

# ULTRASYSTEMS

RELIABLE | ALUMINIUM | SOLUTIONS



**CHANNELFIX FRAMELESS  
GLASS BALUSTRADE**

Glass balustrades are the ultimate means of creating a safety barrier for a balcony, pool or staircase. Whilst providing safety, strength and security in and around your home, glass simultaneously offers uninterrupted views, style, spaciousness and long-lasting quality.

The UltraSystems Channelfix Balustrade System is suitable for many applications from residential to commercial settings. Ideally suited for fitting to a finished surface or as a retrofit. Channelfix Balustrade System is manufactured with a unique, simple adjustment system allowing horizontal alignment of each glass panel.

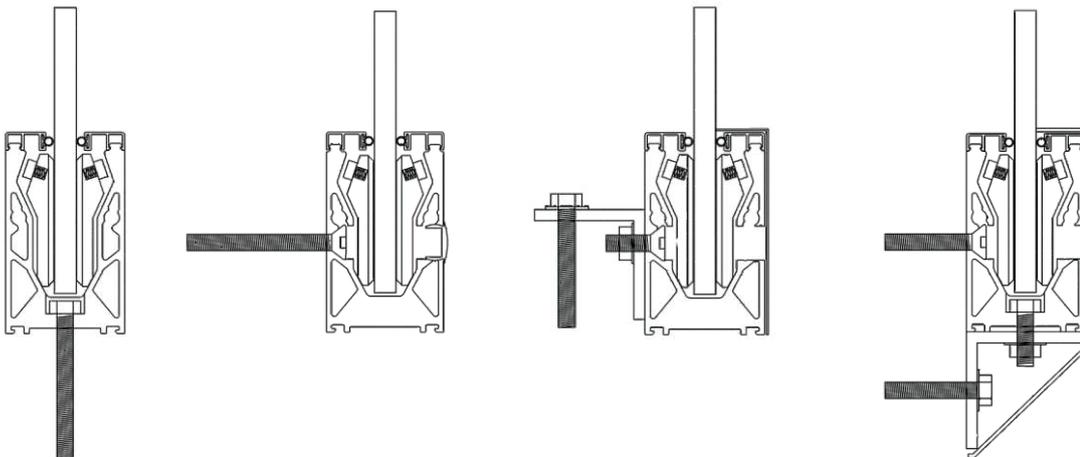
## GLASS BALUSTRADES ARE UNIQUE, ATTRACTIVE, EASY TO CLEAN AND DURABLE

### Why use the UltraSystems Channelfix Balustrade System?

- Provides safety and security
- Attractive
- Durable
- Easy to clean
- Provides uninterrupted views
- Increases your home or building value

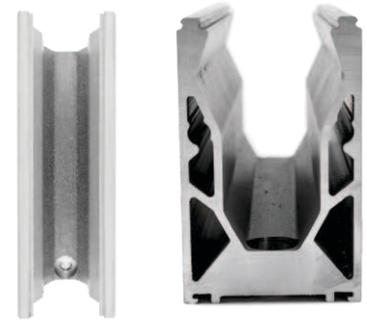
### ADVANTAGES OF THE CHANNELFIX BALUSTRADE SYSTEM:

- Tested to comply with SANS balustrade regulations
- Quick and easy installation
- Adjustable after installation
- Lightweight and extremely strong
- Suitable for residential and commercial applications
- Easy replacement of damaged glass
- Available in 7250mm lengths, and can be powder coated
- Can be top fixed or side fixed
- 12mm to 15mm glass, (17.52mm & 19mm without isolators)
- Competitive pricing



**BASE DRILLED CHANNEL:** This is the channel extrusion prepared for top mount fixing. The channel is provided in a maximum length of 7250mm and can be powder coated to standard colours.

It is pre-drilled at 50mm from each end and then at approximately 300mm centres thereafter. All components are fitted into this channel. The drilled hole suits up to a 10mm fixing bolt.



**SIDE DRILLED CHANNEL:** This is the channel extrusion prepared for side mount fixing. The channel is provided in a maximum length of 7250mm and can be powder coated to standard colours.

It is pre-drilled at 50mm from each end and then at approximately 300mm centres thereafter. All components are fitted into this channel. The drilled hole suits up to a 10mm fixing bolt.



**GLAZING BEAD:** The beading strip is pressed onto the channel to hide the isolators from view. It holds the gasket in place and finishes off the appearance of the channel neatly. Beading is provided in a maximum length of 7250mm and can be powder coated to the same colour as the channel.

**GASKET:** The gasket is a santoprene bubble seal. White, black and grey are the standard colours kept in stock. Special colours can be provided on request. The same length and quantity as the glazing bead is required.

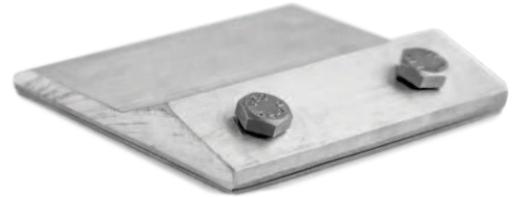


**FIXING BOLTS, ANCHORS AND WASHERS:** The recommended fixing bolt is 100mm M10 stainless steel threaded rod fitted with chemical anchor for top mount applications, and CSK screw with brass anchor for side mount. However, all fixing methods should be assessed for strength on installation. Quantity of bolts, anchors and washers required are 24 per channel length or 3 per metre.

**CHEMICAL ANCHOR:** Fix-O-Chem is a two-component chemical anchoring system based on styrene free polyester resins for very fast anchoring with high firmness, hardening through chemical process. For anchoring dynamically stressed structures, building components, engineering equipment or scaffolding. Suitable for heavy-duty anchorage in stone and concrete. Chemical Anchor should be used with all fixing bolts.



**ISOLATOR:** Isolators are fitted either side of the glass with 300mm centres. The isolators are used to hold the glass in place. Adjustment bolts on the isolators are loosened and tightened each side allowing for glass alignment. 48 isolators are required per channel length, or 6 per metre.



**JOINING PIN:** Joining pins are used for aligning of profiles when joining channel sections together. There are two slots in the channel to hold the pins.

Joining pins are available in straight and 90 degree bends with custom angles available on request. Two are required per joint.

**END CAP:** Aluminium end caps are available to finish off the end of the channel, they can be powder coated to match the base channel.

An adhesive can be used to hold them in place, one end cap is required for every visible end of the channel.



**DRAINAGE SPACER:** Aluminium drainage spacers can be fitted underneath the channel to allow for free flow of water underneath the base channel.

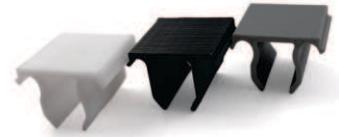
Drainage spacers are stocked in 10mm and 4.5mm thicknesses. 24 per channel length or 3 per metre are required. The fixing bolt should pass through the drainage spacer.

**SETTING BLOCK:** A self-adhesive setting block is placed inside the base channel. It protects the glass from lying directly on the channel and is used for level adjustment. 24 are required per length, or 3 per metre.



**GLASS SPACER:** Custom made PETG spacers are used between glass panels to stop dust from entering the channel and reduce water ingress. Easy to use, they clip in between the beading.

They are 12mm wide and come in lengths of 10mm, 20mm, 40mm and 100mm. Easy to cut to size, and available in white, black and grey.



**PLUG:** A 19mm hole plug is used to cover up the tool holes on side drilled channels. Available in white, black and grey.

**BALUSTRADE HANDRAIL:** A handrail can be added for safety and to protect the edge of the glass. Extruded in 7250mm lengths, it can be powder coated to standard colours, and can be fitted to any frameless glass balustrade using 12mm or 15mm glass. The handrail is 65mm wide x 25mm high.



**HANDRAIL GASKET:** The handrail is fitted with a specialized gasket that can fit 12mm and 15mm glass.



**HANDRAIL END CAP:** A PETG end cap can be used to finish of the ends of the balustrade handrail. Available in white, black and grey.

**BENT SPANNER:** Purpose bent stainless steel spanner with angle to reach the adjustment bolts for glass alignment.

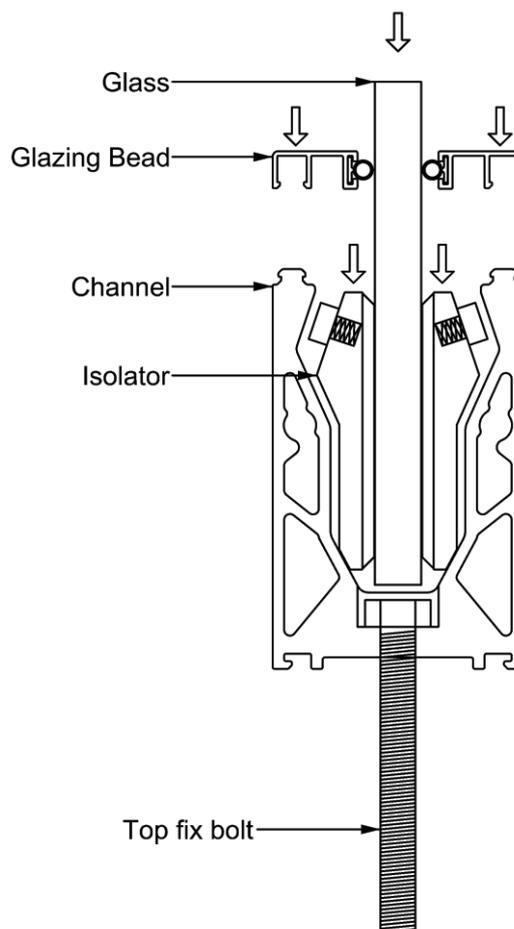
**13MM T-SOCKET:** A T-socket is used to tighten the bolts with ease; the "T" handle is for extra grip while operating in a limited area.



The following is a guideline for top or side mount installation of the UltraSystems Channelfix Balustrade System. This is a guideline only. Consult a professional engineer or make use of a Competent Person Glazing Category 1 when installing any balustrade system.

## ULTRASYSTEMS CHANNELFIX BALUSTRADE SYSTEM CAN BE INSTALLED WITHOUT THE NEED OF ENSURING THE FITTING SURFACE IS COMPLETELY LEVEL

1. Ensure that the substructure to which the balustrade will be fitted is suitable for installation of the balustrade system. If needed, consult an engineer.
2. Fit the base channel securely to the substructure using the threaded rod and chemical anchor. Ensure that the channel on any given length is level within 10mm.  
  
Consult the chemical anchor guidelines for the time required for the chemical to reach full cure. Following cure, the base channel should not be able to move under any circumstances.
3. Fit the setting blocks into the base channel as required for glass to rest on and to level the glass over its length. There should be no glass to metal contact.
4. Carefully insert the glass panel into the channel, trying to keep the glass centered in the channel.
5. Lean the glass panel inwards (towards the balcony or building), drop the outside line of isolators into the channel, with the plastic surface against the glass and the adjustment bolt heads facing outwards. Let the isolators slide down the glass into position. There should be an isolator over every fixing bolt.
6. Now lean the glass panel outwards (away from the balcony or building), just enough to allow the outside isolators to fall neatly into position. Lean the glass past vertical to the outside, just enough to drop the inside isolators into position, opposing every outside isolator. There will now be an inside isolator positioned over every fixing bolt.
7. Hold the glass panel plumb, and using the bent spanner, tighten the inside and outside isolator on each end of the glass until they are not able to move anymore, and the glass remains plumb. Do not overtighten.
8. The glass panel can be adjusted plumb by loosening the bolts on an isolator on one side and tightening the bolts on the opposing isolator. NB: the glass will lean towards the side that is being tightened.
9. Tighten all intermediate isolators, inside and outside of the glass to the point where they are hand tight and the glass remains plumb. Do not over tighten.
10. Use a rubber mallet and a glazing tool to lightly and carefully tap the top of each isolator downwards in the channel. This process is seating the isolator in the channel.
11. Check the isolator bolts again, after seating some may appear loose. Hand tighten all isolator bolts again.
12. Attach the glazing bead with bubble seal to the top of the base channel to finish off the installation.



**NOTE:** UltraSystems Channelfix Balustrade System has been tested to conform with SANS requirements, with the appropriate fixing and glass thickness, in both residential and commercial installations. However due to the variety of installation methods, fixings, substrates, glass thicknesses and handrail alternatives SANS regulation requires that every balustrade installation be individually tested for the intended purpose and signed off by a Competent Person Glazing Category 1 or structural engineer, which is the installer's responsibility and does not form part of our product.

UltraSystems products are made with high-quality aluminium, stainless steel and corrosion-resistant components which provide maximum longevity and weather protection.

Follow our care and maintenance guidelines to achieve maximum lifespan of your products.

## CHANNELFIX BALUSTRADE REQUIRES PERIODIC CLEANING AND MAINTENANCE AFTER INSTALLATION AND THROUGHOUT THE LIFETIME OF THE PRODUCT

### GENERAL INSTRUCTIONS AND CLEANING GUIDELINES:

- Clean the balustrade channel using a mild detergent and water solution. Rinse thoroughly with clean water. Cleaning intervals should be based on environmental factors, chemicals, soiling and dirt collection. For best results, follow the “Coastal Homes Cleaning & Maintenance Guidelines”.
  - Apply ACF-50 to cut and exposed joints and mill finish hardware to suppress corrosion.
  - Inspect the metal components and cut joints for signs of corrosion. If any corrosion is detected, clean the affected area thoroughly and apply Corrosion Block or ACF-50 as per manufacturer's instructions to prevent further damage.
  - Check the powder coating for any chips or scratches. Touch up any damaged areas to maintain the integrity and appearance of the finish.
  - Ensure that the balustrade channel is securely fixed to the supporting structure. If necessary, tighten fixing bolts and isolators. Refer to the “Channelfix Installation Guide” for guidelines.
  - Inspect bubble seal and replace if necessary.
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- DO NOT USE ANY CHEMICALS, SOLVENTS, CAUSTIC OR ABRASIVE CLEANERS
  - DO NOT USE A METAL SCRAPER OR ABRASIVE PAD ON THE POWDER COATED FINISHES
  - DO NOT USE A HIGH-PRESSURE SPRAY NOZZLE WHEN CLEANING
  - DO NOT PLACE OUTDOOR SPRINKLER HEAD CLOSE TO THE BALUSTRADE

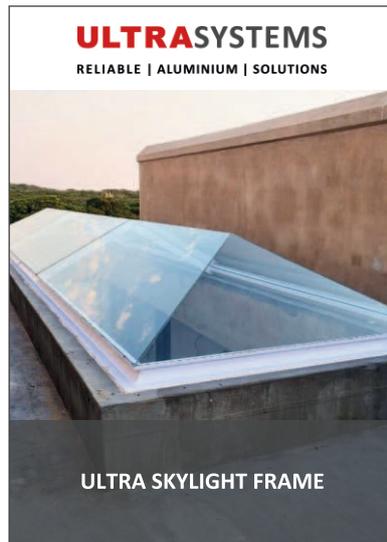
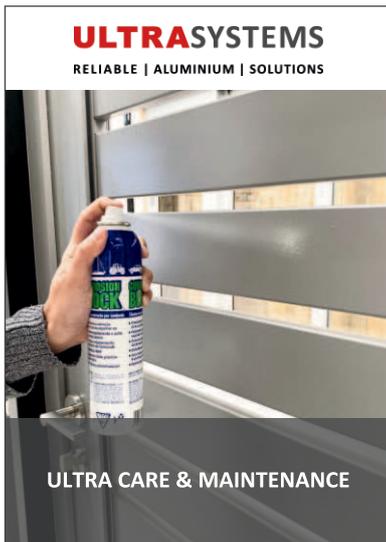
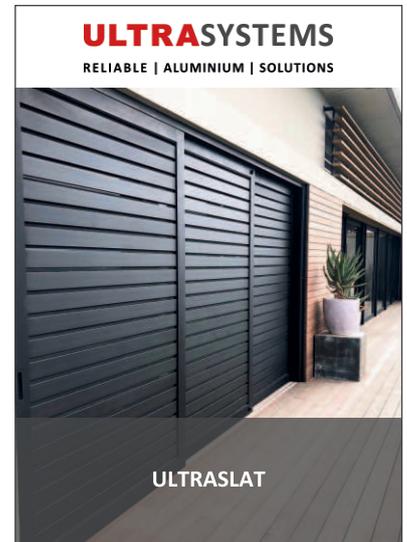
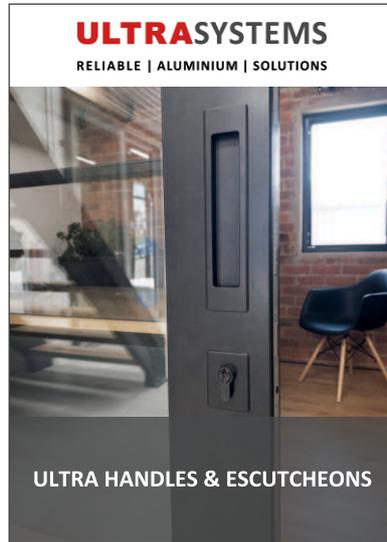


### PRO TIP:

Schedule regular inspections by a qualified professional to assess the condition of the balustrade system and identify any maintenance or repair needs. Professional inspections can help ensure the longevity and safety of the system over time.

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