

# UNIVERSAL RAIL SYSTEM

## INNOTECH TAURUS STRUCTURALLY MOUNTED UNIVERSAL RAIL SYSTEM

Flexible fall arrest and abseil rail system designed for all substructures. Provides continuous connection in vertical and horizontal situations. Can be bent around corners and over ladders.

Compatible with most ladder types and substructures, the rail system can be attached along and down various levels on a structure allowing the user to constantly remain connected.

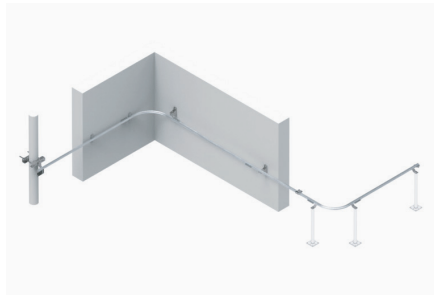
Manoeuvrable rail connections and end seals can be very simply installed, and easily curve and bend elements adapt themselves perfectly to the actual constructional conditions.

### HOW IT IS USED

The Taurus rail system provides fall protection on both horizontal and vertical planes. Perfect for ladder access. It also provides abseil capabilities.

### HOW IT WORKS

The Taurus rail is fixed to a ladder or structure for continuous hands free operation. For vertical systems on ladders, a specific shuttle is used to lock off in the event of a fall.



#### TAURUS-HORIZONTAL Rail system for horizontal use

The reliable safety system for horizontal use.

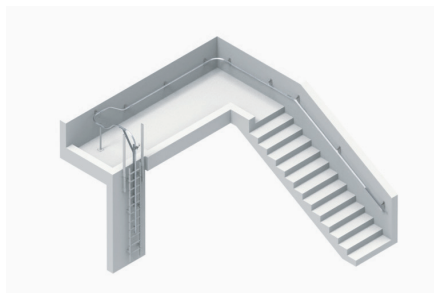
It is suitable for fall protection along roofs and facades, for overhead use, in industry, and for solar/photovoltaic energy.



#### TAURUS-VERTICAL Rail system for vertical use

The safety system for safe vertical access and descent.

It is ideally suited for ladder access, shelving systems, mast systems with or without ladders, steel constructions with access systems, and for shaft entry.



#### TAURUS-ALLROUND Rail system for all-round use

This safety system combines together the ranges of use and advantages of TAURUS-HORIZONTAL and VERTICAL. With just one system, it is no problem at all to change from the horizontal to the vertical plane.

# TAURUS- HORIZONTAL

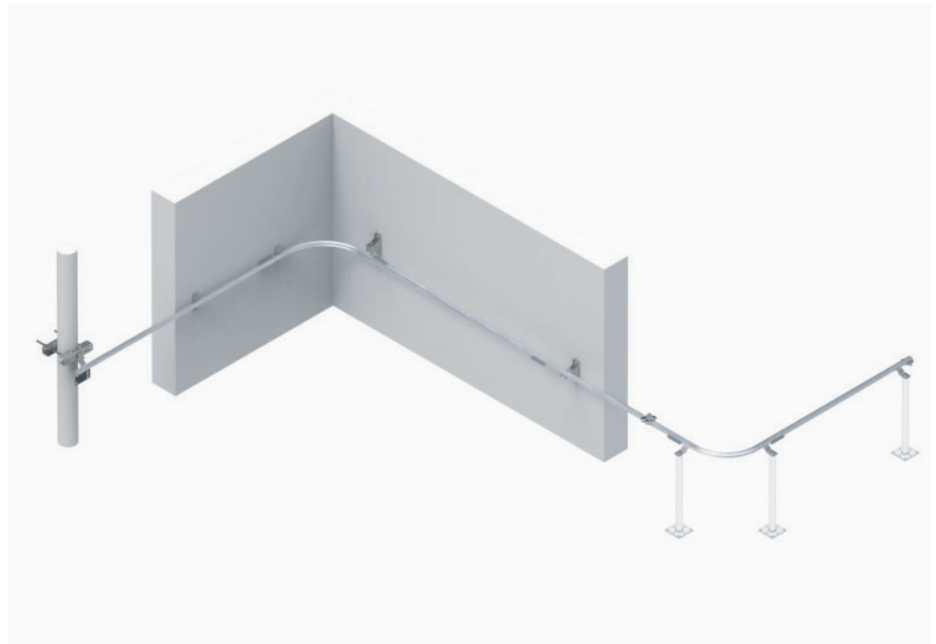
## RAIL SYSTEM FOR HORIZONTAL USE

The **TAURUS-HORIZONTAL** rail system is used wherever movements along a horizontally running pathway need to be protected from a fall risk. Regardless whether along roofs, facades, for overhead use, in industry or in connection with photovoltaic systems, it protects against falls from height, up to an inclination of 5°.

A further significant benefit of the horizontal rail system is the flexibility in positioning of anchor points for the rope access method. This is an access process for activities such as installation and cleaning tasks in locations which are difficult to reach. By means of this method, users can position themselves at specific points on a building structure by using ropes and the appropriate safety system, in order to carry out the necessary tasks there.

### Benefits

- Great flexibility provided by the fastening option to a multiplicity of substructures (concrete, steel, wood, PV substructures, etc.)
- Reduced installation effort because of rail fastener separations up to 5 m
- Perfect mobility in the system thanks to the sliders specially developed for horizontal use (2 of them are removable)
- Simplification of rope access processes thanks to the variable anchor points (sliders) along the run of rail and the appropriate safety system, in order to carry out the necessary tasks there.



## THE TAURUS SYSTEM CONSISTS OF HIGH-QUALITY ALLOYED ALUMINIUM RAILS.

This rail, in combination with the various individual components, such as the specially developed connectors (optionally also with expansion compensation), end units, entry elements, and the individually adaptable curve elements, combine to create a harmonised system.

The system can be attached to a large number of substructures. It is also compatible with many INNOTECH anchor points.

## TECHNICAL BENEFITS

### Rope access method

With a reduced fastening distance of 1 metre maximum, the **TAURUS-HORIZONTAL** rail system is also certified for the rope access method.

### Reduction of installation effort

When used as fall protection, a fastening separation of 3 metres applies. With additional appropriate measures, fastening distances up to 5 metres can be achieved, and in financial terms this has a positive effect on the whole installation process.

### Detachable sliders

The standard slider models ensure optimum mobility in the system. In addition to the standard products, a series of HO sliders suitable for the system is also available. These are sliders which can be fitted and removed at any time anywhere along the whole run of rail.

# TAURUS- VERTICAL

## RAIL SYSTEM FOR VERTICAL USE

The TAURUS-VERTICAL rail system is used wherever vertical ascents and descents require protection. Regardless whether ladder access, shelving/mast systems (with or without ladder), steel constructions with access systems, or as a means for shaft entry, it provides optimum fall protection.

Using the matching TAURUS-GLEIT-V21 slider, deviations up to a maximum of 15° from the vertical can be secured without any problem. The slider's ease of movement enables trouble-free movement during ascent and descent, and also ensures an immediate stop in the event of a fall. Here, the integrated energy absorber reduces the forces working upon the user.

### Benefits

- Broad range of applications thanks to the seamless transition from the vertical to the horizontal plane (without attachment or detachment)
- Flowing movement during vertical ascent and descent, thanks to the TAURUS-GLEIT-V21
- Safe shaft entry with the mobile TAURUS-SCE push-on support enhancement with a rescue attachment for fastening a fall arrest device is also possible
- Ascent aid in the form of the TAURUS-STEP, through combining the rail with integrated ladder rungs out the necessary tasks there.



## THE TAURUS SYSTEM CONSISTS OF HIGH-QUALITY ALLOYED ALUMINIUM RAILS.

This rail, together with the various individual components, such as the specially developed connectors, entry elements, and the special exit and transfer solutions, combine to create a harmonised system. The system can be attached to a large number of substructures. If a ladder construction is present, then the rail system can be connected to it directly. It is also compatible with many INNOTECH anchor points.

## TECHNICAL BENEFITS

### Reduction of installation effort

For installation, the maximum fastening separation of 2 metres along a ladder has a positive effect on the whole installation process. When connecting the system to a ladder (up to a maximum rung dimension of Ø 45 mm), a clamping solution is used for fastening, and therefore laborious drilling and damage to the ladder is unnecessary.

### Reduction of fall force

The TAURUS-GLEIT-V21 has an integrated energy absorber which reduces the force acting on the user to 6 kN max.

### Ascent aid

By means of our TAURUS-STEP components with integrated ladder rungs, the TAURUS rail system can be used as an ascent aid.

# TAURUS- ALLROUND

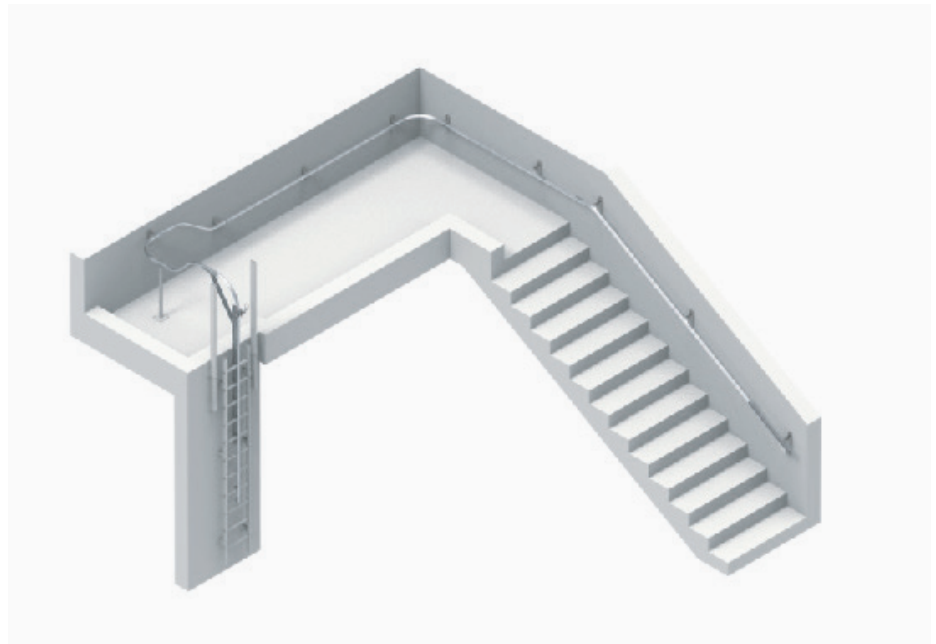
## RAIL SYSTEM FOR ALL-ROUND USE

The TAURUS-ALLROUND rail system combines the application range and benefits of TAURUS-HORIZONTAL and VERTICAL in the form of a flowing transition between horizontal and vertical movement. Regardless whether industrial buildings, architecturally challenging building structures, or maintenance walkways, it reliably protects against falls.

Inclinations greater than 5° and the change from the horizontal to the vertical plane present no problems to the rail system. It protects the user continuously in all planes, and also during transitions which take place between these planes. Safety problems caused by complex constructional circumstances are therefore a thing of the past.

### Benefits

- High rail adaptability, so complex constructional circumstances can be made safe
- Little installation effort, thanks to versatile fastening options and wide fastening distances
- Great user convenience because of the slider, curves, and bends, whether travelling horizontally or vertically, yet in the event of a fall all directions are blocked
- The slider adapts to the speed of the protected person, and thus allows controlled movement along the rail system



## THE TAURUS SYSTEM CONSISTS OF HIGH-QUALITY ALLOYED ALUMINIUM RAILS.

This rail, in combination with the various individual components, such as the specially developed connectors (including expansion compensation), end units, entry elements, and the individually adaptable curve elements, combine to create a harmonised system. The system can be attached to a large number of substructures.

It is also compatible with many INNOTECH anchor points.

## TECHNICAL BENEFITS

### Reduction of installation effort

A fastening separation of 3 metres applies. With additional appropriate measures, fastening distances up to 5 metres can be achieved, and in financial terms this has a positive effect on the whole installation process.

### Practical transition

The adaptable curve elements create a coherent all-round system by linking the horizontal with the vertical, as well as covering inclinations between 5° and 90°.

### Continuous protection

The TAURUS-GLEIT-A31 provides even more safety in the system. Thanks to the slider, there is no need for dangerous detachment from the system. This enables safe movement along horizontal, vertical, or even inclined rail runs. The slider has an integrated energy absorber which reduces the force acting on the user to 6 kN maximum.

## PERFORMANCE

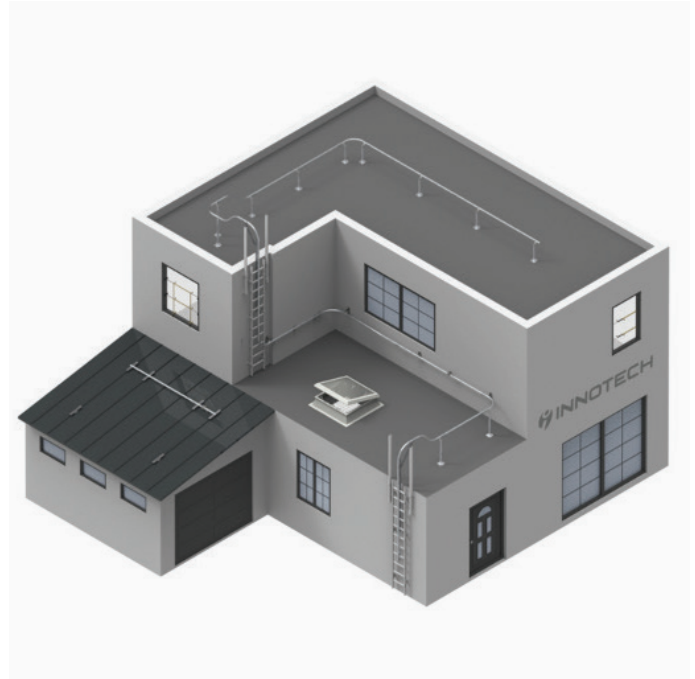
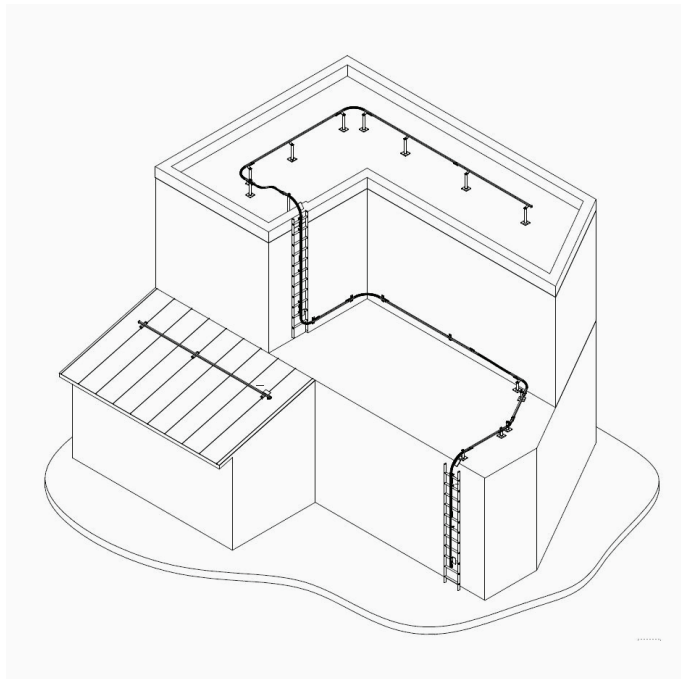
Conforms to AS/NZS 1891.2:2001 - Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems, AS/NZS 1891.4:2009 - industrial fall-arrest systems and devices - selection, use and maintenance, AS/NZS 4488.2:1997 Industrial Rope Access Systems - selection use and maintenance.

## INSTALLATION

Installation must be carried out by an Accredited Innotech trained Technician, and in accordance with the manufacturer's installation instructions. The rail can be mounted above, on the wall or below the users. It can also be mounted on raised posts (maximum of 3m apart) or directly into steel structures concrete or onto ladders.

## MAINTENANCE

As per AS/NZS 1891.4 innotech Taurus rail must be certified every 12 months by a qualified height safety equipment inspector. All of the exposed materials in the system have specified as naturally corrosion resistant, or have been coated with sacrificial coatings to prevent oxidation of the base material. It is important to consider that in some environments the system may need to be cleaned to gain the best possible life expectancy from the materials.



## WARRANTY

Under normal use conditions there is a two year warranty on all components against manufacturing defects. However, if the restraint system is used in particularly corrosive atmospheres, this period may be shortened. If there is strain (a fall, weight of snow, etc.) the warranty claim is void for those components that have been designed to absorb energy, or that may possibly be deformed and therefore must be replaced. Attention: for system installation and components planned and installed under the responsibility of specialised installation companies, INNOTECH assumes neither responsibility nor warranty in the case of improper installation.

## ENVIRONMENTAL

Alta Safety is committed to reducing its impact on the environment.

We will strive to improve our environmental performance over time and to initiate additional projects and activities that will further reduce our impacts on the environment.

Our commitment to the environment extends to our customers, our staff, and the community in which we operate. We are committed to supplying products with primary components made of recyclable material and supplied with minimum packaging to retain structure and integrity during transit.

We will continually measure our environmental impacts and aim to reduce these impacts.

**TECHNICAL DRAWING – TAURUS UNIVERSAL RAIL SYSTEM**

Technical drawing of the Taurus Universal Rail System. The drawing includes a side view with dimensions and a perspective view. Dimensions shown are: 700 - 1000 (height), ~ 170 (width), ≤ 2000 (length), ≤ □ 47 (width), ≤ ∅ 47 (width), and ≤ 170 (width).

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 altasafety.com

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ALTA SAFETY LIMITED

0800 115 396

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**TECHNICAL DRAWING – TAURUS UNIVERSAL RAIL FASTENINGS**

**RAIL FASTENINGS**

**TAURUS BEF-10:** (Aluminium)  
 For concrete and steel constructions

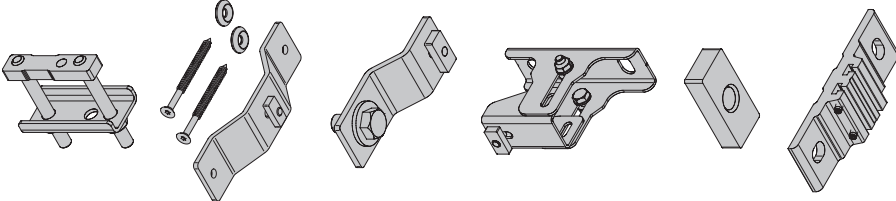
**TAURUS BEF-12:** (Stainless steel A2)  
 For steel constructions

**TAURUS BEF-20:** (Stainless steel A2)  
 For facades

**TAURUS BEF-30:** (Stainless steel A2)  
 For fastening on INNOTECH anchorage points

**TAURUS BEF-41:** (Aluminium)  
 For wood, Comply with installation clearances

**TAURUS BEF-90:** (Stainless steel A2)  
 For fastening on ladder rungs



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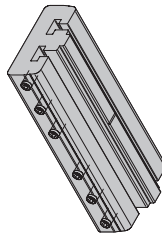
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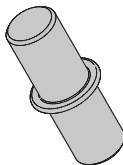
**TECHNICAL DRAWING – TAURUS UNIVERSAL RAIL FASTENINGS**

**RAIL CONNECTORS**

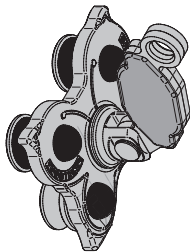
**TAURUS VB-10: (Aluminium)**  
 Connecting element of two "TAURUS RAIL-..." rail elements



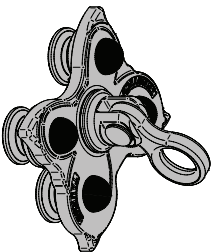
**TAURUS VB-12: (Steel)**  
 Attention: may only be used in combination with "TAURUS BEF-12"  
 For alignment of two "TAURUS RAIL-..." rail elements



**TAURUS GLEIT-A-30:**  
 suitable for horizontal and vertical use!



**TAURUS GLEIT-S-40:**  
 suitable for horizontal and vertical use (0 - 70°)



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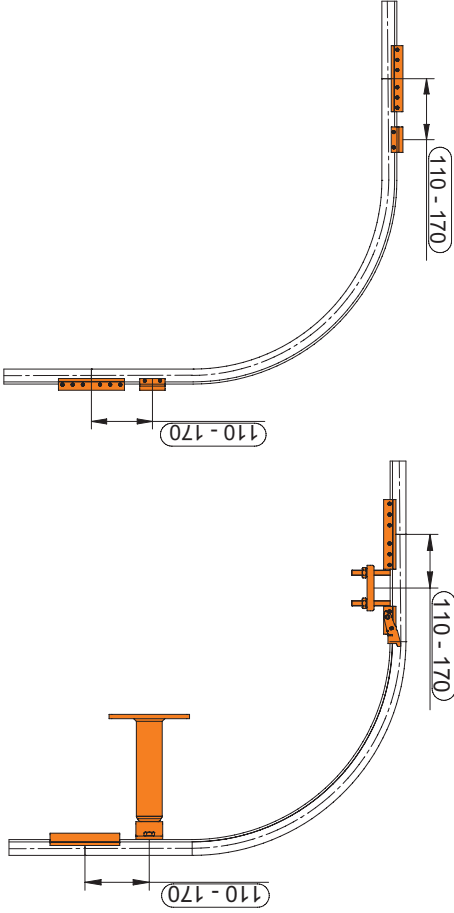
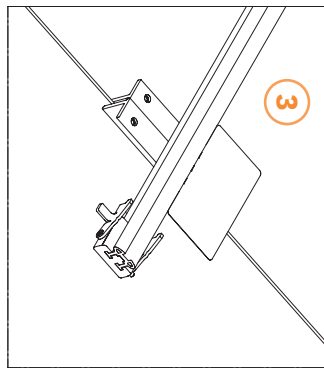
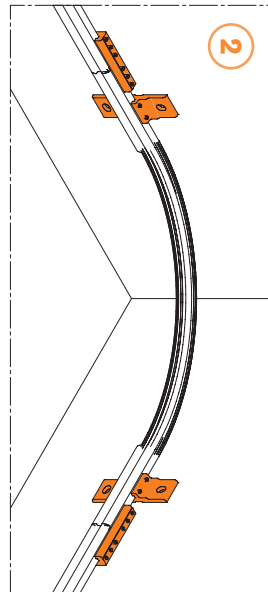
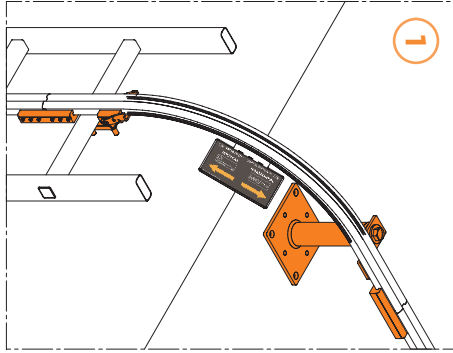
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Scale:



**TECHNICAL DRAWING – TAURUS UNIVERSAL RAIL SYSTEM**

**INSTALLATION EXAMPLE:**



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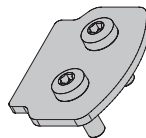
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**TECHNICAL DRAWING – TAURUS UNIVERSAL RAIL TERMINALS & RAIL**

**RAIL TERMINALS**

**TAURUS EA-10:** (Stainless steel A2)

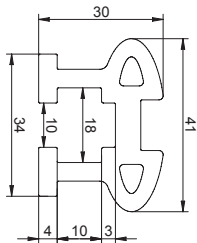
No entry possible (terminal for a rail section)



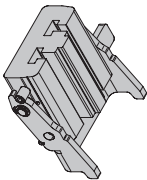
**RAIL**

**TAURUS RAIL-10:** (Aluminium)

L = 3,000 mm, 6,000 mm  
for additional models, see section [16]



**TAURUS EA-11:** (Aluminium, stainless steel A2)  
Entry and exit for shuttles



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### TECHNICAL DRAWINGS KEY



Rate to  
15kN



Person  
Capacity



Abseil



Fall Arrest



Restraint  
Technique