

## **Installation Guide for Pro-Railing Systems using Pre-assembled Stainless Steel Posts and Glass**

### **Before you start**

Please check everything on arrival

Everything has appropriate packing, but you should always check everything soon after it arrives. Please notify us of any problems as soon as possible on the day of delivery and we will do our best to help.

### **Building Regulations**

Building Regulations must always be considered with both new properties and renovation. The safety of any handrail or balustrade is always something that must be considered. Domestic, commercial and areas where people congregate, all have different loading requirements. If you have any doubts at all you should check with your Local Building Inspector. For further information, Part K and Part M of Building Check Regulations at: [https://www.fhbrundle.co.uk/groups/25PR\\_Pro\\_Railing](https://www.fhbrundle.co.uk/groups/25PR_Pro_Railing)

### **Structural Engineers**

We recommend that all groundwork and building works should be designed and prepared with handrail solutions in mind. All handrail installations are dependant on having a structurally sound surface to fix to. As we cannot see what you are fixing to, we recommend consulting a structural engineer if you have any doubts.

### **Important Installation Notes**

- Please note that two people are required to handle the glass.
- You must ensure that you have a suitable base material to fit your posts securely in place.
- You will require some way of cutting the handrail. Depending on the quantity of cuts you need to make it could be one of the following: angle grinder, chop saw, jigsaw or band saw. All will require blades suitable for cutting stainless steel.
- Stainless steel is harder than mild steel when it comes to drilling and cutting, and although many parts bolt or glue together, other parts, such as the handrails, do require the stainless steel tube to be drilled and tapped, and some parts may need cutting to length, so if the system you plan is a complex one, we would recommend using an experienced installer.
- Adhesives and fixing bolts/screws need to be ordered separately.

### **General Information:**

We have various choices on Liveconfigurator, and these can affect the height.

- All stainless steel posts come satin polished as standard

- The adjustable and fixed spigot systems are both tested to 1.5kN with a welded base plate fitting when securely fixed
- Our standard system is designed to give 1100mm handrail height when installed with our components on flat surfaces, however other systems can vary in height. Information is available as you configure your chosen system
- Posts come complete with a base fitting and cover plate and a rubber 'O' ring to secure cover plate
- Choice of spigots types or systems without handrails
- Posts are supplied with attached glass clamps and are ready to accept 10mm glass as standard
- If you have selected our 8mm toughened glass, 8mm rubbers will automatically be included
- Special 5° variable fixing bolt on glass clamps to allow flexibility of alignment when fixing your glass

### **Post Positions**

After an order has been placed with Liveconfigurator™ we send a fully-detailed set of drawings showing the layout. These will give you the layouts that you selected, glass sizes and post positions. They are very useful for post positions when you are installing.

### **Tools Required (*not supplied*)**

Whichever method you use, you will require appropriate discs or blades for cutting stainless steel.

Marker pen

Spirit level

Tape measure

Centre Punch (or Centre dot)

Drill and appropriate cobalt drill bits for the bolts you use

4mm Allen Key for glass clamp cover screws

6mm Allen Key for M8 socket head cap screws to fit glass clamps to posts

File to remove any burrs

Two blocks of wood of appropriate height for beneath the glass

You will also need glue/adhesive for fitting the parts together.

Optional: Double Head Suction Cup (Code:185900104) for holding glass panels

Optional: Masking Tape

### **Personal Safety:**

We recommend using personal protection equipment for your own safety. This may include:

- Clear protective spectacles or goggles.
- Ear plugs or defenders
- Work gloves Code: 185900101
- Protective sleeve for wrist

### **Fixing Methods for our Pre-assembled Post System**

We advise that you always use stainless steel bolts, anchors and screws for our stainless steel balustrades and railings. As we don't know what material you will be fixing to, you will need to decide on the most appropriate fixings for your own location to install everything securely. We have a wide range of fixings and drill bits available to order at: <https://www.fhbrundle.co.uk/>

**The methods below have all been used by our customers, but sites and structures can be different, and you may need different products to achieve an appropriate installation in your particular location. \***

<b>Concrete/Brick</b>	Drill 8mm dia. holes to appropriate depth and use M8 × 100mm stainless steel floor anchors. In concrete you may also wish to use resin and stainless steel threaded bar.
<b>Wood</b>	Pre-drill a 6mm pilot hole 80 mm deep and use M8 × 80mm stainless steel coach screws. Please note that fixings into wood may not meet the required loadings. Please consult a structural engineer if you have any queries.
<b>Steel</b>	Drill and tap 8mm and fit with M8 × 50mm stainless steel bolts with locking washers.

**\*N.B. If you have any doubts whatsoever about structural integrity, please consult a structural engineer.**

Fixing the handrail to the saddles

Our customers have different preferences for fixing the handrails to the saddles. Some people prefer self-tapping screws, whilst others prefer other methods. Our most popular screw is the pan head self-tapping screw (code: 189900620) which requires a pilot drill of 4.2mm (code: 189901004)

Other options are:

- M5 × 20 button head bolt (code: 189900618) again using a pilot drill of 4.2mm (code: 189901004) which then require tapping with an M5 tap
- M5 × 20 Pan Head Thread Rolling bolt (code: 189900686) that requires a 4.4mm drill bit (code: 189901005)

## **INSTALLATION**



We recommend that you watch the installation video before you start installation for the first time. It is available at: [https://www.youtube.com/watch?v=-qIM\\_rQQAvs](https://www.youtube.com/watch?v=-qIM_rQQAvs)

When you have watched the video, please follow these instructions:

1. Ensure that all surfaces are clean before starting.
2. Mark out the post positions on the floor, starting with the end posts, add any corners and then add the intermediate posts. It may help to run some masking tape along the centre line of the railings. (This can be removed after drilling the holes.) Please ensure that your lines are straight.
3. Mark the hole positions, and then drill to the correct depth for the fittings you will be using
4. Make sure that the side of the glass clamps with the screws showing is facing towards you. You will need to remove them later.
5. Fit posts, ensuring that all posts are vertical and level across the tops. Use shims to level if the posts if required.
6. Fit the saddles (where appropriate), checking that they are level and in line, and glue into place.
7. Rest the handrail on top of the saddles, ensuring that the ends are in the correct position. When you are happy with the position of the handrail mark the hole positions.
8. Use a centre punch to mark hole positions before drilling with a cobalt drill bit.
9. If you are using a wall bracket at the end of the handrail, slide this onto the handrail, position it up to the wall and mark the holes. Remove the handrail and drill holes in the wall for the fixing bolts you are using.
10. Carefully measure and cut the handrail to length. Deburr any sharp edges left on the tube.
11. Fit the wall bracket before screwing the handrail into position. Screw the handrail to the saddles. See **Fixing the handrail to the saddles**.
12. Pre-drill, insert and glue corners where necessary. Bolt to corner posts.
13. Use the In-Line tube connectors to join two lengths of handrail where necessary. Glue as required.
14. When the handrail is in place, unscrew and remove the side of the glass clamps.
15. Use two wooden blocks to sit the glass on to meet the glass height you prefer.
16. Make sure that the glass clamp rubbers are in place, fit the glass and replace the sides of the clamps, tightening as necessary.



#### Tips

- Masking tape may help to lay out the railings. Remove after drilling.

- To draw a straight line around the tube to ensure that you cut it straight, one easy way is to wrap a piece of paper around the tube and when the edges are aligned, mark around the edge of the paper to ensure that your cut is correct.
- On longer installations, it may be worth fully fitting one section before going on to the next one.
- Always use the minimum pressure necessary when drilling and cutting stainless steel to avoid work-hardening.
- Always make sure that your cutting equipment is appropriate for stainless steel.
- Always try to prevent stainless steel from coming into contact with uncoated mild steel items which may contaminate the surface of the stainless.

### **Cleaning stainless steel**

Whilst stainless steel is very durable and corrosion resistant, it is not self-cleaning and will require regular maintenance. Cleaning intervals will depend on location and the local environment. They may be from four times a year in rural, suburban or residential areas where the stainless steel is washed by rain, and up to weekly where it isn't washed by rain and is in industrial areas or close to the sea. We sell cleaning products and cloths in our range. More information may be found in our Pro-Railing catalogue.

### ACCESSORIES

Some of these may be useful to you. For a full range please visit: <http://www.prorailing.co.uk>

#### **For Installation**

- |  |                    |
|--|--------------------|
| • Loctite High Strength Retainer 50ml            | Code: 1899007638   |
| • Tube Loctite High Strength Retainer 3ml        | Code: 1899007638XS |
| • Adhesive Activator 150ml (Reduces curing time) | Code: 18990087649  |
| • Silicone Sealant, Clear, 310ml                 | Code: 18990125366  |
| • Silicone Sealant, Black, 310ml                 | Code: 18990125368  |
| • Sealant Gun                                    | Code: 189900666    |
| • 'D' Rubbers for 8mm glass                      | Code: 189900108    |
| • 'D' Rubbers for 12mm glass                     | Code: 189900112    |
| • Additional 'D' rubbers for 10mm glass          | Code: 189900110    |

#### **For Cleaning**

- |   |                     |
|---|---------------------|
| • Stainless Steel Cleaner 400ml               | Code: 18990097063   |
| • Stainless Protect Clean and Wipe            | Code: 189900901LGSS |
| • After Care, Tea Staining 3-Part Cleaner Kit | Code: 189900902     |
| • Stainless Cleaning Gel, 2kg                 | Code: 18990094023   |
| • Polishing Cloths. Fine (Grey)               | Code: 189901101     |
| • Polishing Cloths, Medium (Red)              | Code: 189901102     |
| • Protect Standard Kit                        | Code: 1899009LGSK   |

- Protect Trade Refresher Kit Code: 1899009LGTRK
- Protect Clean & Refresher Kit Code: 1899009LGSRK

### **Tools**

- Allen keys
- For 6mm bolts Code: 189900608
- For 8mm bolts Code: 189900605
- For Glass clamp post bolts Code: 189900606
- For Grub screws on handrail brackets Code: 189900607

### **Any Questions?**

If you have any questions which are not covered here, please contact one of our branches or email: [info@liveconfigurator.co.uk](mailto:info@liveconfigurator.co.uk)

### **Contact Us**

We have branches around the UK. Please contact your nearest branch and speak to one of our team, who will be happy to help in any way. If you have questions specific to your site sending us photos and sketches can be very useful.

Call 01708 398 020 or any of our branches to place an order or ask a question:

Rainham	Tel: 01708 25 35 45	Fax: 01708 25 35 50
Southampton	Tel: 023 8070 3333	Fax: 023 8070 5555
Ilkeston	Tel: 0115 930 2070	Fax: 0115 951 2455
Birmingham	Tel: 0121 565 8282	Fax: 0121 565 8292
Newton-le-Willows	Tel: 01942 86 88 88	Fax: 01942 86 88 99
Glasgow	Tel: 0141 773 6699	Fax: 0141 773 6633

Email: [info@liveconfigurator.co.uk](mailto:info@liveconfigurator.co.uk)

Visit: <http://www.prorailing.co.uk>