EDGE PROTECTION

ALL-IN-ONE-EDGEGUARD (TEMPORARY)

User Guide



HIRE & SALES

ALTRAD

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Altrad Hire & Sales

Support for Construction & Industry

Altrad Hire & Sales is the UK's leading supplier of: Scaffolding, Temporary Fencing, Light Access, Edge Protection, Safety Decking and Groundworks for hire and sale.

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BEST **QUALITY**

We work closely with our suppliers to ensure consistent product quality every time. All our products are specified to meet or exceed statutory requirements, verified by our Quality Assurance team.

BEST **AVAILABILITY**

Our nationwide branch network, transport fleet and stock holding ensure we can supply your equipment needs. What, When and Where you need equipment.

BEST **PARTNERSHIP**

We can take care of all your equipment needs; supplemented by a full range of engineering, design, specification and business services. Our focus is to work together, supporting the growth of your business.

BEST **VALUE**

Our global supply chain, purchasing and lean business means we don't pass on unnecessary costs to you. We aim to provide consistently low prices and the best value when you buy or hire from us.

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GUIDANCE NOTE

- This manual is valid only for the use of Genuine EdgeGuard All-In-One system manufactured and supplied by Altrad Hire & Sales.
- You should **read** and **ensure** you understand this manual in its entirety prior to commencing work.
- **Only trained and competent operatives should erect, dismantle or modify the EdgeGuard All-In-One system at all times.**

DISCLAIMER:

Altrad Hire & Sales reserve the right to alter or amend without notice the design and / or specifications of any of the equipment forming part of the EdgeGuard All-In-One system, in the interests of improvement.

Whilst Altrad Hire & Sales and the author have made every reasonable effort to ensure that the information contained within this user guide is correct at the time of printing, you should be aware that Altrad Hire & Sales and the authors do not accept any liability for any inconvenience, loss or damage caused by the result of any inaccuracy, or omission, within this publication.

About All-In-One-EdgeGuard

The All-In-One EdgeGuard system is a Patent Pending, fully galvanised, freestanding and counterweighted edge protection system with fixed and folding options. Fast and easy to install with a minimal amount of components and tools required, it is the perfect system for use during the maintenance or refurbishment of flat roofs.

Altrad Hire & Sales have further improved EdgeGuard, our market-leading permanent roof edge protection system, so that it offers even greater compliance and flexibility over its predecessor. With fewer components and quicker installation times, its modular design ensures adaptability and ease-of-use.

The system is now even more robust, making All-In-One EdgeGuard the ultimate in permanent or temporary roof edge protection. Whenever people require access to, or work on a roof, there is a need for All-In-One EdgeGuard.

This cost-effective guardrail solution meets and exceeds all Health & Safety regulations and relevant British and European Standards. It is a system that performs as good as it looks. Tough, easy to erect and virtually maintenance free, this is a long-lasting safety solution which provides leading edge protection in both permanent and temporary situations.

How does it work? All-In-One EdgeGuard is a freestanding guardrail with an anti-slip rubber mat fixed to the sole of the base, ensuring there are no adverse effects on the roof surface. Its unique design removes the need for unsightly counterbalance weights, with the added benefit of reducing trip hazards.

With options to mechanically fix if required, or a folding option which is an aesthetically pleasing solution for listed buildings (among others), Altrad Hire & Sales' All-In-One EdgeGuard system is the number one answer for edge protection.

Product Specifications

Temporary EdgeGuard edge protection products are solely designed to meet the mechanical requirements of BS EN 13374 class A.

The classification requires for the rail system to protect against static loads, based on the requirement to;

Support a person leaning on the protection or provide a handhold when walking beside it; and Collectively stop a person who is walking or falling towards the protection.

Systems are not intended to:

- Absorb impact from plant or vehicles.
- Prevent the collapse of large quantities of, for example, materials or snow.

Class A systems are designed for roof surfaces with water run off upto 10 Degrees, and EdgeGuard has been tested on a range of standard roofing materials such as PVC, Sarna , Concrete, Roofing Felt, plus standing seam roofs.

EdgeGuard is designed to the following BS EN Standards –

BS EN 13374:2013 Temporary edge protection systems - product specification - test methods (+A1:2018) (Incorporating corrigendum January 2019)
BS EN ISO 14122-3:2016
Wind loading calculations to BS EN 1991-1-7:2006+A1:2014.

The working at height regulations 2005 (WAHR) and The Construction (Design & Management) Regulations (CDM 2015) are the main set of regulations for managing the health, safety and welfare of construction projects.

Handling, Fittings, Torque Settings, and Tolerances

Handling - Permanent EdgeGuard components are designed for ease of use and all of the standard system components weigh 25 Kg or less.

Fittings are a blackheart malleable iron casting manufactured to BS EN 1562:1997 using grade B32-10 material with a hot dipped galvanised finish to BS EN 1461:1999. All fittings are supplied with grub screws that have been coated in a Dacromet® anticorrosion finish. The grub screws can be tightened with an Allen key, however, if fully tightened using a ratchet key to a torque of 4.1kg/m (29ft/lb) the grub screw is capable of withstanding anapplied slip load of 900kg.

Tolerances -

A general manufacturing tolerance of +/- 10mm applies to all fabricated EdgeGuard components.

Manual Handling

The following basic rules should be adhered to when manually handling the EdgeGuard All-In-One system and associated components.

- Plan/ lay down storage areas in advance, to reduce the distance materials have to be manually handled.
- Always check the transit route before manual handling, to ensure that it is suitable and free from obstructions and any tripping hazards.
- When handling long materials, beware of damaging property, overhead electric lines, other people and moving vehicles.
- Only tackle loads that can be reasonably handled by the individuals involved – i.e. consider personal physical capabilities.
- Manual handling operations should be eliminated where possible, by using mechanical handling equipment and manual handling aids whenever possible. These include light-lines, gin wheel, forklifts and cranes etc.
- Use the correct knots and hitches if using rope to lift equipment.

Note: Details relating to manual handling and what should be considered can also be found in the latest edition of the NASC guidance note SG6 – "Manual Handling in the Scaffolding Industry."

Although All-In-One EdgeGuard is not a scaffold product, SG6 contains details which may be pertinent when manually handling this system.

GUIDANCE NOTE

Always use the correct kinetic handling technique:

- Make sure your feet are on a firm level base, a comfortable distance apart (Approx. 300mm).
- Use your legs and not your back to bend.
- Raise your head slightly and tuck in your chin to keep your spine straight.
- Avoid turning / twisting the trunk of the body.

Safety On Site

As is the case with any guardrail system, only trained and authorised operatives should carry out the erection, dismantling or modification of an EdgeGuard All-In-One structure.

Consideration must always be given to those that may be affected by the works being carried out. To ensure that the highest standards of safety performance are maintained, consideration should be given to the following:

1. Altrad Hire & Sales' All-In-One EdgeGuard edge protection products must always be used together with the applicable Product User Guide.
2. Fall protection works should always be properly planned before commencing works. A Risk Assessment should be carried out with a Method Statement produced prior to the installation of Altrad Hire & Sales' All-In-One EdgeGuard System.
3. To ensure safety in the workplace, always consider the following;
   i. Plan the Fall Protection at an early stage.
   ii. Ensure the competency of all operatives.
4. Arrange suitable and safe, access & egress to and from the workplace. Stair access towers or ladders must be provided for all working platforms on temporary access structures, such as scaffolding. Staircase towers provide safe and convenient access for operatives and materials. Staircases should be the preferred choice for access. For shorter duration projects where the use of ladders is acceptable for access, ensure they are founded on a solid base and are securely fixed at the top.
5. On temporary access structures (such as scaffolding), do not overload the working platforms with any materials. If you require to stack large quantities of material at platform level, then a suitable loading tower, capable of sustaining all anticipated loads, should be utilised.
6. All working platforms on temporary access structures (such as scaffolding) must be complete with double guardrails and a toe board, and free from trip hazards or projections. Where there is a risk of items falling, the use of the brick guards should be considered. All scaffolds must be erected in strict accordance with their user guide, the current edition of the NASC's Guidance Note TG 20, or bespoke design.
7. Any unauthorised interference of temporary access structures should be immediately reported to site management, with any incomplete or unsafe parts of the structure being clearly marked and access restricted.
8. All EdgeGuard All-In-One components require visual inspection before use. Only use products that have been previously inspected and are deemed safe to use, **NO** damaged equipment should be used. Any equipment found damaged should be immediately set aside In a quarantined area, clearly marked and senior management informed.
9. Maintenance and repair procedures should only be carried out by qualified / approved personnel.
10. Keep the assembly area tidy, clean and safe.
11. Only use tools intended for the work to be performed.
12. Tighten all grub screws and bolts, while ensuring all surfaces are free from damages.
13. Always wear appropriate PPE with Hi-Vis where required.

General Rules For Safety

Always

- Always ensure all who erect, adapt and dismantle the EdgeGuard system are trained and competent to do so.
- Always ensure all risk assessments and method statements have been carried out, then communicated to those concerned, and understood.
- Always ensure that there is adequate storage space for the materials.
- Always ensure that there is clear access to the work area and that the surface is suitable for the EdgeGuard system.
- Always work to current Health & Safety guidelines and regulations.
- Always ensure loads are evenly distributed.
- Always ensure EdgeGuard system inspections are carried out and recorded as per current legal requirements.
- Always ensure that all defects are notified to the site management immediately.

Never

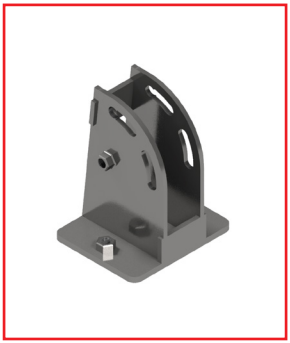
- Never let untrained persons erect, modify or dismantle the EdgeGuard system.
- Never create gaps in the EdgeGuard system by removing guardrails or toe boards.
- Never remove restrictions or warning signs.
- Never add sheeting or netting to the EdgeGuard system without prior approval.
- Never use damaged materials.
- Never allow unqualified / unapproved personnel to repair damaged equipment.

GUIDANCE NOTE

Safety is no accident. Don't risk it – if in doubt ask!

The information given in this EdgeGuard All-In-One user guide relates solely to genuine EdgeGuard equipment supplied by Altrad Hire & Sales.

Main Components



Folding Socket Base

An adaptable base unit, can be used in a fixed upright position or folded flat. This component is bolted directly to the Plain 800mm Countersunk Counterweight to form the base of the system. It can also be mechanically fixed to roofs and parapet walls to provide folding edge protection.

Surface Finish: BS EN ISO 1461:2009 Hot dip galvanized

Code	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
199805	132	124	186	2.9

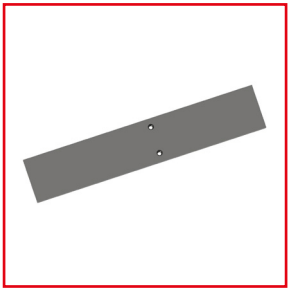


Vertical Post

The vertical of the system, for use with Folding Socket Base and the Right Angled Spigot Connector.

Surface Finish: BS EN ISO 1461:2009 Hot dip galvanized

Code	Length (mm)	Wall (mm)	Ø (mm)	Weight (kg)
199815	1100	3.2	48.3	3.6

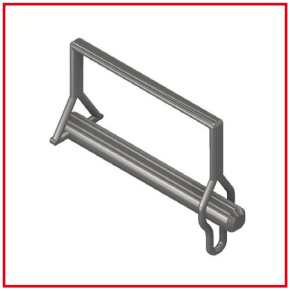


Plain 800mm Countersunk Counterweight

The counterweights are drillled and countersunk to accept M12 Cap Head Set Screws. These screws can be used to bolt the Folding Sockets Bases into place.

Surface Finish: BS EN ISO 1461:2009 Hot dip galvanized

Code	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
199800	800	150	20	18.8

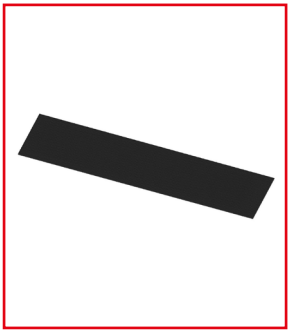


Quick Release Locking Pin

Manufactured from Grade 8.8 Steel, these special M12 x 70mm quick release pins are bright zinc plated.

Code	Length (mm)	Width (mm)	Ø (mm)	Weight (kg)
149708	76	60	12	0.5

Main Components



Styrene Rubber Mat

Membrane / roof protection System Each EdgeGuard system is installed with SBR rubber matting bonded to the underside of the Counterweight Units.

This protects the roof surface from damage, and transference of any heat or direct contact with any system components.

Surface Finish: SBR - Ribbed Styrene Butadiene Rubber

Code	Length (mm)	Height (mm)	Weight (kg)
199604	800	3	0.5



Horizontal Guardrail Tube

Within the temporary system, the Guardrail is formed using a special light-weight tube. This tube forms both the principle and intermediate guard rails of the EdgeGuard All-In-One Temporary system.

Surface Finish: BS EN ISO 1461:2009 Hot dip galvanized

Code	Length (mm)	Wall (mm)	Ø (mm)	Weight (kg)
199820	3000	1.8	48.3	6.2



Standard D-End Termination

Standard D-End Termination for the EdgeGuard All-In-One system.

Surface Finish: BS EN ISO 1461:2009 Hot dip galvanized

Code	Length (mm)	Height (mm)	Weight (kg)
199830	500	500	5.0

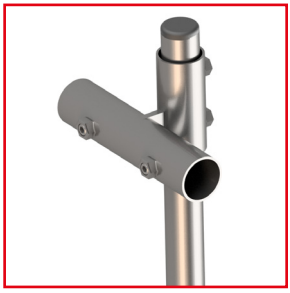


End Cap

Used to Cap off Vertical Post as required.

Code	Length (mm)	Height (mm)	Weight (kg)
199604	800	3	0.5

Main Components



Variable Height Tube Spigots

The M16 Grub Screws to the back of the Tube Spigots allow the height of the horizontal rails to be altered as required to meet British Standard Specifications for over all rail heights and gaps between rails. Spigots also have a reversable feature.

The M16 Grub Screws to the front of the spigot accepts two horizontal rails that can be jointed inside the spigot.

There are no requirements for cuts or additional jointing sleeves.

Code	Length (mm)	Width (mm)	Ø (mm)	Weight (kg)
199810	260	150	60.3	1.8

Ancillary Components



Toe Board Clip

EdgeGuard Systems are designed to work on uneven surfaces such as roofs and in some cases it will be required to cut, joint and notch toe board systems.

Toe Boards for this application are not generally supplied as part of the system. However, there is a bespoke toe board clip, which can be used as required. They have a galvanised finish and can be drilled to accept any suitable toe board material. The clips are fully adjustable with an maximium internal size of 63mm, to a minimum width of 30mm.

Clips are also reversible, so toe boards can be mounted both internally or externally.

Code	Length (mm)	Height (mm)	Weight (kg)
199825	150	150	0.54



Sleeve Couplers

This is a frictional type coupler which connects two 48.3mm outside diameter scaffold tubes end to end.

EN 74 Class B, has a slip resistance 5.50 kN

*Weight may vary due to manufacturer

Code	Weight (kg)
026005	1.07



Swivel Coupler

Load bearing fitting which connects two 48.3mm outside diameter scaffold tubes at any angle.

These fittings are particularly used for making corners or angles in Temporary EdgeGuard edge protection

*Weight may vary due to manufacturer

Code	Weight (kg)
026002	1.15

Installation Guidance

This section describes the basic installation procedures for All-In-One EdgeGuard (Temporary).

As with all edge protection systems, only trained, competent operatives should install, dismantle or modify EdgeGuard.

Prior to commencing work, make sure all method statements, risk assessments and permits are in place.

Ensure that the surface EdgeGuard is to be built on is level and firm and capable of taking the imposed load of the completed system.

It is recommended that installation and dismantling of the Edgeguard system is carried out by a minimum of two operatives.

Current legislation states that, when complete, a temporary EdgeGuard structure is required to be inspected:

- Before being used for the first time
- Following significant alteration.
- At least every seven days from the date of the last inspection.
- Following adverse weather or any event likely to have affected its strength or stability.

Checking

The installer should continuously check the edge protection during assembly. A final inspection must be made once assembly is finished, prior to hand over.

All-In-One EdgeGuard meets the requirements of the Work at Height Regulations 2005, and BS EN 13374:2013+A1:2018, where, within the finished structure;

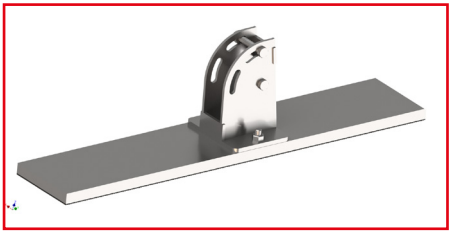
- The principal guardrail height is a minimum of 1000mm, measured perpendicularly from the top of the principal guardrail to the working surface.
- Intermediate guardrails are located so that any gap between it and other means of protection does not exceed 470mm.
- Standard scaffold boards are suitable and sufficient to used as toe-boards, however, other suitable materials may be used where they meet the criteria as described in BS EN 13374.

Basic Installation Procedure

Step 1

Using the apporpriate sized set screws, connect the folding socket to the Plain 800mm Countersunk Counterweight.

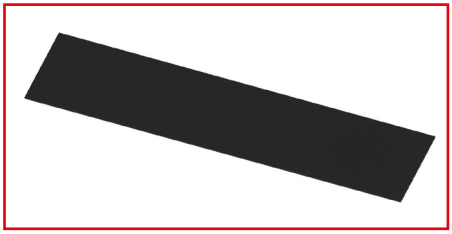
Note: At an end termination point, unless another counterweight/base/post combination is connected to the guard rails within 1.5m of the termination point, the counterweights must be doubled on the end post base assembly.



Step 2

After assembly of any counterweight (including double ends) ensure mats are on to the underside of the bases ensuring they are firmly positioned and secured.

It is recommended that end counterweight assemblies are built insitu if possible to limit any manual handling.



Step 3

Connect the vertical post to the Folding Socket Base using the appropriate sized set screw.

Note: The post can be held at the require position either by using the Quick Release Locking Pin or an M12 set screw and lock nut set.

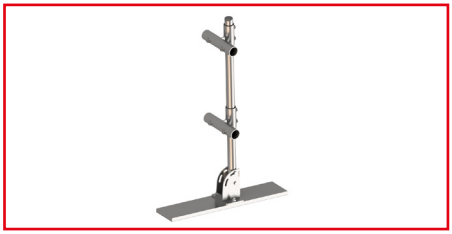


Step 4

Slide two variable height tube spigots over the vertical tube one after another with, in the case of a temporary installation, the horizontal section should be positioned to the bottom.

Now set the guardrail height by locating the upper of the two grub screws, within the vertical part of the tube spigots, into the predrilled holes in the vertical post. Using an allen key, the lower grub screw is then tightened against the wall of the vertical post, to secure in place.

Repeat Steps 1 to 4 for the next, and each subsequent post.



Basic Installation Procedure

Step 5

Place two post / counterweight assemblies in their desired positions, 3.0m apart.

Whilst holding the first post, with assistance from another operative, slide 3.0m guardrail tubes through the top and mid-rail spigots from the direction of the second post. Now slide each tube in the opposite direction, until both ends of each tube are half-way through the spigot.

Make sure the rail is level and tighten up the grub screw using an Allen key.

To continue, take a further post / counterweight assembly, place in the desired position and connect to the second post /counterweight using two further guardrail tubes, agin ensuring the tube ends are half-way through the spigots.

Make sure the rail is level and tighten up the grub screws using an Allen key, then continue the operation as described until the EdgeGuard is complete.

A visual check should now be made as to the line of the guardrail to check that it is straight along its length and parallel to the building, parapet or walkway.

Note: It is possible to use other tube lengths, such as 19 ft (5791 mm) or 21 ft (6400 mm), with guardrail tubes passing fully through the variable height tube spigots, however, the maximum spacing between posts must not exceed 3.1m.

Sleeve couplers provide the connection detail for mid-bay tube to tube connections. It is acceptable for these joints to be within the same bay for both principle and mid-guardrails.



Assemblies & End Termination

Universal Fixed / Folding Base Unit

EdgeGuard in Fixed Position

2 off M12 x 80mm Long Set Screw holds

EdgeGuard Vertical Post in position.

Bolt Fixing Kit for use in Fixed Position

2 off M12 x 30mm long Caps Head Set Screws, with 10mm Allen key socket head.

2 off M12 X 80mm long, 19 mm Hex Head, Set Screws

4 off M12 Locking Nuts

4 off M12 Washers

EdgeGuard in Folding / Quick Release Mode

1 off M12 x 80mm Long Set Screw and 1 off M12 x 70mm Quick Release Spring Pin holds

EdgeGuard Vertical Post in position.

Bolt Fixing Kit for use in Folding /Quick Release Mode

2 off M12 x 30mm long Caps Head Set Screws, with 10mm Allen key socket head

1 off M12 X 80mm long, 19 mm Hex Head, Set Screws

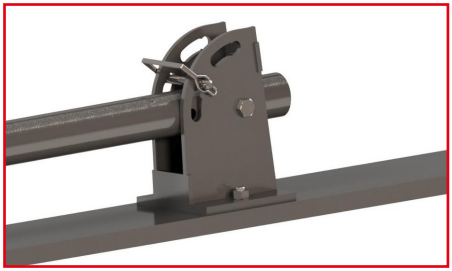
3 off M12 Locking Nuts

3 off M12 Washers

1 off M12 x 70mm Quick Release Spring Pin



EdgeGuard In Fixed Position - Quick Release Pin prevents accidential / wind uplift.



EdgeGuard In Folded Position - Quick Release Pin prevents accidential / wind uplift.



EdgeGuard In Upright Position - Quick Release Pin locks edge protection in place.

Assemblies & End Termination

Double Counterweight End Temination

EdgeGuard in Fixed Position

2 off M12 x 80mm Long Set Screw holds

EdgeGuard Vertical Post in position.

Bolt Fixing Kit for use in Fixed Position

2 off M12 x 50mm long Caps Head Set Screws, with 10mm Allen key socket head.

2 off M12 X 80mm long, 19 mm Hex Head, Set Screws

4 off M12 Locking Nuts

4 off M12 Washers

EdgeGuard in Folding / Quick Release Mode

1 off M12 x 80mm Long Set Screw and 1 off M12 x 70mm Quick Release Spring Pin holds

EdgeGuard Vertical Post in position.

Bolt Fixing Kit for use in Folding /Quick Release Mode

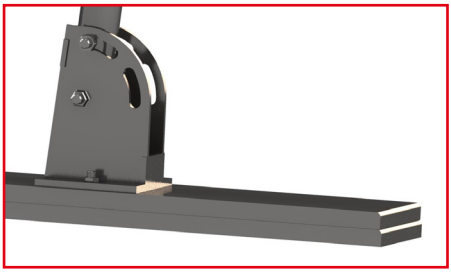
2 off M12 x 50mm long Caps Head Set Screws, with 10mm Allen key socket head

1 off M12 X 80mm long, 19 mm Hex Head, Set Screws

3 off M12 Locking Nuts

3 off M12 Washers

1 off M12 x 70mm Quick Release Spring Pin



With the double counterweights in place, be sure to lower the horizontal rails by 20mm, using the variable height tube spigots.

Single Counterweight End Temination



Rather than the Double Counterweight End Termination solution described previously, it is possible to have a Single Counterweight End Termination at the end of the run. However, an addtional post and counterweight base assembly must be placed at a maximum of 1500mm, or closer from the end counterweight.

If the end counterweight is to be raised for roofing sheet to pass under, at least one of the guardrail tubes must pass through three counterweights, to remain stable.

Assemblies & End Termination

D-Ends

The standard D End Termination for the EdgeGuard All-In-One system is an aesthetically pleasing but optional method to complete a run of All-In-One EdgeGuard.

Both ends of the D-End is placed within the upper and lower Variable Tube Spigots, with the grub screws being tightened as normal.

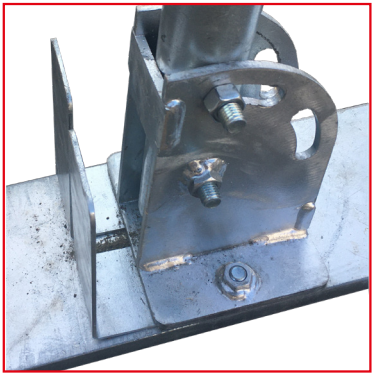


Toe-Boards

Toe-board clips are fully adjustable, with an maximium internal size of 63mm to a minimum width of 30mm, with the clips can being easily adjusted for a standard scaffolding board width of 38mm.

Two clips can be used per base assembly, allowing two 3.0m (10ft) scaffolding boards to be butted up to each other at the counterweights, or longer toe-boards length to pass through, for example, at a D-End termination.

A singular toe-board clip can also be placed over the toe-board, with the vertical post passing through the hole in the toe-board. This allows for longer toe-boards to be used within smaller bay sizes.





Assemblies & End Termination

Intermediate Raising of Post and Counterweight Base Assemblies

Counterweighted legs must only be raised on flat felt roof applications of 5 degrees or less, with Guardrails being of scaffold grade tube.

As mentioned previously, an addtional post and counterweight base assembly must be placed at a maximum of 1500mm, or closer from the end counterweight.

At least one tube in every bay is continuous, and must run between three post and counterweight base assemblies (If in doubt , speak to your local depot) and, as previously stated, if the end counterweight is to be raised for roofing sheet to pass under, at least one of the guardrail tubes must pass through three counterweights, to remain stable.

To lift the leg use the following procedure:

1. Build the edge protection system.
2. Loosen the M16 grub screws on the rear of the tube spiggots using an M8 allen key, on the leg required (see below).
3. The counterweight is now free, and can be lifted.
4. The lifting operation is a two person procedure.
5. Slide the leg up inside the spiggots.
6. When the counterweight and leg is in its highest position lock the tube into place using the M16 allen grub screws.
7. To lower the leg, reverse the operation, taking care not to let the counterweight drop quickly.



Temporary To Permanent

As there are different requirements for temporary and permanent counterweighted edge protection systems, it is often the case that there will be different guardrail systems employed during and after the construction phase.

With Altrad Hire & Sales' All-In-One EdgeGuard system, a simple adjustment is all that is required to convert temporary to permanent and meet all mandatory standards.

When installing the EdgeGuard system for temporary use during construction, the lower variable height tube spigot is placed over the post, with the horizontal section to the bottom. and secured as before, with the upper of the two grub screws, within the vertical part of the tube spigots, placed into the predrilled holes in the vertical post. Using an allen key, the lower grub screw is then tightened against the wall of the vertical post, to secure in place.

Using a D-End and / or tape measure to set the required gap height of 470mm, place the upper variable height tube spigot over the post in the opposite direction to the lower spigot. Both grub screws are now tightened against the wall of the post.

It is now a simple operation, once all temporary works are completed, to raise the guardrail to the permanent position.

Loosen the grub screws on both variable height tube spigots and lift the guardrails into the permanent position, with the top grub screw on the upper spigot locating into the pre-drilled hole of the vertical post, and the remaining three being tightened against the wall of the vertical post. It is recommended that a tape measure and a spirit level are used to maintain the requirement of a 470mm gap.

Note: Only the variable height tube spigots on one post may be loosened at the same time.

It is recommended that the lighter-weight permanent guardrail tube is used, rather than scaffold tube, in temporary to permanent scenario. This avoids the need to swap tube rails during the conversion process, making the whole operation more efficient.



EdgeGuard in the temporary position.



EdgeGuard converted from temporary to the permanent Position.

Calculation Of Wind Loading

External edge protection shall be capable of sustaining a maximum velocity pressure which is dependent on the factors detailed in **A)** to **G)**. This shall be greater than the working wind load.

Note: The edge protection is not in use in a windstorm and therefore, for design purposes, it is assumed that the maximum wind loads act at the same time as out-of-service conditions

Out of service condition assumes no loading (persons) other than wind. The effects of maximum velocity pressure on the structure shall be taken into account, except in cases where additional safety components are used, i.e. in the working wind condition. If the system includes a toeboard in the out of service condition, the effects of maximum velocity pressure acting on the system and structure shall be included in the wind calculation.

To determine the maximum velocity pressure the following information shall be recorded:

- **A)** Site location (postcode);
- **B)** Site altitude (in metres above sea level);
- **C)** Height above ground (installation level);
- **D)** Type of site;
  - **i)** Town;
  - **ii)** Country;
  - **iii)** Coastal;
- **E)** Closest distance to the sea;
- **F)** Topographical characteristics; and
- **G)** Design life.

Probability factor = 1 for 50-year design life; 0.96 for 25-year design life.

Note: The maximum peak velocity pressure can be defined as the theoretical pressure in unobstructed flow corresponding to the wind gust of 1 second duration having a 0.02 probability of being exceeded during the life ofthe structure.

It may be calculated with varying degrees of complexity (and resultant economy), using the guidance in BS EN 1991-1-4 as modified by the UK National Annex thereto either by hand calculation or using computer software.

Wind load calculations

Edgeguard is tested to meet the wind load requirements of 600 Nm^2 which covers most wind conditions in Europe.

Using the guidance in BS EN 1991-1-4 as modified by the UK National Annex by using computer software, the wind velocity pressure calculation represents a wind speed of approximately 32 m/s. (70 mph).

Warning

You should never increase the effective area of the edge protection, for example by using scaffold sheeting or plywood, as they will increase the load on the edge protection at a given wind strength. Never make changes without first checking with Altrad Hire & Sales so that the system is designed to meet any additional wind loading.

Ice and Snow

The EdgeGuard Edge Protection system is not designed for exposure to static or dynamic loads resulting from ice and snow.Always keep the Edge Protection is free from additional loading resulting from ice and snow.



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