FRAMELESS GLASS FENCING SYSTEMS PTY LTD
(ABN: 69 100 068 620)
Australia Wide Phone: 1300 369 578
EMAIL: info@glassfencing.com WEBSITE: www.glassfencingsystems.com

Frameless Systems – Specifications & Installation

GCC 100

Standard concrete fixed clamp - 3 piece - used for attaching to glass prior to installation. This clamp is used for concrete or tiled area and would normally be attached to the glass 5 shims on one side and 5 on the other with packers under the glass; it can be installed with or without an M16 extension pin depending on the surface into which it is being fitted. If it is being installed into concrete or an area where a thin tile is used then it is sometimes possible not to use the extension pin as long as a suitable epoxy is used such as Rapid Set or similar.

General Installation - When the clamps are fitted to the glass prior installation as per GC100 details above the procedure is as follows.

Mark out the centreline of the glass and divide the area into the panel lengths as required (see panel lengths section). Mark the appropriate gaps including an allowance for the corners. Once the positions of the holes are marked they are then core drilled (83 mm recommended) and then packing blocks, set to the height of the fence, should be positioned with 2 blocks per panel.

Turn glass up-side down and bolt clamps to glass, ensuring they are at a 90 degree angle to bottom edge of sheet. It is recommend that you level the packing blocks from the gate position, particularly if it is a floor spring as this is usually the least adjustable, adjust the blocks by adding or subtracting packers until they are reasonably level, now when the glass sits on the packing blocks the glass should be very close to level and may need minor adjustments to compensate for any variations in glass heights. Lower the clamps attached to the glass into the core holes and prop panel in position using stays with supports to hold the glass level. Repeat until a run or the complete fence is in position then level and plumb the glass panel by panel until you are happy with the complete look.

Panels can be aligned by clamping 2 sheets together but be careful to not put too much pressure and bend the glass, to find out that you need to adjust the alignment by undoing the clamps and moving some shims from one side to the other to get the right finish. Packers can be added or taken out to adjust height of glass. Once you are satisfied with the glass position mix the epoxy and pour carefully into the hole making sure that there is no moisture in the holes as the epoxy can react and bubble out of the hole. Also on very hot days the hot clamps can cause the epoxy to expand quicker so pour a little less into the hole to allow for that.

The 2 types of Epoxy we use have a very short work time approximate 10-15 minutes and 40-45 minutes depending on temperature it dries to 90 mpa strength in 2 hours. Generally the holes are filled to within 15mm to 25mm from the top to the holes to be grout filled after drying, 100 mm diameter cover plates can also be used and should be fitted to the clamps prior to installation (it is recommended that the holes be grouted even if cover plates are used to ensure that no water gets trapped at base of clamp after installation.)
The use of a fast setting high strength epoxy allows for a very strong installation and the props can be removed as soon as a suitable strength has been achieved and the job finished without the need to return the next day, other types of products can also be suitable depending on the site, situation and application.

FRAMELESS GLASS FENCING SYSTEMS PTY LTD
(ABN: 69 100 068 620)
Australia Wide Phone: 1300 369 578
EMAIL: info@glassfencing.com WEBSITE: www.glassfencingsystems.com

CS90

Flat bottom - 2 piece cast clamp - used for attaching to steel beams or channels, designed for the glass to sit 98 mm above the base of the clamp - comes with a removable front plate which allows for the glass to be fitted before or after installation easily.

General installation - Can be installed in ground but due to its length is only really suitable for fixing into untiled concrete - Normally the clamp would be bolted from underneath using a suitable M16 x 316 stainless steel bolt and attached to some sort of suitable steel structure , often this would be used on exposed steel work or where AC sheeting , waterproofing and a thin tile are used with a total material thickness of say less than 40 mm. which would give a gap to glass of 58 mm less any fall. In ground installation attached to the glass is as per the GC100. Clamp installation without glass is usually more time consuming as everything has to be aligned and levelled, our system has been designed to provide up to 7 mm of adjustment in and out and up to 4 mm up and down to allow you to get a perfect job, the glass can be ordered before or after installation of the clamps. Installation of the clamps prior to the glass can allow waterproofing and other trades to finish before the glass is installed.

CS140

Flat bottom - 2 piece cast clamp - used for attaching to steel beams or channels, designed for the glass to sit 148 mm above the base of the clamp - comes with a removable front plate which allows for the glass to be fitted before or after installation easily.

General installation - Can be installed in ground as a replacement for the GC100 model but with removable front plate is more versatile than the GC100. Normally the clamp would be bolted from underneath using a suitable M16 x 316 stainless steel bolt and attached to some sort of suitable steel structure, often this would be used on exposed steel work or where AC sheeting, waterproofing and a thin tile are used with a total material thickness of say less than 90 mm. which would give a minimum gap to glass of 58 mm less any fall.

In ground installation attached to the glass is as per the GC100. Clamp installation without glass is usually more time consuming as everything has to be aligned and levelled, our system has been designed to provide up to 7 mm of adjustment in and out and up to 4 mm up and down to allow you to get a perfect job, the glass can be ordered before or after installation of the clamps. Installation of the clamps prior to the glass can allow waterproofing and other trades to finish before the glass is installed.

CS190

Flat bottom - 2 piece cast clamp - used for attaching to steel beams or channels, designed for the glass to sit 190 mm above the base of the clamp - comes with a removable front plate which allows for the glass to be fitted before or after installation easily.

General installation - Can be installed in ground as a replacement for the GC100 model but with removable front plate is more versatile than the GC100 and is more suitable when extra length is required. Normally the clamp would be bolted from underneath using a suitable M16 x 316 stainless steel bolt and attached to some sort of suitable steel structure, often this would be used on exposed steel work or where AC sheeting, waterproofing and a thin tile are used with a total material thickness of say less than 140 mm. which would give a minimum gap to glass of 58 mm less any fall. In ground installation attached to the glass is as per the GC100 Clamp installation without glass is usually more time consuming as everything has to be aligned and levelled, our system has been designed to provide up to 7 mm of adjustment in and out and up to 4 mm up and down to allow you to get a perfect job, the glass can be ordered before or after installation of the clamps.

Installation of the clamps prior to the glass can allow waterproofing and other trades to finish before the glass is installed. The CS190 model is also suitable for as a top fixed or in ground fixed clamp on stairs when set in the middle of the average tread (can also be used in conjunction with a clamp extension piece for extra length) and will soon be available with a sloping centre block and packer to suit up to 37 degree stairs.

CS310

Extended clamp - 2 piece cast - used for deck application where an extended clamp is required to go down through a deck and attach into a suitable timber or steel structure, the design of this clamp is to allow 318 mm from the base of the clamp to the glass. It has 5 holes designed for M12 stainless steel rods or bolts to be attached to a suitable structure that will support the load of the glass - it also comes with removable front plate- glass is usually ordered after installation of this clamp. This clamp can be used for in ground installation although the position of holes needs to be considered. Clamp installation without glass is usually more time consuming as everything has to be aligned and levelled, our system has been designed to provide up to 7 mm of adjustment in and out and up to 4 mm up and down to allow you to get a perfect job, the glass can be ordered before or after installation of the clamps.
Installation of the clamps prior to the glass can allow waterproofing and other trades to finish before the glass is installed.

GCC150

Extended clamp - 3 piece - used for deck fixing and where a longer clamp is required for side fixing, it comes with 2 x holes suitable for M12 cap head bolts so it can be bolted to a suitable structure, this clamp is usually fitted without the glass installed, can also have a modified sloping centre block for sloping applications, is often used for bolting onto walls etc.

GCC160

Small side fixed clamp - 2 piece - designed for side fixed applications can be used on timber, concrete or steel, the back plate has 3 x M8 countersunk holes which can be attached to a suitable structure using a suitable screw, chemical anchor or in conjunction with our M24 stainless steel concrete fixing anchor pins which allow up to 40 mm pack out from wall, other types of spacer can also be used to packout the clamp to correct position.

Clamp Spacings

The clamps have been extensively tested both here and overseas and include structural, wind loading, impact and corrosion testing as well as over 5 years of site testing.

Overseas testing has been completed and our system has passed all tests required for European conformity, undertaken in Paris at LNE, which is rated the 1 testing authority for France and covered every aspect of the products including many tests not required here in Australia. We are about to under take extensive testing on a new range of frameless and semi frameless products including hinges and latches, which will be completed in the near future.