

## Installation tools checklist

**4mm and 6mm allen keys**

**Hammer drill** - For concrete anchors you will require a carbide tip masonry drill 10mm W x 180mm L

For other substrates you will need alternative drill bits.

For fitting handrail, you require 4.5mm stainless steel drill bit and a 5mm thread tapping set. Please see page 13.

**Torque wrench and socket set for 8mm bolts** -You may need this to tighten your anchors on site.

**Dual resin gun** - If you purchase our resin you will require a dual resin gun. You can buy this on your order form.

**Glass suction cups** - This is optional but can help with the movement around site and during the installation itself.

**Gloves and wrist guards** - This is standard PPE for using and handling glass products safely.

**Screwdriver** - This is required if you are attaching a wall flange to a wall.

**Scotch brite cleaning pads**- This can be used to clean any marks of scuffs on the material that may happen during the installation.

**Black marker pen** - You will need this to mark where on the handrail to drill your fixing points.

**Loctite 638 glue and Loctite SF7649 activator** - You will need to buy this if fitting slotted handrail. The activator is only required in the event you wish to reduce the drying time for the Loctite 638 use.

**Chop saw with stainless steel cutting blade** - This is only required for a stainless-steel handrail as we always supply lengths slightly longer than required. This allows you to ensure you have an exact fit on site. It is impossible to drill and cut the handrail to length as there are glass tolerances to consider and this would provide no flexibility on site for your installation.

## Semi frameless post with no handrail system - glass clamps

The post with no handrail system if protecting a fall over a height of 600mm requires toughened laminate glass with fixing holes drilled in the glass. As such, it is more expensive than both of the post with handrail systems. If the system is not protecting a fall of more than 600mm and is purely a windshield or partition, 10mm glass can be used and it is our most affordable solution. As such you will only use the security with the clamps if you have purchased toughened laminated glass.



## During Your Install Process

Stainless steel is quite a soft metal so during your install process refrain from cutting and grinding work close to the components as this can inlay metal sparks/contaminates into your stainless steel which may affect its corrosion resistant qualities. All works should be carried out in an alternate area and cover the any component exposed areas as much as possible if cutting/grinding them

## Base plate installation



We always recommend you mark and layout your post system prior to starting your installation. Once you have checked your posts are all in the correct locations from the drawings provided you can start to drill your anchor points.

It is a good idea to start one end and work along each run to its completion. The ground surface needs to be flat but metal shims can be used in the event there is some minor deviations. Once the posts are all in position you can then look to fit your handrail system followed by the glass into the clamps using your allen keys.



# Post detail

Please do not predrill your holes until all of your posts or spigots arrive  
As although the PCD does not alter on the base plates the location in relation to the post or spigots can change slightly

## Post Features

- Slimline, elegant design with low maintenance and BS6180:2011 compliant
- External grade 316 stainless steel brushed aluminum 320 grit finish
- All our 48.3mm diameter posts are supplied with fitted welded base plates, base covers and clamps
- Vertical and horizontal mounting solutions
- Available with or without handrail
- Simple and easy to install

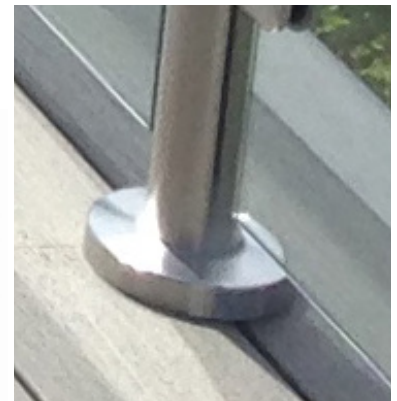
## Fixing points

### Base plate

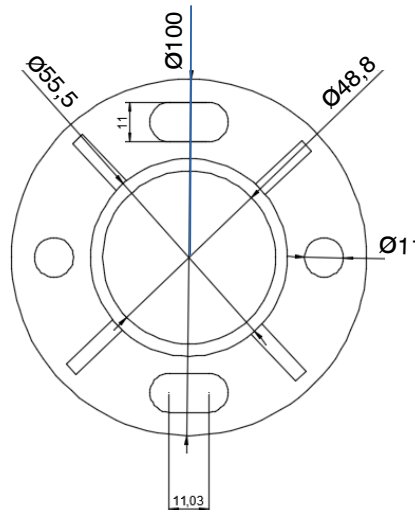
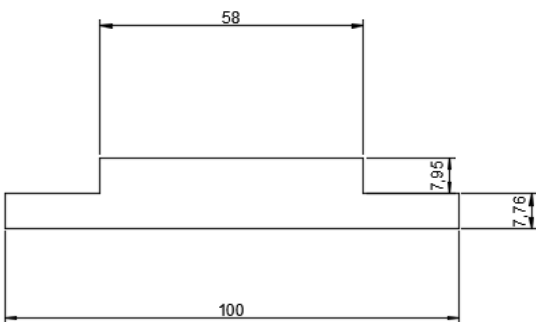
We do on occasion use alternative base plates that are not shown.

If the footprint of your base plate is critical please advise your salesperson.

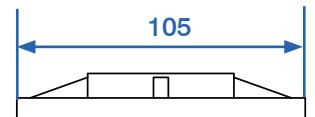
With all our posts the base plate comes with an attractive cover as shown in the picture opposite.



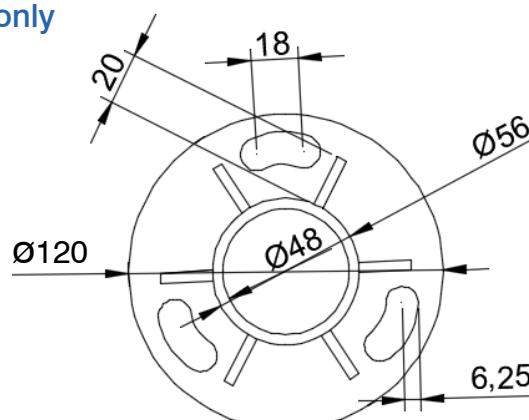
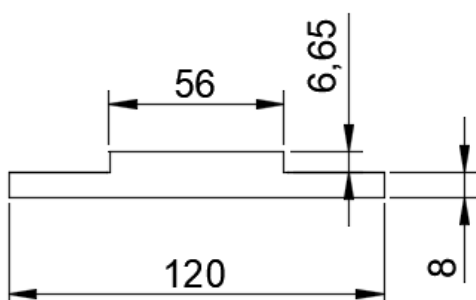
### Base plate 100mm wide with post and saddle / cradle



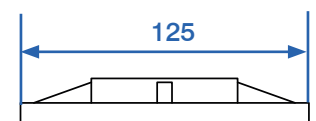
With covers on - 105mm



### Base plate 120mm is post no handrail only



With covers on - 125mm





# Post parts included with cradle system

Saddle



Glass clamp



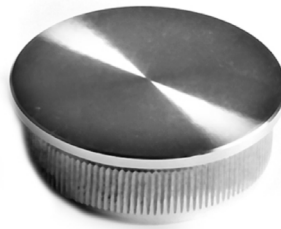
Corner Cradle



Adjustable handrail connector



End Cap

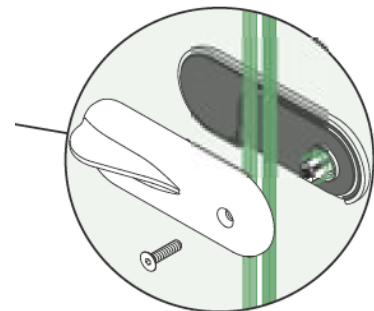


# Post Extras

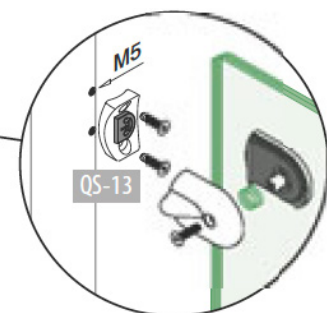
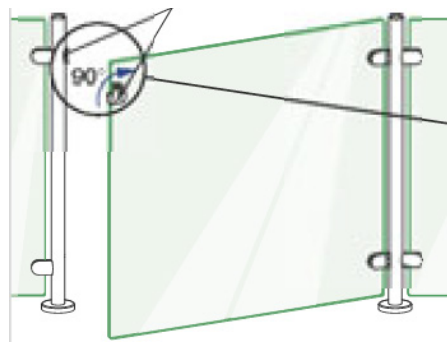
Latch



£50 + VAT ea



Gate hinge



Gate max width is 900mm due to weight of the panels

£90 + VAT per set

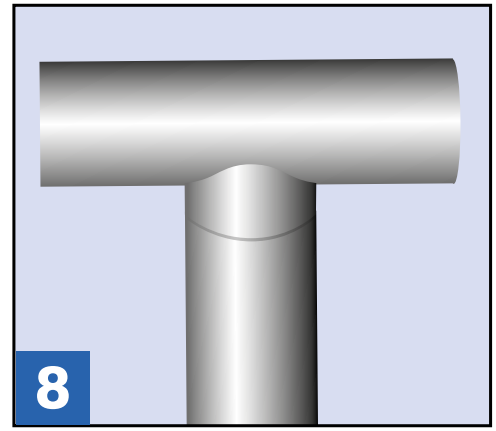
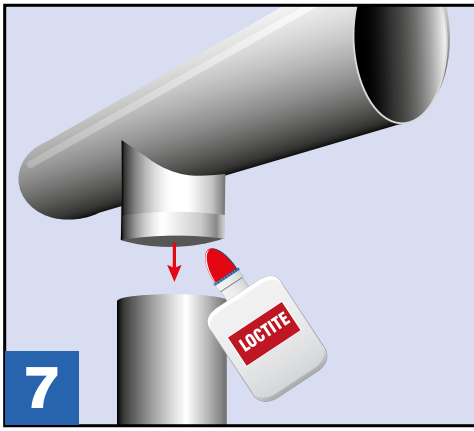
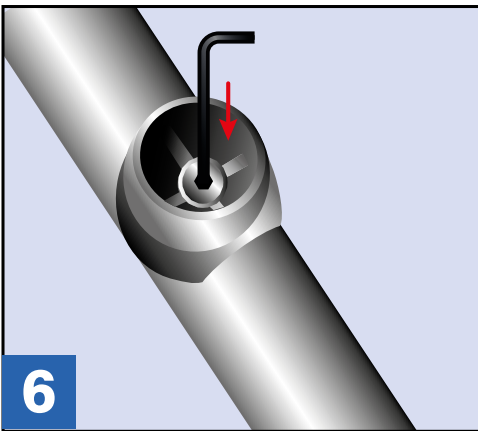
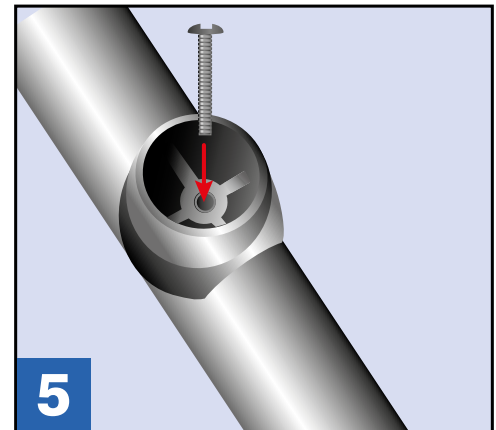
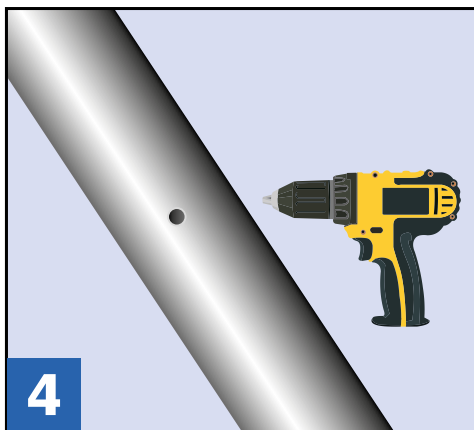
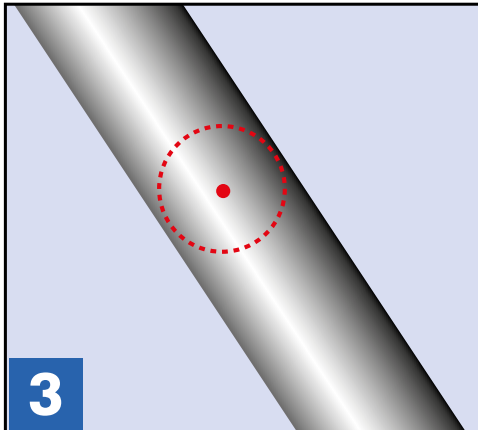
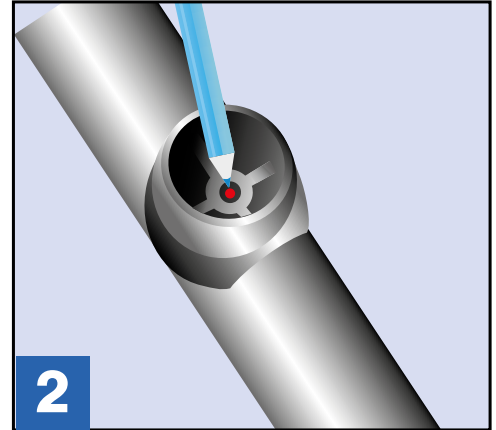
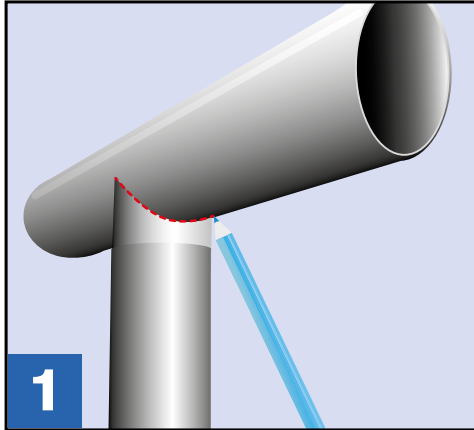


# Cradle Handrail installation



## Items Required

- Permanent black marker pen
- 4.5mm stainless steel drill bit
- Hammer
- Grease
- Hole punch
- Power drill
- Screwdriver
- 5mm thread tapping set
- Allen key
- Chop saw with stainless steel cutting blade
- Loctite 638 adhesive
- Loctite SF 7649 activator
- Rounded metal file



- Assemble the handrail and lay it on top of your post cradles so everything is in position but please bear in mind we supply extra handrail to account for any inaccuracies in your post spacings, so it is likely to overhang your system
- Use the black marker pen to draw a line where you need to cut off the excess handrail to ensure it finishes at the end of your balustrade run.
- Use the chop saw with stainless blade to slowly cut off the excess handrail along the line. A slow cut will reduce the amount of metal burrs on the edges.
- Use the rounded file to remove any sharp edges and burrs from the handrail that may have been created on the inside and outside of the cut edge of the handrail. Once cleaned this can be replaced back on the cradle assembly.
- Using the marker pen from the underside of the handrail you need to mark a line on either side of the cradle so you can see where it is positioned along the handrail length. You can then remove the handrail and position a cradle so it sits neatly on the curve of the handrail between the 2 marks you have made and use the marker pen to dot through the hole in the centre of the cradle to mark where your hole is required on the handrail. Complete this task for each post cradle to include the corners.
- You can now remove the handrail one piece at a time and lay it on a flat surface and ensure it cannot roll around (a vice/clamp or someone holding it in position will suffice). You can then use the hole punch and hammer to gently create a small indentation on each of the black hole marks for the drill bit to rest in.
- Rest the drill with stainless drill bit into the indentations and drill the 4.5mm holes in the handrails.
- Dip the 5mm tap thread into your grease and insert the thread tip into the holes you have drilled and gently twist clockwise which will slowly create the 5mm threads in the handrail. Once you have gone through the hole twist anticlockwise to remove the thread tap and repeat for each of the holes. Clean off any excess grease.
- You can now apply the curve of the cradle to the handrail ensuring the hole in the handrail and cradle are in alignment. Take the 5mm button head screws provided and insert it through the rear of the cradle into the handrail and hand tighten until you have them in position. You can then tighten them fully using the allen key.
- Once the cradles are secured to the handrail you can then apply the Loctite to each of the cradle stems and slot them into the top of the post aperture. Spray on the SF7649 activator before inserting if you wish this to cure quickly.
- Where you have joins in your handrail or corner sections you need to secure these together using the Loctite 638 by covering the collar in the Loctite and inserting into the adjacent fixture (if there is a grub screw present you can also tighten this). If you need this to dry almost immediately you can spray the 7649 activator on top of the Loctite and this will cure it much quicker. If you make an assembly error and need to remove one of these glued joints just apply some heat and this will crack the seal. You can also use this method for affixing your end caps at the exposed ends of the handrail.
- If you are fixing your handrail into a wall flange you will firstly need to secure your wall flange to the wall itself (screws not provided) and please ensure you use the correct fixings for the type of material you are fixing into. Once the flange is in position you loosen the grub-screw and coat the last 20mm of handrail with the Loctite 638 before inserting it into the wall flange and apply activator if required. Once located in position you can tighten



# Handrail

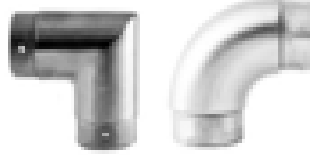
## 316 SS

If you have purchased handrail this is included in your price. Please see page 16 as to how we cut, process and price this option for you.



## Corner saddle handrail connectors

Corner saddle handrail connectors are included in your price wherever you have indicated a return.



# Handrail

## Hand rail connector

Handrail connectors are used to join and therefore extend handrail lengths where they have been cut. They are glued in position and the price for these is £5.95 + VAT ea and are added if required during the CAD phase of your design.



## Handrail Wall flanges

Wall flanges will always be utilised where possible within your design as they add stability and strength to your system. The price for these is £9.85 + VAT ea and are added if required during the CAD phase of your design.



## Adjustable handrail connectors

Adjustable handrail connectors are used on stairs and where there is an angle and are glued into position. If you have selected stairs when submitting your quote this part has been included in your price. If you have not selected stairs you have an angle that requires this part within your design, then it becomes chargeable and the price for this is £18.95 + VAT ea.



## Adjustable handrail wall bracket

Adjustable handrail wall brackets can be used for fixing handrail only sections to walls if required. The price for this is £8.95 + VAT ea



## Glass trim

The top flush-fitting handrail applied to the top of the glass panels. This is cosmetic and can help with uneven ground or hiding bends in the glass but this is not a structural handrail solution. Please ask sales for price



## Why should I use a handrail?

Handrail adds stability and strength to your system. If you have a protection from fall height of under 600mm you do not need a handrail as the risk of serious injury is considered very low. However, you may still wish to have a handrail as you like the aesthetics or the practicalities a handrail provides.

If you have a protection from fall height over 600mm you need to

## End scrolls

End scrolls are nice to finished handra runs especially on stairs. These can be used instead of end caps to finish handrail that is not being fixed to the wall. They are glued into position and the price for this is £12.95 + VAT ea



## End caps

Handrail end caps are the most economical solution to end a handrail run not finishing into a wall. They are simply glued into position and the price for this is £5.95 ea.



## T Section

T sections are glued into position and the price for this is £13.95 ea + VAT. They are used on occasion for handrail lengths over longer spans with no glass.



## Wall to handrail connectors

Wall to handrail connectors are fixed to the wall and are used in some designs, especially up and down stairs for handrail only sections. The price for adjustable is £18.95 + VAT ea and fixed is £14.95 + VAT ea



consider whether to use a handrail or not. No handrail requires toughened laminated glass which makes this solution more expensive that a single glaze toughened option and handrail.

Even though our test data proves the performance of posts no handrail in high wind a handrail at a height over 8m for additional strength and security is worth considering but this a recommendation only.



# Handrail processing



Example of a join in the handrail



**VERY IMPORTANT  
PLEASE READ**

**AS STANDARD, HANDRAIL IS ROUNDED UP AND QUOTED AND CUT TO THE NEAREST 2.5M**

Handrail rounded up and quoted and cut to the nearest 2.5m.

On all quotes we have rounded up and quoted handrail cut to the nearest 2.5m. This gives you added flexibility to cut the handrail to exact length on site. Trade customers will also be able to keep the offcuts for use on future projects if required.

For example, on a U run 3m x 4m x 3m you require a total of 11 metres - the handrail is charged and supplied as 5 x 2.5m lengths

