

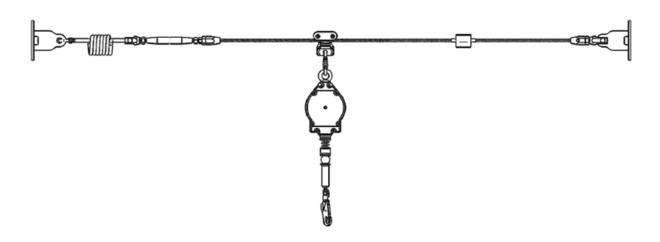
# **OVERHEAD LIFELINE SYSTEM**

Model No.: FXFP- OLS



### **Overhead Lifeline System**

The Overhead Lifeline System is an essential safety measure for workers operating in high-risk areas. It employs a wire rope that serves as a track for the Retro-Guard Fall Arrest Block, ensuring the worker's safety harness is securely connected at all times. This system is adaptable to various site requirements and is designed to provide a safeguard against falls by locking the fall arrest block upon detecting a slip. Additionally, the inclusion of a shock absorber minimizes the impact on both the worker and the structure, highlighting the system's comprehensive approach to fall prevention in industrial settings.



#### **BILL OF QUANTITY**

Sr. No:	Component Name	Item Code	Quantity
1.	Extremity Plate	RMFP-FL-SV-0005	2
2.	Tensioner	RMFP-FL-OT-00030	1
3.	Shock Absorber	RMFP-FL-OT-00025	1
4.	Wire Rope	RMFP-FL-OT-00029	As per requirement
5.	Pass through Bracket	RM-FP-FL-OT-00034	Installed every 12m
6.	Detachable Trolley	RMFP-FL-SV-0003	As per requirement
7.	Fall Stop Fall Arrestor	FG-FP-SV-FA-00013	As per requirement
8.	Full Body Safety Harness	FG-FP-OT-SH-00101	As per requirement
9.	Cable Extremity	RM-FP-FL-SV-0004	1

#### **COMPONENTS**

#### 1. Extremity Plate (Model No: RM-FP-FL-SV-0005)

The Extremity Plates at each end of the lifeline system are stable., horizontal and independent of the working surface. 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.



Material of Construction (MOC)	SS 316
Weight	1 kgs
Operating Temperature	-40°C TO +60°C
Inspection Frequency	Yearly
Life Span	20 Years
Strength	45KN

#### 2. Tensioner (Model No: RMFP-FL-OT-00030)

A Tensioner is a tested device located between the two anchorage points of the horizontal life line system (wire rope) and used for providing required tension to it so that the system is minimum and within the acceptable limit.

Material of Construction (MOC)	SS 316
Weight	1.4 kgs
Operating Temperature	-40°C to +60°C
Inspection Frequency	Yearly
Life Span	20 Years



#### 3. Shock Absorber (RMFP-FL-OT-00025)

It is attached to one end of the lifeline. Its function is to absorb the shock generated due to the fall of the user and transfer minimum shock to the user and the structure.

Material of Construction (MOC)	SS 316
Weight	1.3 kgs
Operating Temperature	-40°C to +60°C
Inspection Frequency	Yearly
Life Span	20 Years



#### 4. SS Cable 8mm (Model No: RMFP-FL-OT-00029)

Horizontal lifeline on which the retro guard fall arrest block moves.

Material of Construction (MOC)	SS 316
Diameter	08 mm
Construction	7 x 19
Minimum Breaking Strength	35 kn
Operating Temperature	-40°C to 60°C
Inspection Frequency	Yearly
Life Span	20 Years



#### 5. Pass through Bracket (Model No: RMFP-FL-OT-00034)

This component is installed every 12 meters to support the horizontal lifeline and maintain the appropriate sag in the lifeline.

Material of Construction (MOC)	SS 316
Weight	0.650 kgs
Movement Feature	Available, can be adjusted
Operating Temperature	-40°C to 60°C
Inspection Frequency	Yearly
Life Span	5 Years



#### 6. Detachable Trolley (Model No: RM-FP-FL-SV-0003)

It provides a smooth travel on the lifeline and also passes through the pass through brackets. It connects the Retro-Guard Fall Arrest Block with the lifeline through the carabiner.

Material of Construction (MOC)	SS 316
Weight	0.750 kgs
Operating Temperature	-40°C to 60°C
Breaking Strength	36 KN
Inspection Frequency	Yearly
Life Span	5 Years



#### 7. Fall stop fall Arrestor (Model No: FG-FP-SV-FA-00013)

It is connected to the user through the safety harness. In case of a fall the user's fall gets arrested thereby avoiding an accident.

Weight	7 kgs
Dynamic Load Test	Limits the impact force generated to 6 KN
Static Load Test	12KN till 3 minutes
Inspection Frequency	Yearly



#### 8. Cable Extremity (Model No: RM-FP-FL-SV-0004)

It enables swageless termination of the lifeline at one end.

Material of Construction (MOC)	SS 316
Weight	0.5 kg
O	100 C t = C00 C
Operating Temperature	-40°C to 60°C
Inspection Frequency	Yearly
inspection riequency	rearry
Life Span	20 Years
Life Span	20 18015



#### **INSTALLATION OF THE SYSTEM**

The Installation of the system has to be carried out only by authorized personnel of Sure Safety (India) Limited and should not be carried out by the user. The installation steps given below are a brief indication of the procedure of the same, only for the purpose of information to the user. Sure Safety (India) Limited does not take any responsibility for consequences of installation of the system if it is carried out against an authorized written recommendation by Sure Safety (India) Limited for the same.

#### **Pre-Installation Inspection of the receiving Structure**

The receiving structure on which the system is to be installed should be strong enough to hold an impact load of more than 18kn. Sure Safety (India) Limited shall not be held responsible in any failure arisings out of the failure of the structure. It is hence essential to calculate the strength of the receiving structure before the installation. If in doubt a component person or a qualified structural engineering may study the drawings or visit the site and verify the adequacy of strength of the receiving structure

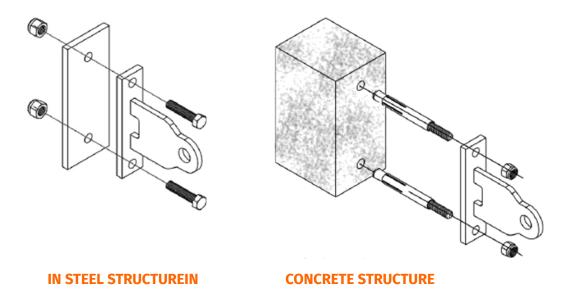
#### **Installation Of The System**

#### **Step 1: Installation of Extremity plate:**

- Hold the extremity plate against the receiving structure
- · Insert the fasteners
- · Tighten the nut

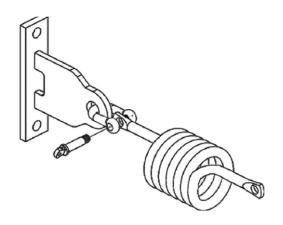
#### **Step 2: Receiving Structure:**

- The metal receiving structure should be strong enough to hold an impact load of more than 10kN.
- Before the installation it is essential to calculate the strength of receiving structure.



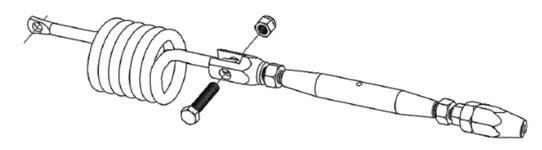
#### **Step 3: Shock Absorber**

- Insert the fastener in the eye of the shock absorber and the extremity plate
- Hold the shock absorber for connection with the tensioner.



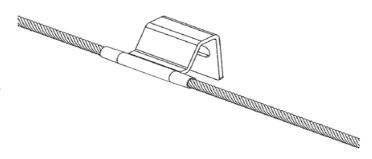
#### **Step 4: Tensioner**

- Mount the Tensioner on the system
- Open the threads of the tensioner from both ends. Ensure 75% of the thread is open.
- Insert the locking pin fasteners so as to pass through the eye of the Tensioner and the Shock absorber.
- Insert a pin ring in the locking pin to lock it for tightening the nut of the fastener.
- Apply Tension to the line.
- · Hold the Tensioner eye
- Insert a steel rod in the housing of the tensioner and rotate the tensioner in clock wise direction.
- · Rotate it until reasonable tension is achieved.
- · Tighten both the chuck nuts.



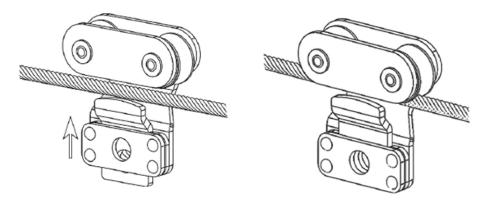
#### **Step 5: Pass through Bracket**

- Insert the cable through the pass through bracket.
- Connect the pass through bracket to the receiving structure with a fastener.
- The angle of the pass through bracket may be adjusted as required. This can be done through the slot hole provided at the back of the bracket.



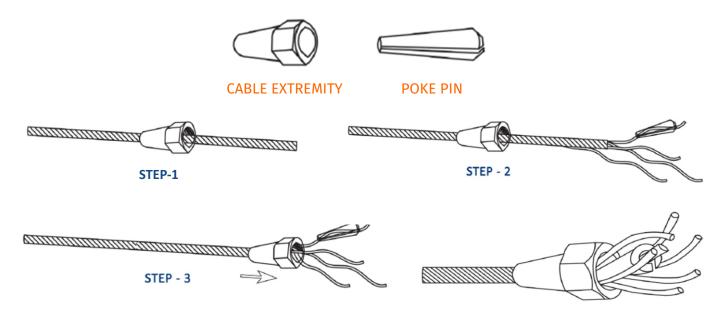
#### **Step 6: Detachable Trolley**

- Slide the top latch of the detachable trolley down wards.
- · Insert the detachable trolley in the wire rope.
- · Slide the top latch back to its original position.
- Inset a karabiner in the slot of the detachable trolley to lock the detachable trolley to the wire Horizontal Anchorage Line System.



#### Step 7: Swage less crimping of cable in end extremity

- Gently put the wire in cable extremity
- Make strands of one end of wire separately and insert the selected middle strand of wire to the poke pin.
- Then move the cable extremity towards the poke pin to encapsulate the poke pin.



#### **INSPECTION OF SYSTEM BEFORE USE**

#### 1 Post Installation Inspection:

- Once installed, it is important to inspect the complete line by moving to and for the entire length only by authorized person of Sure Safety (India) Limited.
- A Third Party Inspection (TPI) on expenses borne by the client, may be provided by a component agency like SGS, BVOI, etc; at the Testing Laboratory of Sure Safety (India) Limited in Vadodara.
- Onsite testing of the receiving structure may be provided at an event.

#### 2 Pre Use-Checks:

It is mandatory for the Site Inspector/Supervisor and the actual users of the system to perform a through check of the same before carrying out work. Sure Safety (India) Limited conducts a brief Training of all concerned personnel on the subject of Pre-Use Inspection of the System as per a defined guideline after the System as per a defined guideline after the System has been installed by Sure Safety (India) Limited personnel.

The following points are considered for the Pre-Use check;

## 2.1 Checking the Receiving Structure where the system is to be installed and If the receiving structure found weak do not climb.

#### 2.2 Checking the System

- Check the wire rope termination end.
- · Clean the system from dust/dirt.
- · Check for any mechanical defects.
- Check for wear and tear in all components or unusual bending or deformation.
- · Check for any missing component.
- Check for any damages that may have been caused due to welding while maintenance of other equipment.

#### 2.3 Checking the Cable

- See that there is sufficient tension on the cable by gently pulling the cable by hand. If the cable is too loose, adjust the tensioner.
- · Check the condition of the cable, Wear hand gloves and check the wire from all sides.
- Check for broken strands or any deformity in the cable. Report if strands are found broken.

#### 2.4 Checking the carriage body

- Check the movement of the trolley and its grip.
- · Check the carriage body it should move freely.
- · Check for or any other mechanical defects.

#### 2.5 Check the U-Bolts

Ensure that the nuts of the U-Bolt are tight.

#### AFTER SALES SERVICE, INSPECTION & MAINTENANCE

#### 1 After Sales Service:

- Spares are available easily with very less lead time.
- Sure Safety (India) Limited provides quick and quality maintenance to your fall protection system.
- It is mandatory to inspect the inspect the lifeline once a year.
- Sure Safety (India) Limited annual inspection and maintenance program covers:
  - 1. Servicing and cleaning of the system.
  - 2. Tightening of all fasteners to the recommended torque Re-validation of the system.
  - 3. Identifying malfunctions which may happen and offering corrective and presentive measure.
  - 4. This service is chargeable
- The benefits of annual maintenance
  - 1. Extended life of the system.
- 2. Identification of any malfunction waiting to happen and hence avoiding accidents that may happen.

#### MANUFACTURER'S DISCLAIMER & WARRANTEE

**1. Warrantee:** The system is produced with extreme precision. Should there arise a manufacturing defect within a period of 1 year of supply Sure Safety (India) Limited. Stands to repair the components or replace if necessary.

#### 2. Warrantee does not cover

- Deficiency arising out of misuse of equipment.
- Malfunction due to facility installation/wrong usage of product.
- This equipment is not user maintainable. The warrantee stands void if an attempt is made to repair or open the equipment.
- Sure Safety (India) Limited does not provide the product functioning warrantee, the warrantee stands for the workmanship of the products only.
- **3. Disclaimer:** The receiving structure on which the system is installed should withstand a minimum impact load of 10KN. If in doubt kindly get load calculation done from a competent authority or a certified structural engineer. Sure Safety (India) Limited does not take responsibility for malfunction due to inadequacy in the receiving structure. Please ensure that the entire system is compatible with the other personal fall protection equipment used and is in conformance with those recommended for use by Sure Safety (India) Limited authorized personnel. Third party Installations by uncertified installers is not recommended for these products. In case of third party installations Sure Safety (India) Limited will not be held responsible for any failure of the product in its intended use.