The Wire Rope Balustrade System
SHS Products are the leading supplier and installer of Stainless Steel Handrails and balustrades in the UK, providing solutions to meet customers requirements.

We are committed to our customers and to ensuring our balustrade systems are aligned to their needs.

Understanding, satisfying and exceeding our customers’ expectations sets us aside from our competitors combined with delivering the quality and excellence you would expect from the UK’s leading supplier.

We have a strict quality policy that has been communicated to all employees outlining our principles and objectives to deliver the highest standards of customer service from instruction to completion of the installation.

We have a huge and varied portfolio of work from small domestic to the large commercial applications across the whole of the UK. Our handrail and balustrade systems are of the highest quality and we offer the most cost effective solution tailored to meet the needs of our customers.

Let us introduce you to our Wire Rope Balustrade System that features stainless steel posts connected by wire rope infill with a cylindrical top rail. This versatile system can be used internally or externally to add something special to your garden and walkways.

**Specifications**

<table>
<thead>
<tr>
<th>Maximum Centres</th>
<th>1200mm - 1500mm</th>
<th>Post Finishes</th>
<th>Satin or Mirror</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Grades</td>
<td>GRADE 304 (Internal use) GRADE 316 (External use)</td>
<td>Post Measurements</td>
<td>MADE TO MEASURE (Prices vary)</td>
</tr>
<tr>
<td>Tube Diameters</td>
<td>42.4mm 48.3mm</td>
<td>Base Plates Available</td>
<td>100mm, 105mm cover 120mm, 125mm cover</td>
</tr>
<tr>
<td>Standard Height (To top of rail)</td>
<td>1100mm</td>
<td>Compatible Fixings</td>
<td>Wood, Metal, Brick &amp; Concrete</td>
</tr>
<tr>
<td>Standard No. of Rows</td>
<td>5 as standard (more or less rows available, prices will vary)</td>
<td>Post Construction</td>
<td>Welded base plate, Cover, Holes for wire and Tube support for top rail.</td>
</tr>
<tr>
<td>Wire Thickness</td>
<td>4mm</td>
<td>Top Rail</td>
<td>Must have top rail</td>
</tr>
</tbody>
</table>

**What can we can do for you?**

- Bespoke Design
- 24 Hour Shipping*
- UK Manufactured
- Price Match Guarantee~

*on specific stock items. Please call for further information.

~SHS Products we’ll match any genuine like for like quote.

Visit our website to view the full product range

www.SHSSproducts.co.uk

All reviews are courtesy of Trust Pilot reviews for SHS Products. All images are for illustration purposes only.
How to measure up your balustrade

Get out your sketchpad and draw a bird’s eye view of the area where you want the balustrade to be placed.

You can either draw all corner and end posts onto your sketch. Or alternatively measure the outside edge of the area.

Now that your end and corner posts are drawn or your outside measurements taken, insert the distances on your drawing.

With your measurements to hand you can now use our online quoting system or alternatively send in your drawings to sales@shsproducts.co.uk.

Now that your end and corner posts are drawn or your outside measurements taken, insert the distances on your drawing.

Your Balustrade Dimensions

Height & Width

1100mm

The Wire Rope Balustrade has a standard height of 1100mm and maximum width from centre post to centre post of 1500mm.

This system does not comply with building regulations for domestic properties where the fall is greater than 600mm. Please check with your building inspector before ordering your balustrade.

1200mm - 1500mm

What are you fixing your system to?

When deciding on whether to buy and install a balustrade system it is essential that the system is fitted to a solid fixture ground. This includes wood such as composite decking, metal, brick or concrete. If this is not the case we cannot be held liable for the system being structurally unsound.

The type of ground or wall your fitting to will affect what fixtures you require. Find below typical examples;

WOOD
Coach screws or Coach Bolts

METAL
Screws, Nuts & Bolts, Drill & Tap steel or Bolt straight through.

BRICK/ CONCRETE
Anchor bolts, Thunder bolts or Threaded bar and resin.

These fixings are purely a guide and are not suitable for every application.

PLEASE NOTE:
DO NOT ARRANGE FOR INSTALLERS UNTIL ALL YOUR ITEMS HAVE ARRIVED AND BEEN THOROUGHLY CHECKED.
Installation Guide
Wire Rope Balustrade

SHS Products supplies full balustrade systems as well as stock items such as posts.

ASSEMBLING YOUR POSTS

STOCK POSTS

- The Tube Support (saddle) will already be attached to your posts unless you have ordered Adjustable Tube Rests, which will be supplied separately.

- There will be 5 drilled holes in the posts as standard on stock posts. Base plates are normally welded to the pre-drilled/tapped posts.

- On the posts with M6 threaded holes, screw in the M6 threaded eyelets until tight (position all eyelets vertical)

- Repeat this with all posts making sure that all eyelets are tight and level.

Below are typical examples of fixing methods. These may not be suitable for your installation.

WOOD

- drill 6mm pilot hole 80mm, use M8 x 100mm stainless steel coach screws.

METAL

- drill and tap M8, use M8 x 50 stainless steel bolts with locking washers

BRICK/CONCRETE

- drill 8mm holes to depth of 80mm, use M8 x 100mm stainless steel floor anchor fixings

- Once you have positioned your post and inserted your fixings, tighten them hand tight

- Now check your post for plumb and level. Hold the spirit level atop the post as well as at the front and back of the posts. Adjust the leveling screws accordingly till the post is level.

- Once done please repeat this with all other posts.

INSTALLING YOUR POSTS

- Items needed: masking tape, marker pen and spirit level

- Lay down masking tape where your post will be placed.

- Place your post on top and slide up your base cover.

- Proceed to mark the posts fixing holes with your marker pen.

- Repeat this process for all your individual posts.

- Correct fixings for Wood, Metal, Brick or Concrete are below left.
Fitting the Top Rail

Items supplied: Wall flange (optional), Top rails, Tube Rests, Rawl plugs, Stainless steel screws.

Items needed: Clamps, Drill bit, Ratchet and Tap, Masking Tape, Marker Pen, 3-in-1 Oil.

Start from left to right, assuming you are fitting your top rail to a wall on your left, you will need a wall flange (wall socket/wall rose).

- Slide the wall flange onto the end of your rail and rest these onto the saddles.
- Hold the top rail in place with clamps and position the wall flange in the desired spot.
- Now mark out the holes through the wall flange.
- Slide the top rail and wall flange away from the wall and drill the marked holes with a drill bit.
- Insert the supplied rawl plug (if required) and slide the wall flange back into position and fix to the wall using the stainless steel screws provided (if suitable).

Fitting the Rail to Tube Supports

Items supplied: Wall flange, Top rails, Tube Rests, Rawl plugs, Stainless steel screws, Glue, Elbows (if required).

Items needed: 4mm Allen Key, Clamps, Drill Bit, Ratchet and Tap, Masking Tape, Marker Pen, 3-in-1 Oil.

- Wrap masking tape smoothly around the top rail at each point where it would rest upon the tube supports.
- Now mark the rail through the holes in the tube support.
- Use the drill and tapping kit purchased remove the rail and dot punch the marked holes, drill all the marked holes on the top rail, then tap using the kit provided. Whilst carrying out this process periodically apply the 3-in-1 Oil to cool the drill and tap.
- [If the run is longer than 6 metres then a Tube Connector (EB.900 series) will be required. To connect two lengths of top rail together, these should be glued using our Loctite 638 adhesive. This glue should always be applied to the inside of the tube and not to the fittings.]

Fixing your Wire Rope Infills

Items supplied: Eyelets, Turnbuckles, Swage Forks, Cable Holders (if purchased), Wire Coil, Crimping Tool.

Items needed: 6mm Allen Key, Thin nail.

- WITH STOCK POSTS screw all eyelets in to the threaded holes on end and corner posts.
- Unscrew both ends of the swage turnbuckle to make it longer [but do not unscrew it fully]. Fit this to all left hand side of the run of wire.
- Fit all swage fork terminals to the right hand side of the wire runs.
Now feed the wire rope from left to right through all intermediate posts putting the cable holder on the wire each side of a post [but do not tighten at this stage]

Once the wire rope has been fed through all the intermediate posts to the swage fork then insert the wire in to the swage fork and crimp with pliers or hydraulic tool bought from SHS.

Now working backwards pull the wire hand tight and tension the cable holders with your alan key whilst taught so that you end up with a taut length of wire tensioned only by the cable holders at this stage. (Release for final tensioning)

Now hold the cable along side the turnbuckle and cut the wire level at the back of the swage, assemble part of the turnbuckle.

Insert the wire in to the swage end and crimp again with pliers or hydraulic tool.

Insert a thin nail through the hole in the centre part of the turnbuckle and turn clockwise to tension the final part of the wire to your satisfaction.

Now tighten both the locking nuts on the turnbuckle to prevent the wire coming loose and lock the cable holders.

Repeat this will all runs of wire.

Note: Periodically due to expansion it may be necessary to occasionely re-tension the wires.

### Wire Rope System Components

<table>
<thead>
<tr>
<th>Corner Post</th>
<th>Intermediate/Mid Post</th>
<th>End Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Eyelets not included)</td>
<td>(Eyelets not included)</td>
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</tr>
</tbody>
</table>

**Wire Rope System**

Assembled Turnbuckle

**Components**

- **Corner Post**
  - Eyelets not included

- **Intermediate/Mid Post**
  - Eyelets not included

- **End Post**
  - Eyelets not included

### Prices

Prices are subject to change, please check our website or contact us on **01922 743842** to find out the latest prices. All options available in 48.3mm dia and 40mm² Square Tube. Additional charges will apply.

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Ø</th>
<th>H</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRC.122.XX.16.S</td>
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<td>1070mm</td>
<td>316</td>
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<tr>
<td>WRC.122.XX.04.S</td>
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<td>WRMT.122.XX.04.S</td>
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<td>998mm</td>
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Note: Periodically due to expansion it may be necessary to occasionally re-tension the wires.

Visit our website to view the full product range at [www.SHSSproducts.co.uk](http://www.SHSSproducts.co.uk)
<table>
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<td>42.4mm 3000mm 304</td>
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</table>

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Call us now on 01922 743842 or view our full range of systems at [www.SHSSproducts.co.uk](http://www.SHSSproducts.co.uk)

Swage Rigging Screw

**Eyelet - Wood**

<table>
<thead>
<tr>
<th>Product Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EY.06.SC.16.S</td>
<td>316</td>
</tr>
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</table>

Swage Fork Terminal

**Eyelet - Metal**

<table>
<thead>
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<th>Product Code</th>
<th>Grade</th>
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</thead>
<tbody>
<tr>
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</table>

Cable Holder

**Stainless Steel Tube (Top Rail)**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Ø</th>
<th>L</th>
<th>Grade</th>
</tr>
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<tbody>
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Hydraulic Crimping Tool
NOTE: All Stainless Steel products supplied are satin finished, if mirror finish is required please call for assistance.
Good fabrication practice always includes post weld treatment. Failure to do so can give rise to unnecessary cost of rectification later on.

Main Issues

The causes of disappointment can arise at any point in the long supply chain that often applies to a stainless steel project. This helps to explain why problems occur. Getting the appropriate knowledge to all parts of the supply chain is difficult and it only takes ignorance in one small part to create a problem later on.

The main issues are:

1. Importance of surface finish in determining corrosion resistance

Lack of knowledge in this area is a major cause of problems. Most specifiers and designers understand the importance of selecting a grade of stainless steel, for example 1.4301 (304) or 1.4401 (316). But surface finish is at least as important. The subject is fully explored in The Importance of Surface Finish in the Design of Stainless Steel.

Briefly, a bright polished surface gives maximum corrosion resistance.

A directional polish equivalent to the EN 10088-2 2K (Ra ~ 0.5 micron max), usually produced using silicon carbide (SiC) abrasives, will give adequate corrosion resistance in many severe environments notably heavy urban and coastal ones.

A common surface finish achieved with 240 grit alumina abrasives has been implicated in the corrosion of stainless steel in urban and coastal environments. In some cases, surface roughness Ra values have been measured at well above 1 micron which is known to be inadequate in these environments.

The lack of any specified surface finish on architectural drawings can be the source of the final problem. If, at any stage of the supply chain, there is any doubt about the appropriate surface finish, specialist advice should be sought.

2. Importance of post-Fabrication treatments

Apart from some specialised processes, welds in stainless steel always result in some degree of heat tint. Heat tint is essentially an oxidised surface which has a reduced corrosion resistance compared to the parent material. Therefore, the normal practice is to carry out some form of post weld treatment to improve the corrosion resistance.

Details of these procedures can be found at:

- Post Weld Cleaning and Finishing of Stainless Steels
- Welding and Post Fabrication Cleaning for Construction and Architectural Applications

Good fabrication practice always includes post weld treatment. Failure to do so can give rise to unnecessary cost of rectification later on.

3. Importance of segregating carbon and stainless steel

Sometimes “rusting” of stainless steel turns out to be nothing of the kind. It is the rusting of carbon steel which has contaminated the surface of the stainless steel at some point in the production process. Possible sources of contamination from carbon steel include:

- Cutting sparks
- Lifting Gear, Ropes, Chains
- Grinding dust
- Wire brushes

Wherever possible, stainless steel and carbon steel should be fabricated in separate areas of the workshop or better still in separate workshops. Where not possible it is important to clean down machines used for carbon steel before using them for stainless steel. Stainless steel surfaces should be protected with plastic coatings for as long as possible.

4. Importance of site management

It is quite possible for everything to be done well in fabrication, only for the whole project to be spoiled by inappropriate practices on site. The issues outlined in 3 apply just as much to the site installation as anywhere else in the process.

In addition, it must be remembered that what is appropriate for one building material is totally unacceptable for another. For stainless steel it has to be remembered that masonry and brick cleaners may contain hydrochloric acid sometimes called muriatic acid. If these fluids are to be used at all near stainless steel, care should be taken to protect the stainless steel surfaces. If splashes occur, they should be immediately washed off with water. Failure to do so will result in serious attack of the stainless steel resulting in expensive rectification costs.

5. Importance of choosing correct grade for the application

This aspect almost goes without saying. It is only this far down in the list because it is usually considered. But if the “wrong” grade has been chosen the consequences can be severe. Some guidelines on material selection are given here.

6. Cleaning and Maintenance

Some people think that stainless steel’s corrosion resistant surface somehow repels dirt and other contaminants. Like any surface stainless steel requires some maintenance. Guidance on this aspect can be found at Cleaning Methods for Stainless Steel.

7. Importance of seeking technical advice in cases of doubt

If there is any doubt about the correct choice of grade, surface finish or other aspect of a prospect involving stainless steel, the following advisory services can be consulted:

Post weld cleaning and finishing of stainless steels

Methods for post fabrication and welding clean-up of stainless steel are well documented. One issue is whether the heat tint discolouration in the heat-affected zone of stainless steel welds should be removed.

What is heat tint?

Heat tinting is a thickening of the naturally occurring oxide layer on the surface of the metal. The colours formed are similar to ‘temper colours’ and are the result of “light interference” effects. This is due to ‘optical path length’ differences between light reflected from the surface of the oxide film and that reflected from the oxide / metal ‘interface’, which results in a range of colours, depending on the oxide layer thickness.
Removing heat tint

The removal of heat tint from stainless steel fabrications using brush-on pastes or gels, spray or immersion acid pickling or electrolytic methods will normally be satisfactory. The nitric acid used in these treatments will also leave the stainless steel surface in the ‘passive’ condition. A combination of finishing techniques may be needed, especially as nitric acid treatments alone cannot be relied on to remove sufficient metal from the surface. This may include mechanical treatments (grinding or abrading) followed by nitric acid cleaning (passivation) passivation of stainless steels (it is important to follow the preparation supplier’s instructions, as excessive contact times with these hydrofluoric acid containing products can result in pitting damage to the stainless steel.)

Where better surface finishes are required, either for aesthetic appearance or to further optimise corrosion resistance, then final electropolishing can be used. These finishing techniques will also improve the overall appearance and presentation of the finished product. Where high surface finishes are required, it is equally or perhaps more important to consider the inside weld faces of fabrications. Although these areas may be out of sight, they are intended to be in direct contact with the service environment for which the stainless steel was selected.

Even though welding backup gas systems may have been used, post weld heat tint removal in these areas is perhaps more important than the outside faces.

Welding and Post Fabrication Cleaning for Construction and Architectural Applications

This excerpt from the 12 page paper by Chris Baxter, Group Technical Market Support, AvestaPolarit Ltd. covers the issues of distortion during fabrication and welding, control of stainless steel welding processes and post fabrication cleaning.

Buckling distortion can result from either poor design or welding practices. The key factors for good welding are clearly defined welding procedures (BS EN 1001 and BS EN 287 and BS EN 288 are mentioned), control of heat input, temperature control and cleanliness. Welding electrode selection and methods including TIG, MMA, FCA, plasma, submerged arc and stud welding are covered. Finally, the importance of careful heat tint removal (temper coloured areas) is discussed by either mechanical abrasion or chemical pickling cleaning methods is discussed.

Although this establishes the corrosion resistance for the particular grade welded, care is needed with chemical pickling as it can change (dull) the aesthetic appearance of the surfaces.

F.A.Qs

How do I choose which stainless steel to use?

Most decisions about which steel to use are based on a combination of the following factors:

- **a. What is the corrosive environment?** – Atmospheric, water, concentration of particular chemicals, chloride content, presence of acid.

- **b. What is the temperature of operation?** – High temperatures usually accelerate corrosion rates and therefore indicate a higher grade. Low temperatures will require a tough austenitic steel.

- **c. What strength is required?** – Higher strength can be obtained from the austenitic, duplex, martensitic and PH steels. Other processes such as welding and forming often influence which of these is most suitable. For example, high strength austenitic steels produced by work hardening would not be suitable where welding was necessary as the process would soften the steel.

- **d. What welding will be carried out?** – Austenitic steels are generally more weldable than the other types. Ferritic steels are weldable in thin sections. Duplex steels require more care than austenitic steels but are now regarded as fully weldable. Martensitic and PH grades are less weldable.

- **e. What degree of forming is required to make the component?** – Austenitic steels are the most formable of all the types being able to undergo a high degree of deep drawing or stretch forming. Generally, Ferritic steels are not as formable but can still be capable of producing quite intricate shapes. Duplex, martensitic and PH grades are not particularly formable.

- **f. What product form is required?** – Not all grades are available in all product forms and sizes, for example sheet, bar, tube. In general, the austenitic steels are available in all product forms over a wide range of dimensions. Ferritics are more likely to be in sheet form than bar. For martensitic steels, the reverse is true.

- **g. What grades of Stainless Steel are required?** – When ordering a Stainless Steel balustrade it is imperative that you consider the effects of the balustrade being closely situated to the coastline where arge build ups of sea salt in the air will sit in the grains of the steel and corrode the metal. That is why our customer advisors will ask if the balustrade is being erected within 10 miles of the coast and we can advise that a Mirror Finish be applied to the Stainless Steel. The Mirror Finish adds a shine and smoothness to the metal that repels the salt particles.

- **h. What are the customer’s expectations of the performance of the material?** – This is an important consideration often missed in the selection process. Particularly, what are the aesthetic requirements as compared to the structural requirements? Design life is sometimes specified but is very difficult to guarantee.

- **i. There may also be special requirements such as non-magnetic properties to take into account.**

- **j. It must also be borne in mind that steel type alone is not the only factor in material selection. Surface finish is at least as important in many applications, particularly where there is a strong aesthetic component. See Importance of Surface Finish.**

- **k. Availability.** There may be a perfectly correct technical choice of material which cannot be implemented because it is not available in the time required.

- **l. Cost.** Sometimes the correct technical option is not finally chosen on cost grounds alone. However, it is important to assess cost on the correct basis. Many stainless steel applications are shown to be advantageous on a life cycle cost basis rather than initial cost. See Life Cycle Costing.

- **m. What is the maximum width that can be applied between each post?** For structural safety there are maximum centres of 1500mm on our Infinity, Wire Rope and Steel Rod systems, 1200mm on our Professional, Elegance and Square. The Key-Link railing system has a maximum width of 2440mm.

The final choice will almost certainly be in the hands of a specialist but their task can be helped by gathering as much information about the above factors. Missing information is sometimes the difference between a successful and an unsuccessful application. See also General principles for selection of stainless steels.
Does stainless steel corrode?

Although stainless steel is much more resistant to corrosion than ordinary carbon or alloy steels, in some circumstances it can corrode. It is ‘stain-able’ not ‘stain-impossible’. In normal atmospheric or water based environments, stainless steel will not corrode as demonstrated by domestic sink units, cutlery, saucepans and work-surfaces.

In more aggressive conditions, the basic types of stainless steel may corrode and a more highly alloyed stainless steel can be used.

For all your questions about Stainless steel please check this link of the British Stainless Steel Association Web site http://www.bsia.org.uk/faq.php?id=31

Cleaning methods for stainless steel

Stainless steel is easy to clean. Washing with soap or mild detergent and warm water followed by a clear water rinse is usually quite adequate for domestic and architectural equipment. Where stainless steel has become extremely dirty with signs of surface discolouration (perhaps following heating or heavy discolouration a) Non-scratching cream or polish e.g. Solvol Auto Chrome Metal Polish 1,2 b) Nylon-type pad, e.g. ‘Scotchbrite’ 3,4

c) A fine, abrasive paste as used for car body refinishing, e.g. ‘T-cut’ rinsed clean to remove all paste material and dried5,6. Alternatively soak in a 25% solution of baking soda (sodium bicarbonate). These solutions can also be applied with a soft cloth or sponge. Rinse with clean water. Suitable cream cleansers are available with surfactant additions. Take special care when using hydrochloric acid based mottlerremovers8,9.

Processing and finishing. Avoid using hard objects such as knife blades and certain abrasive/souring agents as it is possible to introduce surface scuffs and scratches. Scratching is particularly noticeable on sink drain areas. These are usually superficial and can be removed with proprietary stainless steel cleaners or, alternatively, with a car paint

Notes

1. The products referenced in this information sheet are understood to be suitable for stainless steels. However, no endorsement of the products or their manufacturers is implied and it is acknowledged that other manufacturing companies may provide products of equal or better quality. The following companies manufacture proprietary names mentioned: - 'Jif' - Lever Brothers Ltd, 'Shiny Sinks' - Home Products Ltd, 'Ajax' - Colgate Palmolive Ltd, 'D7 Stainless Steel Polish' - Diversey Ltd, 'T-Cut' - Automotive Chemicals Ltd and 'Solvol Auto Chrome Metal Polish' - Hammerite Products Ltd.

2. Cleaning agents should be approved for use under the relevant national environmental regulations and, in addition, prepared and used in accordance with the manufacturers or suppliers’ health & safety instructions. Solvents should not be used in enclosed areas.

3. Nylon abrasive pads should be approved for use under the relevant national environmental regulations and, in addition, prepared and used in accordance with the manufacturers or suppliers’ health & safety instructions. Solvents should not be used in enclosed areas.

4. Some slight scratching can be left. Use on brushed and polished finishes along the grain. May brighten dull finishes. To avoid a patchy appearance, the whole surface may need to be treated.

5. Apply as directed by manufacturer.
4. If wire brushes are used, these should be made of a similar or better grade of stainless steel. Ensure that all abrasive media used are free from sources of contamination, especially iron and chlorides.

5. When cleaning a surface with any chemical preparation or abrasive medium, a trial should be done on a small, unobtrusive hidden or non-critical area of the surface, to check that the resulting finish matches with the original.

6. To avoid water marks, use clean rinsing water, such as reasonable quality potable (tap) water. Drying marks may be avoided using an air blower or wiping with clean disposable wipes.

7. Rust marks or staining on stainless steels is unlikely to be the result of corrosion to the stainless steel itself (similar marks may also be found on porcelain and plastic sinks). These marks are likely to result from small particles of carbon steel from wire wool.

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**Minimal Horizontal Loads for Balustrades**

Barriers for the protection of people should be of adequate strength and stiffness to sustain the applied loads, without permanent deflection or distortion.

In addition, a barrier that is structurally safe should not possess sufficient flexibility to alarm building users when subject to normal service conditions. Therefore, for serviceability considerations, the limiting condition for deflection appropriate for a horizontal displacement of the barrier at any point from its original position should not exceed the deflection limits determined from the relevant structural design code for the material used or 25mm, whichever is the smaller. Where a glass component of a barrier is subjected to imposed loads, the displacement of any point of the glass component, relative to its fixings, should not exceed L/65 plus 25mm, whichever is the smaller where L is given in 8.3, 8.4 or 8.5.

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**Type of Activity/Occupancy for the Part of the Building or Structure**

<table>
<thead>
<tr>
<th>TYPE OF ACTIVITY/OCCUPANCY FOR THE PART OF THE BUILDING OR STRUCTURE</th>
<th>EXAMPLES OF SPECIFIC USE</th>
<th>HORIZONTAL UNIFORMLY DISTRIBUTED LINE LOAD (kN/M²)</th>
<th>A UNIFORMLY DISTRIBUTED LOAD APPLIED TO THE INFILL (kN/M²)</th>
<th>A POINT LOAD APPLIED TO PART OF THE INFILL (kN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Domestic and residential activities</td>
<td>(i) All areas within or serving exclusively one dwelling including stairs, landings etc. But excluding external balconies and edges of roofs (see C3 vii)</td>
<td>0.36</td>
<td>0.50</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>(ii) Other residential, but also C</td>
<td>0.22</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>B and E Offices and work areas not included elsewhere including storage areas</td>
<td>(v) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes</td>
<td>0.36</td>
<td>0.5</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>(vii) Light pedestrian traffic routes in industrial and storage buildings except designated escape routes</td>
<td>0.74</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>C Areas where people may congregate</td>
<td>(viii) Areas having fixed seating within 530mm of the barrier, balustrade or parapet</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>C1/C2 Areas with tables or fixed seating</td>
<td>(v) Restaurants and Bars</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>C3 Areas without obstacles for moving people &amp; not susceptible to overcrowding</td>
<td>(vii) Stairs, landings, corridors, ramps</td>
<td>0.74</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>(viii) External balconies and edges of roofs, footways and pavements within building cartilage adjacent to basement/sunken areas</td>
<td>0.74</td>
<td>1.0</td>
<td>0.5</td>
</tr>
<tr>
<td>C5 Areas susceptible to overcrowding</td>
<td>(x) Theatres, cinemas, discotheques, bars, auditoria, shopping malls, assembly areas, studios. Footways or pavements greater than 3m wide adjacent to sunken areas</td>
<td>3.0</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>D Retail areas</td>
<td>(iv) All retail areas including public areas of banks/building societies or betting shops. For areas where overcrowding may occur, see C5 vii</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>F/G Vehicular</td>
<td>(xx) Horizontal loads imposed by vehicles</td>
<td>See clause 11</td>
<td>See clause 11</td>
<td>See clause 11</td>
</tr>
</tbody>
</table>

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We cannot be held liable for the compliance of our products to Building Regulations and it remains the responsibility of the customer to ensure all current regulations are met.