



The Travspring® is a horizontal lifeline system that is easy to install and can allow up to three users for multiple span and two users for single span systems. These systems can be permanent or temporary and no special tools are required to install. Every user must wear shock absorbing lanyard with maximum arrest force of 900 lb. (4 kN).

It comes with a visual tension indicator and a new in-line energy absorber. This is a proximity horizontal lifeline system meaning that the user must wear a double lanyard harness to leap-frog over corner anchors and manipulate the O-ring through intermediate anchors in order to traverse the length of the lifeline.

As with all fall protection systems, a professional engineer or a qualified person must certify the design and installation of the lifeline. The system can be mounted on a wall or on the ground. It must not be used as an overhead system.

When a fall occurs, the energy absorber deploys or un-winds acting as the visual indicator that something has happened.

#### BENEFITS

- The Travspring® system can be permanently or temporarily installed. The system can be portable.
- The system length is unlimited and it can go around corners
- Maximum spacing between anchor points is 50 ft. (15 m)
- Up to three users on one system
- Easy to install with common tools

#### FEATURES

- Can be used for fall arrest or fall restraint
- Components are made of stainless steel and non corrosive materials with the option of ordering galvanized wire rope
- Lightweight components
- Comes with a tension indicator and tensioner
- Sold as individual components
- Visual impact indicator (energy absorber un-winds)
- Utilizes inexpensive connectors
- Cooper aluminum anchors prevent fusing of the wire rope
- No need to dismantle the entire system in the event of a fall. Individual components can be replaced

#### APPLICATIONS

- Construction sites
- Steel erection
- Pipe racks
- Concrete structures
- Roof work
- Manufacturing plants

#### COMPATIBLE PERSONAL FALL PROTECTION EQUIPMENT ALSO REQUIRED

- Full-body harness
- Shock-absorbing lanyard or self-retracting device
- Mounting supports and bolts compatible to the breaking strength of the components.

#### APPLICABLE STANDARDS

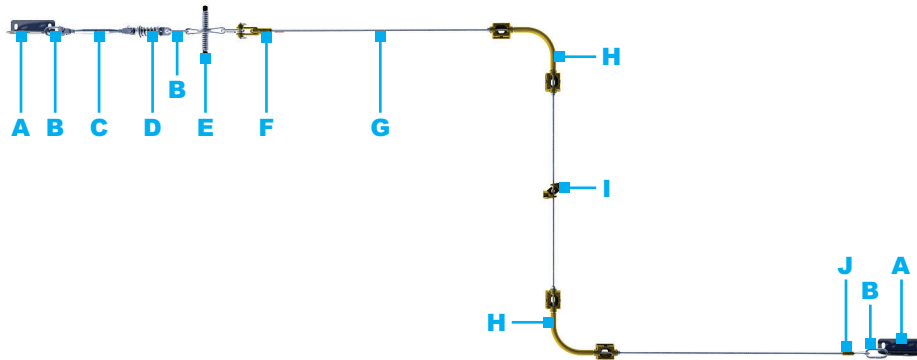
- OSHA 1910, subpart D: Walking and working surfaces
- OSHA 1926, subpart M: Fall protection
- ANSI Z359.6-2016: Specifications and design requirements for active fall protection systems
- ANSI A10.32-2012: Personal fall protection used in construction and demolition operations
- CSA Z259.16-21: Design of active fall protection systems

#### ⚠ WARNING

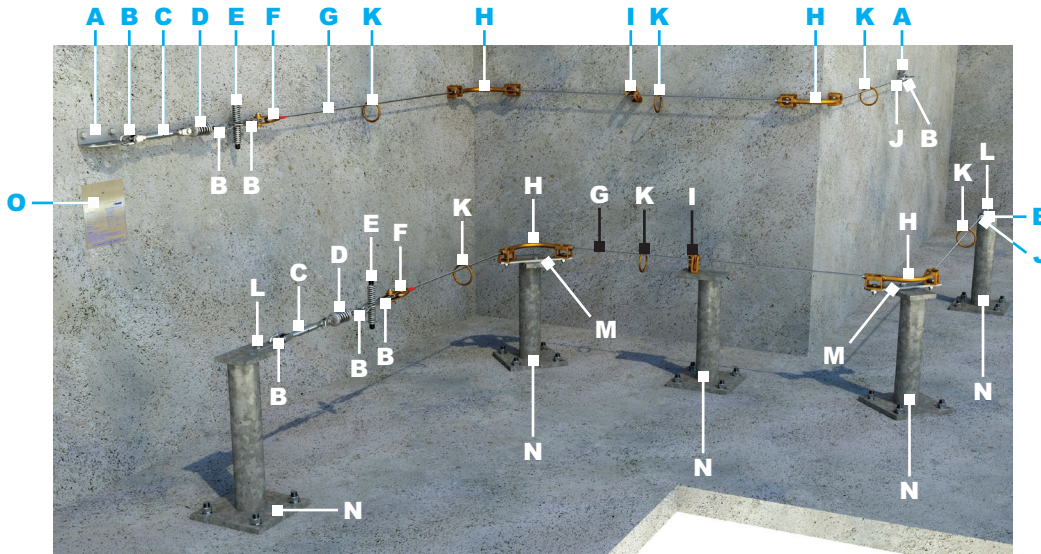
- When using a horizontal lifeline as a fall arrest system, it must be ensured that there is enough space below the walking/working surface as not to hit anything in case of a fall. Tractel® can assist with determining deflection.
- The Travspring® horizontal lifeline system is an engineered designed system. This means that before any installation commences, a specific technical study of the site must be undertaken. This would include a shop drawing showing the system layout, general notes, connection details and expected loading. These shop drawings are to be reviewed by a professional engineer licensed to work in the state or province that the project is in. A site survey may be required if drawings are not available to use when preparing the shop drawing. The shop drawings will also show the total fall height required if the system is designed for fall arrest. Tractel® can assist with system loading. (Tractel® advises that similar steps be taken for temporary installations.)

## TRAVSPRING® COMPONENTS

### PLAN VIEW



### WALL APPLICATION



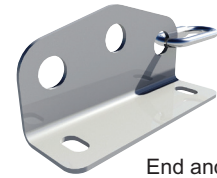
### POST APPLICATION

- |                         |                        |                      |
|-------------------------|------------------------|----------------------|
| A. End anchor           | F. Wedge socket        | K. O-ring            |
| B. Connector            | G. Wire rope cable     | L. End plate         |
| C. Turnbuckle tensioner | H. Corner kit          | M. Corner plate      |
| D. Tension indicator    | I. Intermediate anchor | N. Post              |
| E. INRS energy absorber | J. Wire rope clip      | O. Information plate |

### END ANCHOR – J3666848

The end anchors are designed to be attached to the supporting structure with two bolts.

- Material: Stainless steel – 304L
- Size: 6.7 x 4 x 3.3 in. (170 x 104 x 84 mm)
- Minimum breaking strength: 6,744 lb. (30 kN)
- Centre distance: 5.1 in. (130 mm)
- Net weight: 1.2 lb. (544 g)

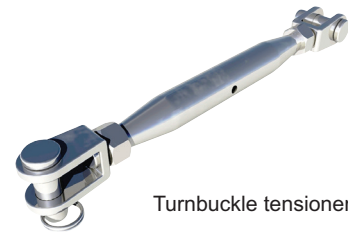


End anchor

### TURNBUCKLE TENSIONER – J3640742

The tensioner enables adjustment of the wire rope tension to the required value.

- Material: Stainless steel – 316L
- Minimum breaking strength: 6,744 lb. (30 kN)
- Extends from 10 to 16 in. (270 to 400 mm)
- Net weight: 1.3 lb. (580 g)



Turnbuckle tensioner

### TENSION INDICATOR – J3666858

The tension indicator gives a visible conformation that the rope tension is set to the correct value of 224 lb. (100 daN). Proper wire rope tension ensures correct operation of system components in the event of a fall.

- Material: Stainless steel – 316L
- Size: 5.7 x 2 in. (144 x 50 mm)
- Minimum breaking strength: 6,744 lb. (30 kN)
- Net weight: 2 lb. (900 g)

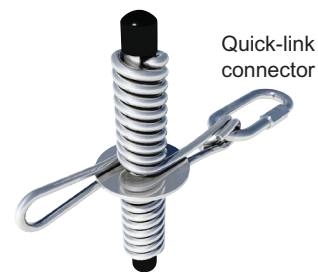


Tension indicator

### INRS ENERGY ABSORBER – J3666888

The INRS energy absorber is designed to dissipate the energy transmitted to the supporting structure by the fall of a user connected to the system. It is disposable (used once). It does not negate the necessity of equipping every user with personal fall arrest equipment. Each INRS energy absorber is supplied with a quick-link connector.

- Material: Stainless steel – 304L
- Size: 7.5 x 4.3 in. (190 x 110 mm)
- Minimum breaking strength: 6,744 lb. (30 kN)
- Net weight: 0.9 lb. (400 g)
- Quick-link connector: Stainless steel – 316L
- See performance certificate
- Maximum arrest force: 600 daN (1,350 lb.)
- Average dynamic pull out: 500 daN (1,124 lb.)
- Maximum deployment: 905 mm (35.63 in.)



Shock absorber

**INTERMEDIATE ANCHOR – J3666868**

With its unique design, the Travspring® intermediate anchor enables each user to cross over throughout the intermediate anchors using O-rings supplied with the system to which the PPE is connected without having to unhook from the lifeline. The intermediate anchors must be set up so that the maximum interval between anchors should never exceed 50 ft. (15 m).

- Material: copper-aluminum
- Size: 2.3 x 3 x 3 in. (60 x 80 x 80 mm)
- Minimum breaking strength: 3,697 lb. (12 kN)
- Net weight: 1.2 lb. (544 g)

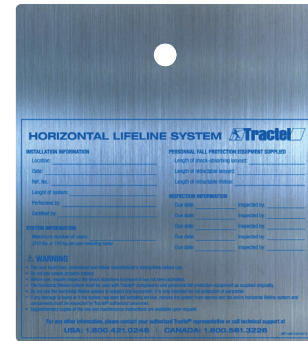


Intermediate anchor

**INFORMATION PLATE – JNP1**

Comes with a mounting bolt hole for a ½ in. (12 mm) fastener.

- Size: 7½ x 8½ in. (190 x 216 mm)



Information plate

**WIRE ROPE**

- Galvanized steel – J37009000
- Stainless steel – J37009000S

The retaining cable is sleeved, looped and fitted with a thimble at one end. The other end is brazed and ground smooth in the factory. It is available in stainless steel or galvanized.

- 5/16 in. (8 mm) diameter



Wire rope cable

**CORNER KIT – J3666878**

This sub-assembly is only used when the system has corners with a standard angle of 90°. Each corner kit acts as an intermediate anchor\*. The kits are supplied for assembly by the installer only on internal or external 90° corners.

Corner kit consists of two parts:

1. Two corner anchors
  2. Corner tube
- Material: copper-aluminum and stainless steel
  - Net weight: 2.8 lb. (1.27 g)

\*A two-arm lanyard must be used to travel past the corners.



Corner kit



### WEDGE SOCKET – J30193837

The wedge socket consists of five (5) parts:

1. A casing
2. A wedge
3. A securing pin
4. Two (2) split rings to lock the securing pin to the casing

The wedge socket is used to secure the free end of the wire rope to the energy absorber.

- Material: copper-aluminum/aluminium and stainless steel
- Minimum breaking strength: 6,744 lb. (30 kN) when used with Tractel® specified wire rope
- Net weight: 0.9 lb. (430 g)



Wedge socket

### ANCHOR POST

Anchor posts are designed to be installed on concrete or metal. End, intermediate and corner anchors are fastened directly to the top plate.

- Material: Galvanized steel
- Breaking strength: up to 5,000 lb. (22.2 kN)
- Size: 12, 18 or 24 in. x 4.5 in. diameter (305, 457 or 610 mm x 114 mm diameter)
- Net weight: from 13 lb. (5.9 kg)

*\*Base plate configuration depends on attachment requirements and installation conditions.*

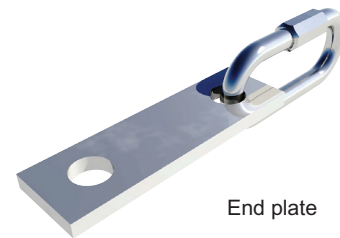


Anchor post

### END PLATE – J366698

Comes with two holes for ½ in. (12 mm) fasteners. Supplied with a quick-link connector.

- Material: Stainless steel – 316L
- Size: 4 x 1.2 x 0.2 in. (100 x 30 x 4 mm)
- Centre distance: 2.6 in. (65 mm)
- Net weight: 1.3 lb. (580 g)



End plate

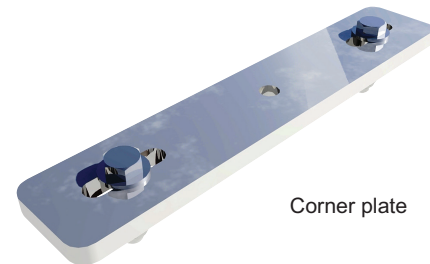
### CORNER PLATE – J300266998

The corner plate is used to mount the corner anchor assembly which accommodates 75 to 105° angles. It mounts directly to a standard anchor port.

Each corner plate includes:

1. One plate
2. Two HM12 x 45 mm (½ x 1¾ in.) bolts
3. Four washers M12
4. Two locknuts

- Material: Galvanized and stainless steel – 316L
- Size: 2 x 11 in. (50 x 342 mm)
- Net weight: 3.8 lb. (1,705 kg)



Corner plate

### CARABINER – PM11Z

The carabiner is used only to connect the user's lanyard to the Travsping® traveler.

- Material: Alloy steel
- Opening: ¾ in. (19 mm) opening
- Size: 4.2 x 2.4 in. (107 x 60 mm)
- Net weight: 0.4 lb. (202 g)

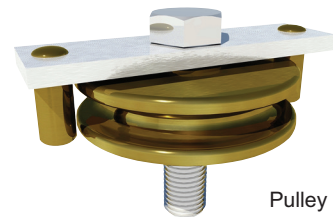


Carabiner

### PULLEY – J300268478

A pulley is used on corners between 0 and 160°.

- Material: Stainless steel and copper-aluminum/aluminium
- Net weight: 2.1 lb. (953 g)



Pulley

### O-RING – 47700

The O-ring connects the lanyard to the wire rope. One O-ring connects only one user. Since the O-ring cannot pass through a corner section, a sufficient amount of O-rings must be installed on each straight section of the lifeline. The amount of O-rings per section depends on the maximum number of users the system is designed for.

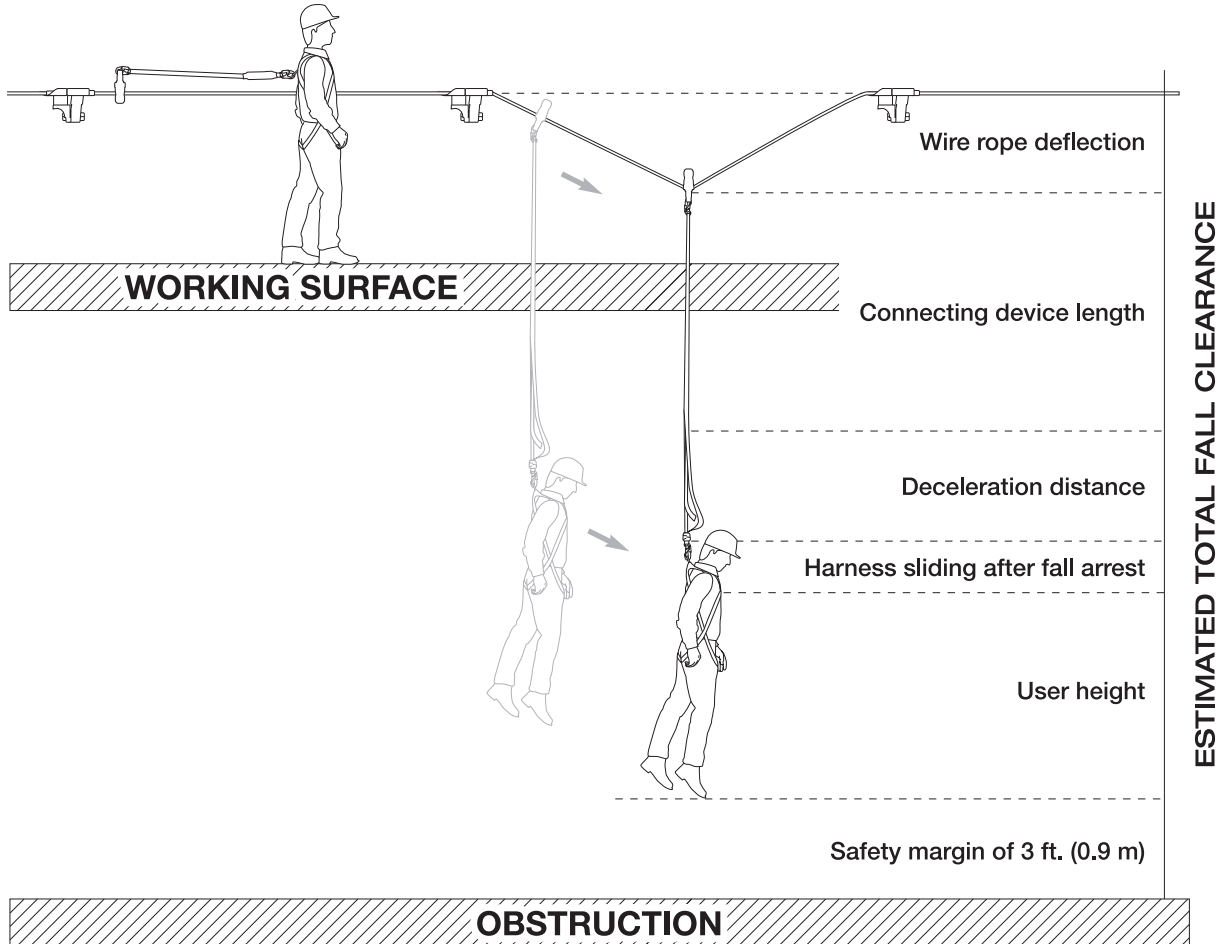
- Material: Alloy steel
- Size: 3⅞ in. (98 mm)
- Net weight: 0.35 lb. (159 g)



O-ring

**SYSTEM LOADING AND DEFLECTION**

Contact Tractel® for system deflection and site-specific loading.



**HOW THE CONNECTOR NAVIGATES THROUGH INTERMEDIATE ANCHORS**

