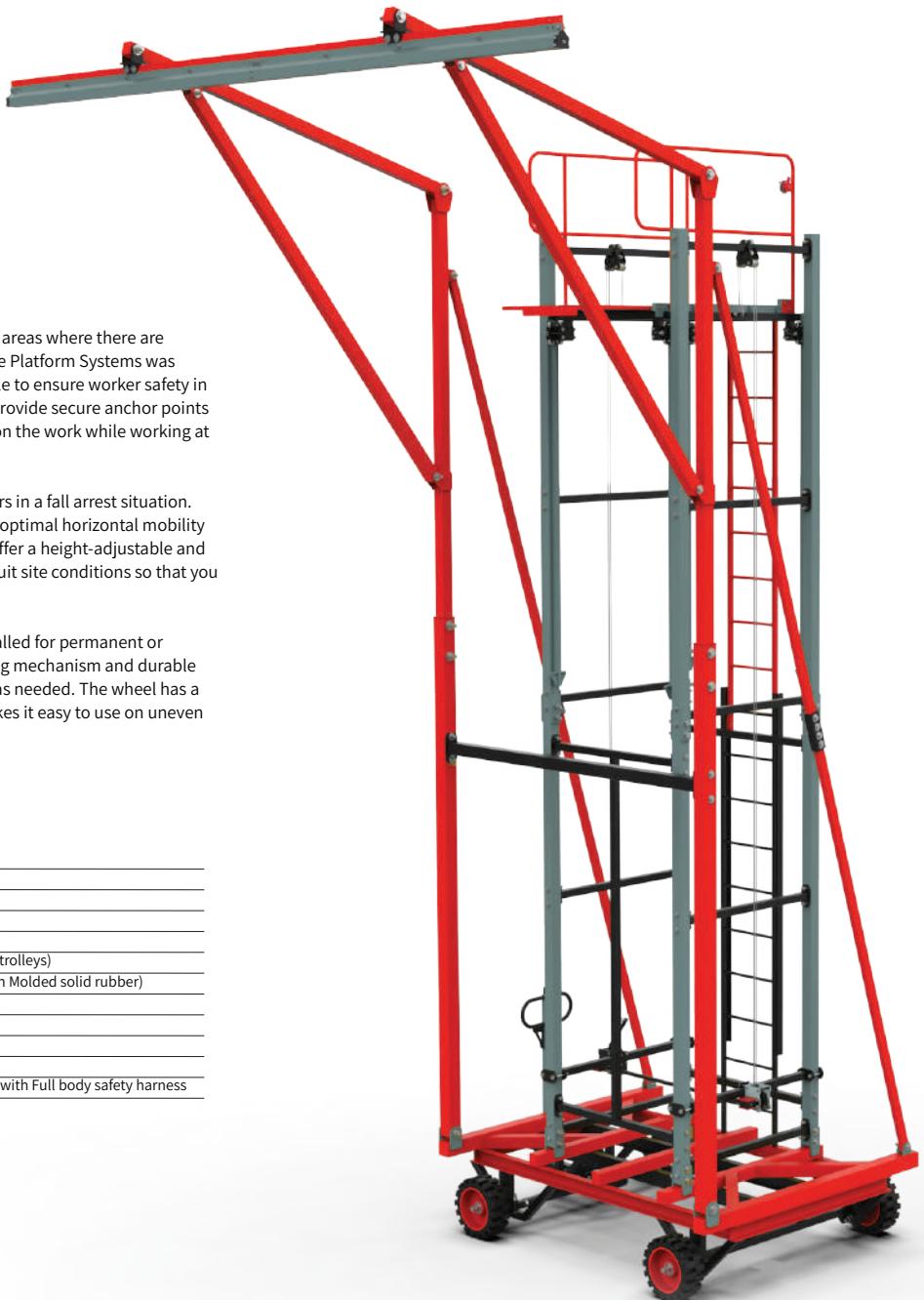
### Key Features

- Overhead anchoring provides safety at height work; an effective, economical fall arrest system.
- Rigid rail system reduces fall clearance requirements
- Wheels made of Cast iron core and Pu molded for better grip and portability on uneven surfaces.
- Locking system for steer handle and three wheel type steer system for easy moving of system.
- Metal block with handle for easy installation and removal of counterweight.
- Specially designed beam trolley for easy movement along the beam channel.
- Superior durability and weather resistance.
- Suitable for Railway workshops, General Industrial, Transportation Industries, Construction Industries.

### Industries

- Railway workshops
- General Industrial
- Transportation Industries
- Construction Industries

MS201



## Mobile Platform Systems

MobiSafe™ Mobile Platform Systems is perfectly designed for areas where there are insufficient overhead anchoring structures. MobiSafe™ Mobile Platform Systems was designed to be versatile, lightweight, and exceptionally mobile to ensure worker safety in various challenging situations. Our pre-engineered systems provide secure anchor points and spacious safe working areas to help the worker to focus on the work while working at heights.

This system is capable of supporting the weight of two workers in a fall arrest situation. This system is available with single rail and double trolley for optimal horizontal mobility and Reliable fall protection for two users while working. We offer a height-adjustable and extendable type access platform with a telescopic ladder to suit site conditions so that you can easily access the work area.

This mobile system is classified for two users and can be installed for permanent or temporary use. A specially designed automobile- type steering mechanism and durable wheels allow workers to easily relocate the mobile structure as needed. The wheel has a fabricated steel rim and Solid rubber moulded outer that makes it easy to use on uneven surfaces.

### Product Specification

Anchor Height	7.5 meter
Size of Base Trolley	2.5 x 2 meter
Size of Platform	1.2 x 1 meter
Height Adjustment Range of Platform	4 meter to 6 meters
Max. Extension length of Platform	1 meters
Rail Length	5 meter (single rail with two trolleys)
Wheel	16" (Fabricated steel rim with Molded solid rubber)
Max. Number of Users	2 Person
Max. Weight Capacity	190 kg
Power Required for movement	2 Person
Material of Construction	High strength steel sections
Compatible Devices	Retractable Fall arrest block with Full body safety harness

### Product SKU

BLSH-AS-MS201

## Key Features

- Overhead anchoring provides safety at height work; an effective, economical fall arrest system.
- Height adjustable and extendable platform with telescopic ladder provides easy access to the work area.
- Self-locking type manual operated worm winch for platform height adjustment.
- Wheels made of solid rubber for better grip and portability on uneven surfaces.
- Built-in automobile type steer mechanism for easy turning of trolley and stability of towers.
- Superior durability and weather resistance.
- Suitable for Mining Industries, General Industrial, Transportation Industries, Construction Industries.

## Industries

- Mining Industries
- General Industrial
- Transportation Industries
- Construction Industries

### MS300

## Mobile Anchorage Systems

MobiSafe™ mobile anchorage systems is perfectly designed to provide anchoring for those areas where overhead obstructions such as high-tension cables, eot, etc. May prevent anchoring. Our pre- engineered systems provide secure anchor points and spacious safe working areas to help the worker to focus on the work while working at heights.

This mobile anchorage systems is classified for two users and can be installed for permanent or temporary use. A specially designed steering mechanism with a steer lock system is fitted on all four sides of the device. Which means it eliminates the need to turn and move the entire structure. Industrial grade durable wheels allow workers to easily relocate the portable structure as needed. The wheel has a cast iron core and pu moulded outer that makes it easy to not damage floor and quite while moving.

#### Product Specification

Anchor Height	6 meter
Rail Length	3 meter (single rail with two trolleys)
Length of Leg Member	3 meter
Height Adjustment Foot	Heavy duty levelling jacks
Wheel	7" Diameter (Industrial Grade Metal core with Moulded PU)
Steering Type	Specially designed steering with steer lock system on all four side of system
Trolley & Stopper	Rail trolley made of SS 316 grade & spring loaded stopper
Max. Number of Users	2 Person
Max. Weight Capacity	190 kg
Power Required for movement	2 Person
Material of Construction	High strength steel sections
Compatible Devices	Retractable Fall arrest block with Full body safety harness



#### Product SKU

BLSH-AS-MS300

## Key Features

- Overhead anchoring provides safety at height work; an effective, economical fall arrest system.
- Rigid rail system reduces fall clearance requirements
- Wheels made of Cast iron core and Pu molded for better grip and portability on uneven surfaces.
- Built-in Locking type steer mechanism mounted on all four sides for easy moving of system.
- Superior durability and weather resistance.
- Suitable for Railway workshops, General Industrial, Transportation Industries, Construction Industries.

## Industries

- Railway workshops
- General Industrial
- Transportation Industries
- Construction Industries



# FallSafe™

FULL BODY HARNESS



# What is Full Body Harness?

"A full body harness is a body holding device used to protect workers from falls by distributing the force of the fall over a large area of the body, ensuring that the subject of the fall remains suspended in an upright position after the fall has occurred."

## 1. Components

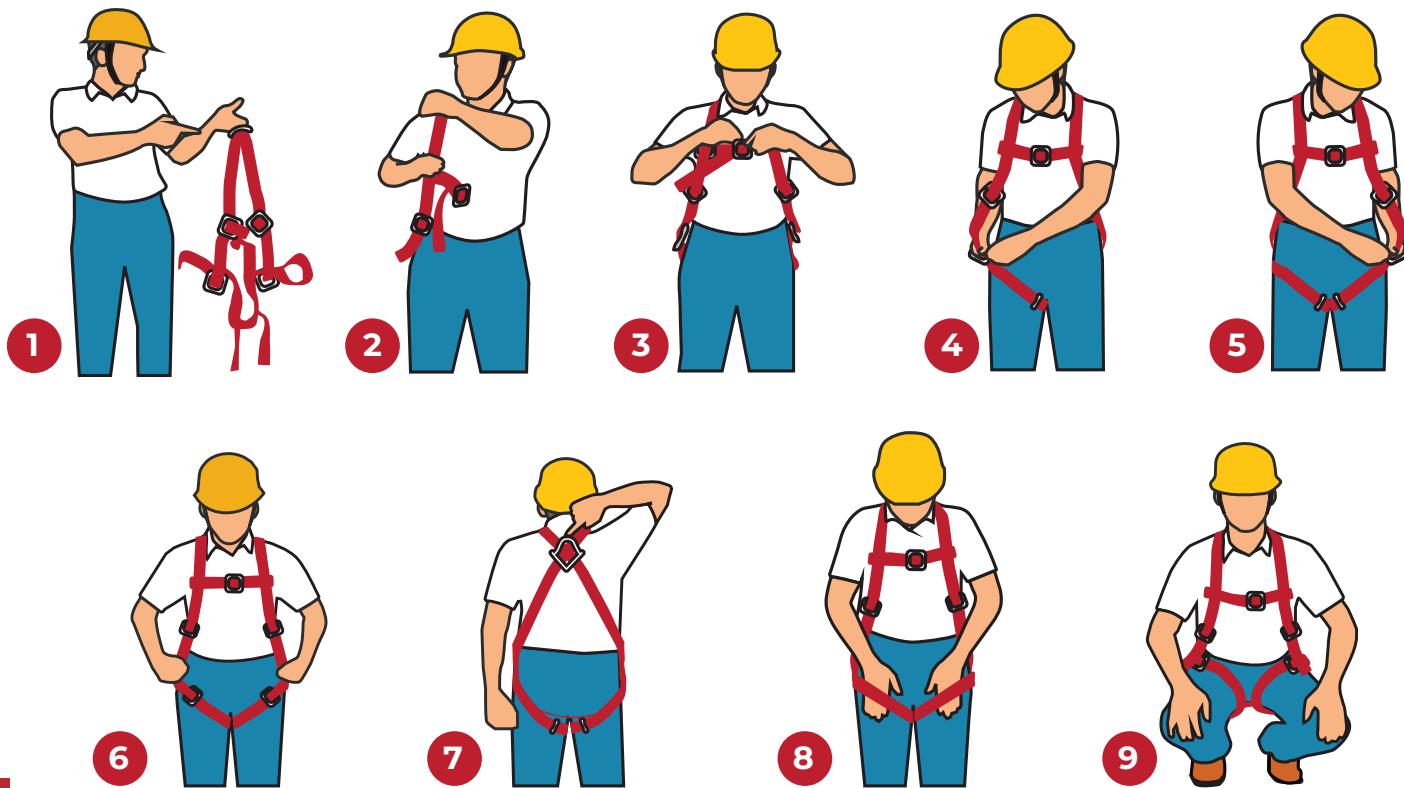
- **Webbing Straps:** Made of high-strength materials like nylon or polyester, these form the framework of the harness and are designed to withstand significant force.
- **Buckles:** Allow for adjustment and secure fastening of the harness straps around the body, ensuring a snug and safe fit.
- **D-Rings:** Metal attachment points, strategically placed (e.g., dorsal, sternal, side), used to connect the harness to a lanyard, lifeline, or other fall arrest system components.
- **Padding:** Often found in areas like the shoulders, legs, and waist, it enhances comfort during extended use and helps absorb the impact of a fall.

## 3. Usage

- **Pre-Use Inspection:** Always inspect the harness for wear, tear, or damage before each use.
- **Proper Donning:** Ensure the harness is worn correctly, with straps fitted snugly and D-rings positioned correctly, following the manufacturer's instructions.
- **Connection to Fall Arrest System:** Connect the harness to a reliable fall arrest system using appropriate lanyards and anchor points.

## Harness Donning

A proper fit for a full-body harness is crucial for both safety and comfort. It ensures the harness effectively distributes fall arrest forces, minimizes injury risk, and allows for reasonable freedom of movement. Key factors include the location of harness rings, strap configuration, and the worker's body characteristics.



## 2. Functionality

- **Fall Arrest:** In the event of a fall, the harness arrests the descent, preventing the worker from hitting the ground or other obstacles.
- **Impact Force Distribution:** The straps distribute the force of the fall across a larger area of the body, particularly the thighs, chest, and shoulders, minimizing injury risk compared to body belts.
- **Upright Position:** The harness helps maintain an upright position after a fall, which is crucial to prevent suspension trauma (orthostatic intolerance), where blood flow to the brain is restricted

## 4. Importance

- **Essential Fall Protection:** Full-body harnesses are critical for worker safety in industries like construction, roofing, maintenance, and rescue operations where falls from height are a significant risk.
- **Reduced Injury Severity:** By distributing fall forces and keeping the worker upright, the harness minimizes the severity of potential injuries.
- **Increased Productivity and Comfort:** A properly fitted and comfortable harness can boost worker confidence and productivity when working at heights.

## Key aspects of harness fit:

### Harness Ring Location:

- The dorsal D-ring (where the lanyard attaches) should ideally be positioned between the shoulder blades, specifically between the inferior and superior borders of the scapula.
- The chest ring should be positioned at the sternum area.
- Manufacturers provide specific guidelines for ring placement, usually detailed in product manuals.

### Strap Configuration:

- Shoulder straps should be snug but not constricting, and positioned to avoid slipping off the shoulders during a fall.
- Leg straps should be adjusted to prevent excessive movement or slippage, but not so tight as to cause discomfort or restrict circulation.
- Chest straps should be snug and positioned to avoid impeding breathing.

### Human Body Characteristics:

- Harnesses should be selected based on the worker's weight, height, and body shape.
- Weight limits specified by the manufacturer should not be exceeded.
- Consider factors like the worker's clothing and any tools they will be carrying when determining the appropriate harness size and weight capacity.

1. The Dorsal D-ring / Back-D ring must locate in the middle of the back between the shoulder blades
2. The Sub-pelvic / Sit strap should locate close to below the buttocks and lower back.
3. The thigh straps connection buckles should locate side of the body and fit the wearer
4. The front chest strap should locate middle of the chest and ensure the firm fit of shoulder straps on shoulders.

## Harness must be sized for the worker



### Consequences of improper fit:

- **Increased Injury Risk:** A poorly fitting harness can concentrate fall forces on specific body areas, potentially causing serious injuries like organ damage or neurological problems or choking to death
- **Reduced Suspension Tolerance:** Improper fit can lead to discomfort and even life-threatening situations during prolonged suspension after a fall.
- **Restricted Movement:** An ill-fitting harness can hinder a worker's ability to perform tasks safely and efficiently.

## At Work:

- The excess belt gets caught around

## At Waiting for a Rescue

- Feel pain / discomfort
- Blood flow inhibition

## At the Event of Fall:

- The chest belt gets caught on the neck
- The back and shoulder belts are wide open and the body falls off
- The shifted belt hits the body

## Additional Considerations:

- **Visual Inspection:** All harness components should be easily visible for inspection to ensure proper functioning and prevent incorrect reassembly after dismantling.
- **Fall Arrest Forces:** The harness should distribute fall arrest forces effectively across the body, minimizing injury risk.
- **Comfort and Breathability:** While safety is paramount, comfort is also essential for prolonged use. Look for harnesses with features like breathable padding and ergonomic designs to minimize pressure points and promote airflow.

## Types of Full Body Harness



**Class A – Fall Arrest**

### D- Ring – Back/Dorsal

#### Application:

- Construction Work on platform activity
- Gantry / Materials Loading & unloading area
- Warehouse / storage
- Vehicle Tarpaulin covering area
- EOT Crane Platform
- Pipeline platform area



**Class D: Controlled Descend / Suspension / Rescue harness**

### D- Ring – Back/Dorsal + Front+ Ventral + Side

#### Application:

- Construction Area Work on Suspension
- Vertical Suspensions activates
- Window cleaning / Painting
- Recue Operation
- Trainings activity



**Class E: Confined entry & Exit harness**

### D- Ring – Back/Dorsal + Shoulders Optional\*: Front + Side

#### Application:

- Confined Space Entry and Exit
- Short term suspensions



**Class L : Ladder climbing Harness**

### D- Ring – Back/Dorsal

#### Application:

- Building Ladder Access
- Chimney Ladder Access
- Signal Towers Access
- Pipeline Ladder Access
- Tank Access Ladder



**Class P : Work Positioning harness**

### D- Ring – Back/Dorsal + Front + Ventral + Side

#### Application:

- Construction Area: Work on Scaffolds area
- Work on Towers / Poles
- Work on semi structure



**Specialty harness**

### Specialty Nomex/Kevlar fiber Webbing PVC coated aluminum D-ring

#### Application:

- Utilities: where arch flash hazard applicable.
- Work on Hot Environment
- Electrical Pole
- Transformers

# Full Body Harness

FallSafe™ Series

## HR10A

Class A full body harness.

153521:1999  
LSI



### Product Specification

Webbing Width	Min 43 mm
Breaking Strength	Min 23 KN
Attachment Elements	1 dorsal attachment D-Ring for fall arrest
Chest-Strap	Adjustable
Thigh-Straps	Adjustable
User Capacity	59 - 100 Kgs
Weight	~900 +/- 100 Gms

### Packaging Information

1 Piece / Polybag
20 Pieces / Carton

## HR20A

Class A full body harness.

CE 2233 EN 361:2002 ANSI Z 359.11-2021



### Product Specification

Webbing Width	Min 43 mm
Breaking Strength	Min 23 KN
Attachment Elements	1 dorsal attachment D-Ring for fall arrest
Chest-Strap	Adjustable
Thigh-Straps	Adjustable
User Capacity	59 - 140 Kgs
Weight	~1200 +/- 100 Gms

### Packaging Information

1 Piece / Polybag
20 Pieces / Carton

## Product SKU

## Size

## Colour

## Inner pack UPC

## Carton GTIN

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-FPH-WOL-HI32	OSFM	Red & Black	810090089607	10810090089604

## Product SKU

## Size

## Colour

## Inner pack UPC

## Carton GTIN

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-MH-AAH-1	OSFM	Red & Black	810090089645	10810090089642

## HR20L

Class L full body harness.

CE 2233 EN 361:2002



### Product Specification

Webbing Width	Min 43 mm
Breaking Strength	Min 23 KN
Attachment Elements	2 chest attachment D-Ring for tower climbing 1 dorsal attachment D-Ring for fall arrest
Chest-Strap	Adjustable
Shoulder Strap	Adjustable
Thigh-Straps	Adjustable
User Capacity	59 - 100 Kgs
Weight	~1400 +/- 100 Gms

### Packaging Information

1 Piece / Polybag
20 Pieces / Carton

## HR20LP

Class LP full body harness.

CE 0302 EN 361:2002, EN 358:2018



### Product Specification

Webbing Width	Min 43 mm
Breaking Strength	Min 23 KN
Attachment Elements	1 dorsal attachment D-Ring for fall arrest 2 front attachment D-Ring for tower climbing 2 lateral attachment D-Ring for work positioning
Chest-Strap	Adjustable
Shoulder Strap	Adjustable
Thigh-Straps	Adjustable
User Capacity	59 - 100 Kgs
Weight	~1400 +/- 100 Gms

### Packaging Information

1 Piece / Polybag
10 Pieces / Carton

## Product SKU

## Size

## Colour

## Inner pack UPC

## Carton GTIN

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-FPH-WOL-HI32	OSFM	Red & Black	810090089621	10810090089611

## Product SKU

## Size

## Colour

## Inner pack UPC

## Carton GTIN

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-FPH-WOL-HI34	OSFM	Red & Black	810090089614	10810090089611

# Full Body Harness

FallSafe™ Series



## HR30M

Multipurpose full body harness

CE 2233 EN 361:2002, EN 358:2018, EN 813:2008



### Product Specification

Webbing Width	Min 43 mm
Breaking Strength	Min 23 KN
Attachment Elements	1 chest attachment D-Ring for tower climbing 1 dorsal attachment D-Ring for fall arrest 2 lateral attachment D-Ring
Comfort Padding	For shoulder, waist & thigh
User Capacity	59 - 100 Kgs
Weight	~2500 +/- 200 Gms

### Packaging Information

1 Piece / Polybag
7 Pieces / Carton

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-MH-H112	OSFM	Red & Black	810090089638	10810090089635

# FallSafe™

SHOCK ABSORBERS  
CONNECTORS  
CONNECTORS  
CONNECTORS  
CONNECTORS  
CONNECTORS



# CONNECTORS

In a fall protection system, a connector is the vital link that securely connects a worker's harness to an anchorage point. It's a critical part of a personal fall arrest system (PFAS), which aims to prevent falls or stop a worker safely if a fall occurs. It allows user to move within safety area . In the event of fall, it stops the fall and prevents user from hitting with ground, the energy absorber reduces the fall impact force.

## Choose the right connectors as per work application

- Fall Restraint system
- Fall Clearance
- Fall Arrest System
- Swing Fall Clearance

## Common types of connectors

- **Lanyards:** These are flexible lines of webbing, rope, or cable that connect the harness to an anchor point. They can be either:
  - **Shock-absorbing lanyards:** These have a built-in shock absorber to reduce the force of impact on the worker's body during a fall.
  - **Non-shock-absorbing lanyards:** These are used for fall restraint or positioning, where the worker is prevented from reaching a fall hazard or falling a distance of less than 2 feet.
- **Self-Retracting Lifelines (SRLs):** These devices automatically retract and extend as the worker moves, keeping the lifeline taut and minimizing slack. In the event of a fall, the SRL's braking system activates, locking the lifeline and arresting the fall quickly, often within 2 feet.
- **Rope Grab Fall Arrestor:** This device is primarily used where a user requires mobility and also work in a restraint manner. Typically very useful to work on roofs alongwith lifeline systems or in façade maintenance / painting.
- **Positioning Lanyards:** It is used by user to wrap around a structure and take a sitting position while working at height. Typically used in conjunction with Bosun chair. Very commonly used by telecom tower maintenance personnel.
- **Vertical Lifeline Systems:** These allow for safe movement in vertical climbing environments, incorporating elements like rope grabs or cable-based systems that connect the worker to the lifeline.

## Importance of connectors

### Connectors play a crucial role in worker safety by:

- **Securing attachment:** They provide a strong and reliable link between the worker and the fall protection system.
- **Controlling fall distance:** Shock-absorbing lanyards and SRLs help to reduce the force of a fall and minimize the distance the worker drops.
- **Facilitating mobility:** SRLs, especially, offer greater freedom of movement while minimizing trip hazards.
- **Ensuring compliance:** High-quality connectors are designed and tested to meet industry standards and regulations, like those set by EN, BIS, OSHA and ANSI

## Considerations for choosing the right connector

### Selecting the appropriate connector depends on several factors, including:

- **Work environment:** Harsh conditions like extreme temperatures, chemicals, or electrical hazards require specialized materials or coatings for the connector.
- **Mobility needs:** The length and type of connector should allow for the necessary movement while still providing sufficient fall protection.
- **Fall clearance:** This is the vertical distance between the anchor point and any lower obstruction. The connector must be short enough to prevent the worker from impacting the lower level in case of a fall.
- **Potential hazards:** Risks like arc flash or swing falls necessitate specific types of connectors designed to mitigate those dangers.

# Fall Clearance

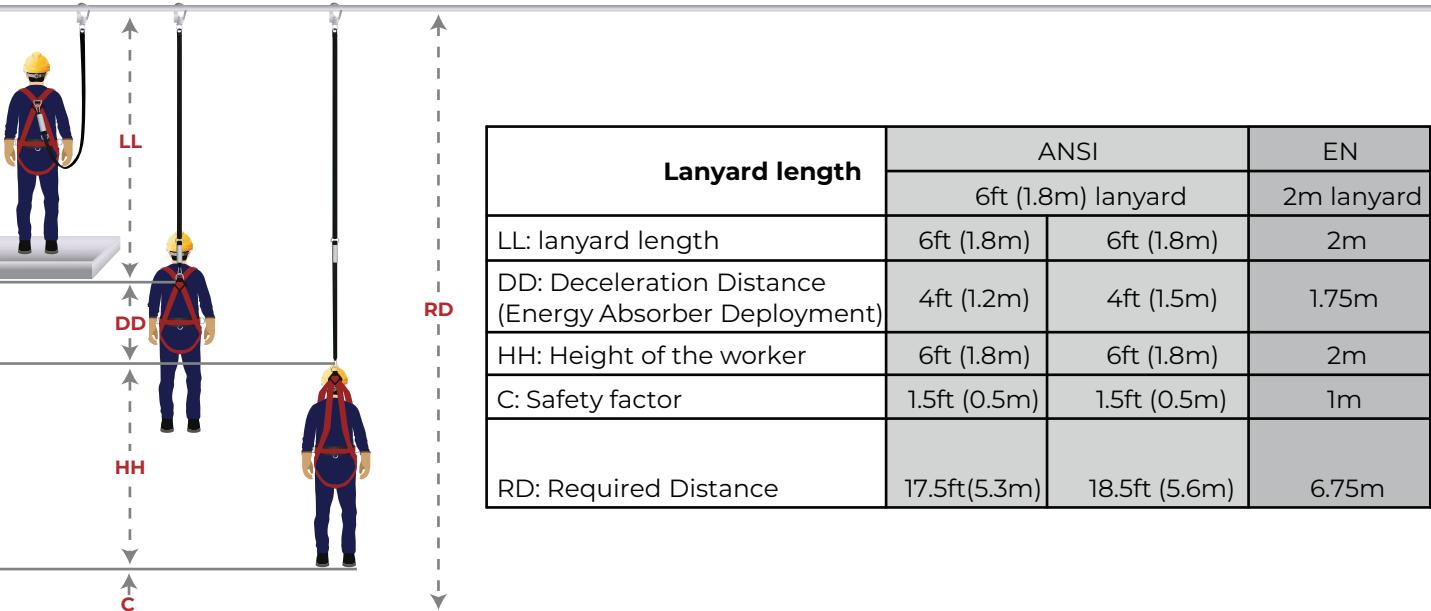
Fall clearance distance is the minimum vertical distance required to prevent a worker from contacting a lower level or obstruction during a fall. It's a critical safety factor in fall protection systems, ensuring a safe stopping distance.

## 1. Calculation Elements:

- **Lanyard Length:** The length of the lanyard connecting the worker's harness to the anchor point.
- **Deceleration Distance:** The distance a shock-absorbing lanyard extends to reduce the impact force during a fall.
- **Worker's Height:** The vertical distance from the D-ring on the harness to the worker's feet.
- **D-ring Shift:** The upward movement of the D-ring during deceleration.
- **Safety Factor:** An allowance for variations in equipment, movement, and potential elongation during a fall, often around 3 feet or 1 meter.

## 2. Formula (Simplified):

- Fall Clearance = Lanyard Length + Deceleration Distance + Worker's Height + Safety Factor



## 3. Factors Influencing the Calculation:

- **Anchor Point Location:** The position of the anchor relative to the worker impacts the fall distance. Ideally an anchor point should always be above the head or shoulder height.
- **Type of Connectors:** Lanyard / Retractable Block have different fall clearance and deceleration characteristics, affecting the calculation.
- **Worker's Weight:** Heavier workers may experience a greater deceleration distance.
- **Obstructions Below:** Any objects or surfaces within the potential fall path must be accounted for.
- **Potential for Swing Fall:** The possibility of the worker swinging into an obstruction during a fall should be considered.

## Important considerations

- Always consult the manufacturer's instructions for the specific fall arrest equipment being used, as details like lanyard stretch and deceleration distance can vary.
- Account for any potential anchor point deflection or stretch, especially when using flexible anchor systems like horizontal lifelines. Consider all potential obstructions below the work area that could be impacted during a fall.
- If the available clearance is less than the calculated fall clearance, alternate fall protection methods like fall restraint systems or different anchorage points may be necessary. Or different connector will be required. For eg. If Fall Clearance is less than available for Lanyard, then Retractable Block should be used in place of Lanyard.
- A qualified person should be involved in designing and implementing fall protection systems to ensure all factors are properly assessed and calculations are accurate.

### LY223

Twin-Tailed Forked Lanyard with Kernmantle Rope

CE 0302

EN 354:2010, EN 355:2002

#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Breaking Strength	Min 23 KN
Rope Diameter	12 mm
Rope Length	1.8 meters
User Capacity	Max 100 Kgs
Weight	~1800 +/- 200 Gms



### LY212

Twin-Tailed Forked Lanyard with Polyamide Rope

IS 3521:2021 (PART-II)



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Breaking Strength	Min 23 KN
Rope Diameter	12 mm
Rope Length	1.8 meters
User Capacity	Max 100 Kgs
Weight	~1200 +/- 200 Gms



#### Packaging Information

1 Piece / Polybag

20 Pieces / Carton

#### Packaging Information

1 Piece / Polybag

20 Pieces / Carton

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-FPH-FL-HI682	OSFM	Red & Black	810090089652	10810090089659

Product SKU	Size	Colour	Inner pack UPC	Carton GTIN
BLSH-FPH-FL-HI702	OSFM	Red & Black	810090089669	10810090089666



### RB100 Series (2 Mts)

CE 0302 EN 360 : 2023

Retractable Block - 2 Mts



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Minimum Load	05 kg
Maximum Load	100 kg
User	1 user
Length	2 mtrs
Weight	1.05 kgs

#### Product SKU

BLSH-FP-RB2M

### RB100 Series (6 Mts)

CE 0302 EN 360 : 2023

Retractable Block - 6 Mts



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Minimum Load	05 kg
Maximum Load	100 kg
User	1 user
Length	6 mtrs
Weight	3.6 kgs

#### Product SKU

BLSH-FP-RB6M

### RB100 Series (10 Mts)

CE 0302 EN 360 : 2023

Retractable Block - 10 Mts



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Minimum Load	05 kg
Maximum Load	100 kg
User	1 user
Length	10 mtrs
Weight	4.0 kgs

#### Product SKU

BLSH-FP-RB10M

### RB200 Series (15 Mts)

CE 0302 EN 360 : 2023

Retractable Block - 15 Mts



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Minimum Load	05 kg
Maximum Load	100 kg
User	1 user
Length	15 mtrs
Weight	6.5 kgs

#### Product SKU

BLSH-FP-RB15M

### RB200 Series (20 Mts)

CE 0302 EN 360 : 2023

Retractable Block - 20 Mts



#### Application

- Work at Height
- Construction Sites
- Tower
- Industrial Sites

#### Product Specification

Minimum Load	05 kg
Maximum Load	100 kg
User	1 user
Length	20 mtrs
Weight	7.7 kgs

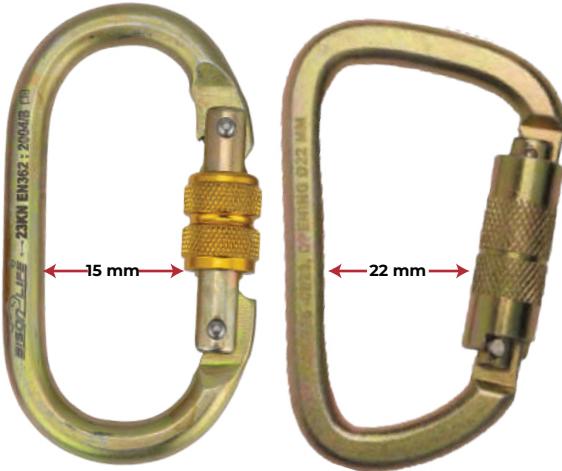
#### Product SKU

BLSH-FP-RB20M

\* Available in different lengths

### Karabiner / Twist Lock Connector

CE EN 362:2004 Class B



#### Application

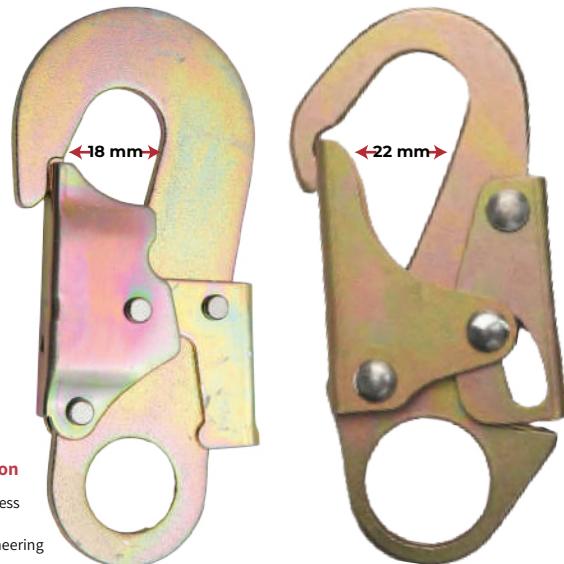
- Rope Access
- Rescue
- Mountaineering

#### Product Specification

Material	High Tensile Steel
Breaking Strength	23kN
Weight	267 gms

### Snap Hook

CE EN 362:2004 / ANSI Z359.12, Class A



#### Application

- Rope Access
- Rescue
- Mountaineering

#### Product Specification

Material	Alloy Steel / High Tensile Alloy Steel
Breaking Strength	20kN / 23kN
Weight	205.3 gms

### Swivel Hook with Indicator

CE EN 362:2004



#### Application

- Rope Access
- Rescue
- Mountaineering

#### Product Specification

Material	Alloy Steel
Breaking Strength	23kN
Finish	Yellow/ Golden Passivation
Weight	345.5 gms

### Scaffolding Hook

CE EN 362:2004, Class A



#### Application

- Rope Access
- Rescue
- Mountaineering

#### Product Specification

Material	Alloy Steel / Aluminum Alloy
Breaking Strength	23kN
Weight	485 +/- 10 gms

# ResQguard™

RESCUE DEVICE  
WEDO  
SUSPENSION



# DESCENT & RESCUE

In fall protection, descent and rescue refer to the methods and equipment used to safely lower a worker to the ground after a fall or to retrieve them from a height in an emergency. This is the fourth crucial element in fall protection, following anchors, body support, and connecting devices. It ensures a worker can be rescued or can self-rescue in the event of a fall, minimizing the time they are suspended and reducing potential injuries.

Descent systems allow for a controlled lowering of a worker to a safe location, either by the worker themselves (self-rescue) or by a rescue team. These systems can be used for planned evacuations or for emergency situations where a worker is unable to descend on their own. Examples include controlled descent devices and self-rescue systems.

Rescue systems are used to retrieve a worker who has fallen and is suspended in a fall arrest system. This can involve raising or lowering the worker, or a combination of both. Rescue systems are essential when a worker cannot self-rescue or when a fall occurs in a confined space.

## Why are descent and rescue essential?

- **Minimizing Suspension Trauma:** Hanging motionless in a fall arrest harness can cause suspension trauma (orthostatic intolerance), where blood pools in the lower body, potentially leading to unconsciousness, organ damage, or even death.
- **Worker Safety and Well-being:** Prompt rescue ensures the worker's safety and minimizes the risk of further injury after a fall.
- **Regulatory Compliance:** Many safety regulations, including those from OSHA (Occupational Safety and Health Administration) in the US and HSE (Health and Safety Executive) in the UK, mandate the development and implementation of a rescue plan whenever fall arrest systems are used.

## What is Suspension Trauma?

Even if you fall from a well designed Fall Arrest System, you still impact with 400 -600 kg Force. That's a lot hitting you between the legs.

Due to Gravity, It leads to Orthostatic intolerance and Orthostatic intolerance contributes to compartment syndrome, which may lead to blood clots.

This is what we must prevent.

If not prevented, it may lead to paralysis, loss of limb or loss of life.

To Prevent this always use Suspension Trauma Straps alongwith Harness.

## Types of Descent and Rescue Systems:

- **Self-Rescue:** These systems allow a worker to descend to a safe level independently. Examples include:
- **Automatic descent devices:** These are designed to lower the user at a controlled speed with minimal user input.
- **User-controlled systems:** These require the user to operate the descent device, potentially using a winch or other mechanism to control the descent.
- **Assisted Rescue:** These systems are used to lower or raise a worker who is unable to operate the equipment themselves, often involving a second person (rescuer).
- **Confined Space Rescue:** Systems like tripods and davits with winches are commonly used in confined spaces, offering stable anchor points and the ability to lift or lower workers.

## Key Components:

- **Descent devices:** These can be manual or automatic and are designed to lower a worker at a controlled speed.
- **Anchors:** These provide a secure attachment point for the rescue and descent system.
- **Winches:** Used to raise or lower workers in assisted rescue situations.
- **Ladders / Stretchers or other access:** May be required for workers to reach the descent or rescue equipment or to assist in a rescue.

## Key Elements of Rescue:

- **Rescue Plan:** A detailed, site-specific plan outlining procedures for retrieving a fallen worker, including roles and responsibilities, equipment, communication, and first aid protocols.
- **Time is critical:** In a fall, a quick and effective rescue is essential to minimize the risk of injury or further complications associated with suspension trauma.
- **Training:** Workers need to be trained on how to properly use rescue and descent equipment, and rescuers need to be trained on how to operate the systems and assist the worker.
- **Equipment selection:** The appropriate equipment should be chosen based on the specific work environment, potential fall hazards, and the needs of the workers.
- **Descent and Rescue Devices:** Equipment like ascenders and descenders for controlled lowering or raising of workers.
- **Self-Retracting Lifelines with Rescue Capabilities (SRL-Rs):** Combines fall arrest with features like a built-in winch for retrieval.
- **Harnesses Designed for Rescue:** Featuring D-rings for attaching rescue devices and spreading fall forces evenly.
- **Suspension Trauma Relief Straps:** Allows the suspended worker to stand in a supported position to relieve harness pressure.
- **Rescue Kits:** Such as tripods and davits, providing stable anchor points and lifting/lowering capabilities, especially useful in confined spaces.
- **Rescue Poles:** Extendable poles for reaching and attaching retrieval lines to a harness from a distance.

### RG200

Emergency Escape & Rescue Device (Work at Height)

Emergency Evacuation Device is specially developed to provide urgent escape from high rise building in case of fire.

#### Product Specification

Descent load	50kgs - 200kgs (CE) / 281kgs (ANSI)
Decent velocity	0.5 - 2m/s
Max descent height	160m
Number Of Users	2 Person
Assisted Controlled Ascent	Yes
Assisted Controlled Descent	Yes
Wheel operation	Yes
Braking system	Self-braking
Housing	Aluminum alloy, alloy steel, stainless steel
Hook	Light metal hook
Wheel Metrial	Nylon Thermoplastic
Rope	Nylon Polyamide rope
Rope Length	15m, 30m, 50m, 80m, 100m, 150m
Working Temperature	-370c - 600c
Weight	2230g
Approvals	CE 0161 EN 341-A:2011 EN1496:2017/B ANSI Z359.4:2013



#### Key Features

- Emergency Escape & Evacuation from high-rise structures, towers, cranes, and offshore platforms
- Rescue Operations requiring controlled ascent or descent of one or two persons
- Safe Descent During Equipment Failure, such as malfunctioning lifts, platforms, or fall arrest systems
- Tower & Roof Access Rescue for telecom, wind turbines, and industrial maintenance
- Confined Space Retrieval where controlled lifting or lowering is required
- Work at Height Evacuation in construction, utilities, and energy sectors
- Fire & Hazard Response to quickly evacuate personnel from dangerous zones
- Self-Rescue Situations for lone workers operating at elevated locations

#### Product SKU

BLSH-FP-RG200

### RG100

Emergency Fire Escape Device (Descend)

Emergency Evacuation Device is specially developed to provide urgent escape from high rise building in case of fire.

#### Product Specification

Descent load	max. 150kg
Descent speed	ca. 0.8m/sec
Braking system	Self-braking
Housing type	Steel housing
Carabiner	Light metal carabiner
Rope	Polyamide kernmantle rope



#### Key Features

- Emergency escape & rescue from wide range of heights.
- Bi-directional usage; as one end of the rope descends with a person then other empty end automatically goes up.
- 11mm high temperature resistant rope.
- Completely automatic controlled descent of 0.9mtrs/sec.
- Integrated rope ears for better control on descend speeds.
- Made from stainless steel for better corrosion protection.
- Capacity: 30kgs - 200kgs.

#### Product SKU

BLSH-FP-RG100

### RG10

Multifunctional Rescue Stretcher



#### Key Features

- Special composite plastic material.
- It has the characters of light weight and small volume.
- It is mainly apply to sea rescue, mountain rescue and wild rescue. The military sked stretcher is convenient to carry and easy to bend in deformation.
- It have wide range of application.
- It can be used for fire emergency rescuem, deep and narrow space, general assistance high altitude rescue, chemical accident rescue, horizontal and vertical lifting.

#### Product Specification

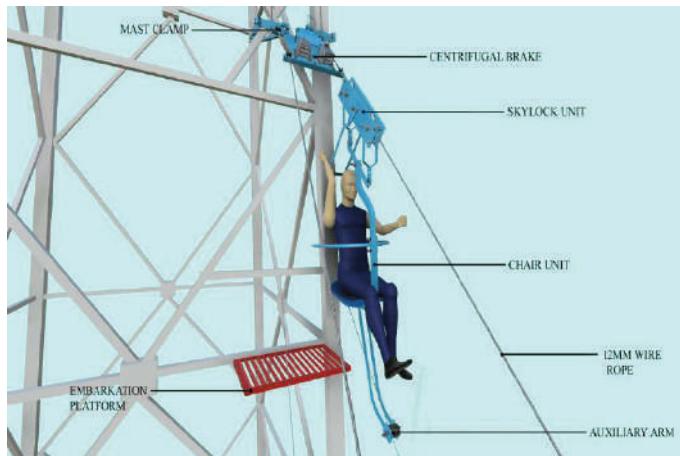
Product Size (L x W x H)	253 x 89 x 0.5 cm
Packing Size	93 x 36 x 36 cm
Temperature Resistance	-20° C to 45° C
Net Weight (1 pc)	10.6 Kg
Gross Weight	11.8 Kg

#### Product SKU

BLSH-FP-RG10

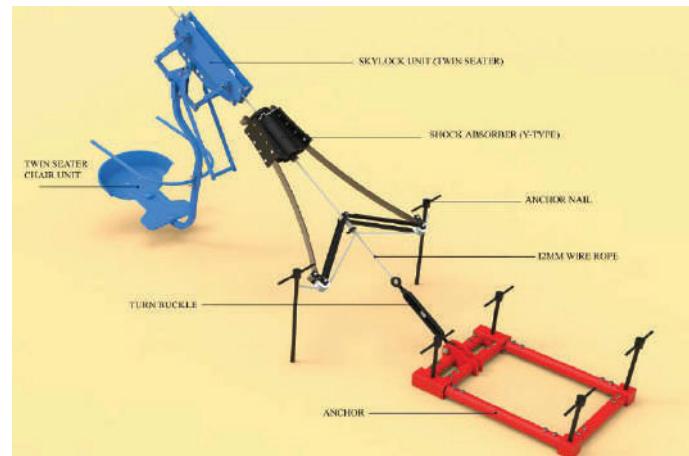
### RG300

Descender - Single Seater



### RG400

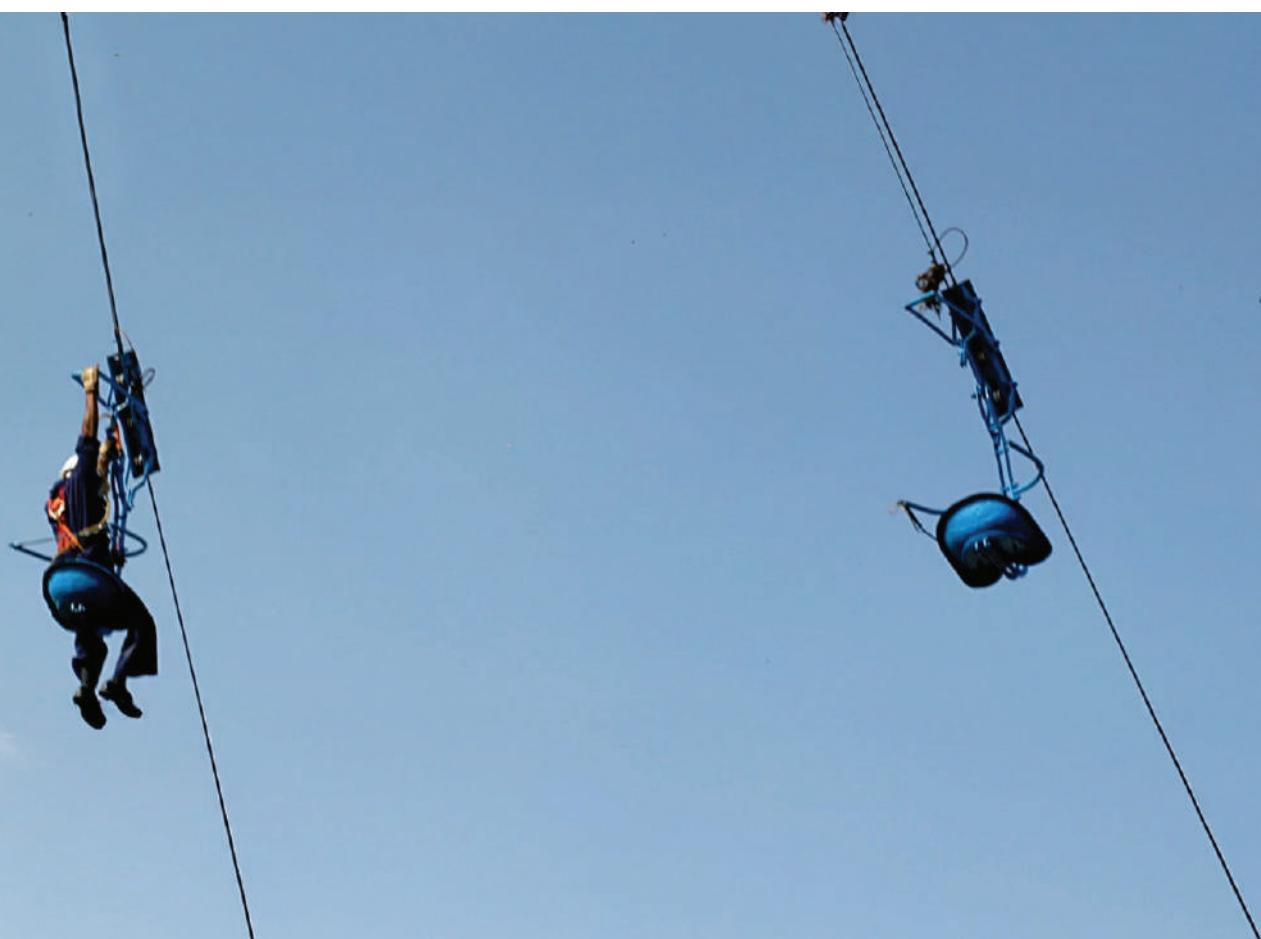
Descender - Twin Seater



Emergency escape device is specially designed to suit the requirement of oil rigs however it can also be used other applications which may demand similar escape facility at heights.

Name of Component	Geared Centrifugal Brake	Skylock unit	Shock Absorber	Portable Anchor	Chair unit	Wire rope	Mast Clamps	Embarcation Platform
Material of Construction	Limits the speed	Sliding mechanism with manual braking	To absorb in case of hard landing	For chair units to reach appropriate embarkation point	Seat for the worker/Topman	Track rope – 12 mm haulage rope – 6 mm	For easy de-installation and re-installation	For the worker to position himself on the chair unit.
Model	Product description	Product SKU						
RGD300	Single Seater	BLSH-FP-RG300						
RGD400	Twin Seater	BLSH-FP-RG400						

Model	Product description	Product SKU
RGD300	Single Seater	BLSH-FP-RG300
RGD400	Twin Seater	BLSH-FP-RG400



### Winch

CE EN 1496:2017 Class B

When it comes to entry/rescue in confined spaces, it is essential that winches operate efficiently and quickly. It provides a means to safely retrieve a disabled worker. We introduce a bi-directional manually operated winch. Equipped with a quick attach mounting clamp which easily mount on our Tripod as well as Modular Davit Arm. The range of winch is available from 10 meters to 30 meters.

#### Product Specification

Gear Drive & Ratio	6:1 spur gear drive
Wire rope	4.8mm Galvanized Wire Rope
Available Length	Available from 10 meters to 30 meters
Material & Finish	Powder coated MS & Zinc Plated Fasteners
Load Capacity	150 Kg
Min. Breaking Strength	12 KN

Model number	Product description	Product SKU
W10	Winch 10mtrs	BLSH-FP-W10
W15	Winch 15mtrs	BLSH-FP-W15
W20	Winch 20mtrs	BLSH-FP-W20
W25	Winch 25mtrs	BLSH-FP-W25
W30	Winch 30mtrs	BLSH-FP-W30

#### Key Features

- Compact design with inbuilt cover to enclosed internal mechanisms.
- Quick attach mounting clamp makes easy and quick installation.
- Locking mechanism equipped with dual safety pawl.
- Bi-directional manually Operated handle.
- Swivel snap hook with load indicator.



#### Applications

- Tanks
- Vessels
- Drainage system
- Sewerage system
- Pharma industry
- Chemical plants

## Maintenance & Rescue Kit

### RGMK100

Maintenance Kit

CE Conforms to respective EN standards



Multipurpose Harness (HR30M)



Rock Chair (RCH1)



Fall Arrester (FA01)



Braided Rope  
Kernmantel Rope (KM100)



Webbing Sling (WSL01)



Anchorage Rope  
Polyamide 14mm (PA100)



Karabiner Hooks (KB01)



Descender (DS01)



Tool Bag (TB01)



Packaging Information

1 Piece / Polybag  
1 Pieces / Carton

### RGRK100

Rescue Kit

CE Conforms to respective EN standards



Multipurpose Harness (HR30M)



Work positioning lanyard (WLY01)



Anchorage Rope  
Polyamide 14mm (PA100)



Forked lanyard (LY12)



Webbing Sling (WSL01)



Cow's Tail (CT01)



Fall Arrester (FA01)



Karabiner Hooks (KB01)

#### Kit Information

HR30M Multipurpose Harness	1 Pc
Fall Arrester	1 Pc
100 meters of Anchorage Rope PA	1 Pc
100 meters of Braided Rope KM	1 Pc
Webbing Sling	2 Pcs
Karabiner Hooks	3 Pcs
Tool Bag	1 Pc
Descender	1 Pc
Rock Chair	1 Pc
Kit Bag	1 Pc

#### Packaging Information

1 Piece / Polybag  
1 Pieces / Carton

#### Kit Information

HR30M Multipurpose Harness	1 Pc
Fall Arrester	1 Pc
100 meters of Anchorage Rope PA	1 Pc
100 meters of Braided Rope KM	1 Pc
Webbing Sling	2 Pcs
Karabiner Hooks	3 Pcs
Tool Bag	1 Pc
Descender	1 Pc
Rock Chair	1 Pc
Kit Bag	1 Pc

Product SKU	Inner pack UPC	Carton GTIN
BLSH-RG-MK100	810090089621	10810090089628

Product SKU	Inner pack UPC	Carton GTIN
BLSH-RG-RK100	810090089690	10810090089697

# Confined Space Entry & Exit System

ResQguard™ Series

**RG1000**

Confined Space Rescue - Tri Pod & Tri Pod Kit

CE EN 795:2012 Type B

Specially designed tripod for confined space entry/retrieval applications. Its simplified design allows easy setup providing the user a means of controlled ascent and descent in the shortest possible time.

## Key Features

- Anchorage height Range from 1.3 meter to the 2.4 meter.
- Fully adjustable telescopic legs and rubber pad-fitted foots for better grip.
- Pulleys are provided to guide the steel cables for the smooth operation of the winch.
- The two eye bolts provided for the secure connection of personal protective equipment.
- The carry bag provides safe storage and easy transportation.
- Quick attach mounting clamp makes easy and quick installation of winch.

## Applications

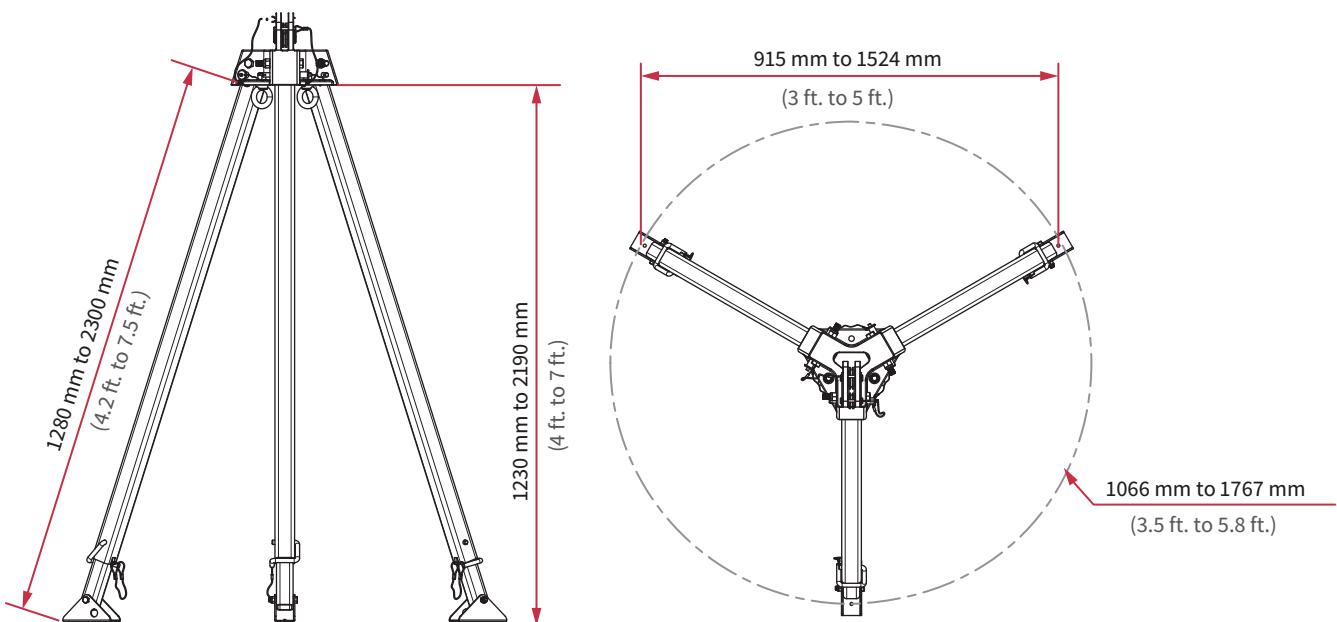
- Tanks
- Vessels
- Drainage system
- Sewerage system
- Pharma industry
- Chemical plants



## Product Specification

Confirms to	EN 795:2012 Type B
General Construction	Tripod Legs : Aluminum Sq. Hollow Section   Tripod Head : Aluminum Casted Anchorage Eye : Forged SS316
Material of Construction	Aluminum 6063 - T6 (sections) & Zinc Plated MS (studs & Pins)
Telescopic Reach	128 cm to 230 cm (50.4 inch to 90.5 inch)
Vertical Height Range	123 cm to 219 cm (48.4 inch to 86.2 inch)
Base Width Range	106 cm to 176 cm (42 inch to 69.5 inch)
Product Color	Tripod Head : Powder coated Yellow   Tripod Legs : Silver Anodized
Anchorage Capacity	22 KN
Load Capacity	200 Kg
Min. Breaking Strength	14 KN
Install type	Portable
Weight (approx)	16 Kg
Operating Temperature	-400 C to +600 C
For Storage	Comes with Carry Bag
Recommended Industry	Construction, General Industrial, Mining, Oil & Gas, Transportation, Utilities

Model	Product description	Product SKU
RG1000	Tri Pod	BLSH-FP-RG1000



### RG2000

Confined Space Rescue - Modular Davit Arm

CE EN 795:2012 Type B

Modular Davit Arm is specially developed for providing safety while entering, working in and coming out of confined spaces. This system was made from lightweight materials including high strength aluminium. It provides for ease of rescue and can be adjusted for overhead clearance restrictions. The lower base adjusts to fit most standard entries.

#### Key Features

- Adjustable offset upper davit mast
- Quick mounting clamp for winch
- Quick release push pin & Knob style adjustment
- Unique height adjustment stud system

#### Applications

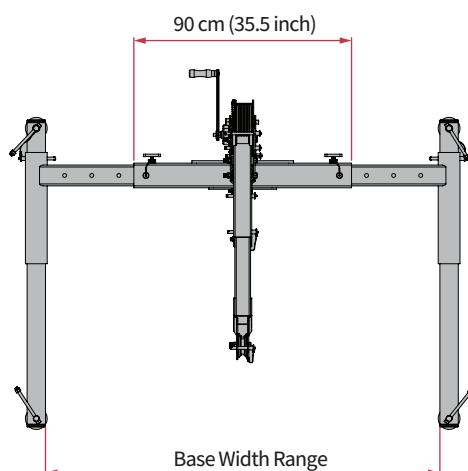
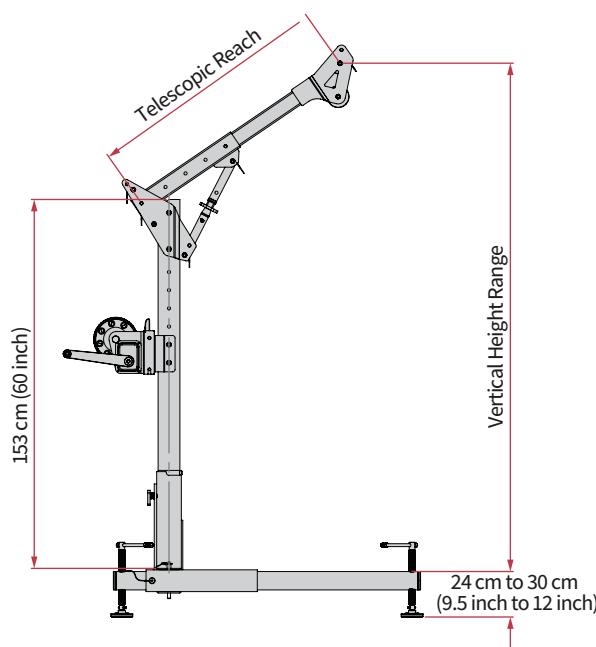
- Tanks
- Vessels
- Drainage system
- Sewerage system
- Pharma industry
- Chemical plants

#### Product Specification

	Small reach Model	Large reach Model
Net Weight	56 Kg	59 Kg
Overall Height	2.4 meter (7.87 feet)	2.6 meter (8.53 feet)
Telescopic Reach	70 cm to 100 cm (27.5 inch to 39 inch)	120 cm to 150 cm (47 inch to 59 inch)
Vertical Height Range	196 cm to 210 cm (77 inch to 83 inch)	216 cm to 231 cm (85 inch to 91 inch)
Base Width Range	96.5 cm to 162.5 (38 inch to 64 inch)	
Material of Construction	Aluminum 6063 - T6 (Sections) & Zinc Plated MS (studs & Pins)	
Product Color	Powder Coated Yellow & Black Combination	
Anchorage Capacity	22 KN	
Load Capacity	200 Kg	
Min. Breaking Strength	14 KN	
Install type	Portable	
Operating Temperature	-400 C to +600 C	
Recommended Industry	Construction, General Industrial, Mining, Oil & Gas, Transportation, Utilities	

#### Product SKU

BLSH-FP-RG2000



### RG3000

Confined Space Rescue - Davit Arm with Inbuilt Storage Box

CE EN 795:2012 Type B

Portable davit arm is designed for manhole and confined space entry/rescue applications. A variety of winches and/ or fall arrest blocks can be mounted as required. It is ideal for providing portable, secure overhead anchorage in large confined areas such as manholes, storage tanks, etc. The inbuilt enclosure provides storage for PPE and the castor wheels allow easy transportation of the system.

#### Key Features

- Comes with telescopic legs, they can be retracted back into the enclosure and the vertical column and boom are separated from their mountings and placed near the enclosure. No tools are required for assembly.
- Lightweight Aluminum components for easy mounting, transport and set-up. The enclosure design allows the storage of PPEs, winch and Retractable block.
- Cantilever arm comes with 3 adjustment positions for the user to adjust the height as per the requirement.
- Comes with Telescopic and Rota-table legs for easy transportation & installation purpose.
- Comes with anchorage point for rescue purpose.
- Comes with inbuilt swivel feature, Vertical column assembly can be rotated even under load up to 360° by loosening the adjustment knob provided to lock column & H-Base.
- Legs height can easily be adjusted to make the davit balance at time of installation.
- Comes with Pre-installed winch mounting Clamp for easy installation of Rescue Winch.

#### Applications

- Tanks
- Vessels
- Drainage system
- Sewerage system
- Pharma industry
- Chemical plants

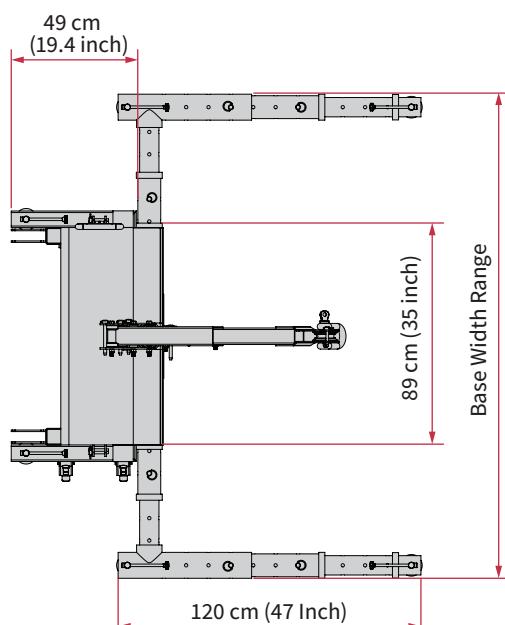
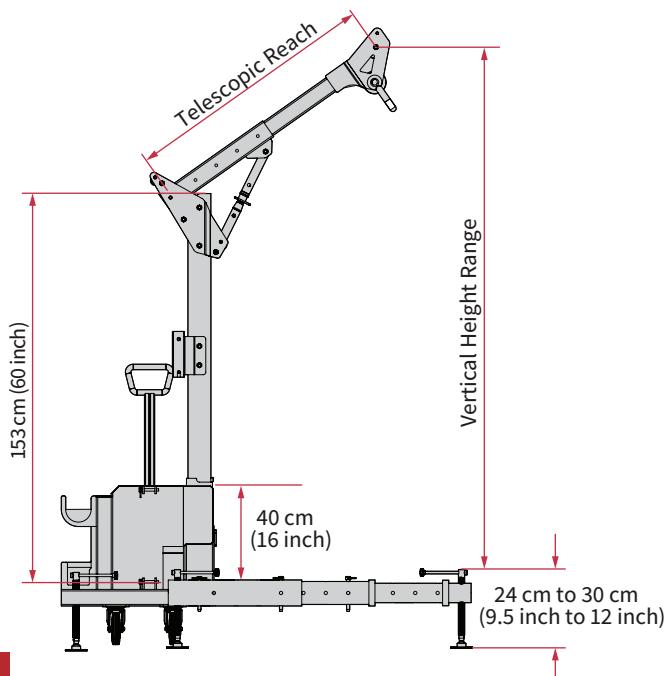
#### Product Specification

Confirms to	EN 795:2012 Type B
Net Weight	130 kg
Overall Height	2.4 meter (7.87 feet)
Telescopic Reach	70 cm to 100 cm (27.5 inch to 39 inch)
Vertical Height Range	196 cm to 210 cm (77 inch to 83 inch)
Base Width Range	155 cm to 190 cm (61 inch to 75 inch)
Material of Construction	Aluminum 6063 - T6 (Sections) & Zinc Plated MS (studs & Pins)
Product Color	Powder Coated Yellow & Black Combination
Anchorage Capacity	22 KN
Load Capacity	200 Kg
Min. Breaking Strength	14 KN
Install type	Portable
Operating Temperature	-400 C to +600 C
Recommended Industry	Construction, General Industrial, Mining, Oil & Gas, Transportation, Utiliti



#### Product SKU

BLSH-FP-RG3000





# FallSafe™

PASSIVE  
FALL PROTECTION ZONE

### FSSP100

Skylight Protective System MS Painted

#### Specification

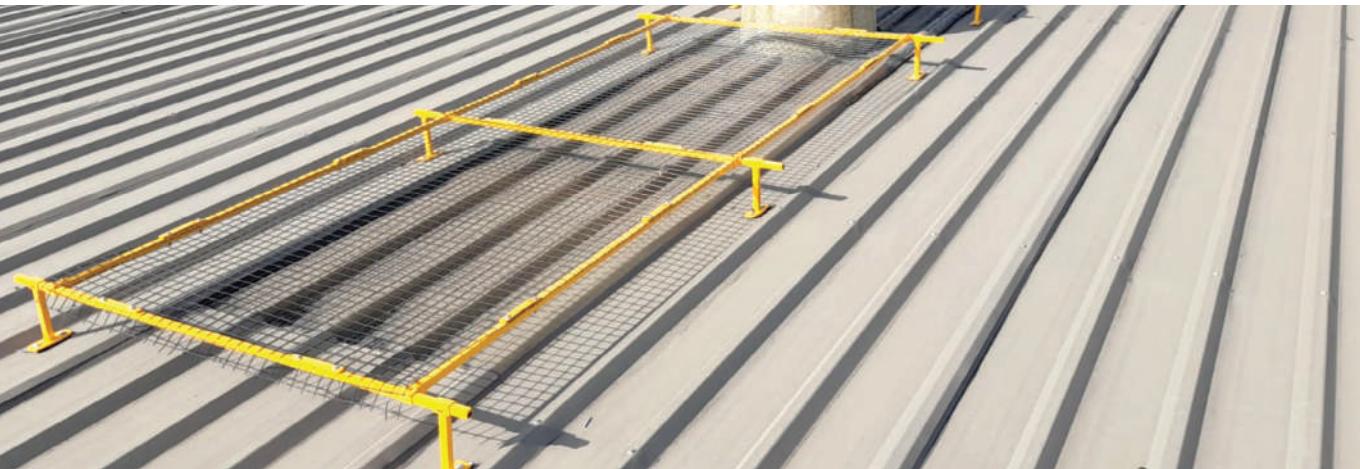
- Provides visual location of skylight on rooftops
- The weld-mesh does not block light and hence the building will remain illuminated.
- Innovative Modular Raised design protect skylight sheet in the event of a fall.
- Customize sizes available as per requirements.
- Installs directly on the roof sheet by riveting & EPDM tape applied for waterproofing around riveting.
- 12 gauge high steel grade wire to form a 3-inch grid.

#### Applications

- Industrial Shed
- Manufacturing Facility
- Malls



Product Description	Product SKU
Skylight Guard (MS) 1m x 1m, painted:	BLSH-FS-SP100
Skylight Guard (MS) 1m x 2m, painted:	BLSH-FS-SP101
Skylight Guard (MS) 1m x 3m, painted:	BLSH-FS-SP102



### FSSP200

Skylight Protective System MS GI

#### Specification

- Provides visual location of skylight on rooftops
- The weld-mesh does not block light and hence the building will remain illuminated.
- Innovative Modular Raised design protect skylight sheet in the event of a fall.
- Customize sizes available as per requirements.
- Installs directly on the roof sheet by riveting & EPDM tape applied for waterproofing around riveting.
- 12 gauge high steel grade wire to form a 3-inch grid.

#### Applications

- Industrial Shed
- Manufacturing Facility
- Malls



Product Description	Product SKU
Skylight Guard (MS) 1m x 1m, GI:	BLSH-FS-SP200
Skylight Guard (MS) 1m x 2m, GI:	BLSH-FS-SP201
Skylight Guard (MS) 1m x 3m, GI:	BLSH-FS-SP202



# Passive Fall Protection

FallSafe™ Series

**FSW100**

Roof Top Aluminium Walkway

## Specification

- Aluminium Walkway and Handrail are constructed from high strength, non-corrosive, aluminium alloy confirming to grade AA6063 T6.
- Walkway and Handrail range in size and shape in order to cover any type of customer requirements.

## Applications

- Industrial Shed
- Manufacturing Facility
- Malls.

Product SKU

BLSH-FS-W100



**FSW200**

Roof Top FRP (Fiber Reinforced Plate) Walkway

## Specification

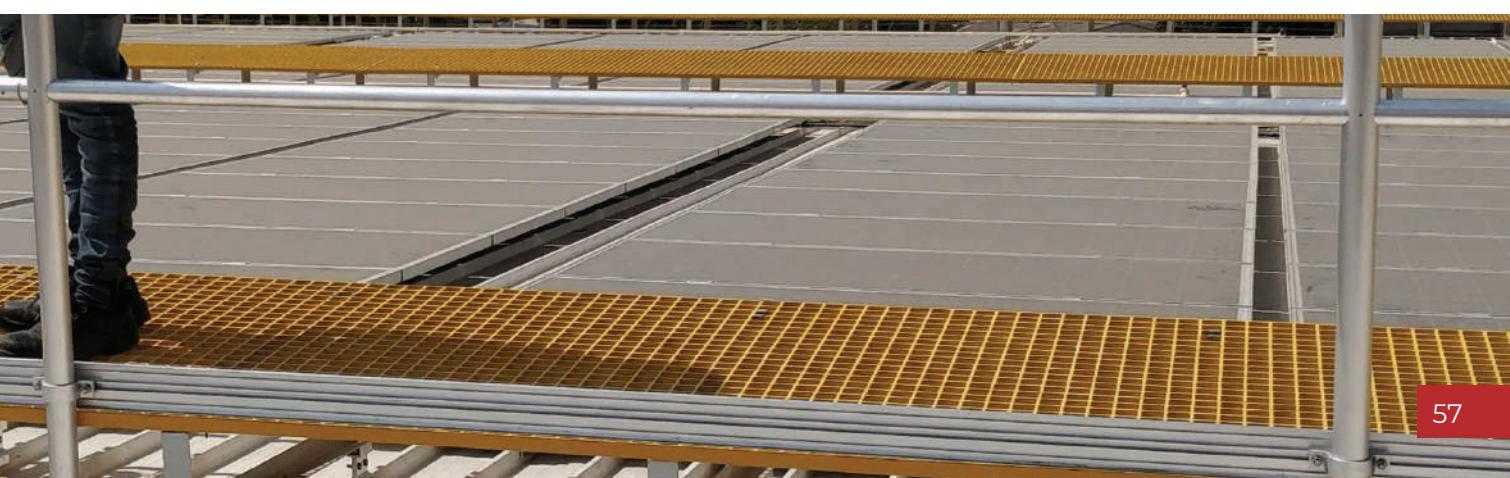
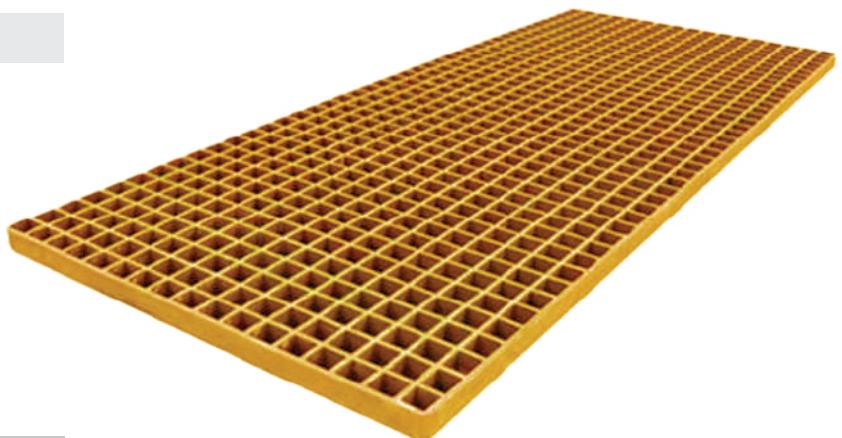
- FRP (Fiber Reinforced Plate)
- Walkway and Handrail range in size and shape in order to cover any type of customer requirements.

## Applications

- Industrial Shed
- Manufacturing Facility
- Malls.

Product SKU

BLSH-FS-W200



# Passive Fall Protection

FallSafe™ Series

## FSG100

Guard Rail System

### Specification

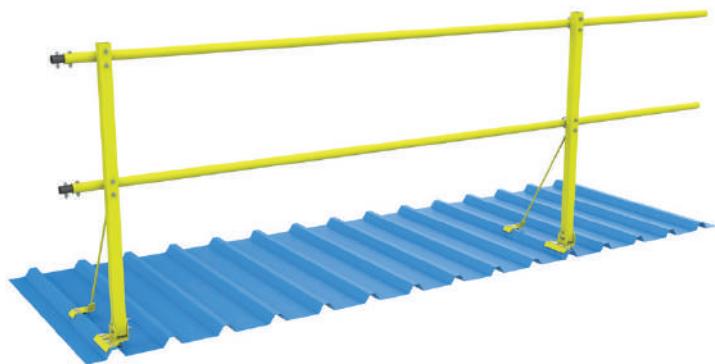
- Aluminium Walkway and Handrail are constructed aluminium alloy confirming to grade AA6063 T6.
- Walkway and Handrail range in size and shape in requirements.

### Applications

- Industries.
- Manufacturing Facilities.
- Malls.
- Solar Power Plants.

### Product SKU

BLSH-FS-G100



## FSR100

Roof Hatch Cover

### Specification

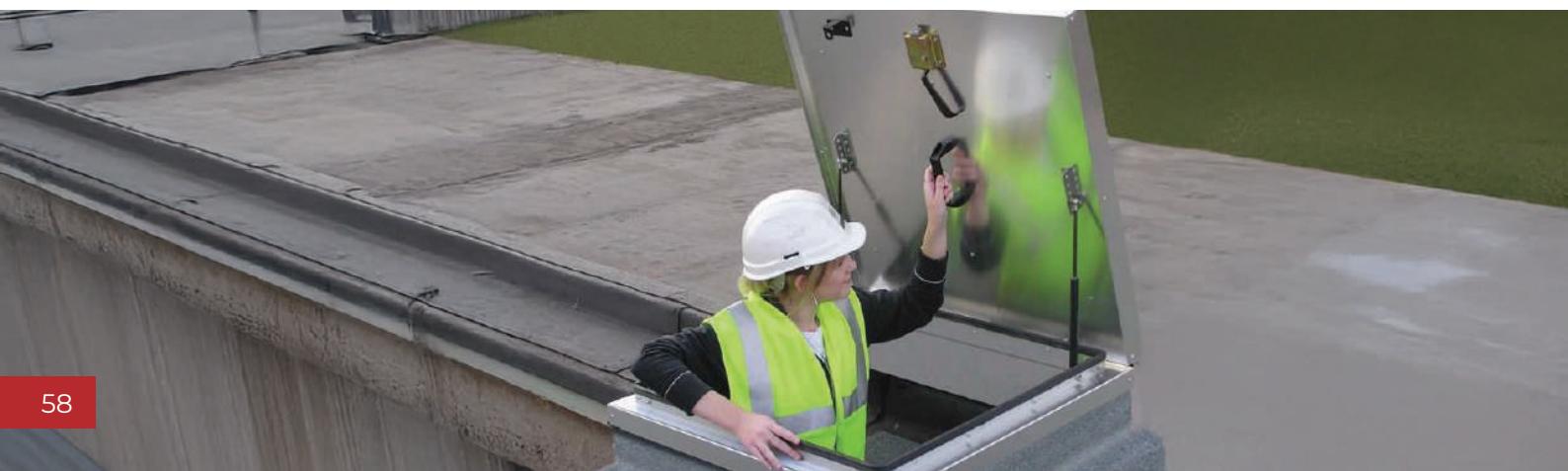
- Aluminium roof hatch cover are constructed from high strength, non-corrosive, Aluminium Alloy , HDG Steel & Stainless Steel
- Our roof hatch cover range in size and shape in order to cover any type of industrial skylight.

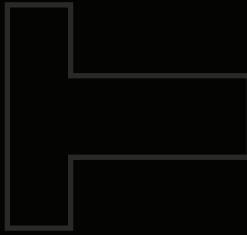
### Applications

- Industrial Shed
- Manufacturing Facility
- Malls

### Product SKU

BLSH-FS-R100





**For all your product availability  
& distribution related queries**

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