



# Installation Tools

## **Hammer drill**

For concrete you will require a carbide tip masonry drill 12mm W x 180mm L

For other substrates you will need alternative drill bits

## **Torque wrench and socket set for 10mm 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.

## **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

## **Stanley knife and screwdriver**

This is required for trimming any rubber on site if required and if you are attaching a wall flange to a wall.

## **Loctite 638 glue and Loctite SF7649 activator**

Required if fitting slotted handrail. The activator is only used in the event you wish to reduce the drying time for the Loctite 638.

## **Chop saw with stainless steel cutting blade**

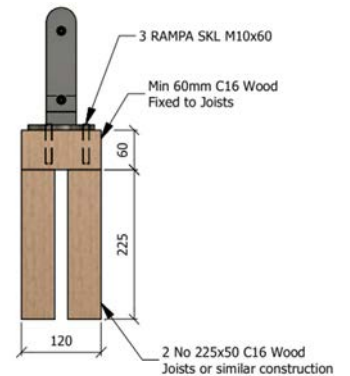
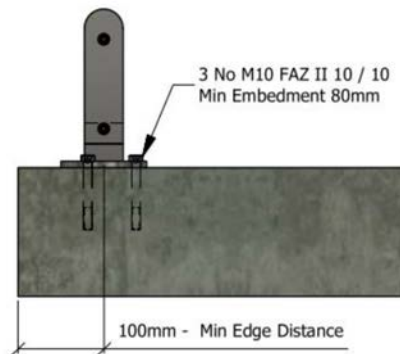
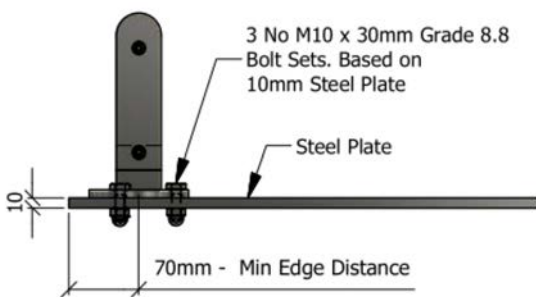
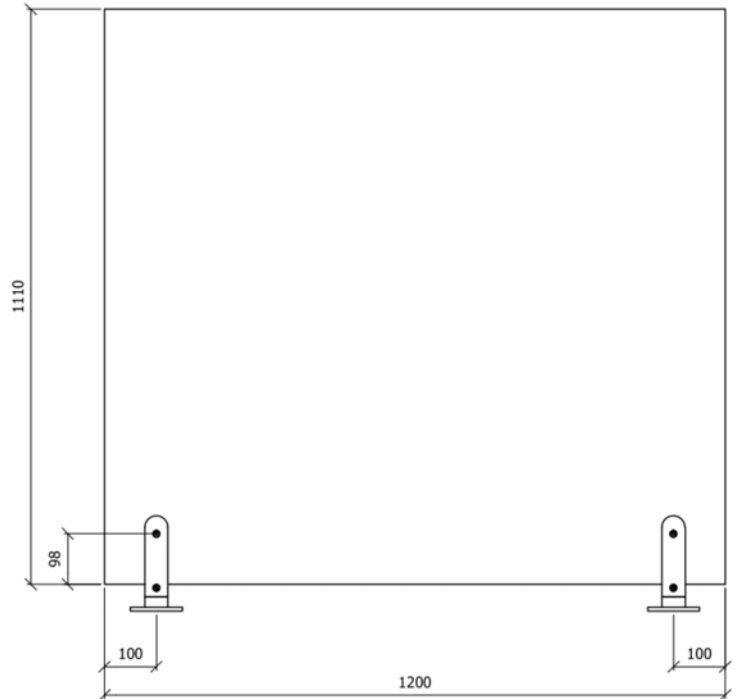
This is only required for a stainless-steel handrail as we always supply lengths slightly longer than required. This allows you to ensure you have an exact fit on site.



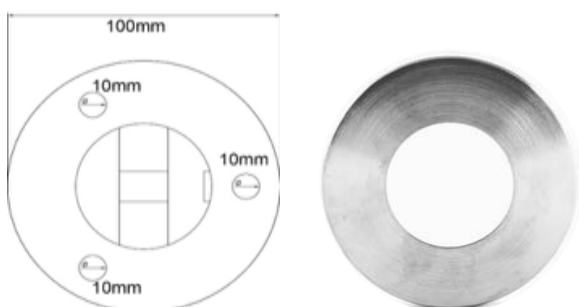
# Spigot

## Essential Features

- Slimline, elegant design and low-maintenance
- Brushed stainless steel finish
- For glass thicknesses between 12 - 17.5 mm
- For applications requiring linear line load of 0.36 - 0.74kN
- Easy maintenance and glass replacement from the safe side always



## Cover plate





# Handrail inclusions

## Slotted handrail

Grade 316SS brushed external grade 48mm diameter. Cut to size or supplied in 5m or 2.5m lengths. Please see opposite for more details.



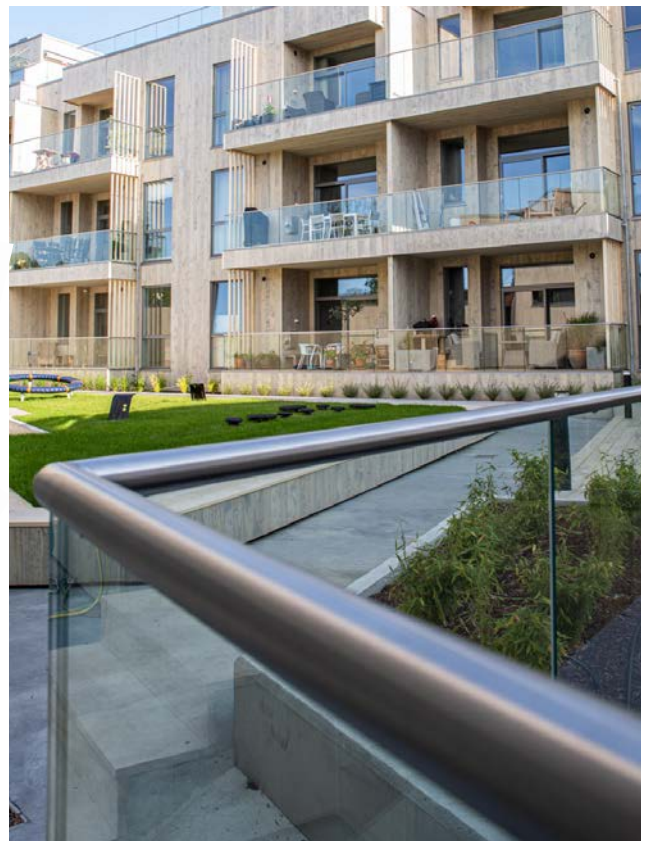
## EPMD external glazing rubber

Always provided cut to size and available for 12mm / 15mm / 17.52mm / 21.5mm. Simply apply on top of glass once positioned for the handrail to sit safely on top. Does not require adhesive.



## Slotted corner handrail connector

This where the handrail meets in a corner and can be either slotted or glued into position.



# Handrail extras

## Glass trim

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



## Slotted handrail end cap

A simple and elegant finish for your handrail if it is not being attached to the wall - if you have selected end caps in quote these will have already been added to your total.

Slotted handrail cap £6.50 + VAT ea



## Slotted hand rail connector

This is used where there is a handrail that needs to be joined, it is designed with a tight fit so you do not need to use glue - but can do if you so desire. Slotted handrail connectors £7.95 + VAT ea



## Slotted handrail wall flange

This wall fixed fitting should always be used where possible as it will significantly improve the performance of your system. If you have selected wall flanges in quote these will have already been added to your total.

Slotted wall flanges £9.95 + VAT ea



## Adjustable slotted handrail connector

This useful component can be used where you require horizontal adjustment for your handrail system.

Adjustable slotted handrail connector £18.95 + VAT ea



## Why should I use a handrail?

Where your protection from a fall is over 600mm in height. You **MUST** use a handrail if using 12mm or 15mm single glaze toughened glass to stay legally compliant. The glass in such instances is considered infill and the handrail is playing a significant role in the design and strength of your system. We recommend a handrail for anything 8m or higher for additional security and strength. This is a recommendation only but it is worth serious consideration.

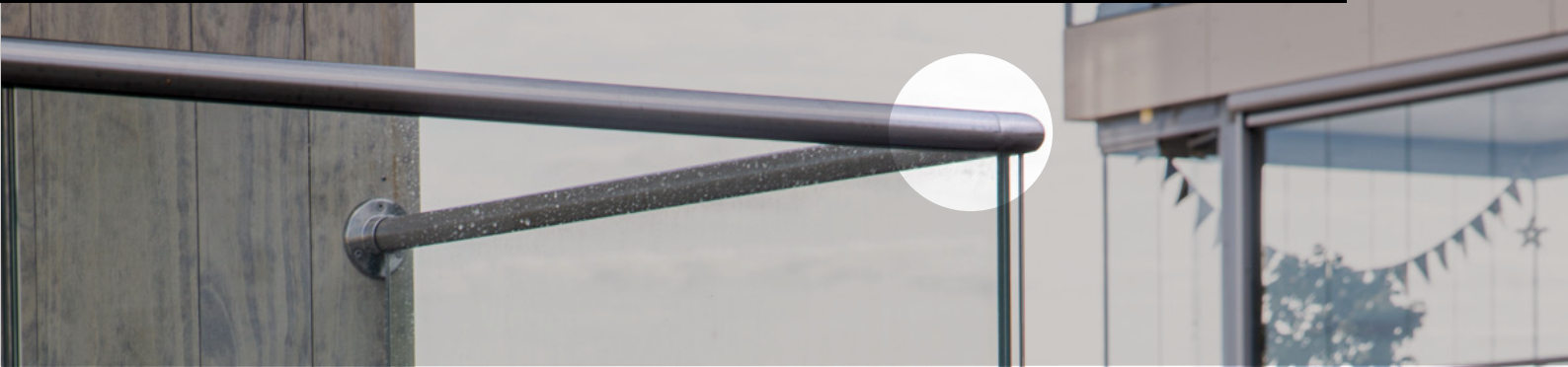
Another significant advantage of using a handrail is decreased installation times as aligning the glass does not need to be as precise when using a handrail.

Finally glass panels can have some degree of deflection / bend within them. The industry accepted manufacturing tolerance for deflection / bend is up to a maximum of 3mm over a 900mm size panel. By using a handrail any deflection can be hidden and this can offer a cleaner finish than selecting no handrail.

Certainly if safety is your overriding concern always use a handrail regardless of glass selection, with toughened laminated being the safest glazing option we offer.



# Slotted handrail processing options



**VERY IMPORTANT  
PLEASE READ**

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

## Option 1 – Handrail rounded up and quoted and cut to the nearest 2.5m

You will be quoted for option 1.

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 2 x 5m lengths and 1 x 2.5m length.

**If you would like to reduce the number of joints, you can buy additional material at £50 plus VAT per 2.5m length. Please let us know so we can add this to your order.**

## Option 2 – Handrail cut to size in the most economical way.

Handrail can be supplied cut to size at £4.00 plus VAT per cut using the handrail in the most **economical way possible** to reduce your material cost. However, this may mean there will be joints in the handrail that will require handrail connectors. These are sold separately and will be added to the order after we have calculated at the design stage how many are required.

For example, on a U run of 4m x 3m x 4m the **charge for material is rounded up to 12.5m**. We will be making two cuts to make 2 x 4m handrail lengths and supplying x3 pieces of 1m handrail for the 3m side charged as one additional cut to make up the 11m.

Please advise us if you would like to choose option 2.

## Option 3 – Handrail supplied to nearest 2.5m for each side with minimum joints

Please advise us if you would like to reduce any unnecessary joints in the handrail by buying maximum lengths for each side.

For example, on a 11m U run of 4m x 3m x 4m we can supply a quote for a total of 15m (3 x 5m lengths).

## Option 4 – Handrail cut to size for minimum joints

In addition, if requested we can cut this to size for an additional £4 plus VAT per cut.

### Example for a 11m U run (4m x 3m x 4m)

Cut out of x2 5m and 1 x 2.5m lengths

