



Ref: EUTL14

TAPER-LOC[®]

Install glass with ease...

Frameless Glass Balustrade System



CONFORMS TO
BS 6180:2011





Install glass with ease

Project: Greenwich Peninsula



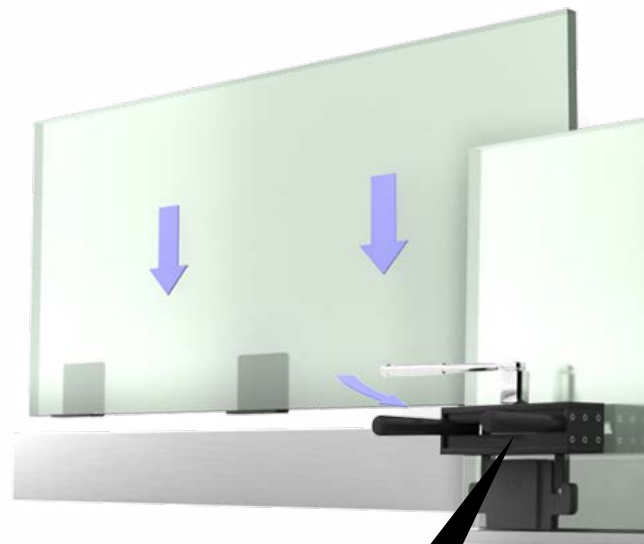
CRL proudly presents the innovative Dry Glaze TAPER-LOC® Glass Balustrade System designed for quick, easy and secure installations.

- **50% faster to install than traditional alternatives**
- **For toughened/toughened laminated glass from 12mm-25.52mm thick**
- **Dry glaze system, no need for cement**
- **Tested to meet the strictest building code requirements BS6180:2011 and AbZ**
- **The product is completely unique because it uses a horizontal TAPER-LOC® design, which allows the system to be adjusted, dismantled and re-set**
- **Ideal for replacing scratched and broken panels in existing applications**



Install glass

Simple.
Fast.
Unique.



Ready...

The TAPER-LOC® Installation/Removal Tool compresses the Tapers together to lock the glass in place

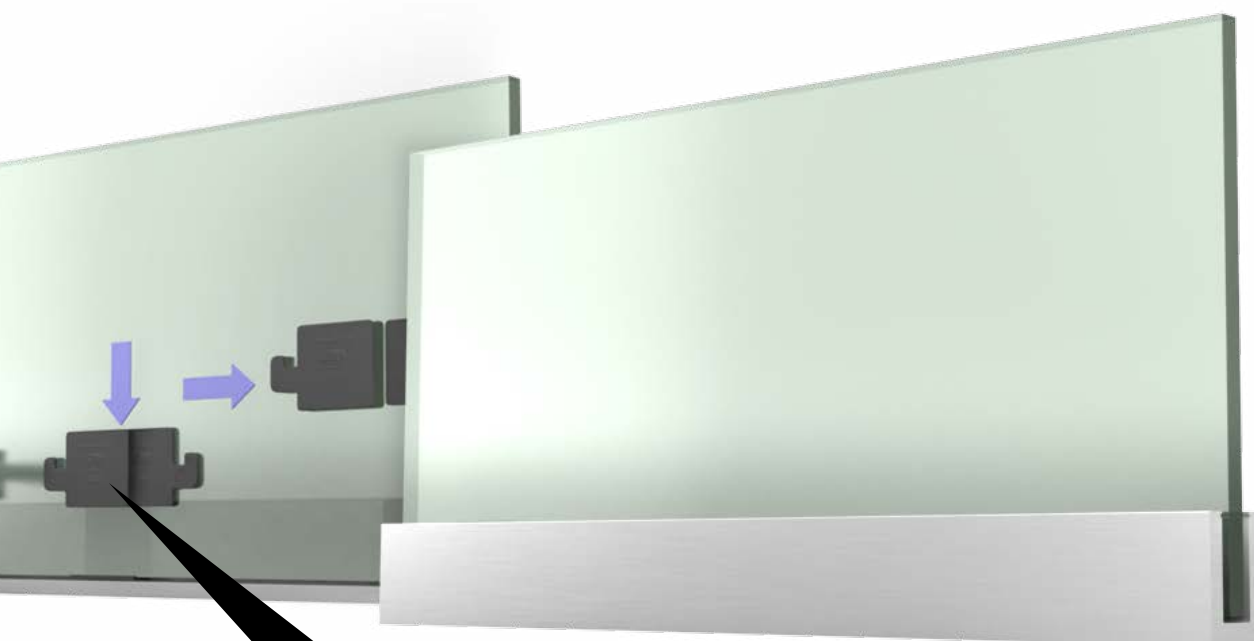
- Reduces Installation Time by 50%, with no need for wet cement.
- For use with Monolithic and Laminated Toughened Glass
- Easy installation with one compact Installation/Removal Tool
- Designed by CRL for Commercial and Residential Applications

For a demonstration visit taper-loc.co.uk



CONFORMS TO
BS 6180:2011

balustrades with ease...



Set...

TAPER-LOC[®] Tapers insert
into the Base Shoe

Done.



TL5X10

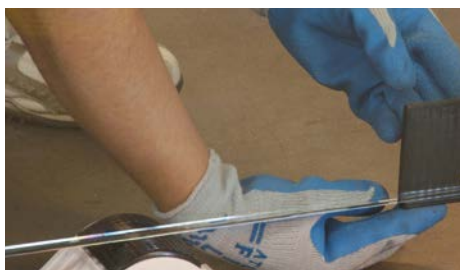
CRL TAPER-LOC[®] Taper Set for
Monolithic Toughened Glass

The System includes an Installation/Removal Tool and CRL TAPER-LOC[®] Tapers for 12mm, 15mm, and 19mm toughened monolithic glass applications, and 13.52mm, 17.52mm, 21.52mm, and 25.52mm laminated toughened glass applications. Unique because they use a horizontal taper lock design, TAPER-LOC[®] Tapers are simply installed with CRL's exclusive TLK12 Installation/Removal Tool.

EASY INSTALLATION

The process of installing Glass Balustrades is now quick and easy with CRL's new and innovative TAPER-LOC® system.

TAPER-LOC® has a unique design that lets you apply precision tension to lock it in place, securing the glass in your aluminium base shoe without the use of messy cement. Your installation time is reduced by up to 50% while still exceeding code standards.



Adhere the L-Setting Blocks to the bottom of the glass panel.



Insert the Taper set half way down into the Base Shoe as shown, opposite the L-Setting Block, and then squeeze the Tapers together finger tight.



Place Installation/Removal Tool into position onto the Tapers and push them down into the Base Shoe.



Crank the Torque Wrench until the wrench clicks and breaks for a few degrees, letting you know the Tapers are locked to the correct measured torque.



Conforming to Building Standards Across Europe

At CRL, we are committed to the testing and development of all of our products. All CRL TAPER-LOC® Systems are independently tested to meet British, German, French and US Standards. We have solutions up to and including 3kN load tests.




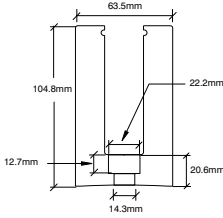

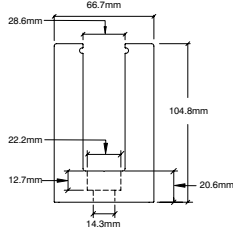
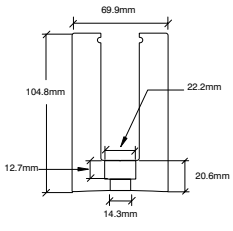

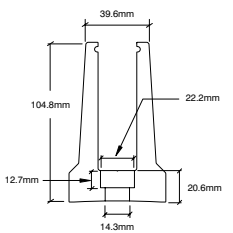

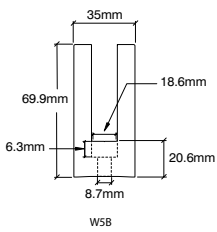
Our project testing facilities and certificates available upon request.

**Contact Technical Sales on freephone
00 800 0421 6144**

TAPER-LOC[®] X
DRY GLAZE RAILING SYSTEM

Base Shoes

Monolithic Toughened Glass

Base Shoe	To Suit Glass Thickness	Description		Measurements
 <p>B5S10D/F</p>	12mm	<p>CRL B5S Series Standard Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with TL5X10 TAPER-LOC® Taper Sets 		<p>Stock Length: 3.05m Hole Size: 14.3mm Counter Bore: 22mm Depth: 12.7mm Centre to Centre: 305mm</p>
 <p>B6S10D/F</p>	15mm	<p>CRL B6S Series Standard Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with TL5X10 TAPER-LOC® Taper Sets 		<p>Stock Length: 3m Hole Size: 14.3mm Counter Bore: 22mm Depth: 12.7mm Centre to Centre: 300mm</p>
 <p>B7S10D/F</p>	19mm	<p>CRL B7S Series Heavy-Duty Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with TL5X10 TAPER-LOC® Taper Sets 		<p>Stock Length: 3.05m Hole Size: 14.3mm Counter Bore: 22mm Depth: 12.7mm Centre to Centre: 305mm</p>
 <p>B5T10D</p>	12mm	<p>CRL B5T Series Tapered Base Shoe</p> <ul style="list-style-type: none"> • Typically used as the Base Channel for Glass Railing Systems requiring a Flush Installation Embedded in Concrete • Works with TL5X10 TAPER-LOC® Taper Sets 		<p>Stock Length: 3.05m Hole Size: 14.3mm Counter Bore: 22mm Depth: 12.7mm Centre to Centre: 305mm</p>
 <p>W5B10D</p>	10mm	<p>CRL W5B Series Small Profile Windscreen Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with TL3W10 TAPER-LOC® Taper Sets • Ideal for Windscreens and Privacy Partitions <p>NOTE: NOT SUITABLE FOR STRUCTURAL APPLICATIONS</p>		<p>Stock Length: 3.05m Hole Size: 9mm Counter Bore: 18.6mm Depth: 6.3mm Centre to Centre: 305mm</p>


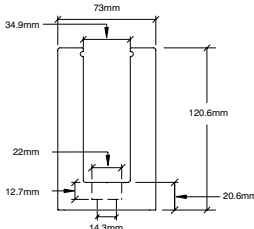

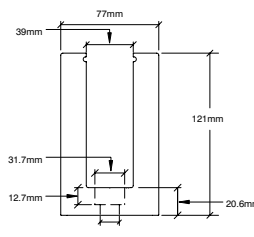

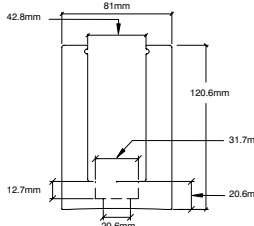

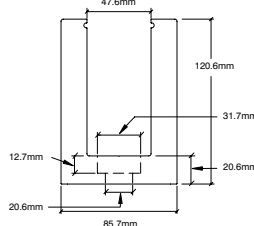
Base Shoe codes end with either 'D' or 'F' to determine Surface or Side Mounted.

D = Surface Mounted Base Shoe

F = Side Mounted Base Shoe

NOTE: Undrilled and fascia drilled base shoe available and in stock - contact Technical Sales for details. Minimum order: 1 each. All Base Shoe can be combined for quantity pricing. Must ship common carrier. Stock lengths have a tolerance of plus or minus 19mm.

Laminated Toughened Glass

Base Shoe	To Suit Glass Thickness	Description	Measurements
 <p>L56S10D/F</p>	13.52mm	<p>CRL L56S Series Standard Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with LTL96X TAPER-LOC[®] Taper Sets 	 <p>Stock Length: 3.05m Hole Size: 14.3mm Counter Bore: 22mm Depth: 12.7mm Centre to Centre: 305mm</p>
 <p>L68S10D/F</p>	17.52mm	<p>CRL L68S Series Standard Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with LTL96X TAPER-LOC[®] Taper Sets 	 <p>Stock Length: 3m Hole Size: 20mm Counter Bore: 31.7mm Depth: 12.7mm Centre to Centre: 305mm</p>
 <p>L21S10D/F</p>	21.52mm	<p>CRL L21S Series Standard Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with LTL10X TAPER-LOC[®] Taper Sets 	 <p>Stock Length: 3m Hole Size: 20.6mm Counter Bore: 31.7mm Depth: 12.7mm Centre to Centre: 300mm</p>
 <p>L25S10D/F</p>	25.52mm	<p>CRL L25S Series Heavy-Duty Square Base Shoe</p> <ul style="list-style-type: none"> • Pre-drilled • Works with LTL10X TAPER-LOC[®] Taper Sets 	 <p>Stock Length: 3m Hole Size: 20.6mm Counter Bore: 31.7mm Depth: 12.7mm Centre to Centre: 300mm</p>

Base Shoe codes end with either 'D' or 'F' to determine Surface or Side Mounted.

D = Surface Mounted Base Shoe

F = Side Mounted Base Shoe

NOTE: Undrilled and fascia drilled base shoe available and in stock - contact Technical Sales for details. Minimum order: 1 each. All Base Shoe can be combined for quantity pricing. Must ship common carrier. Stock lengths have a tolerance of plus or minus 19mm. CRL advise against pre-drilling the substructure prior to installation of base shoe.

INTRODUCING... TAPER-LOC[®] G

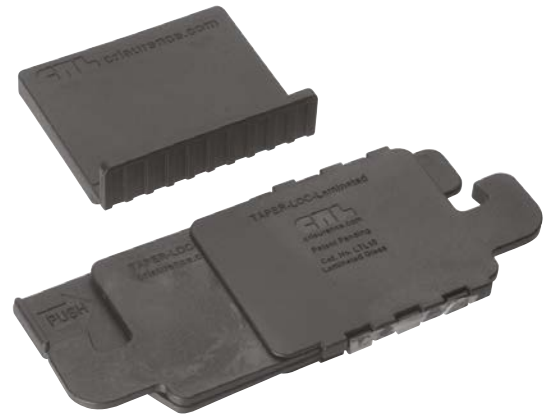
- Our NEW lower cost base shoe designed for use with CRL's patented TAPER-LOC[®] Glass Balustrade System
- 20% lighter but with all the strength of standard base shoe
- Environmentally friendly while meeting and exceeding code standards
- Surface and fascia mount designs in 3 metre lengths



Taper Set - Laminated Toughened Glass

CRL TAPER-LOC® Taper Set for Laminated Toughened Glass

Great for stadiums, apartments and shopping centres, or any areas trying to avoid the hazard of broken glass falling to lower levels. CRL's TAPER-LOC® Laminated Taper Set is made up of four Tapers and one L-Setting Block. Tapers are made of high strength reinforced nylon. They expand in thickness when compressed together with the Cat. No. TLK12 Installation/Removal Tool, mechanically locking the glass panel into the base shoe.



CAT NO.	Description	Application
LTL10X	LTL10X designed for 21.52mm laminated toughened glass (10mm x 1.52mm x 10mm) and 25.52mm laminated toughened glass (12mm x 1.52mm x 12mm)	For use with CRL's laminated toughened glass balustrade base shoes only
LTL96X	LTL96X designed for 13.52mm laminated toughened glass (6mm x 1.52mm x 6mm) and 17.52mm laminated toughened glass (8mm x 1.52mm x 8mm)	For use with CRL's laminated toughened glass balustrade base shoes only

NOTE: Minimum order: 10 sets.

System Tools

CRL TAPER-LOC® Installation / Removal Tool Kit

The Installation/Removal Tool is used for tightening TAPER-LOC® Tapers in the channel of the base shoe. The tool has an Integrated Torque Wrench that applies the precise lock-up force necessary to set the glass panels. Simply set in place and turn the wrench until a clicking sound is heard. This assures the Tapers have been locked together. It can also remove Tapers when glass panels need to be reset or replaced.

KIT CONTENTS:

- 1 x Integrated Torque Wrench
- 1 x Glass Balustrade Setting Tools for Monolithic and Laminated Glass
- 1 x pair of Glass Setting Roller Blocks
- 1 x Standard and Recessed Blades
- 1 x Instructions
- 1 x Moulded Carrying Case



CAT NO.	Description	Application
TLK12	One tool supports all of CRL's different TAPER-LOC® systems Works with monolithic toughened and laminated toughened glazing types	Easily allows you to remove, adjust, or replace glass panels in seconds Complete with a torque wrench designed for precise tension

NOTE: Minimum order: 1 each.

Taper Set - Monolithic Toughened Glass

CRL TAPER-LOC® Taper Set for Monolithic Toughened Glass

CRL's TAPER-LOC® Taper Set for 12 to 19mm glass is made up of two Tapers and one L-Setting Block. Not designed for Laminated Glazing.



CAT NO.	Description	Application
TL5X10	For 12, 15 and 19mm monolithic toughened glass For use with CRL's B5S, B5A, B5T, B6S and B7S glass balustrade base shoes	Great for glass balustrade and windscreen applications

NOTE: Minimum order: 10 sets.

CRL TAPER-LOC® Taper Set for Monolithic Toughened Glass (Windscreens Only)

CRL's TAPER-LOC® Taper Set for 10mm glass is made up of two Tapers and one L-Setting Block. Tapers are made of high strength reinforced nylon. They expand in thickness when compressed together with the Cat. No. TLK12 Installation/Removal Tool, mechanically locking the glass panel into the base shoe. Not designed for Balustrade Applications or Laminated Glazing.



CAT NO.	Description	Application
TL3W10	For 10mm monolithic toughened glass 914mm recommended maximum glass height	Great for glass windscreen applications Not suitable for balustrade applications

NOTE: Minimum order: 10 sets.

CRL PAL Plumb / Angle / Level Indicator

The PAL Plumb/Angle/Level Locator Kit is designed to assist you with level and plumb installations of base shoe for balustrade and windscreen installations. This innovative tool levels the base shoe in both the vertical and horizontal orientations. Perfect for use with all TAPER-LOC® installations.



CAT NO.	Description
PAL1K	Great for levelling the base shoe for balustrade and windscreen applications Features include a digital angle, plumb finder, and level locator display

NOTE: Minimum order: 1 each.

Base Shoes

Glass Thickness:	CRL System:	Fixing To Steel:	Fixing To Concrete:
Fixed To Steel Base Mounted			
12mm	B5S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
15mm	B6S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
19mm	B7S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
17.52mm	L68S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
21.52mm	L21S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
25.52mm	L25S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
Fixed To Concrete Base Mounted			
12mm	B5S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
15mm	B6S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
19mm	B7S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
17.52mm	L68S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
21.52mm	L21S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
25.52mm	L25S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
Fixed To Steel Side Mounted			
12mm	B5S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
15mm	B6S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
19mm	B7S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
17.52mm	L68S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
21.52mm	L21S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
25.52mm	L25S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
Fixed To Concrete Side Mounted			
12mm	B5S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
15mm	B6S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
19mm	B7S Series	M12 S/S Socket Head Cap Screw	M8 x 95mm Hilti Expansion Anchor
17.52mm	L68S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
21.52mm	L21S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor
25.52mm	L25S Series	M14 S/S Hex Head Screw	M12 x 156mm Hilti Expansion Anchor

All the data included within this table is dependant on correct installation of the base shoe plus actual glass strengths.
Based on 1100mm Balustrade Heights anchored 300mm on center to concrete or steel substrates.

Typical Installations:

Residential including stairs and landings but excluding external balconies and edges of roofs

Residential external balconies, edges of roofs, stairs and landings

Commercial areas susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Commercial areas not susceptible to overcrowding

Commercial areas susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Residential external balconies, edges of roofs, stairs and landings

Commercial areas susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Commercial areas not susceptible to overcrowding

Commercial areas susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Residential external balconies, edges of roofs, stairs and landings

Commercial areas not susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Commercial areas not susceptible to overcrowding

Commercial areas not susceptible to overcrowding

Residential including stairs and landings but excluding external balconies and edges of roofs

Residential external balconies, edges of roofs, stairs and landings

Residential external balconies, edges of roofs, stairs and landings

Residential including stairs and landings but excluding external balconies and edges of roofs

Commercial areas not susceptible to overcrowding

Commercial areas not susceptible to overcrowding



New!

TAPER-LOC®XA

Something good just got better

TAPER-LOC®XA lets you compensate for uneven surfaces so glass panels can be perfectly aligned.

- Next generation Taper Sets install easily using our TLK12 Installation/Removal Tool and new TLXAAT Angle Adjustment Tool
- Taper Sets for monolithic and laminated toughened glass work with our most commonly used aluminium base shoe



TLXATSM
Taper Set for Monolithic
Toughened Glass

TLXATSL
Taper Set for Laminated
Toughened Glass



TLK12
Installation/Removal Tool

TLXAAT
Angle Adjustment Tool



When job site conditions aren't perfect it's good to know you can rely on a product that will help you achieve results that are. That's what you get with TAPER-LOC®XA.

'A' stands for Adjustable and TAPER-LOC®XA is especially designed to allow vertical adjustment of the glass panels to perfect plumb, no matter how uneven the floor beneath the base shoe. Glass setting strips adhered to the lower edges of the panel rest on a setting base that allows you to adjust the glass panel to plumb, even if the base shoe segments do not align perfectly.

Unlike the original TAPER-LOC® System, the 'XA' Taper Sets are placed on both sides of the glass panel. That gives you the flexibility to perfectly align and plumb the glass panels in every segment. The addition of our TLXAAT Angle Adjustment Tool even lets you make adjustments to panels that are already installed on balconies or elevated concourses without the need for scaffolding or inconveniently leaning over the balustrade.

TAPER-LOC®XA
DRY GLAZE RAILING SYSTEM

Ordering Information for TAPER-LOC®XA Installation Components

TAPER-LOC®XA Taper Sets in two sizes for monolithic or laminated toughened glass

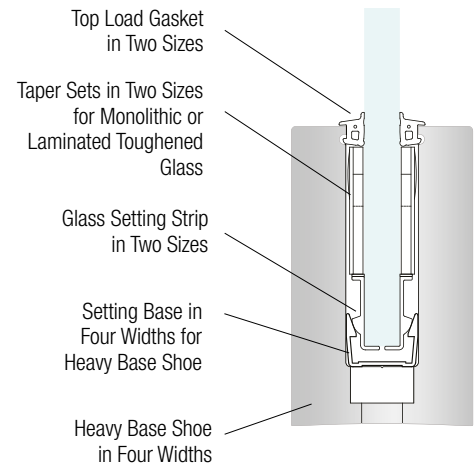
The TAPER-LOC®XA System gives you choices because it will accommodate types and thicknesses of glass panels used in your balustrade project.


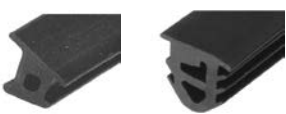
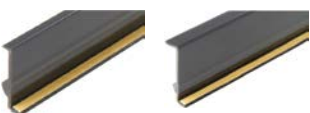


The Taper Sets for monolithic glazing will work with 12 and 15mm thick panels. Laminated panels from 17.52 and 21.52mm thick can be used with another set of Tapers specifically for laminated glass. The Taper Sets are specific to monolithic and laminated glazing types, as are the Glass Setting Strips with pre-positioned adhesive strips.

You also have choices of heavy base shoe in pre-drilled base mount or fascia mount standard lengths. The Setting Base that is inserted into the Heavy Base Shoe is specific to the base shoe being used, and is not interchangeable.

To finish off the installation use our Top Load Gasket. This black coloured vinyl rolls into the cavity between the glass and the base shoe to keep out water and debris.

If you are planning your first balustrade project and would like ordering assistance, contact CRL at 00 800 0421 6144. For email go to the home page of crlaurence.co.uk and click on Contact Us.



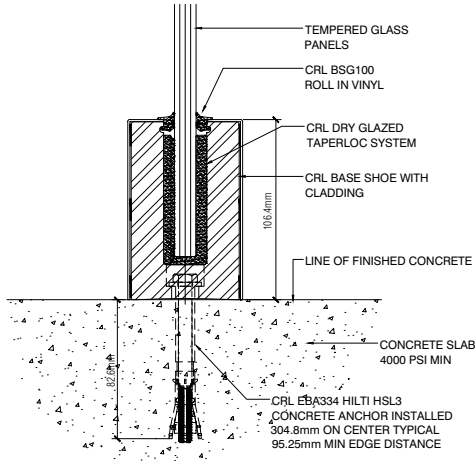
	CAT. NO.	DESCRIPTION
	TLXATSM Monolithic Glazing TLXATSL Laminated Glazing	Taper Sets • In Boxes of 20 Sets of One Kind
	BSG100 Monolithic Glazing LBSG100 Laminated Glazing	Top Load Gaskets • in 30.5m Rolls (Black)
	TLXAM0N0 Monolithic Glazing TLXALAM Laminated Glazing	Glass Setting Strips • In 1.45m Lengths (Minimum Order: 10)
	TLXA12SB Monolithic Glazing for B5S, B5G, B5T Base Shoe Types TLXA15SB Monolithic Glazing for B6S, B6N Base Shoe Types TLXA17SB Laminated Glazing for L68S Base Shoe Type TLXA21SB Laminated Glazing for L21S Base Shoe Type	Setting Bases • In 254mm Pieces (Minimum Order: 10)
	B5S10D Monolithic Glazing 3.05m B6S10D Monolithic Glazing 3m L68S10D Laminated Glazing 3m L21S10D Laminated Glazing 3m	Heavy Base Shoe • In Pre-Drilled Base Mount Configuration (Other standard lengths and Fascia Mount configurations of Heavy Base Shoe can be found online at crlaurence.co.uk)



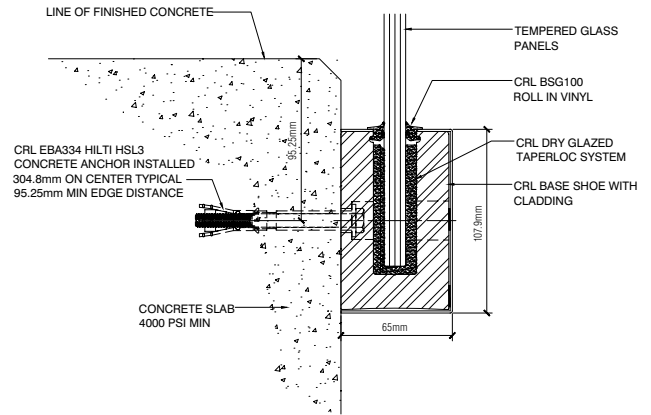
For more information call FREE on 00 800 0421 6144 (UK & Europe) | Fax FREE on 00 800 0262 3299

Typical Installations

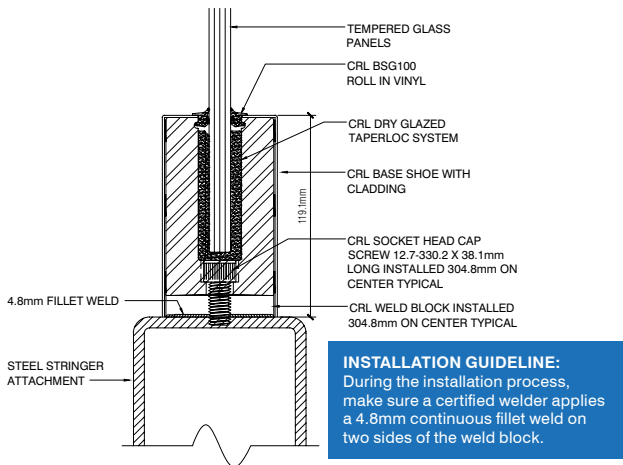
Concrete Substrate Typical Surface Mount Detail



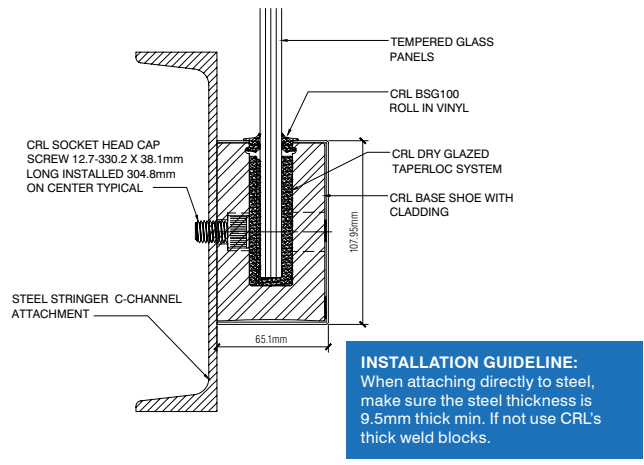
Concrete Substrate Typical Fascia Mount Detail



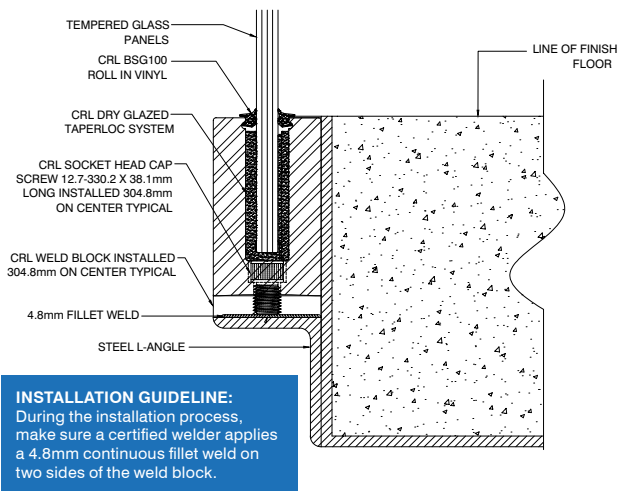
Steel Tube Substrate Typical Surface Mount Detail



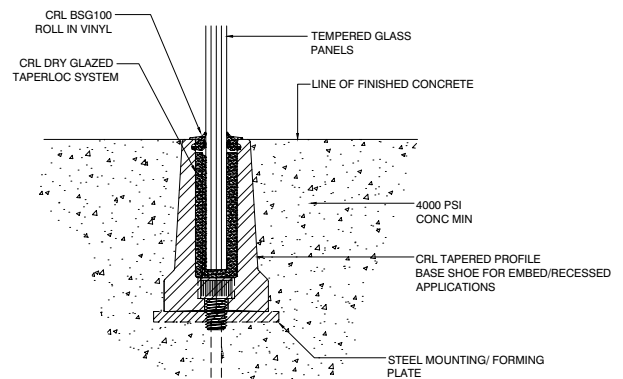
Steel Tube Substrate Typical Fascia Mount Detail



Steel L-Angle Substrate Typical Surface Mount Detail



Concrete Substrate Typical Concrete Inset Detail



INSTALLATION GUIDELINE:
Anchor spacing will depend on mounting substrate and region of project.

Cap Rails



Cap Rails are available to suit a huge range of Glass Thicknesses, please call CRL.

A Selection of Cap Rails available from CRL

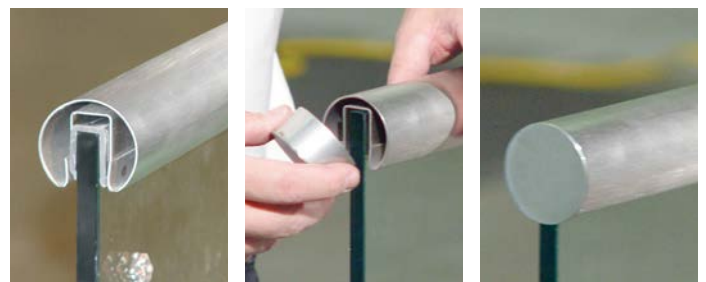
CRL Cap Rails are available in diameters ranging from 38.1 to 101.6mm, as well as oval and square profiles in a wide range of architectural finishes. A full line of accessories to complete the installation are also available.

- Premium cap rails are manufactured by bump-forming to ensure reduced spring back
- A variety of sizes and finishes available to accommodate monolithic and laminated toughened glass
- A full line of accessories to complete the installation
- CRL Premium Cap Rails are fabricated from 16 and 18 gauge material, depending on the diameter.
- CRL Extruded Aluminium Cap rails have a standard wall thickness of 3.2mm

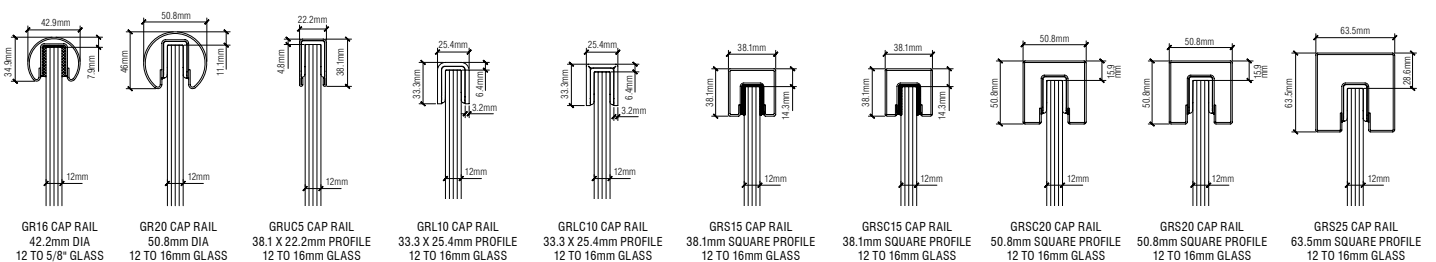
EUGR20BS



EUL10BS



POPULAR STAINLESS STEEL PROFILES



Handrails



A full range of Post Systems available -
GRADE 316 STAINLESS STEEL

CRL Hand Railing

All CRL Hand Railing Tubing is formed using precision tooling to maintain uniform diameters, allowing for smooth hairline transitions at splices and end caps.

- High Quality
- Ready to Install

Contact technical sales for full details



EUHR20BS



EUHR20PS



Call FREE on 00 800 0421 6144
Fax FREE on 00 800 0262 3299



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