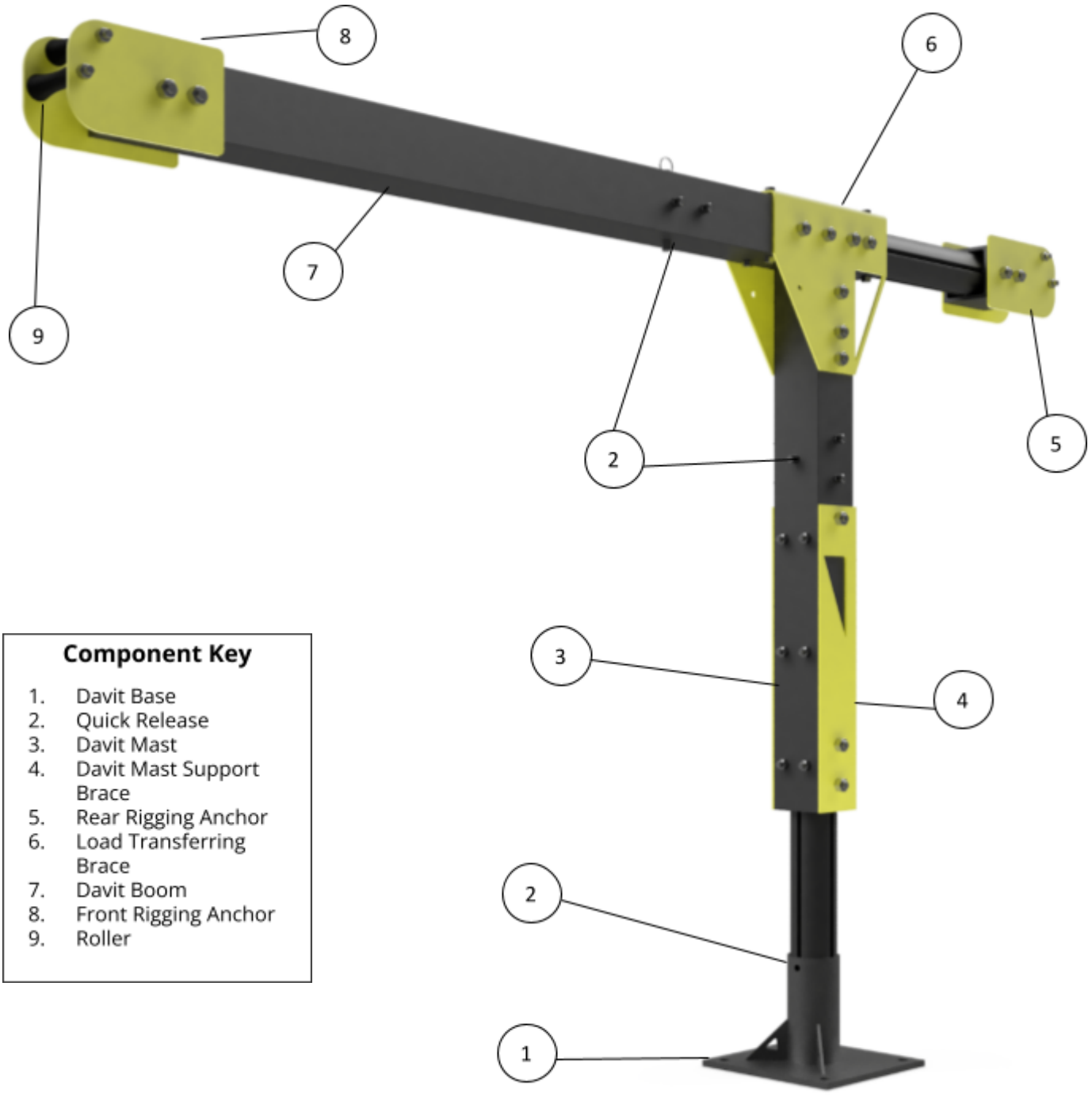
EdgeSeil Davit™

Operating Manual

Date of Issue: 30/11/2021 Revision: 00

Product Overview

The Working at Height 2005 Act necessitates a safe system of work when working at and maintenaning buildings. Davit systems are now an essential solution for cleaning and planned or reactive maintenance of facades. Sayfa EdgeSeil Davit™ is designed for lifting and lowering personnel, and materials and complies with EN795:2012, PD CEN/TS 16415 and BS8610:2017.



Component Key

1. Davit Base
2. Quick Release
3. Davit Mast
4. Davit Mast Support Brace
5. Rear Rigging Anchor
6. Load Transferring Brace
7. Davit Boom
8. Front Rigging Anchor
9. Roller

Date of Issue: 30/11/2021 Revision: 00

Operation

- Ensure that operation instructions have been read and fully understood prior to commencing work with the Davit arm.

- EdgeSeil Davit™ is designed for 1 or 2 users, depending on the Arm type, both with a safe working limit of 600Kg. The number of users is denoted by the 1U or 2U alpha numerical coding on the products identification plate / label.

- EdgeSeil Davit™ is not to be used during severe weather conditions. It must not be used when wind conditions are greater than 23mph.

- When EdgeSeil Davit™ is utilised for glass replacement, a davit base must be installed above each window pane. Materials lifting is a safe working load limit of 600kg.

- EdgeSeil Davit™ is rated to 21KN BS8610-2017.

- Davit bases must be mounted level with a maximum of 5.0 degrees tolerance.

- It is recommended there is 75mm clearance from the rear end of the Davit Boom to a cladding facade and 150mm for glazing facades.

- The Supervisor operators of the davit system must have a minimum level 3 IRATA qualification for rope access systems.

- Operators of the EdgeSeil davit system should be IRATA level 1 or 2 qualified but must be competent and experienced. They should be trained in the safe use of the system with appropriate rescue plans.

- Periodic inspection and maintenance is required for EdgeSeil™. It must not be used if it has an overdue service date.

- The system, its components and the structure to which it is attached to must be inspected for signs of deterioration and deformation prior to use. It must not be used if deterioration and deformation are present.
- If the system has been damaged or arrest has occurred due to a fall, ensure that it is not used again until it has been inspected and recertified.
- Ensure that fixings and components are securely fastened. Any adjustments required will need to be performed by a height safety inspector.
- Should rope lines pass over an edge, then rope protectors must be used.
- There must always be 2 people during the operation of the system. In the event of an emergency, one person can provide rescue assistance and first aid. For single user Davits, 2 Davit arms will be required so that one may be used for rescue, along with a reach and grab system.
- Do not tamper with, modify or remove any part of this system unless authorised by Sayfa Group

Safe Use & Maintenance

- Please note the Operation requirement for Safe Use.

- There are different Davit Arm raw material specifications. Generally these should be stored after use in an indoor temperature / humidity controlled environment however some specifications will be suitable for external storage.

- After use the Davit should be cleaned and dried, stored in it component form and with retaining pins in the locating holes

- Surface oxidisation is possible depending on the specification of davit supplied, care taken in storage and deployment or environment used. Please consult with Sayfa Group or a trained individual structural corrosion is suspected.

- Please refer to our LOLER guidance for further testing / recertification guidance.

- Recertification of the Davit system is required from by a LOLER competent individual, our recommendation by a LEEA member company. The recommended intervals for the conditions below:

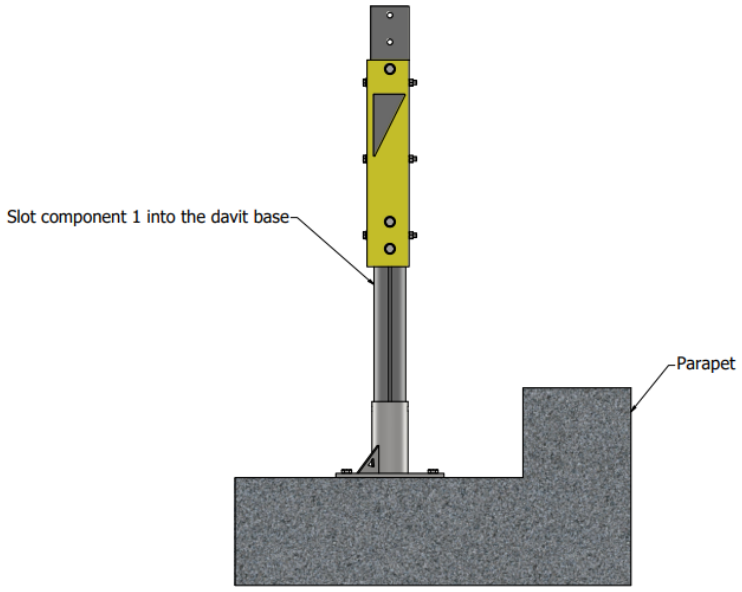
  EN ISO 12944-2 C1 – C3 Environments: Intervals of 6 months#
  EN ISO 12944-2 C4 – C5 Environments: Intervals of 6 months*#

  *For C4 – C5 environments at least 304 grade stainless steel specification Davit bases should be selected. Sayfa+ options on the Davit (such as electro-polishing) are available for corrosive atmospheres or extended warranties.

  #Contact Sayfa Group if a permanently placed Davit Arm assembly is required.

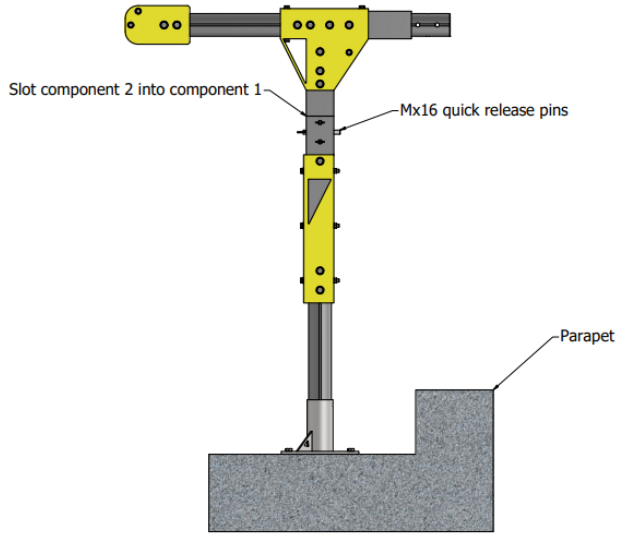
Quick Assembly Guide

Step 1



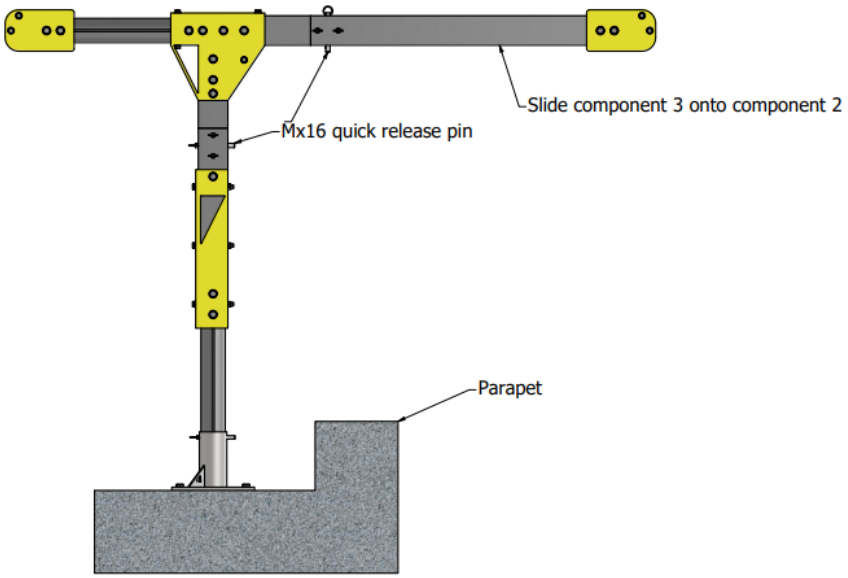
Drop component 1 into the davit base.

Step 2

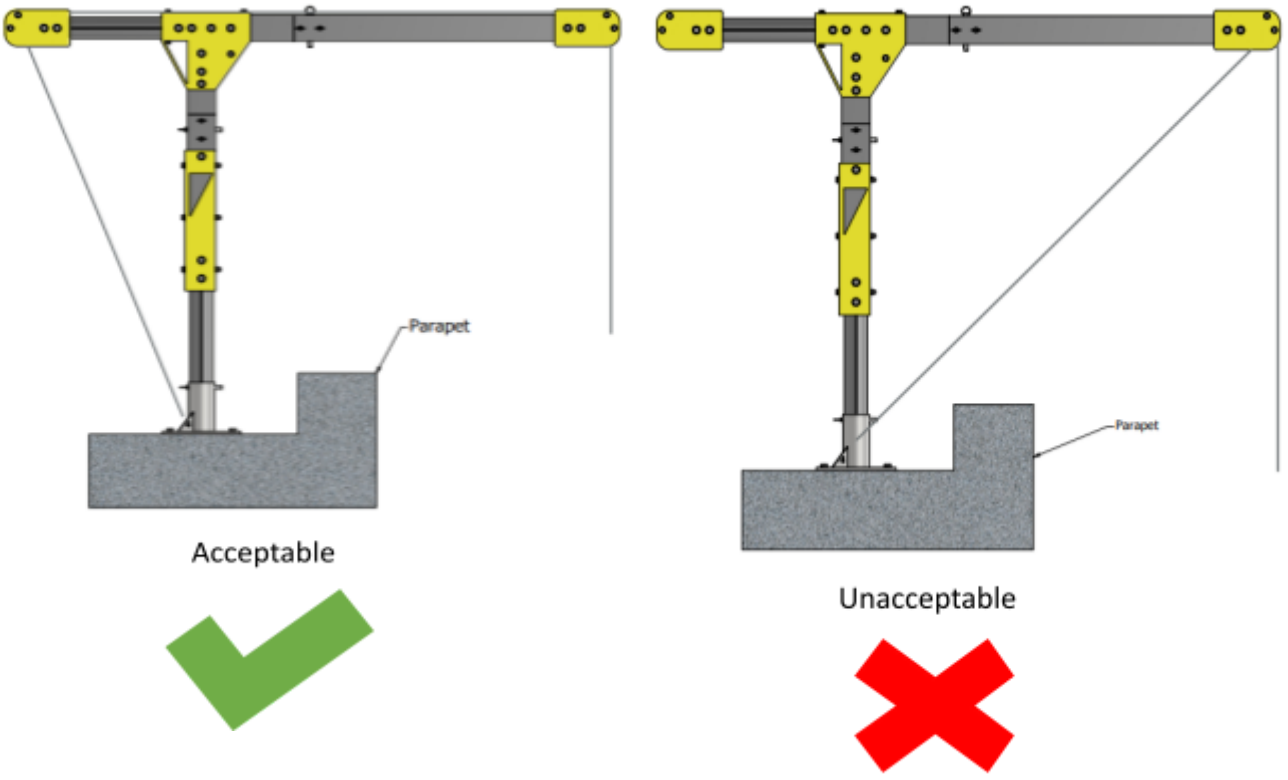


Drop component 2 onto component 1 and secure both components by inserting 1 Mx16 quick release pin through the rear of the davit arm and 2 Mx16 quick release pins through the sides. Alternatively, the davit arm may be rotated to ensure a safer and easier assembly of component 3.

Step 3

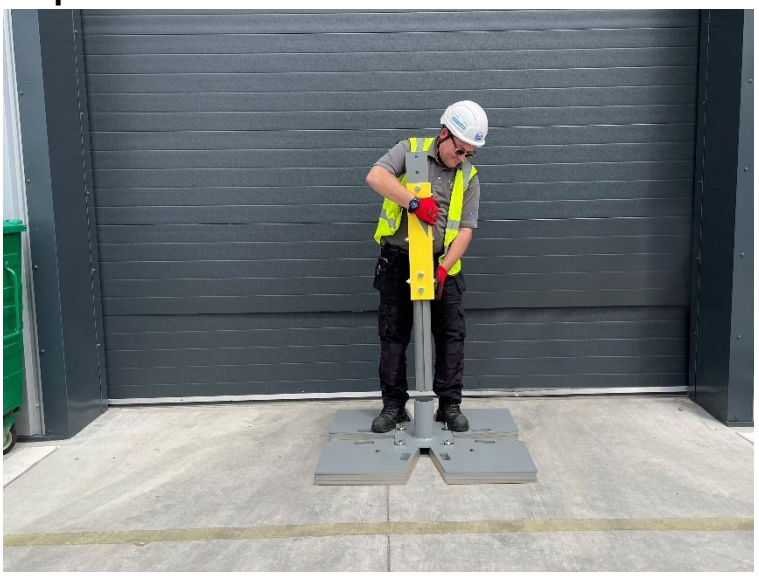


Slot component 3 onto component 2 and ensure security by inserting 2 Mx16 quick release pins in the side and 1 Mx16 quick release pin through the top. Rotate the davit back into position if required and insert an Mx12 quick release pin through the davit base and component one if using DBS-0300-0200 or DBS-0400-0300 to fix the davit arm in place and prevent rotation during use.



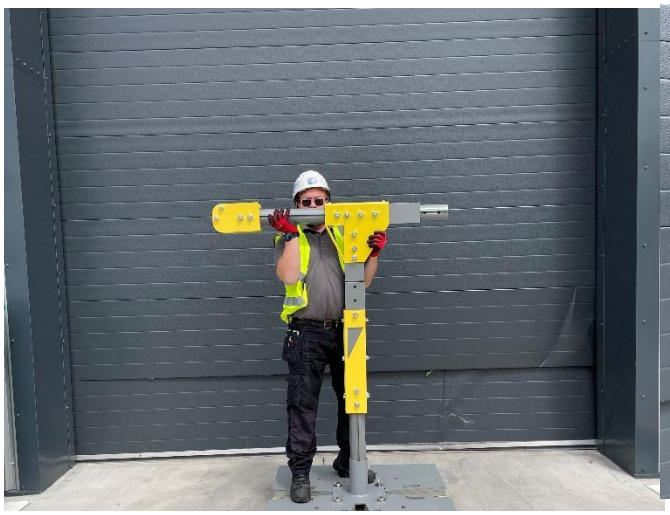
Set Up and Assembly

Step 1



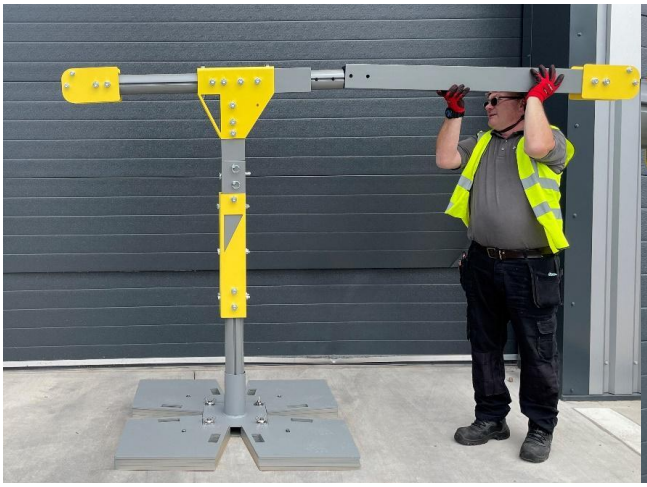
Drop component 1 into the davit base.

Step 2



Drop component 2 onto component 1 and secure both components by inserting 1 Mx16 quick release pin through the rear of the davit arm and 2 Mx16 quick release pins through the sides. Alternatively, the davit arm may be rotated to ensure a safer and easier assembly of component 3.

Step 3



Slot component 3 onto component 2 and ensure security by inserting 2 Mx16 quick release pins in the side and 1 Mx16 quick release pin through the top. Rotate the davit back into position if required and insert an Mx12 quick release pin through the davit base and component one if using DBS-0300-0200 or DBS-0400-0300 to fix the davit arm in place and prevent rotation during use.

Rope configuration

When rigging, ensure that the rope is passed between both rollers at both anchor points. The rope must pass over the davit.

Maintenance Schedule

EdgeSeil™ must be assessed and recertified by a competent person as defined under the Lifting Operations and Lifting Equipment Regulations 1998 and at intervals of no more than 6 months.

EdgeSeil™ must be cleaned using a damp or dry cloth. Chemicals which can damage its components must never be used.

The support structure must be checked for damage or deterioration.

If there is evidence of deterioration or deformation due to overloading of the system, then it must be reported to the responsible person.

A record of inspections must be kept up to date.

The following checklist outlines the criteria for ensuring the safe use of the davit system. The system must be maintained by a height safety inspector.

Component	Inspection criteria	Pass Y/N	Action taken	Date
	**Davit certification label / plate** Ensure that information is clearly identifiable. Installer details and install date must be present on the label.			

	**Davit mast** Inspect the mast to ensure that there is no damaged and it is not deformed due to overloading. Inspect pin holes to ensure that there is no deformation or elongation due to overloading of the davit system. Inspect the quick release pins to ensure that they are not deformed.			

	**Davit boom** Inspect the boom to ensure that there is no damage and it is not deformed. Inspect the rollers and roller supporting plates to ensure that there is no deformation or deterioration of the plates. The rollers must freely roll.			
	**Davit shoulder** component Inspect the plates and ensure that there is no severe deterioration & deformation due to overloading. Inspect the quick release pin holes and ensure that there is no deformation and elongation due to overloading.			

	**Davit base** Inspect the davit base and ensure that there is no deterioration. Ensure that there is no deformation of the tube, tie-off points, gussets and tube. Ensure that there is no elongation of the quick release pin hole. Fixing nuts must be torqued to 60 – 125Nm depending on fixing type and fixing method. Please refer to our LOLER guidance for further testing guidance.			

Technical Specification

EdgeSeil Davit™ System, comprising of surface fixed base and davit arm ranging from heights of 1000mm to 2500mm and outreach ranging from 1000mm to 2500mm. It is designed for lifting and lowering personal and materials, and complies with EN795:2012, PD CEN/TS 16415 and BS8610:2017.

Features

EdgeSeil Davit™ Structural Members - A flexible aluminium member supporting the anchor manufactured from 6082-T6 aluminium. In the event of a fall, there is a dampening effect.

EdgeSeil Davit™ Structural Reinforcement - These combine with the members to provide the highest level of safety. Manufactured from S355 mild steel, polyester poweder coated, 304 stainless steel

Davit Base - 304 Stainless steel or S355/E355 mild steel, post manufacture galvanised structure which provides support to the davit.

Ratings

21kN two user 'type A4 accompanied descent', 600kg safe working load for material lifting / lowering.

15kN single user, 600kg safe working load for material lifting / lowering.

EdgeSeil Davit™ Supplied Options

Dimensions

1500mm reach, 1500mm height Single User

Code: ESD.1500.1500.1U

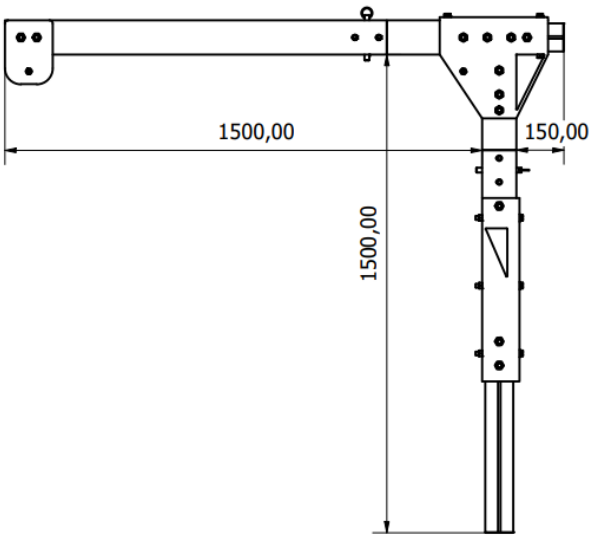
Reach: 1000mm

Height: 1500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 36 Kg

Mast – 24 Kg

Boom – 15 Kg

Dimensions

1500mm reach, 1500mm height

Code: ESD.1500.1500.2U

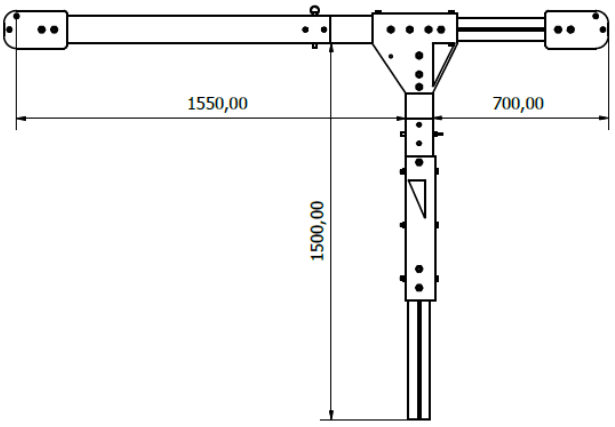
Reach: 1500mm

Height: 1500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 45 Kg

Mast – 24 Kg

Boom – 15 Kg

Dimensions

1500mm reach, 1500mm height

Code: ESD.1500.1500.2U.EB (Flush & 150mm Bases)

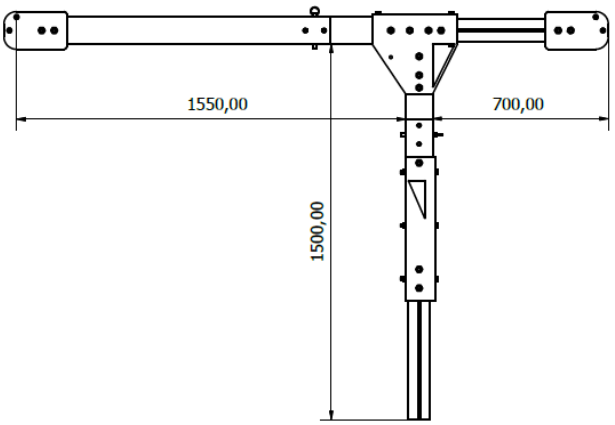
Reach: 1500mm

Height: 1500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 45 Kg

Mast – 24 Kg

Boom – 15 Kg

Dimensions

2000mm reach, 1500mm height

Code: ESD.2000.1500.2U

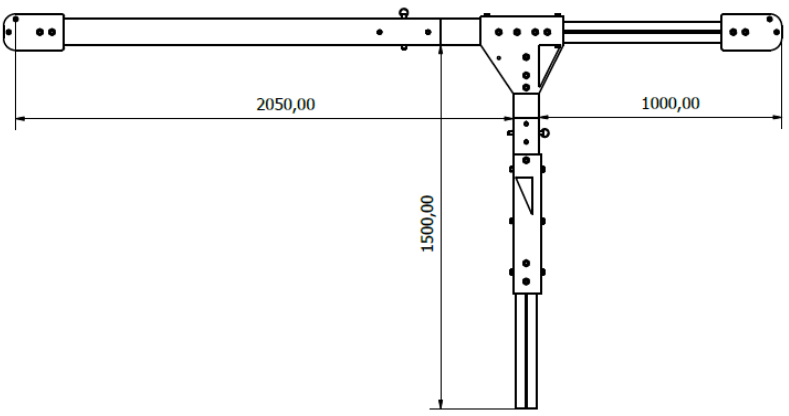
Reach: 2000mm

Height: 1500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 49 Kg

Mast – 24 Kg

Boom – 20 Kg

Dimensions

2500mm reach, 1500mm height

Code: ESD.2500.1500.2U

Reach: 2500mm

Height: 1500mm

Rating: 21KN

Operating angle: 180

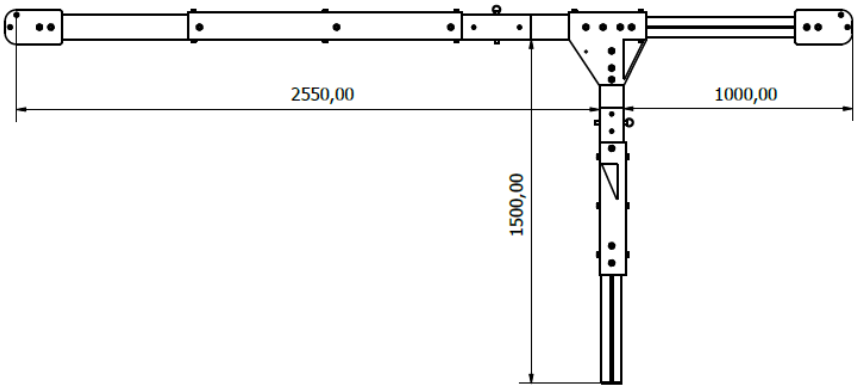
Safe working load: 6KN

Unit Weight

Shoulder joint – 52 Kg

Mast – 25 Kg

Boom – 42 Kg



Dimensions

1500mm reach, 2000mm height

Code: ESD.1500.2000.2U

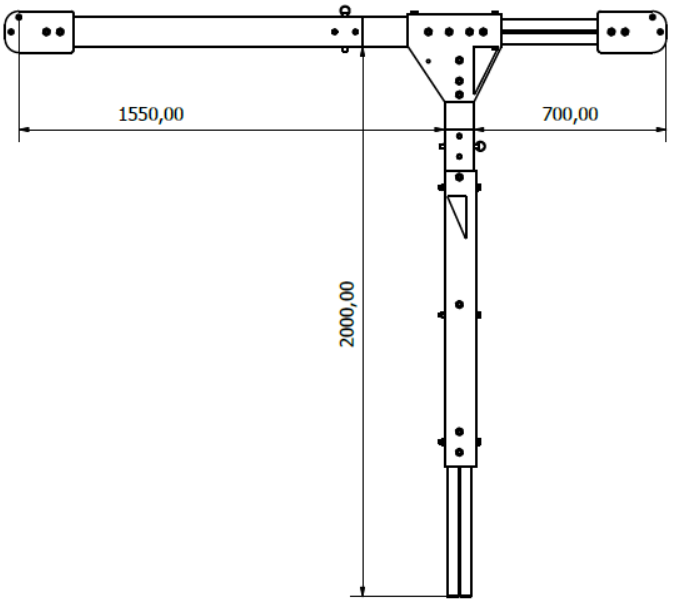
Reach: 1500mm

Height: 2000mm

Rating: 21KN

Operating angle: 90

Safe working load: 6KN



Unit Weight

Shoulder joint – 45 Kg

Mast – 38 Kg

Boom – 15 Kg

Dimensions

2000mm reach, 2000mm height

Code: ES2000.2000

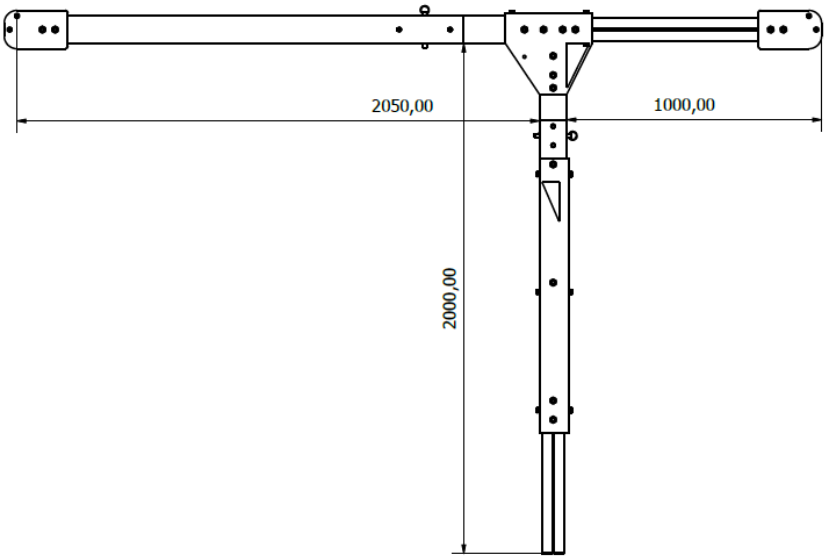
Reach: 2000mm

Height: 2000mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 50 Kg

Mast – 38 Kg

Boom – 20 Kg

Dimensions

2500mm reach, 2000mm height

Code: ESD.2500.2000.2U

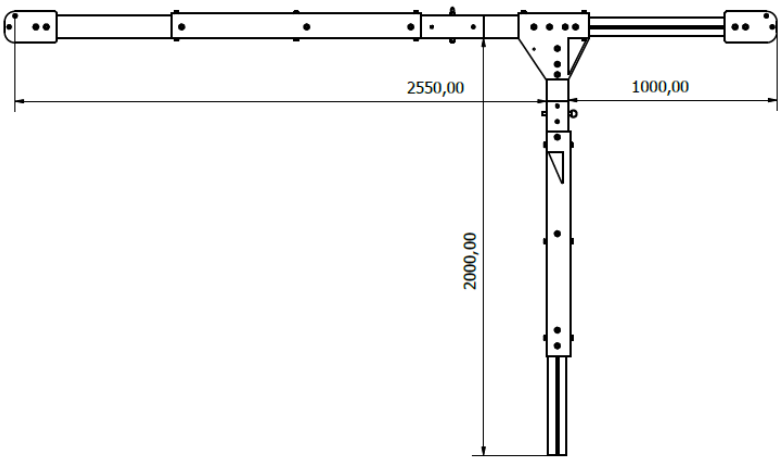
Reach: 2500mm

Height: 2000mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 52 Kg

Mast – 38 Kg

Boom – 42 Kg

Dimensions

1500mm reach, 2500mm height

Code: ESD.1500.2500.2U

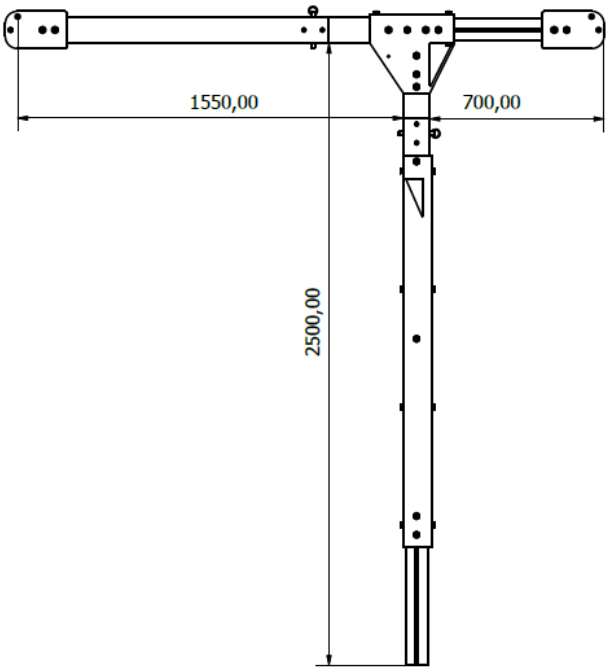
Reach: 1500mm

Height: 2500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 45 Kg

Mast – 47 Kg

Boom – 15 Kg

Dimensions

2000mm reach, 2500mm height

Code: ESD.2000.2500.2U

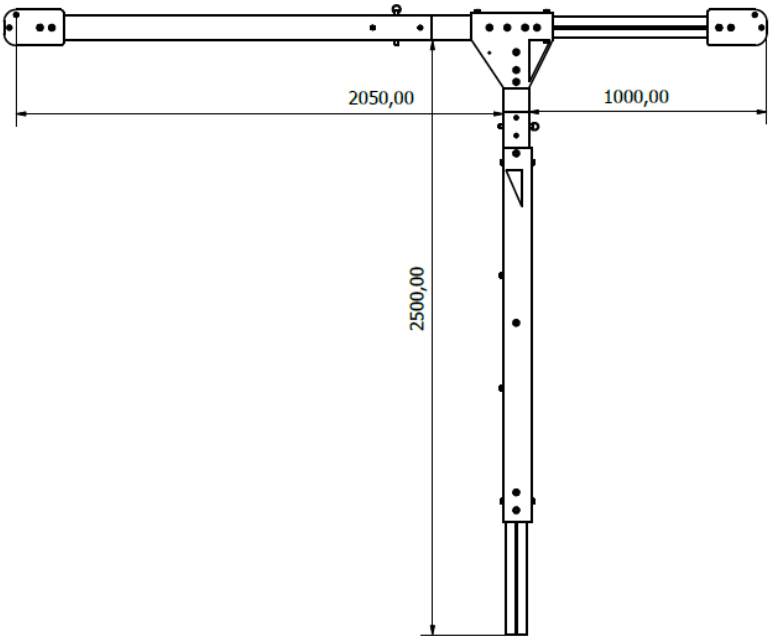
Reach: 2000mm

Height: 2500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 50 Kg

Mast – 47 Kg

Boom – 20 Kg

Dimensions

2500mm reach, 2500mm height

Code: ESD.2500.2500.2U

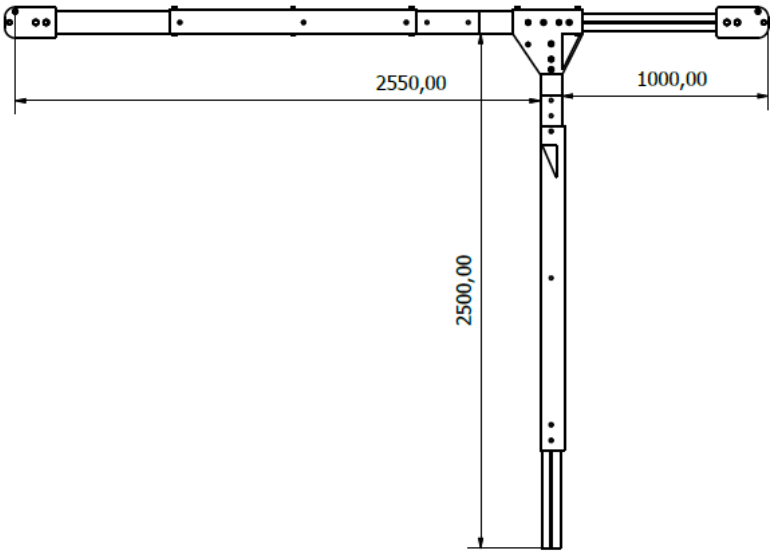
Reach: 2500mm

Height: 2500mm

Rating: 21KN

Operating angle: 180

Safe working load: 6KN



Unit Weight

Shoulder joint – 52 Kg

Mast – 47 Kg

Boom – 42 Kg

Davit Base Mounting Supplied Options

EdgeSeil™ 200mm tall stainless steel davit base, floor mounting

Code: DBS-0300-0200-SS-1U

Details

A floor mounted base, utilising resin for fixing.

Natural Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1500mm or below reach for 2U or 1U for higher than 1500mm

Unit Weight

11.2KG

EdgeSeil™ 150 & 200mm tall galvanised steel davit base, floor mounting

Code: DBS-0300-0200-HG-1U / DBS-0300-0200-HG-1U

Details

A floor mounted base, utilising resin for fixing.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1500mm or below reach for 2U or 1U for higher than 1500mm

Unit Weight

11KG

EdgeSeil™ 300mm tall stainless steel davit base, floor mounting

Code: DBS-0400-0300-SS-2U

Details

A floor mounted base, utilising resin for fixing.

Natural Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with any reach or height

Unit Weight

19.7KG

EdgeSeil™ 300mm tall galvanised steel davit base, floor mounting

Code: DBS-0400-0300-HG-2U

Details

A floor mounted base, utilising resin for fixing.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with any reach or height

Unit Weight

19.3KG

EdgeSeil™ 450mm tall stainless steel davit base, floor mounting

Code: DBS-0400-0450-SS-2U

Details

A floor mounted base, utilising resin for fixing.

Natural Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with any reach or height

Unit Weight

21.9KG

EdgeSeil™ 450mm tall galvanised steel davit base, floor mounting

Code: DBS-0400-0450-HG-2U

Details

A floor mounted base, utilising resin for fixing.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with any reach or height

Unit Weight

21.5KG

EdgeSeil™ 300mm tall stainless steel low profile davit base, floor mounting

Code: DBL-0400-0300-SS-2U

Details

A low profile floor mounted base, utilizing resin for fixing.

Comprises of a detachable base plate.

Used in applications where aesthetics are of paramount importance. The tube can be removed and placed in storage.

Natural Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

300mm tube height.

Unit Weight

Base plate: 15.9KG

Tube: 4.5KG

EdgeSeil™ 300mm tall Galvanised steel low profile davit base, floor mounting

Code: DBL-0400-0300-HG-2U

Details

A low profile floor mounted base, utilizing resin for fixing.

Comprises of a detachable base plate.

Used in applications where aesthetics are of paramount importance. The tube can be removed and placed in storage.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

300mm tube height.

Unit Weight

Base plate: 15.6KG

Tube: 4.4KG

EdgeSeil™ Stainless steel parapet base, wall mounting, 120mm distance from wall

Code: DBW-0300-0120-SS-1U

Details

A wall mounted base, utilising resin for fixing.

Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

120mm distance from parapet.

Unit Weight

14.7KG

EdgeSeil™ Galvanised steel parapet base, wall mounting, 120mm distance from wall

Code: DBW-0300-0120-HG-1U

Details

A wall mounted base, utilising resin for fixing.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

120mm distance from parapet.

Unit Weight

14.4KG

EdgeSeil™ Stainless steel parapet base, wall mounting, 200mm distance from wall

Code: DBW-0300-0200-SS-1U

Details

A wall mounted base, utilising resin for fixing.

Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

200mm distance from parapet.

Unit Weight

15.9KG

EdgeSeil™ Galvanised steel parapet base, wall mounting, 200mm distance from wall

Code: DBW-0300-0200-HG-1U

Details

A wall mounted base, utilising resin for fixing.

Galvanised steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

200mm distance from parapet.

Unit Weight

15.6KG

EdgeSeil™ Stainless steel parapet base, wall mounting, 300mm distance from wall

Code: DBW-0300-0300-SS-1U

Details

A wall mounted base, utilising resin for fixing.

Stainless steel finish.

Comprises of multiple attachment points for anchoring.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

300mm distance from parapet.

Unit Weight

17.5KG

EdgeSeil™ Galvanised steel parapet base, wall mounting, 300mm distance from wall

Code: DBW-0300-0300-HG-1U

Details

A wall mounted base, utilising resin for fixing.

Galvanised steel finish.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

Comprises of multiple attachment points for anchoring.

Unit Weight

17.2KG

EdgeSeil™ Stainless steel Cast-in base, flush

Code: DBC-0400-0000-SS-2U

Details

A cast-in davit base, cast in concrete slabs during construction.

Used in applications which require the base to be flush with the surface.

Stainless steel finish.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

Unit Weight

19KG

EdgeSeil™ Stainless steel Cast-in base, 300mm weathering tube

Code: DBC-0400-0300-SS-2U

Details

A cast-in davit base, cast in concrete slabs during construction.

Used in applications which require the base to be flush with the surface.

Stainless steel finish.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

Comprises of multiple attachment points for anchoring.

Unit Weight

21.3KG

EdgeSeil™ Stainless steel extended Cast-in base, 400mm weathering tube

Code: DBC-0400-0450-SS-2U

Details

A cast-in davit base, cast in concrete slabs during construction.

Stainless steel finish.

For the use of davit arms with 1000 or 1500mm reach for 2U or 1U for reaches above 2000 or 2500mm.

Comprises of multiple attachment points for anchoring.

Unit Weight

24.5KG

Materials Specification

S335 Mild Steel Base Plate Hot Dip Galvanised C4.

S355 Mild Steel Upper & Lower Anchor Points Hot Dip Galvanised C4.

S355 Mild Steel RHS Hot Dip Galvanised C4.

304 grade stainless steel.

A4/1.4401 A70 Grade M16 Bolts.

A4/1.4401 A70 Grade M16 Pins.

6082-T6 Structural Aluminium Inner & Outer.

Installation / Fixings

1U Bases / 300 x 300 Base plate dimensions

4 x M16 stainless steel stud with 220mm resin embedment.

or

4 x Concrete Anchors 105mm M12 anchors

2U Bases / 400 x 400 Base plate dimensions

5 x M16 stainless steel stud with 220mm resin embedment.

or

3 x Rear Concrete Anchors 135mm M12 anchors, 2 x Front Concrete Anchors 105mm M12 anchors

Test standards

BS EN 795 Personal fall protection equipment. Anchor devices.

PD CEN/TS 16415 Personal fall protection equipment. Anchor devices. Recommendations for anchor devices for use by more than one person simultaneously.

BS 8610 Personal fall protection equipment. Anchor systems

Related standards

BS 6037 Planning, design, installation and use of permanently installed access equipment. Code of practice.

BS 7883 Code of practice for the design, selection, installation, use and maintenance of anchor devices conforming to BS EN 795.

BS 7985 Code of practice for the use of rope access methods for industrial purposes.

BS ISO 22846 Personal equipment for protection against falls.

BS 8437 Code of practice for selection, use and maintenance of personal fall protection systems and equipment for use in the Workplace.

Testing

Testing and performance are in accordance with BS EN 795 Personal fall protection equipment, PD CEN/TS 16415 Personal fall protection equipment and BS 8610 Personal fall protection equipment.

Dynamic testing: 9 KN

Static testing: 21 KN

Product Warranty

'HG' 5 Years - Standard Warranty

'HG' 10 Years – SAYFA+ Warranty

'SS' 15 Years - Standard Warranty

'SS' 30 Years – SAYFA+ Warranty

'EP' 30 Years - Standard Warranty

'EP' 60 Years – SAYFA+ Warranty

Please refer to the Warranty Application available on www.sayfagroup.co.uk.

GET IN TOUCH

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