

Post & Handrail Glass Balustrade System

Technical Specification — 42.4 mm stainless steel posts and handrail with 10 mm toughened glass — black and satin

This sheet describes the Post & Handrail glass balustrade system supplied by The Outdoor Look: 42.4 mm round stainless steel posts carrying a continuous 42.4 mm handrail, with 10 mm toughened glass held between the posts in D-shape clamps. It is supplied in black (304, powder-coated) or satin (316, brushed). It sets out the specification, the setting-out rules every job is worked to, and the conditions of use.

Designed in line with BS 6180:2011. The finished height is 1100 mm to the top of the handrail on level runs. The system must be installed to the approved layout, at no more than 1200 mm post centres, and fixed into a substrate able to carry the loads.

01 WHERE THIS SYSTEM CAN BE USED

Post & Handrail is our guarding system. UK building regulations require guarding wherever there is a drop of more than 600 mm, and guarding must be at least 1100 mm high for external balconies, terraces and decking.

Suitable for

- Raised decks and terraces
- Balconies at houses and flats
- Stairs and landings, with the handrail following the pitch
- Pool surrounds and coastal sites (satin finish only)

Check with us first

- Commercial and public areas, or anywhere people may gather or crowd against the barrier
- Any project where the specifier needs load test evidence or calculations

If you are unsure which applies to your project, call 01282 526428 before ordering.

02 PRODUCT & MATERIAL SPECIFICATION

System type	Glass infill clamped between bolt-down posts · continuous handrail on saddles
Black finish	304 stainless steel, black powder-coated
Satin finish	316 marine-grade stainless steel, brushed, uncoated
Post	42.4 mm diameter tube · base plate with cover · bolt down
Post height	978 mm, without post-top fitting
Base plate	101.5 mm diameter
Clamp centres	600 mm, centre of bottom clamp to centre of top clamp
Glass clamp	D-shape round clamp for 10 mm glass on a 42.4 mm tube, with gaskets
Handrail	42.4 mm stainless steel tube · stock lengths 5800, 3000, 1500 and 1200 mm
Finished height	1100 mm to the top of the handrail on level runs
Glass	10 mm toughened safety glass to BS EN 12150 · polished edges, dubbed corners · 900 mm high
Stock glass widths	300 to 1100 mm in 100 mm steps, clear
Cut-to-size glass	Clear or tinted · all stair glass
Fixings	Ground fixings not supplied — substrate-appropriate fixings by installer

03 POST TYPES

TYPE	GLASS CLAMPS	USED WHERE
End post	2, one face	Each end of a section
Mid post	4, two opposite faces	Between two panes on a straight run
Corner post	4, two faces at 90°	A 90° change of direction
Blank post	None	Where the glass stops but the handrail carries on — steps, changes in level, breaks in the run
Off-square corner	End post + 2 extra D-shape clamps	A corner that is not 90° — the extra clamps are fitted on site at the required angle

04 HANDRAIL FITTINGS

FITTING	WHERE IT GOES
Fixed saddle	Top of every level end, mid and blank post
Adjustable saddle	Top of every stair post, so the rail follows the pitch
90° end elbow bracket	Top of a 90° corner post
Adjustable elbow	In the tube wherever the rail changes pitch, such as level to stair
In-line tube connector	At each joint between tube lengths, on straights only
End cap or 90° scroll end	Each open end of handrail
Wall flange	Where the handrail runs to a wall

Posts take no cap of their own: the saddle sits on the post top. Off-square corners take an adjustable elbow in the handrail at that post.

05 SETTING OUT

PARAMETER	VALUE	BASIS
Maximum post centres	1200 mm	The Outdoor Look standard
Base plate set-in from the edge	20 mm at every post end, corners included	The Outdoor Look standard
Glass edge to post face	18 mm minimum, 38 mm maximum	Clamp adjustment
Pane width at C mm centres	$C - 100$ mm nominal ($C - 118.4$ to $C - 78.4$)	Derived from the two rows above
Section ends	Always an end post — posts never finish on a wall	The Outdoor Look standard
Handrail length at open ends	To the outside edge of the end post base plate	The Outdoor Look standard

The handrail may continue past the last post to a wall and finish on a wall flange. Stock glass widths are used wherever the run allows. Where a run cannot be divided into stock widths, one pane or every pane on that leg is cut to size. Stair legs are never stock: each raked pane is cut to size from a template, measured along the pitch post to post. Every job is drawn up for approval before any glass is cut.

06 STANDARDS & STRUCTURAL PERFORMANCE

The system is designed in line with BS 6180:2011 *Barriers in and about buildings*, with an 1100 mm finished height to the top of the handrail on level runs.

Performance depends on the installation as much as the components: post centres no greater than 1200 mm, every post plumb and fully fixed, and a substrate able to carry the loads. Responsibility for the supporting structure and the substrate fixings rests with the installer or building designer.

Where a project requires load test evidence or structural calculations, contact us before ordering. The 1200 mm maximum post centre is **our own setting-out standard**; it is not a load rating and must not be presented as one.

STANDARD	COVERS
BS 6180:2011	Barriers in and about buildings — code of practice
BS EN 10088	Stainless steel material performance
BS EN 12150	Thermally toughened soda lime silicate safety glass

316 is the most corrosion-resistant stainless grade in common architectural use and suits coastal and poolside sites with routine cleaning. The black finish is 304 stainless steel protected by its powder coating and is not recommended for coastal or poolside installations.

07 CONDITIONS OF INSTALLATION

- Verify the substrate will carry the posts; on decking, posts fix into solid structure, not the boards alone
- Use stainless steel fixings suited to the surface — dissimilar metals cause galvanic corrosion
- Ground fixings are not supplied; the correct fixing depends entirely on the surface
- Set every post plumb, at the drawn centres, and allow anchors to cure fully before glazing
- Fit the saddles and handrail before the run is put into use — the system is not complete without the handrail
- Always fit the gaskets — glass must never be clamped directly against metal
- Toughened glass cannot be cut, drilled or worked after manufacture; any attempt will shatter the pane
- Check every pane on delivery and report any damage within 48 hours
- Do not drill or modify posts, clamps or fittings

08 INSPECTION & HANDLING

- Inspect at least once a year: posts firm, handrail secure in every saddle, clamp screws tight, gaskets in place, glass free of chips and cracks
- Replace any chipped or cracked pane — toughened glass cannot be repaired
- Carry glass on edge, never flat, with two people for larger panes; wear gloves
- Store panes upright on timber bearers, never on concrete or stone, and protect the edges
- Secure the work area while glazing

All stainless steel components are fully recyclable.

This sheet describes the Post & Handrail glass balustrade system only. It supersedes any earlier statement that this system is "compliant with" or "meets" UK Building Regulations.