

Swiss Solutions Hand Rail System

Creating a safer environment

Product description

Hand Rail System

The Swiss Solutions Modular Hand Rail System is ideal for a variety of applications. Constructed from exceptionally strong steel tube with an unique high quality PVC coating, the product is a breakthrough for handrail systems. The PVC coating provides a warm touch. All connections fit flush, resulting in a pleasing streamlined appearance. The internal connections allow the construction of continuous handrail systems without raised external fittings.

Suitable applications

Walkways, ramps, fire escapes, all staircases, industrial plants, marinas, schools, hospitals, warehouses and factories.

Product characteristics

45mm diameter tube. No snag points. No cold touch. Contrasting colour. Strong steel core with PVC coating construction. Chemical resistant. Modular internal connection. Slip resistant top surface. Impact resistant. Fire retardant option. Corrosion resistant. Lightweight. Non Sparking. Non Metallic. Tough and Durable. Quick installation.



rmn

Repair Management Nederland B.V.
More management less firefighting

Distribution:
Repair Management Nederland B.V.

Swiss Solutions ® – Jade 300 – 3316 LJ Dordrecht – Netherlands
Phone +31 (0)85 27 32 216 – email info@rmn.eu – www.repairmanagement.nl

Swiss Solutions Hand Rail System

Creating a safer environment

Technical data

Description:	Modular hand rail system	Top finish:	Tube & Fittings: 4mm PVC coat with max strength 2mm steel core Base Foot & Side Mount: Powder coated cast steel.
Colours:	Safety Yellow (RAL 1003) and Grey (RAL 7004)		
Tube diameter:	External diameter 45mm		
Component fixings:	Two part security hex head interscrew (Black zinc coated)	Design life:	All tubes and components have a design life of 40+ years
Floor fixings:	M10 concrete anchor bolts (supplied with the base feet)	Testing date:	BS6399-1:1996

Minimum horizontal load (kN/m)	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 one single family dwelling. Offices: Light pedestrian traffic routes.	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

Preparation

Safety:

when installing the modular handrail system standard personal protective equipment should be worn as a minimum. Safety goggles, heavy duty gloves, safety shoes and overalls. It should be cut in a well ventilated area or close to extraction points. Always ensure that it is installed in manageable section, preferably two men should be available for installation. No special permission or licenses are required at the time of going to print.

Preparation:

Ensure that the areas to have the handrail system fitted are clean, dry and free of loose and friable material. Any "dished" or damaged surface areas should be patched or repaired to provide 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, ear muffs, safety shoes and gloves are worn at all times when any form of cutting is required.

Fixings:

A male & female hex head security fixing 45mm long (these are used for top tube and base foot only).

A male & 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 allen key (2 required not supplied), Hammer (not supplied), 17mm spanner & socket (not supplied), tape measure (not supplied), hand saw or chop saw (if tube has to be cut down, not supplied), spirit level (not supplied), 12mm steel drill bit (if tube has to be cut down, not supplied), Stanley knife (if new fixing holes is required for recessing the PVC, not supplied). All tools and personal safety products can be supplied by us.



Swiss Solutions Hand Rail System

Creating a safer environment

Application

You must fix down Hand Rail System to 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 sizes 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. A special anti rust paint or zinc coat would be suitable.

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

Simply cut the tube down to achieve your overall length. E.g. 1800mm is 1 pc. 1000mm section and 1 pc. 800mm section (this section has to be cut).

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

- 1) Cut tube to required length using a chop saw with a metal cutting blade.
- 2) 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.
- 3) Measure 31mm in from the newly cut length of tube and mark centrally in accord with the pre-drill holes at the other end of the tube.
- 4) Pilot drill a hole between 3mm and 5mm through one side of the tube. (repeat this process on both sides of the tube).
- 5) Drill 12mm holes through both sides of the tube using the pilot holes as guide.
- 6) 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.

Tubes available

Vertical Tubes:

990mm Tube The standard tube for upright component installation with the exception of the Hand Rail end bend.

890mm Tube The vertical tube used only with the Hand Rail end bend component (be aware the middle hole is off centre).

Horizontal Tubes:

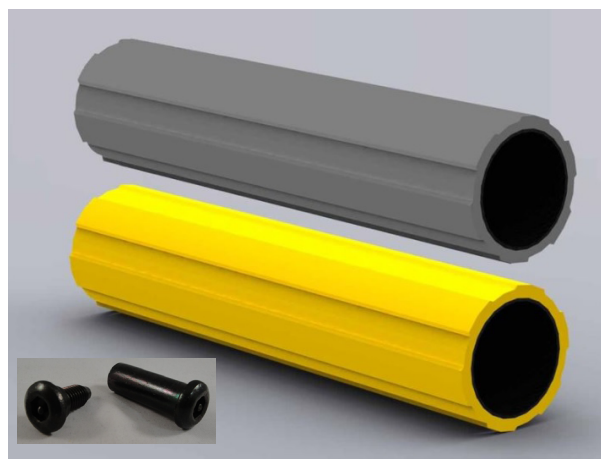
1400mm Tube This tube is used for the on the wall fittings and can also be used as an upright where there is a requirement to bury the handrail uprights into the concrete (to be buried approx. 410mm down. Note if concreting in, it is recommended to cut away the PVC from the steel).

900mm Tube This tube is used between two non adjustable components.

845mm Tube This tube is used between a non adjustable and adjustable component.

800mm Tube This tube is used between a non adjustable component and a Hand Rail end bend only.

790mm Tube This tube is used between two adjustable components.



All Hand Rail System components can be found on our separate datasheet with colours and article numbers.