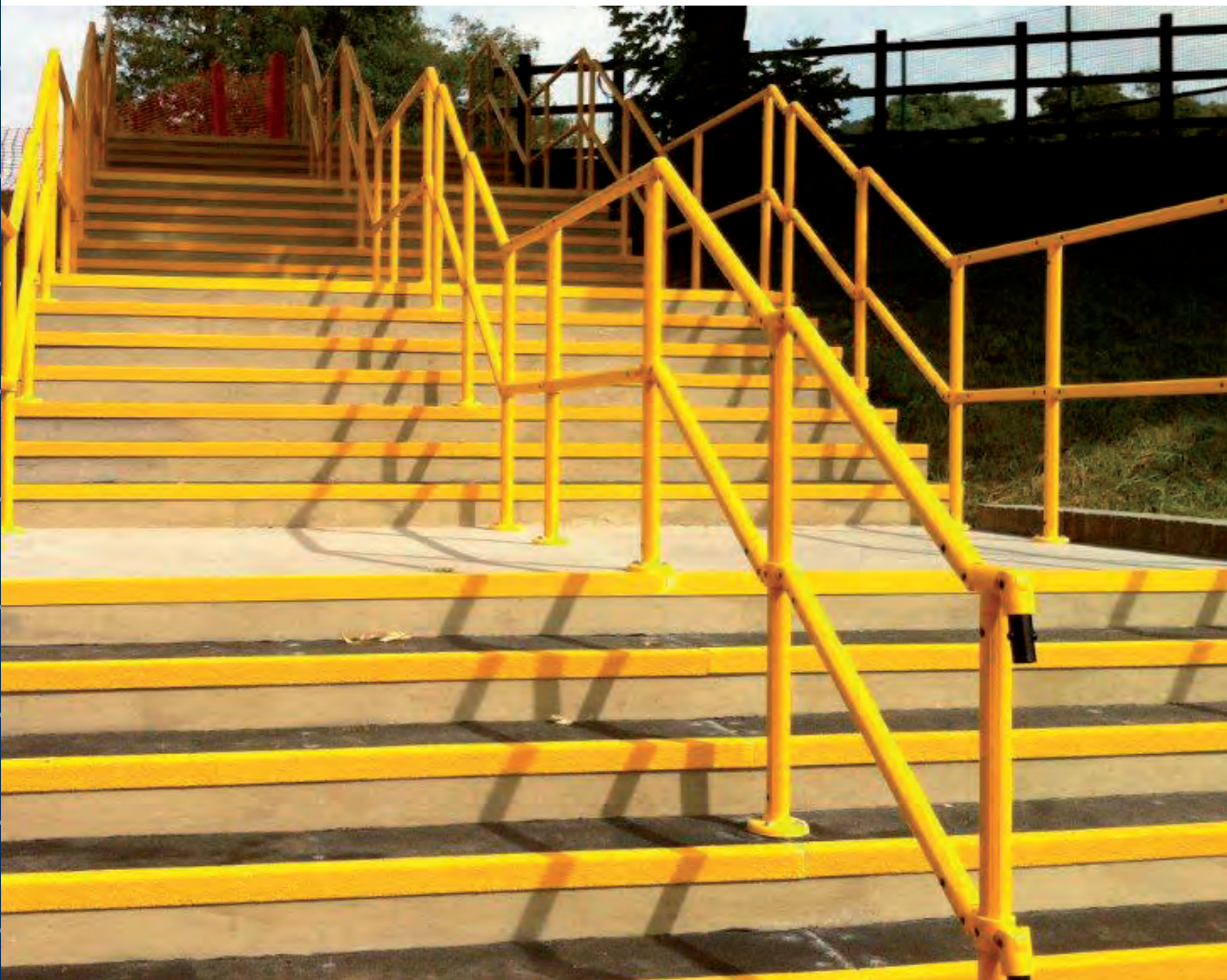


FibreRAIL

PVC Modular Handrail System



DESIGN

SUPPLY

FABRICATE

INSTALL



The FibreRAIL® modular handrail system is ideal for a variety of applications. Constructed from steel core with PVC coating, the product is a breakthrough for handrail systems.

All connections fit flush, resulting in a pleasing, streamlined appearance. The internal connections allow the construction of continuous handrail systems without raised external fittings.

FibreRAIL® Handrail System has been designed specifically to meet DDA obligations, Part M of the Building Regulations. Crafted from very strong steel for durability and encased in a PVC coating to provide the "warm-to-touch" benchmark set by Building Regs, our FibreRAIL® Handrail System is a "smooth continuous handrail", designed to provide the user with maximum comfort and ease during use.

CHARACTERISTICS

- 45mm diameter tube
- No snag points
- Warm to the touch
- Contrasting colours
- Meets building regulations
- Strong steel core with PVC coating construction
- Chemical resistant
- Modular internal connection
- Quick installation

SUITABLE APPLICATIONS

- ✓ Walkways
- ✓ Ramps
- ✓ Fire escapes
- ✓ Staircases
- ✓ Industrial plants
- ✓ Marinas
- ✓ Schools
- ✓ Hospitals
- ✓ Warehouses
- ✓ Factories

TECHNICAL DATA

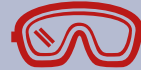
Description:	Modular handrail system
Top finish:	Tube & fittings: 4mm PVC coat with max strength 2mm steel core Base foot & side mould: powder coated cast steel
Component fixings:	Two part security hex head interscrew (black zinc coated)
Floor fixings:	M10 concrete anchor bolts (supplied with base feet)
Stock colours:	Components and tube: Safety Yellow (RAL 1003) and Grey (RAL 7004)
Tube diameter:	External diameter: 45mm
Design life:	All tubes & components have a design life of 40+ years
Testing data:	BS6399-1:1996 - Testing carried out by British Research Establishment (report available on request)

LOAD TABLE

Minimum horizontal load (kN/m ²)	Examples of types of occupancy and specific uses	Test result
0.22	Offices: Light access stairs and gangways	PASS
0.36	Domestic: All areas service exclusively	PASS
0.74	Offices: Areas not susceptible to overcrowding Domestic: All other domestic and residential not covered above Areas without obstacles: Stairs, landings, corridors and ramps, external balconies	PASS

PERSONAL PROTECTION EQUIPMENT

When installing FibreRAIL Handrail System, standard personal protective equipment should be worn as a minimum. These include safety goggles, heavy duty gloves and overalls. If required, FibreRAIL should be cut in a well ventilated area or close to extraction points. Dust residue can be disposed of using normal waste disposal methods. No special permissions or licences are required. Always ensure that it is installed in manageable sections, preferably two persons should be available for installation.



✓ Eye Goggles



✓ Protective
Gloves

✓ Overalls

PREPARATION

- ✓ Ensure that the areas that are to have FibreRAIL fitted are clean, dry and free from loose and friable material.
- ✓ Any "dished" or damaged surface areas should be patch repaired to provide a reasonably flat and consistent surface.
- ✓ If required, it can be cut on site to suit, ideally using a chop saw with a metal cutting blade.
- ✓ Please ensure that goggles and gloves are worn at all times when any form of cutting is involved.

FIXINGS

- A male and female Hex Head Security fixing 45mm long (these are used for top tube and base foot only).
- A male and female Hex Head Security fixing 60mm long (these are used for Mid Rail components).
- M10 floor bolts (used for wall mounting and base foot).

TOOLS REQUIRED

- 10mm Masonry drill bit (Not Supplied)
- Hex Head Security Key (2 required can be ordered)
- Hammer (Not Supplied)
- 17mm Spanner & Socket (Not Supplied)
- Tape Measure (Not Supplied)
- Spirit Level (Not Supplied)
- Hack Saw or Chop Saw (if tube is required to be cut down) (Not Supplied)
- 12mm Steel drill bit (if tube is required to be cut down and fixing hole re-drilled)
- Stanley knife (if new fixing hole is required for recessing the PVC) (Not Supplied)

COMPONENTS

<div>1</div> <div>BASE FOOT</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRYBF</td><td>Yellow</td></tr><tr><td>NFRGBF</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRYBF	Yellow	NFRGBF	Grey	<div>2</div> <div>90 DEGREE ELBOW</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRY90E</td><td>Yellow</td></tr><tr><td>NFRG90E</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRY90E	Yellow	NFRG90E	Grey	<div>3</div> <div>END BEND</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRYEB</td><td>Yellow</td></tr><tr><td>NFRGEB</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRYEB	Yellow	NFRGEB	Grey	<div>4</div> <div>90 DEGREE TEE</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRY90T</td><td>Yellow</td></tr><tr><td>NFRG90T</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRY90T	Yellow	NFRG90T	Grey
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NFRG90T	Grey																										
<div>5</div> <div>3 WAY CORNER</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRY3WC</td><td>Yellow</td></tr><tr><td>NFRG3WC</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRY3WC	Yellow	NFRG3WC	Grey	<div>6</div> <div>63 DEGREE TEE</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRY63T</td><td>Yellow</td></tr><tr><td>NFRG63T</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRY63T	Yellow	NFRG63T	Grey	<div>7</div> <div>MID RAIL SINGLE</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRYMRS</td><td>Yellow</td></tr><tr><td>NFRGMRS</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRYMRS	Yellow	NFRGMRS	Grey	<div>8</div> <div>MID RAIL DOUBLE</div> <div></div> <div><table><tr><td>Product Code</td><td>Colour</td></tr><tr><td>NFRYMMD</td><td>Yellow</td></tr><tr><td>NFRGMMD</td><td>Grey</td></tr></table></div>	Product Code	Colour	NFRYMMD	Yellow	NFRGMMD	Grey
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Product Code	Colour																										
NFRYMMD	Yellow																										
NFRGMMD	Grey																										

9 63 DEGREE MID RAIL DOUBLE



Product Code	Colour
NFRY63MRD	Yellow
NFRG63MRD	Grey

10 MID RAIL CORNER



Product Code	Colour
NFRYMRC	Yellow
NFRGMRC	Grey

11 ADJUSTABLE MID RAIL DOUBLE



Product Code	Colour
NFRYAMRD	Yellow
NFRGAMRD	Grey

12 ADJUSTABLE TEE



Product Code	Colour
NFRYAT	Yellow
NFRGAT	Grey

13 ANGLE CONNECTOR



Product Code	Colour
NFRYAC	Yellow
NFRGAC	Grey

14 ADJUSTABLE MID RAIL SINGLE



Product Code	Colour
NFRYAMRS	Yellow
NFRGAMRS	Grey

15 SIDE MOUNT BRACKET



Product Code	Colour
NFRYSMB	Yellow
NFRGSMB	Grey

16 WALL MOUNT ELBOW BRACKET



Product Code	Colour
NFRYWEB	Yellow
NFRGWEB	Grey

17 WALL MOUNT TEE BRACKET



Product Code	Colour
NFRYWTB	Yellow
NFRGWTB	Grey

18 WALL MOUNT SHORT END BEND



Product Code	Colour
NFRYWSEB	Yellow
NFRGWSEB	Grey

19 ADJUSTABLE ELBOW



Product Code	Colour
NFRYA90E	Yellow
NFRGA90E	Grey



Length	To Be Used Between	Yellow Code	Grey Code
20 790mm	2 Adjustable components	NFRYHT790	NFRGHT790
21 800mm	Non Adjustable and End Bend components	NFRYHT800	NFRGHT800
22 845mm	Adjustable and Non Adjustable components	NFRYHT845	NFRGHT845
23 890mm	Base Feet and End Bends	NFRYUT890	NFRGUT890
24 900mm	2 Non Adjustable components	NFRYHT900	NFRGHT900
25 990mm	Basefoot and all components (excluding end bends)	NFRYT990	NFRGT990
26 1400mm	Between 2 Wall components (or for concrete inset uprights)	NFRYT1400	NFRGT1400

Vertical Tubes

- 990 Tube - The standard tube for upright component installation with the exception of the Handrail End Bend.
- 890 Tube - The vertical tube used only with the Handrail End Bend component (be aware the middle hole is off centre).

Horizontal Tubes

- 1400 Tube - This tube is used for the on the wall fittings and can also be used as an upright where there is a requirement to bury the handrail uprights into the concrete (to be buried approx. 410mm down. Note if concreting in, it is recommended to cut away the PVC from the steel).
- 900 Tube - This tube is used between two non adjustable components.
- 845 Tube - This tube is used between a non adjustable and an adjustable component.
- 800 Tube - This tube is used between a non adjustable component and a Handrail End Bend only.
- 790 Tube - This tube is used between two adjustable components.

GENERAL ROUTINE MAINTENANCE

The security of the fixings/adhesive should be checked on a regular basis. Circumstances will vary, based upon the volume of foot traffic etc. but as a guide, monthly inspections would be advisable.

APPLICATION

You must fix down FibreRAIL® to a structurally secure surface to avoid any wobbling or instability. If you are fixing to paving slabs, you must ensure the paving slabs are fully fixed to a solid substrate.

Cutting the Tube

If you are ordering tubes which you know will need to be cut down to size, simply order the next size up. (Remember all standard sized tubes have a pre-drilled hole 35mm in from each end).



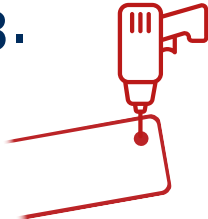
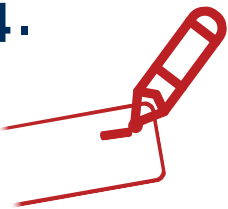
All tube sizes are calculated to achieve 1000mm centres and uprights to achieve 1100mm.

NOTE: If you cut the tube, a suitable rust prevention coating should be applied to any cut ends. MP-90 anti rust coating (Code: 55AC1927) from www.fix8.co.uk or ZG-90 anti rust paint (214696) from www.ironmongerydirect.co.uk or similar would be suitable.

Q. What if my area does not fall exactly on a multiple of 1000mm?

A. Simply cut the tube down to achieve your overall length. E.g. 1800mm is 1 No. 1000mm section and 1 No. 800mm section (this section has been cut).

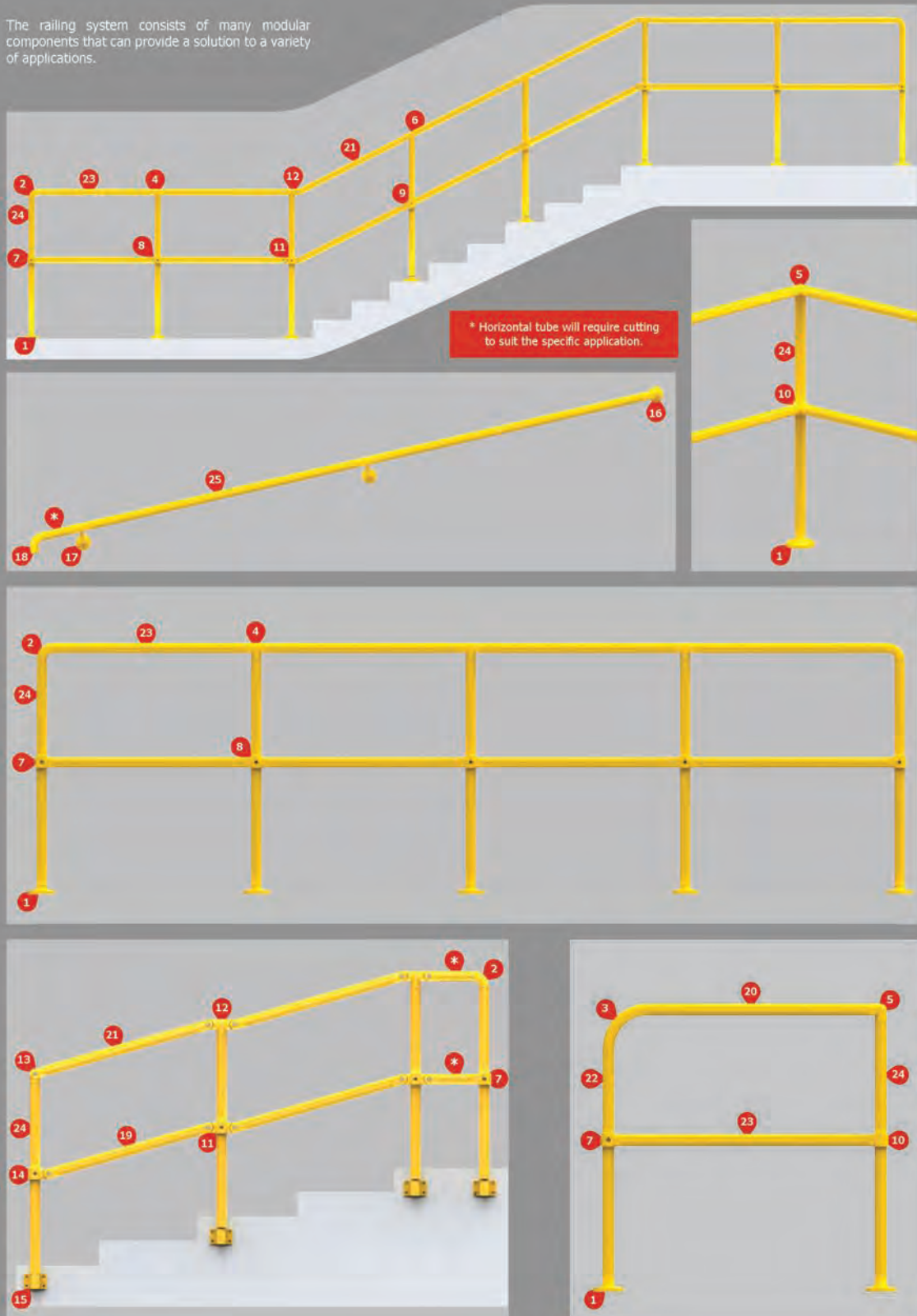
Bespoke tube sizes can be produced either during manufacturing or on-site, the simple procedure is:

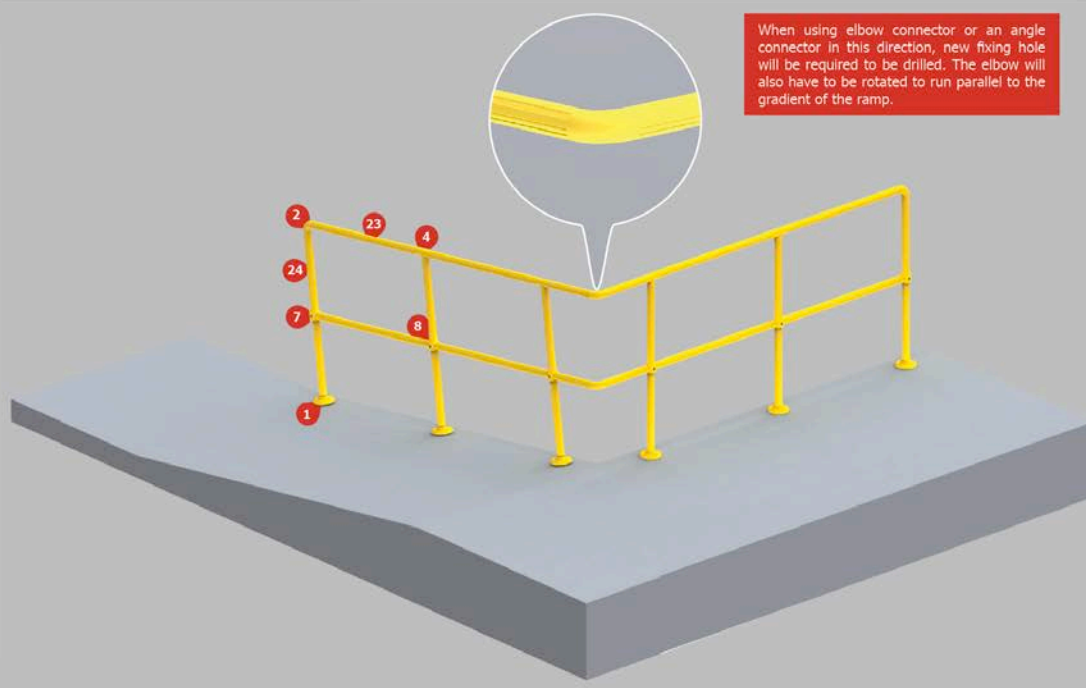
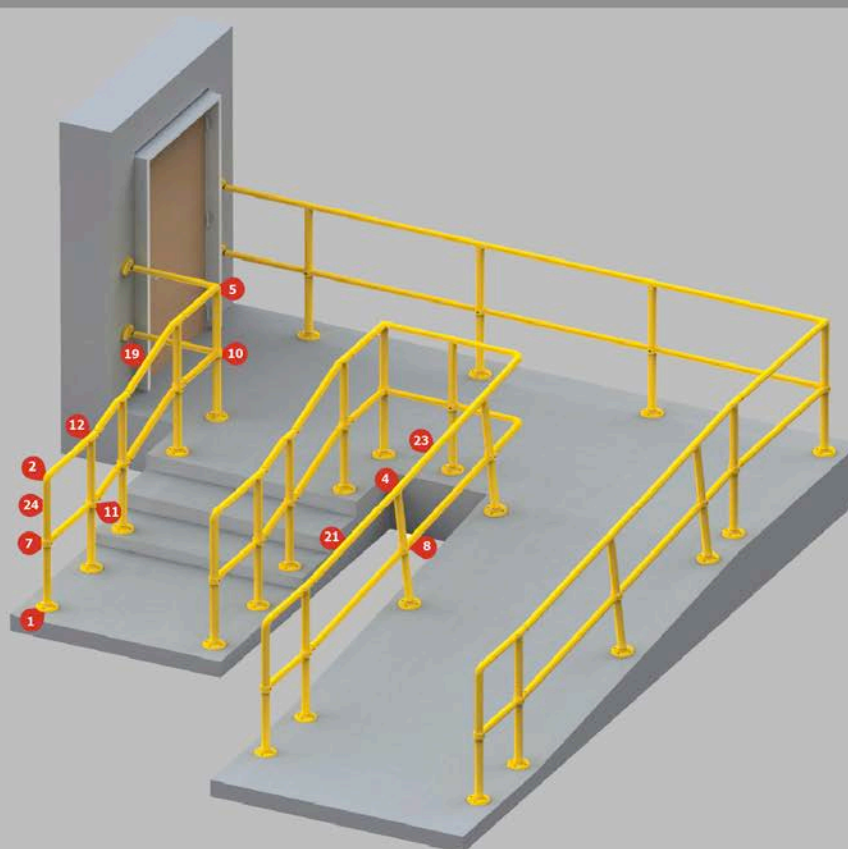
<p>1.</p> 	<p>Cute tube to required length using a chop saw with a metal cutting blade. The pre-drilled fixing holes would usually be removed during the cutting process and will need to be re-drilled to allow for components to be fixed to the tube.</p>
<p>2.</p> 	<p>Measure 31mm in from the newly cut length of tube and mark centrally in accord with the pre-drilled holes at the other end of the tube.</p>
<p>3.</p> 	<p>Pilot drill a hole between 355 and 5mm through one side of the tube (repeat this process on both sides of the tube). Drill 12mm holes through both sides of the tube using the pilot holes as a guide.</p>
<p>4.</p> 	<p>Using a cutting knife, bevel the PVC outer around the 12mm drilled hole to allow security fixing to pull down flush to follow with the pre-drilled holes maintaining the aesthetics of the product.</p>

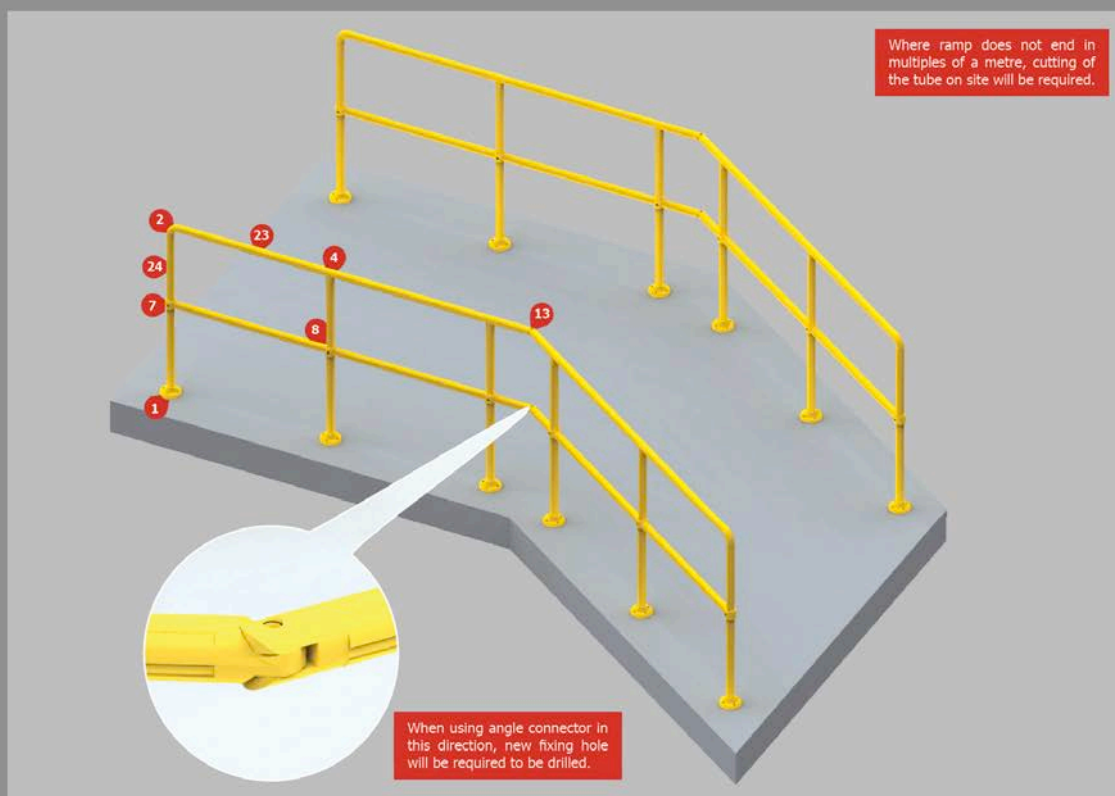
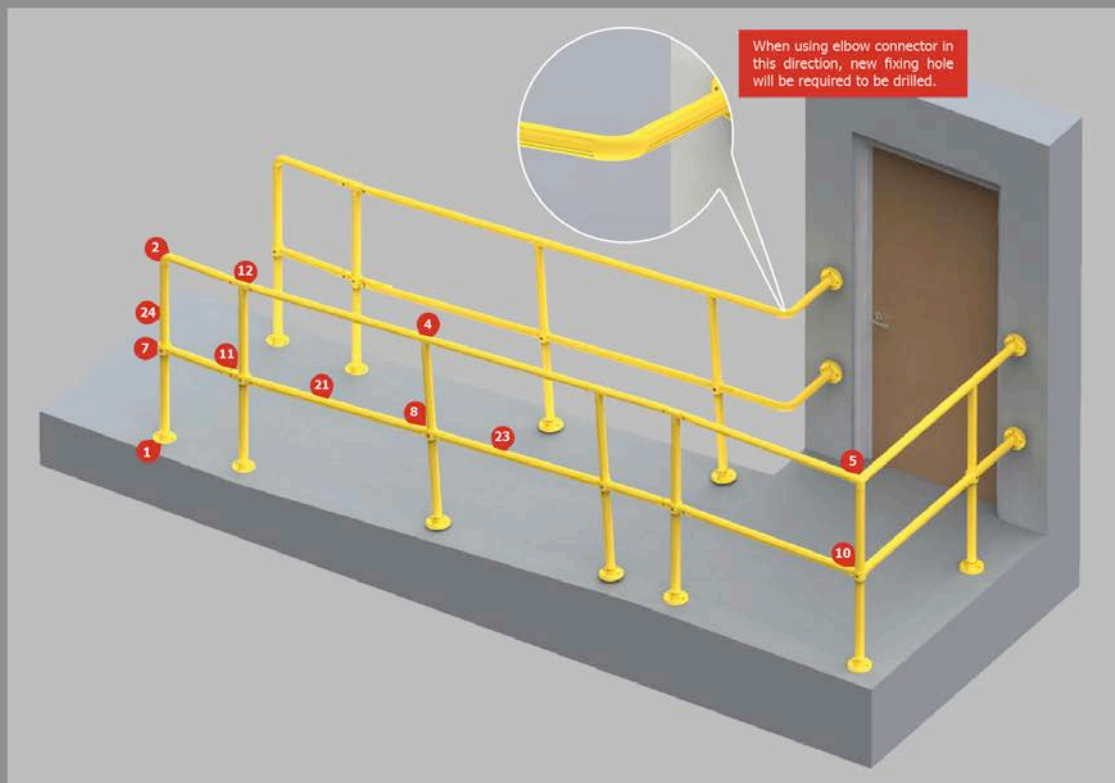


These installation instructions are to be used as a guide. Always employ safe practices. It is recommended to first test the suitability of any fixing method on a small area before carrying out a full installation programme.

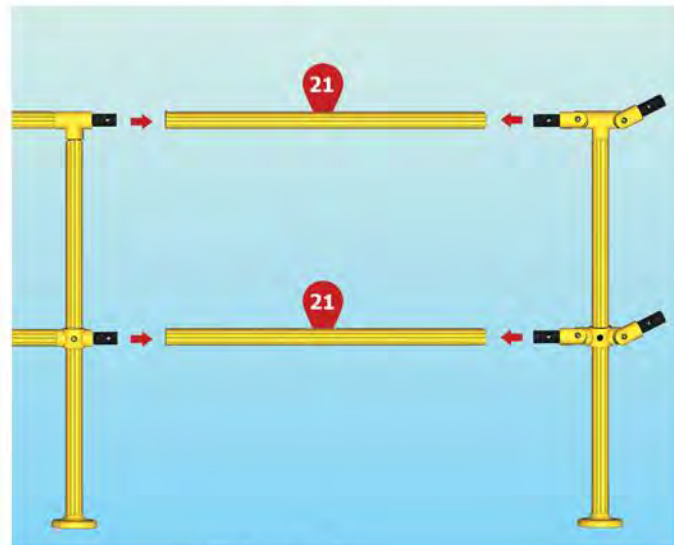
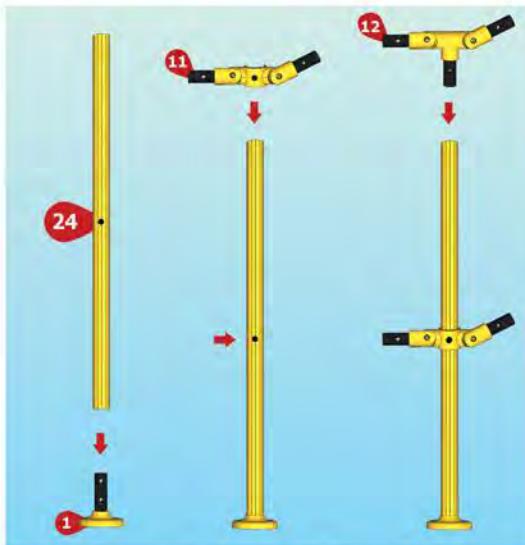
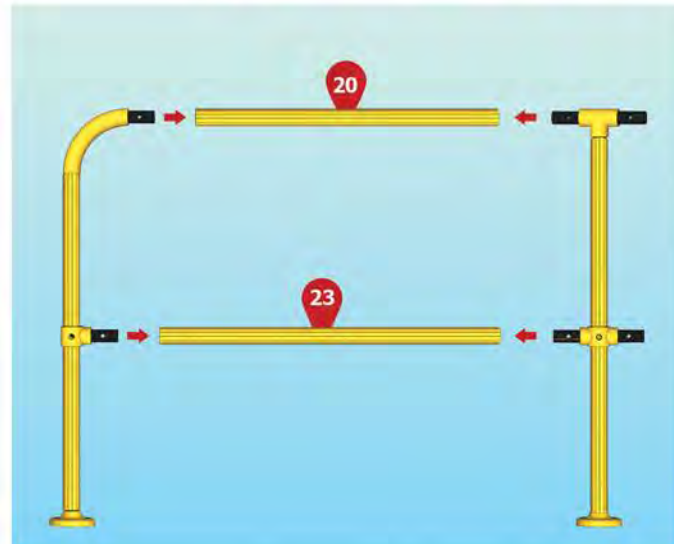
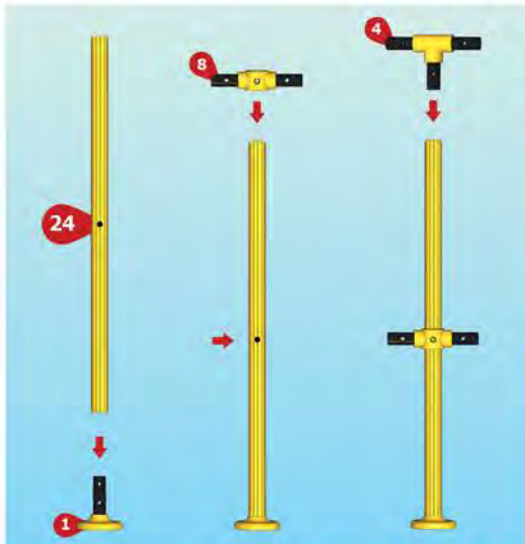
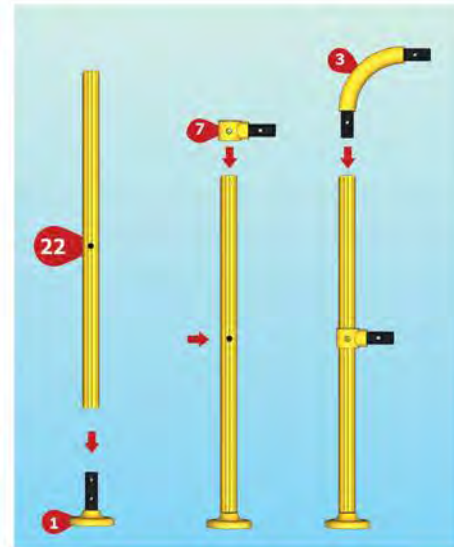
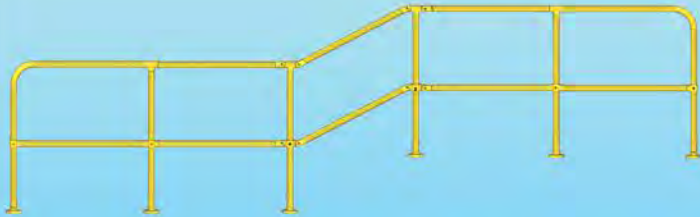
The railing system consists of many modular components that can provide a solution to a variety of applications.



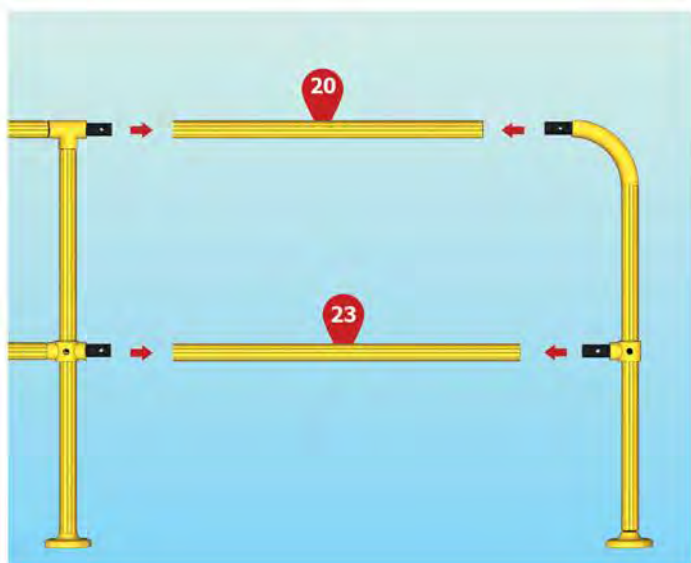
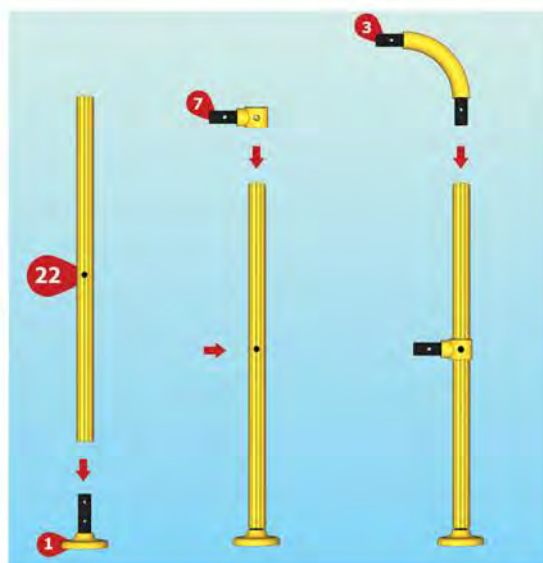
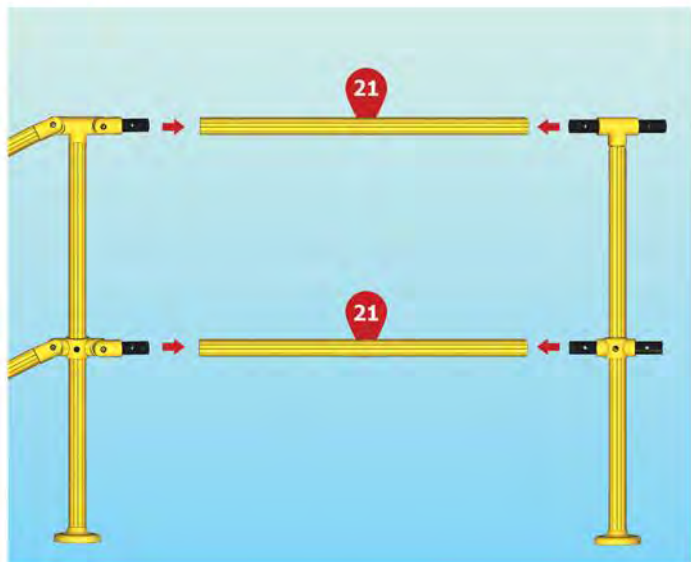
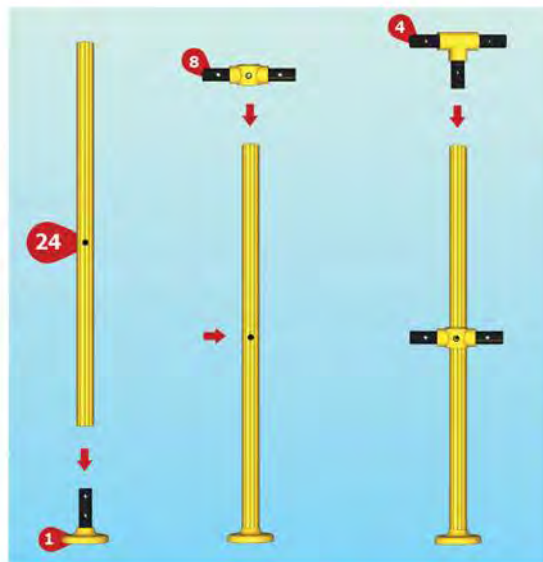
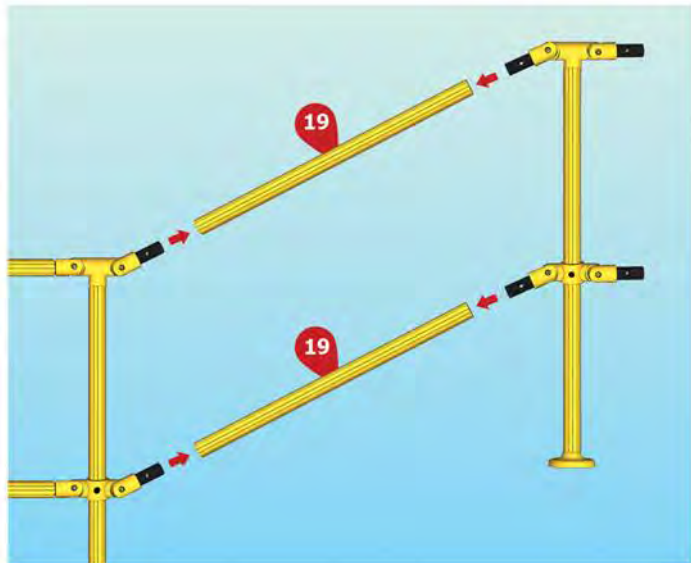
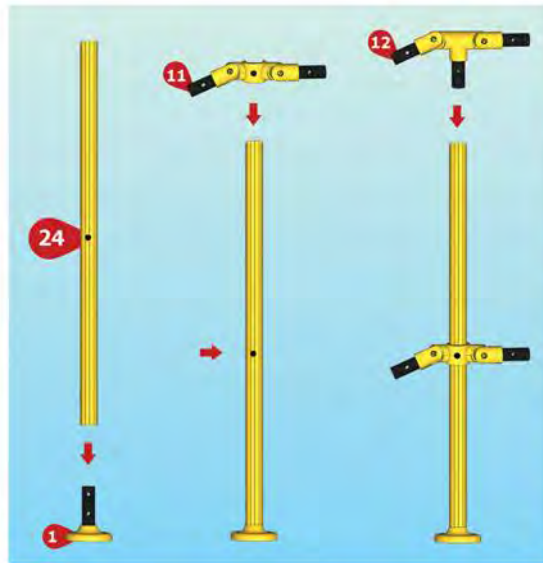




The following guide depicts our standard Handrail run, the majority of hand rail applications will use similar components to the ones shown. The standard run below is just one of the many different combinations that can be achieved when using this modular handrail system.



All components are supplied with the correct bolt fixings attached, simply remove bolts and re-fix components to the specified tube.



APPLICATION PHOTOS





Southern Office:
Unit 2, Civic Industrial Estate,
Homefield Road Central,
Haverhill,
Suffolk,
CB9 8QP



Northern Office:
Kingston House,
3 Walton Road,
Pattinson North,
Washington,
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