JURALCO

JURALCO EDGETEC MATADOR® SERIES II MINI POST BALUSTRADE and POOL FENCING SYSTEMS

ISSUE 11-24 v1

Juralco Aluminium Building Products Ltd designs and distributes specialist aluminium joinery systems through a national network of franchised fabricators and agents.

For more than 25 years we have been at the forefront of specialist aluminium door and window products suitable for New Zealand joinery and building methods. Our comprehensive product range includes security and insect screens, balustrades and gates, Lourve Roofs, shutters and awnings, shower screens, wardrobe doors and organisers and internal doors.

The Juralco Matador® Series II Mini Post balustrade is a top or face mounted frameless glass system using 2205 Duplex Stainless Steel posts capable of clamping 13.52 Sentry Glass and 12 - 15mm Toughened Glass.

The system is well suited to a wide range of applications, including pool fencing and has a unique, premium design utilizing hidden fixings with a high range of adjustability.

Standard Finishes are Polished Stainless Steel (PSS) or Satin Stainless Steel (SSS), or Dulux Duralloy Plus Power-coat (SCC).

Edgetec Matador® Series II
2205 Duplex Stainless Steel.
Showing Front Side
with Screw Cover

Complies With AS/NZS 1170:2002, NZS 4223.3.2016, NZ Building Code B1, B2, F2, F4 and F9

The Edgetec Matador® Series II Post Balustrade System is for Occupancy types A, A Other, C3, B and E Occupancy Types as per AS/NZ 1170.1.2002.

Code	Type of Occupancy for part of the building or structure	Specific Uses	Glass
A	Domestic and Residential activities	All areas within or serving exclusively one dwelling including stairs, landings etc, but excluding external balconies and edges of roofs.	12mm Toughened Glass, 15mm Toughened Glass, and 13.52mm SentryGlas
A Other, C3	Areas without obstacles for moving people and not susceptible to over crowding	Stairs, landings, external balconies, edges of roofs etc.	
B, E	Offices and work areas not included elsewhere including storage areas.	Light access stairs and gangways not more than 600mm wide Fixed platforms, walkways, stairways and ladders for access Areas not susceptible to overcrowding in office and institutional buildings; also industrial and storage building.	

Note 1 **All for 12mm, or 15mm Toughened Glass and 13.52mm SentryGlas, Frameless. Glass must have a minimum strength of 100MPa. All edges polished**

Note 2 **Juralco Balustrade Systems building code compliance documentation requires all balustrade installations to be completed in accordance with the requirements of our authorised installer certification.**

Note 3 **All Frameless balustrades using 12mm, or 15mm Toughened Glass must have an Interlinking Rail to conform to NZS 4223.3.2016. Not necessary for Swimming Pool Fencing and 13.52mm SentryGlas.**

Note 4 **Includes New Zealand Patent #618520, and New Zealand Patent Application #816340.**

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Section 4855JG

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Juralco Aluminium Building Products Ltd (JABP)
Specifications for Juralco Edgetec Matador® Series II Mini Post Balustrade System

1.Scope

- This specification details the documents the Juralco Edgetec Matador® Series II Mini Post Balustrade System refers to in relation to the New Zealand Building Code, the manufacturer's documents, products used in the System, and requirements in relation to fixing and surface finishing.

2. NZBC Compliance

- The Juralco Edgetec Matador® Series II Mini Post Balustrade System has been reviewed by Lautrec Technology Group Ltd to demonstrate compliance with the structural requirements of the New Zealand Building Code and NZS 1170 : 2002 occupancy A, B, E, A Other and C3, NZS 3604 for Low, Medium, High, Very High Wind Zones and up to Extra High Wind Zone max wind pressure 2.5KPa.
- The Structural Engineering design includes the requirements of B1 Structure, B2 Durability, F2 Hazardous material and F4 Safety from falling, F9 Restricting access to Residential Pools, all from the Building Code.
- Verification Method B1 / VM1, B2/AS1, F4 / AS, F9/AS1
- All glass used in the Juralco Edgetec® Matador® Series II Mini Post Balustrade System must conform to AS/NZS 2208. Complies with NZS 4223.3.2016
- Separation of dissimilar materials (as relates to B2 compliance) has been reviewed. For other combinations refer to NZS 3604:2011 Section 2.3.3 Separation and Section 4 Durability

3. Manufacturer's Documents

- The Juralco Edgetec Matador® Series II Mini Post Balustrade System manual details all extrusions and components used for the fabrication and installation/fixing of the system.
- A Producer Statement 1(Design) is available.
  Copies of the above documents are available from:
  Juralco Aluminium Building Products Ltd
  48 Bruce McLaren Rd, Henderson, Auckland
  Phone 09 478 8018 Fax 09 478 7883 Email specify@juralco.co.nz
- Any deviation from the standard fabrication or installation/fixing must be accompanied by a site specific PS1 with site specific calculations and drawings

4. Products

- Only extrusions, components and hardware supplied by or specified by JABP may be used in the Juralco Edgetec Matador® Series II Mini Post Balustrade System
- Aluminium extrusions, components and hardware – unless specified are manufactured to 6060 T5 specifications
- Stainless Steel components, hardware, fixings – all components SS 316 or Duplex 2205 grades.
- Glass - all glass used in the Juralco Edgetec Matador® Series II Mini Post Balustrade System must conform to the specifications as listed in the Juralco Edgetec Matador® Series II Mini Post Balustrade System manual with each panel conforming to AS/NZS 2208 as confirmed by the Safety Stamp detailing the manufacturer's description and licence number.

5. Surface Finishing

- Juralco Aluminium Building Products Ltd is a Dulux Registered Applicator site, registration number 2101. JABP uses only Dulux branded powder coating materials
- Dulux Duralloy® powder coating systems are suitable for properties greater than 100m from high tide level AAMA 2603 performance. Residential buildings, 3 levels max. Warranty 10 yrs
- Dulux Duralloy Plus® powder coating systems are suitable for properties greater than 10m from high tide level. AAMA 2603 performance. Residential and Light commercial buildings, 3 levels max. Warranty 15 yrs
- Dulux Duratec® powder coating systems are suitable for properties greater than 10m from high tide level AAMA2603 and 2604 performance. All Residential and Commercial buildings. Warranty 25 yrs

6. Installation and Fixing

- The Juralco Edgetec Matador® Series II Mini Post Balustrade System must only be installed in accordance with the Juralco Edgetec Matador® Series II Mini Post Balustrade System manual
- Any deviation from that specified in the Juralco Edgetec Matador® Series II Mini Post Balustrade System manual must only be in accordance with the site specific PS1 with site specific calculations and drawings listing the non standard details
- The Juralco Edgetec Matador® Series II Mini Post Balustrade System must only be fabricated/installed by a Juralco approved fabricator
- Upon completion of the installation, the fabricator must supply the owner with a PS3 (Construction)

Important information - Powder Coating systems.

Powdercoat Systems The new standard Dulux powder coating system used by Juralco is Duralloy Plus®. Also Duralloy® and Duratec®. All as per specs above. Juralco Powder coated prices are for Duralloy Plus® and Duralloy® (same pricing). Duratec® prices on application.

Attachment to structures A PVC Tape or similar material spacer must be used to separate powder coated aluminium items from all concrete and steel structures. Failure to do so can lead to the chemicals in the structure affecting the powder coating, leading to corrosion.

Swimming Pools The chlorinated water in swimming pools can cause the deterioration of powder coated surfaces, leading to corrosion of the underlying surface. It is recommended that Powder coated surfaces be 1200mm min from a pool.

Care The Dulux powder coating warranty period is conditional upon the surface being maintained in accordance with the Dulux 'Care and Maintenance Instructions'. Download from Dulux or refer to the back page of this manual.

Juralco Edgetec Matador® Series II Balustrade System - Typical Layouts

Matador® Series II Mini Post
+ Interlinking Rail

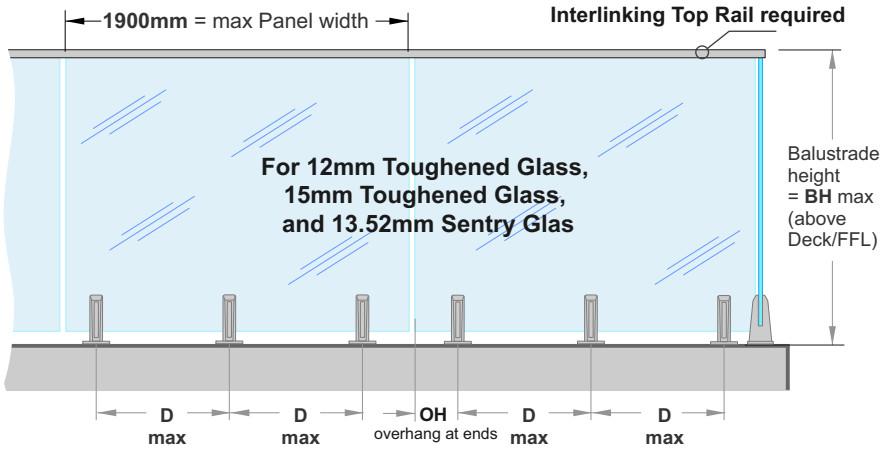
Glass must have a minimum strength of 100MPa. All edges polished

Occupancy types A, A Other, C3, B & E

- 12mm Toughened Glass
- 13.52mm Sentry Glass
- 15mm Toughened Glass

Refer page "Allowable Heights" for differing wind zones.

See individual typical fixing page for construction options.



Exceeds the wind loading for all Wind Zones up to **and Including** **Extra High Wind Zone** as set out in NZS 3604:2011

Refer to the Interlinking Rail pages for conformance to NZS 4223.3.2016.

Matador® Series II Mini Post
+ Stiffener Brackets

Glass must have a minimum strength of 100MPa. All edges polished

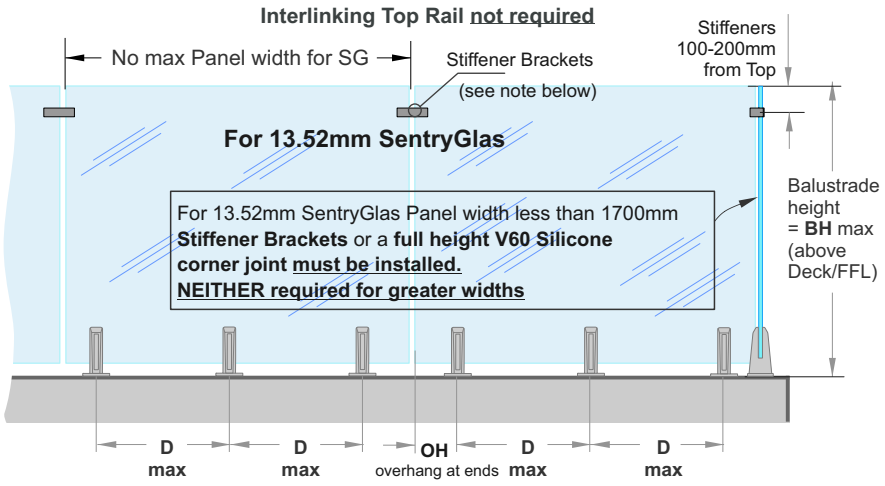
Occupancy types A, A Other, C3, B & E

13.52mm SentryGlas

Max height without stiffener brackets 1050mm

Refer page "Allowable Heights" for differing wind zones.

See individual typical fixing page for construction options.



Exceeds the wind loading for all Wind Zones up to **and Including** **Extra High Wind Zone** as set out in NZS 3604:2011

Refer to the Stiffener Bracket pages for conformance to NZS 4223.3.2016.

Matador® Series II Mini Post
Pool Fencing only

Glass must have a minimum strength of 100MPa. All edges polished

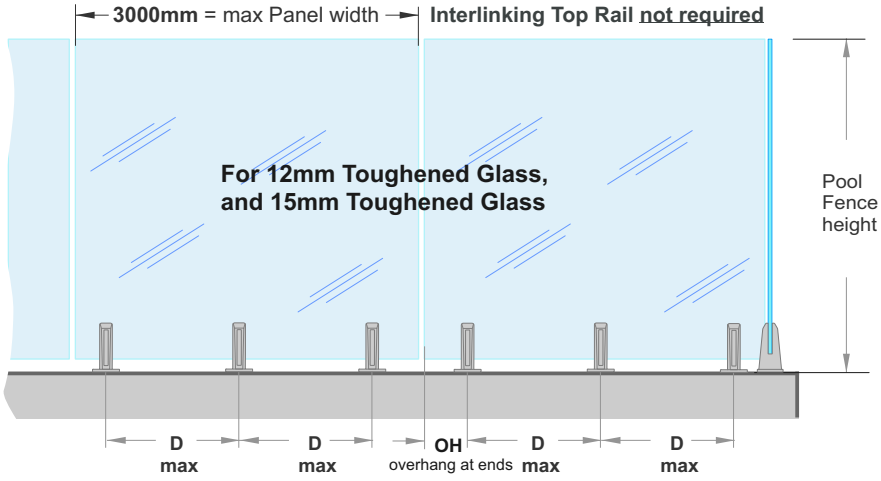
POOL FENCING ONLY

Applies to Swimming Pools as of Jan 2017, complies with the Building Code clause F9 and section 162C of the Building Act.

Applies to Pool Fences not protecting a fall of 1.0m or more

Refer page "Allowable Heights" for differing wind zones.

See individual typical fixing page for construction options.



12mm Toughened - Up to and including Very High Wind Zone.	15mm Toughened - Up to and including Extra High Wind Zone.

Juralco Edgetec Matador® Series II Balustrade System - Typical Layouts

Matador® Series II Mini Post
+ Stiffener Brackets, Face Fix

Glass must have a minimum strength of 100MPa. All edges polished

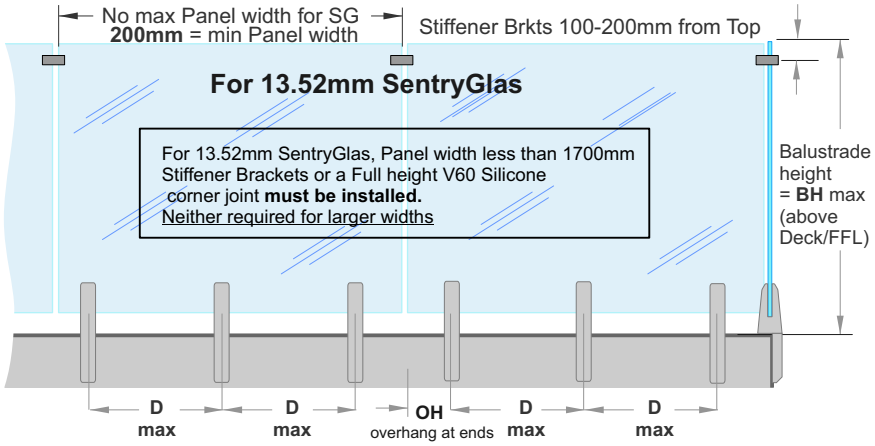
Occupancy types A, A Other, C3, B & E

13.52mm SentryGlas

Max height without stiffener brackets 1050mm

Refer page "Allowable Heights" for differing wind zones.

See individual typical fixing page for construction options.



Matador® Series II Mini Post
+ Interlinking Rail, Face Fix

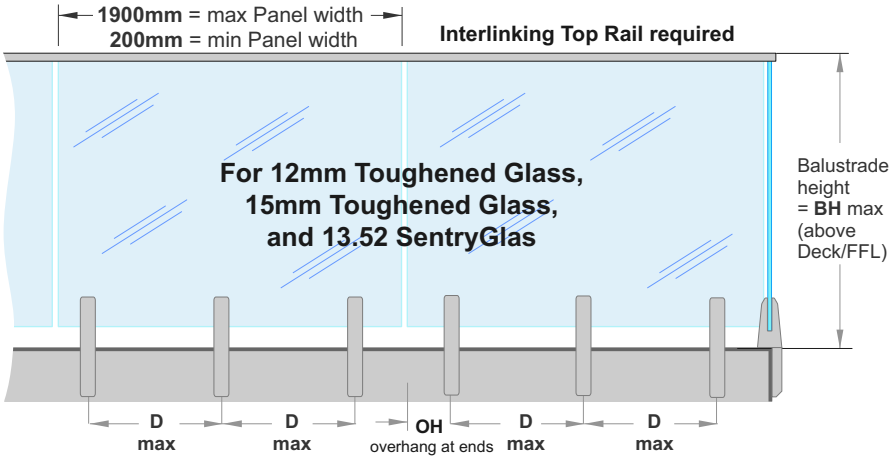
Glass must have a minimum strength of 100MPa. All edges polished

Occupancy types A, A Other, C3, B & E

- **12mm Toughened Glass**
- **13.52mm Sentry Glass**
- **15mm Toughened Glass**

Refer page "Allowable Heights" for differing wind zones.

See individual typical fixing page for construction options.



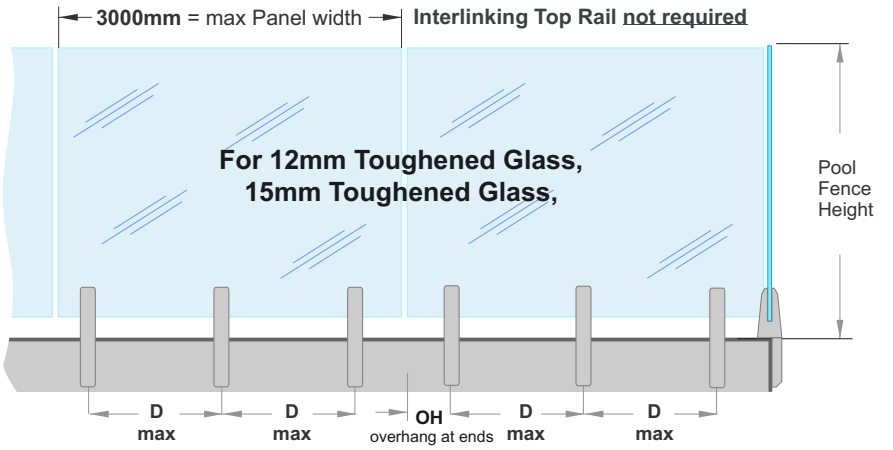
Matador® Series II Mini Post
Pool Fencing only - Face Fix

Glass must have a minimum strength of 100MPa. All edges polished

POOL FENCING ONLY

Applies to Swimming Pools as of Jan 2017, complies with the Building Code clause F9 and section 162C of the Building Act.

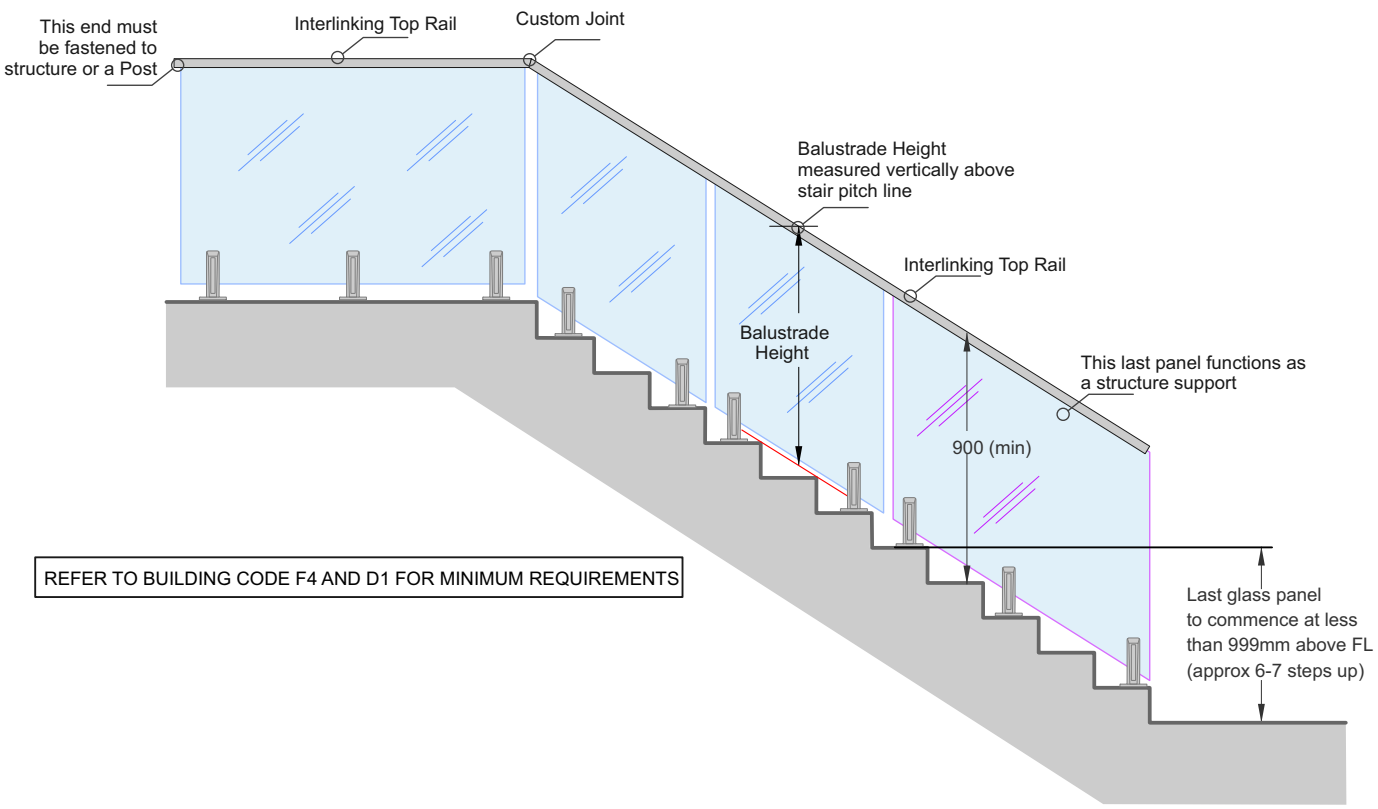
Applies to Pool Fences not protecting a fall of 1.0m or more



Juralco Edgetec Matador® Series II Balustrade System - Typical Stair Layout

Matador® Series II, Mini Post Stairs - Top Fix

Stair structure to be designed by others to resist Balustrade actions as per NZS1170.1 Table 3.3



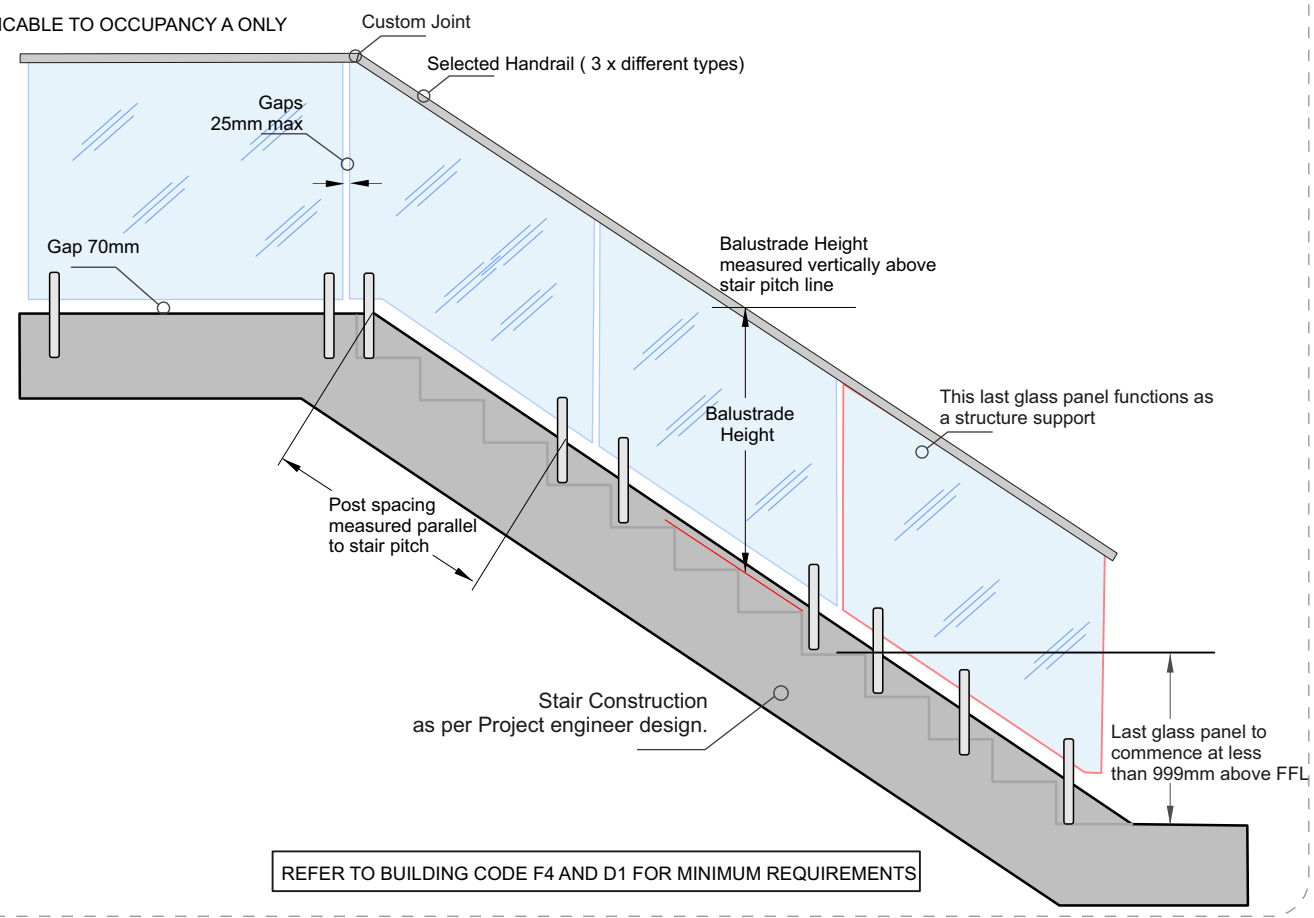
REFER TO BUILDING CODE F4 AND D1 FOR MINIMUM REQUIREMENTS

Juralco Edgetec Matador® Series II Balustrade System - Typical Stair Layout

Matador® Series II, Mini Post Stairs - Face Fix

Typical Stair installation.
Fixings into Single or Double Joists/Stiffeners, Concrete or Steel

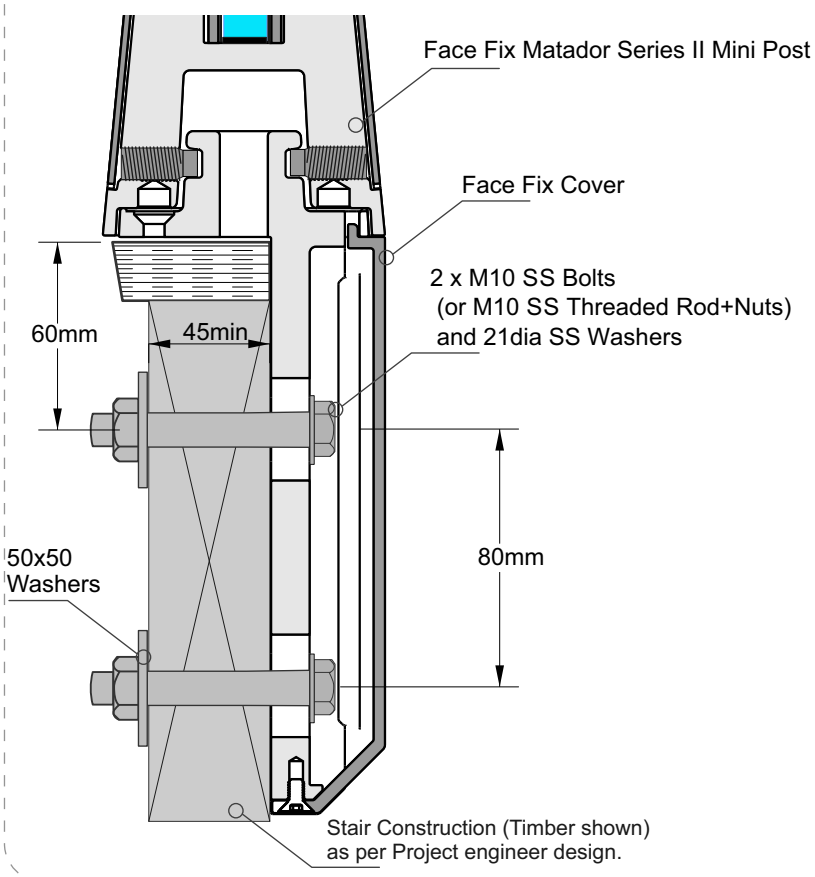
APPLICABLE TO OCCUPANCY A ONLY

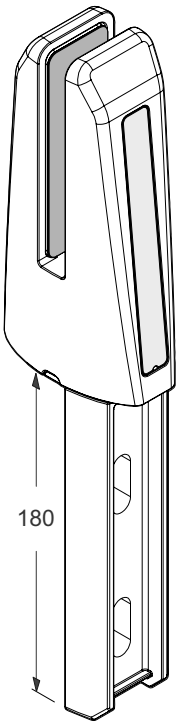


REFER TO BUILDING CODE F4 AND D1 FOR MINIMUM REQUIREMENTS

Matador® Series II, Mini Post Stairs - Face Fix Mounting Detail

Stair structure to be designed by others to resist Balustrade actions as per NZS1170.1 Table 3.3
Applicable to Residential applications only



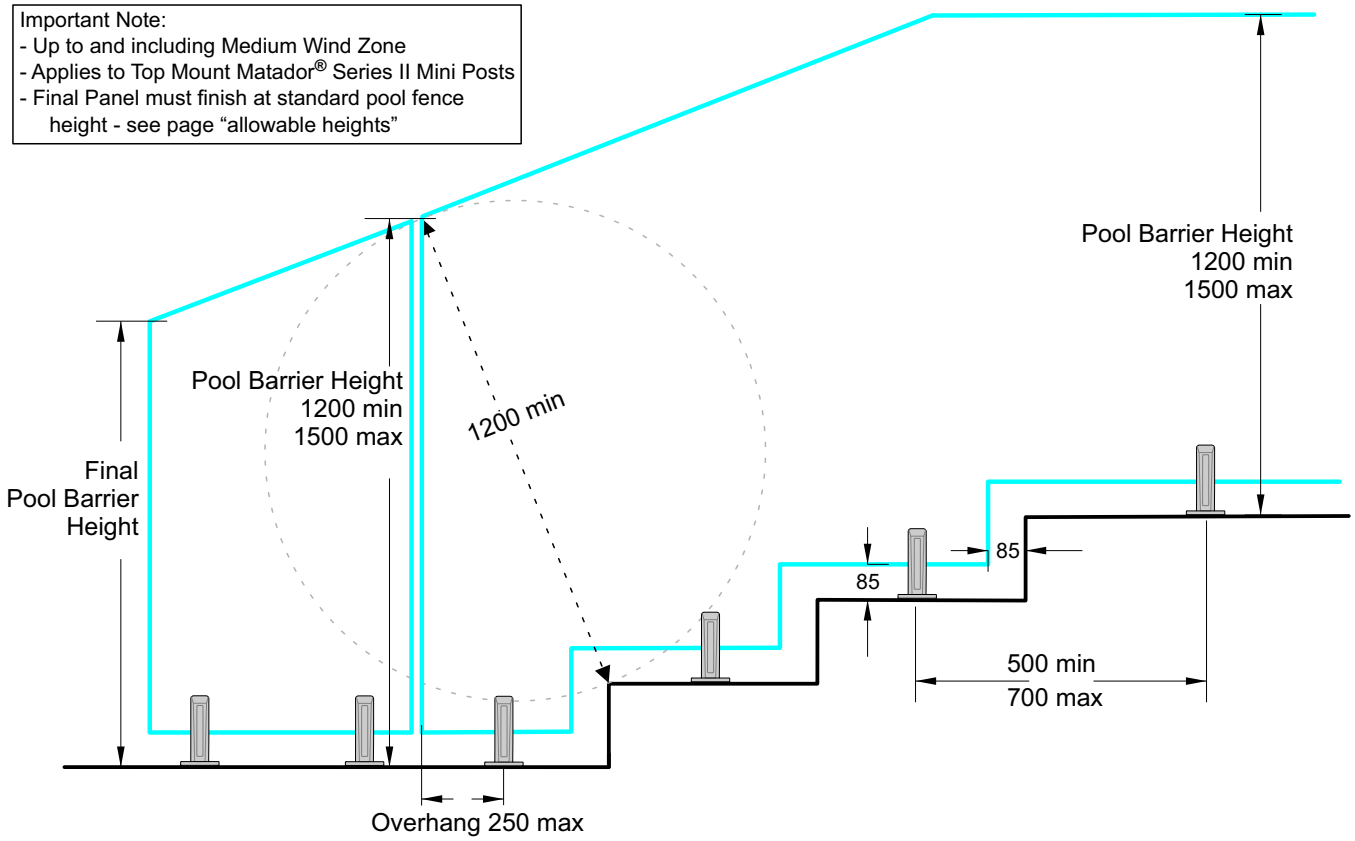


Face Fix Matador Series II Mini Post

Juralco Edgetec Matador® Series II Balustrade System - Typical Stair Layout leading to a Pool

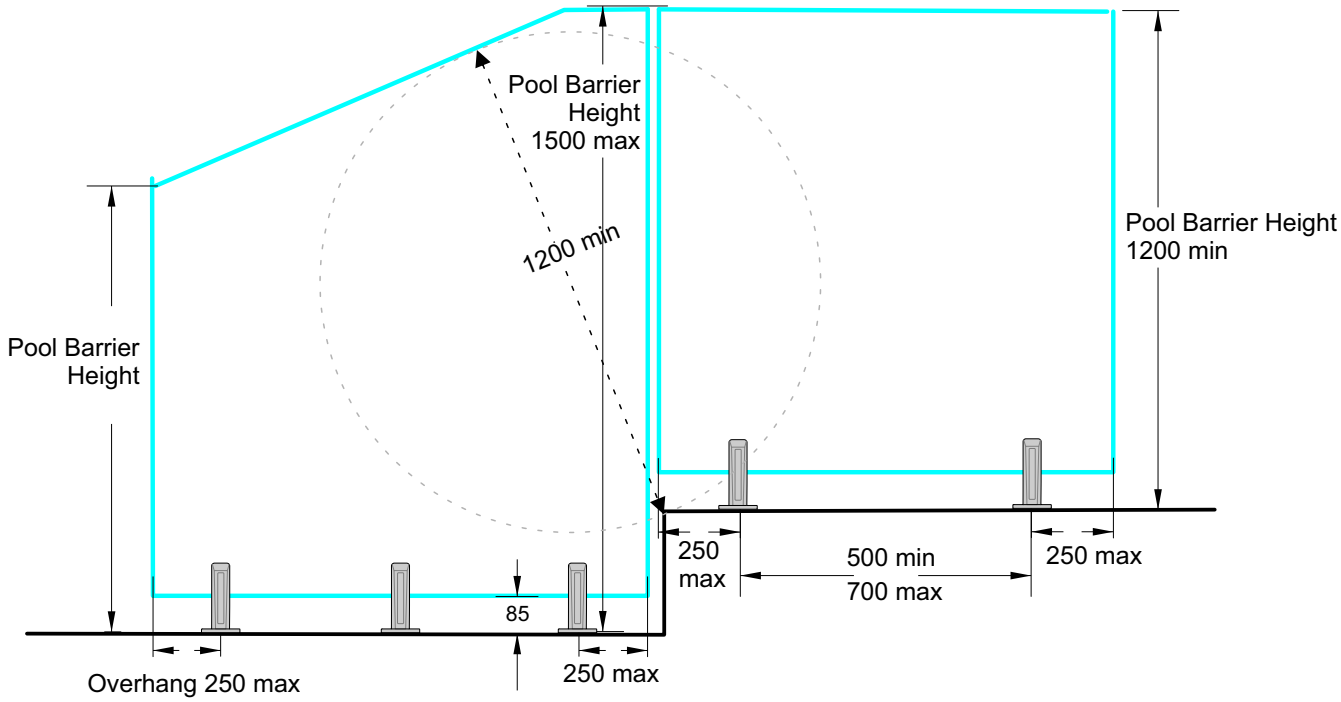
Matador® Series II, Mini Post
Pool Access Stairs

Important Note:
- Up to and including Medium Wind Zone
- Applies to Top Mount Matador® Series II Mini Posts
- Final Panel must finish at standard pool fence height - see page “allowable heights”



Matador® Series II,Mini Post
Pool Access Step

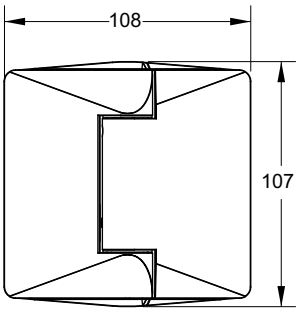
Important Note:
- Up to and including Medium Wind Zone
- Applies to Top Mount Matador® Series II Mini Posts
- Final Panel must finish at standard pool fence height (see page “allowable heights”)

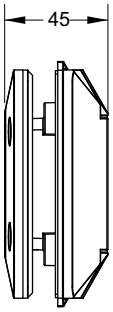


530 Series Juralco Glass to Glass Hydraulic Hinges for Pool Gates
using 10mm, 12mm Toughened Glass or 13.52mm SentryGlas®

JET/A530G
Glass to Glass SS Hinge

Suitable for all Juralco Frameless and SemiFrameless Glass Pool Fencing systems





JET/A530G/BLK

JET/A530G/PSS

JET/A530G/SSS

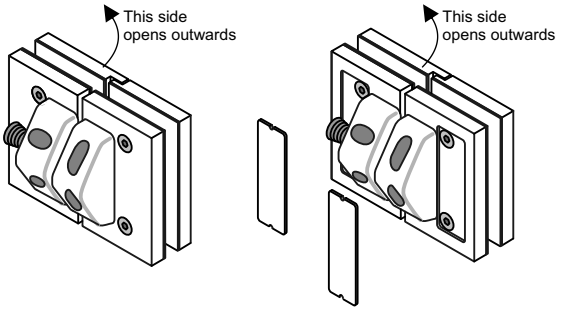
JET/A530G/W (White)

JET/A530G/SG (Satin Gold)

These Special order only

Glass to Glass Latches

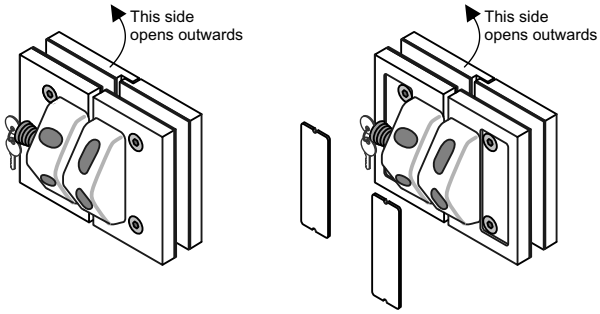
Note :Can be assembled as RH or LH



Non Locking types

Clamp Plates 316SS
Polished or Satin finishes
Latch Non Locking type
JET/MGL180/PSS
JET/MGL180/SSS

Clamp Plates
Aluminium
Latch Non Locking type
JET/MGL180

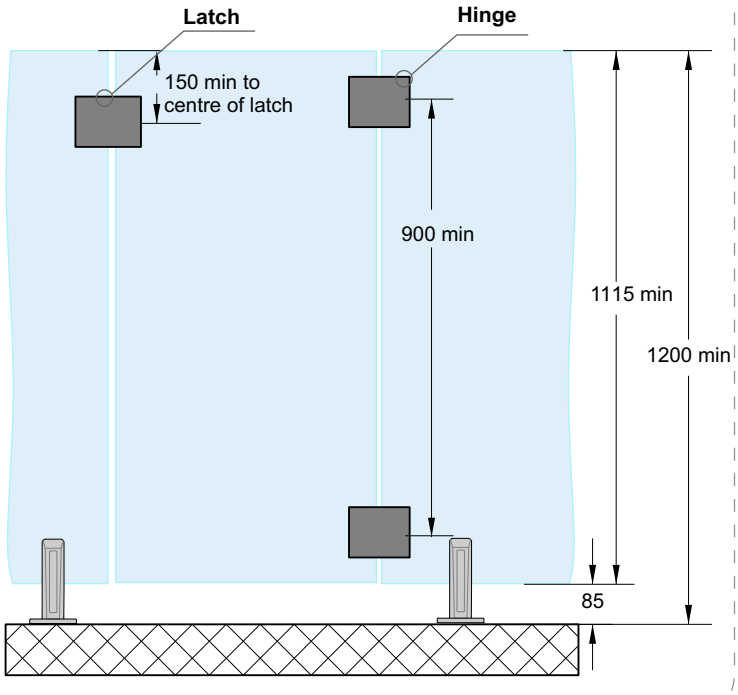


Locking types

Clamp Plates 316 SS
Polished or Satin finishes
Latch Locking type
JET/MGL180/PSS
JET/MGL180/SSS

Clamp Plates
Aluminium
Latch Locking type
JJET/MGL180L

Latch and Hinge Positions



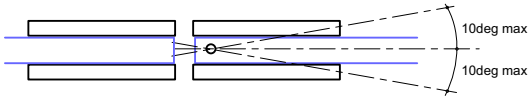
Specifications..
Glass Thickness 10 -12mm Toughened Glass, 13.52 SentryGlas®
Hinge and Latch packers, 1.0mm each side
Gate Width max = 950mm
Gate Height max =1500mm
(note this reduces to H 2100mm for 13.52 SentryGlas®)

Gate Weight max = 70 kg (2 x Hinges min)
Hinge - Auto close. Adjustable Closing Speed and angle.
Non Hold open
Latch, Side pull magnetic. Gap = 8mm min -12mm max
Gate to open outwards; Latch to be mounted on inside.
Installation to conform to NZS8500:2006
Complies with NZBC Clause F9

Closing Speed Adjust
- Remove the covers
- Slotted screwdriver, turn Screw C
- Clockwise = slower
- Synchronise both hinges for equal speed.

Angle Adjust
- Remove the covers
- Using a M3 allen key, loosen the two D screws 360deg.
- Adjust the angle (+,- 10 deg max)
-Tighten both firmly at correct angle

JET/A530G/W (White)

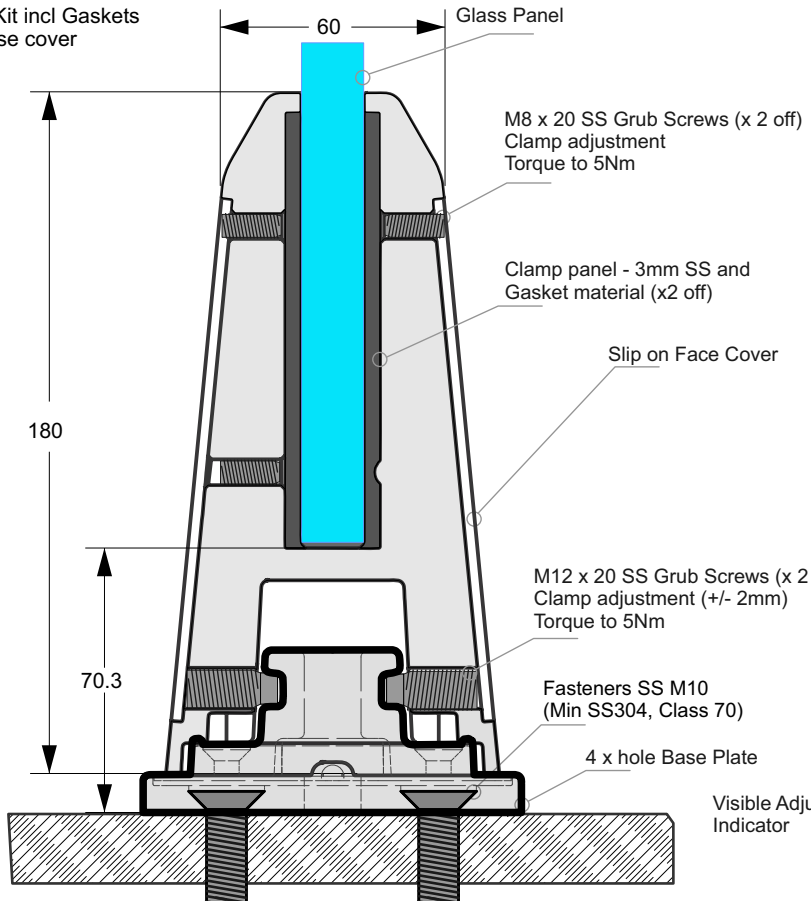


See Glass Pool Gate Manual for more details and other options

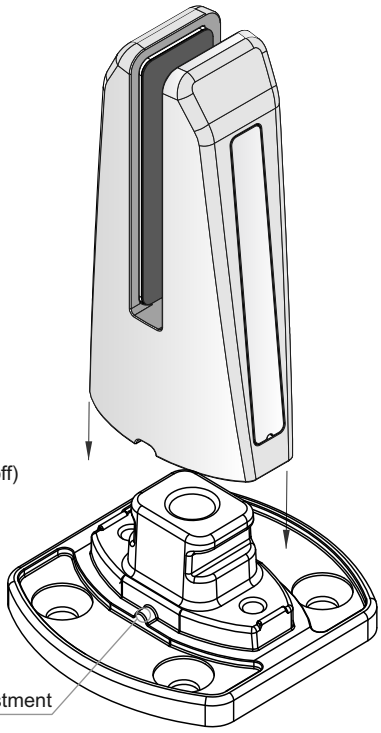
Juralco Edgetec Matador® Series II Balustrade System - Top Fix to Base plate

Matador® Series II Mini Post
JET/MPM/SPG

Supplied as a Kit incl Gaskets and Slip on Base cover



Slip on Base Cover, Finish Satin Stainless Steel Duplex 2205



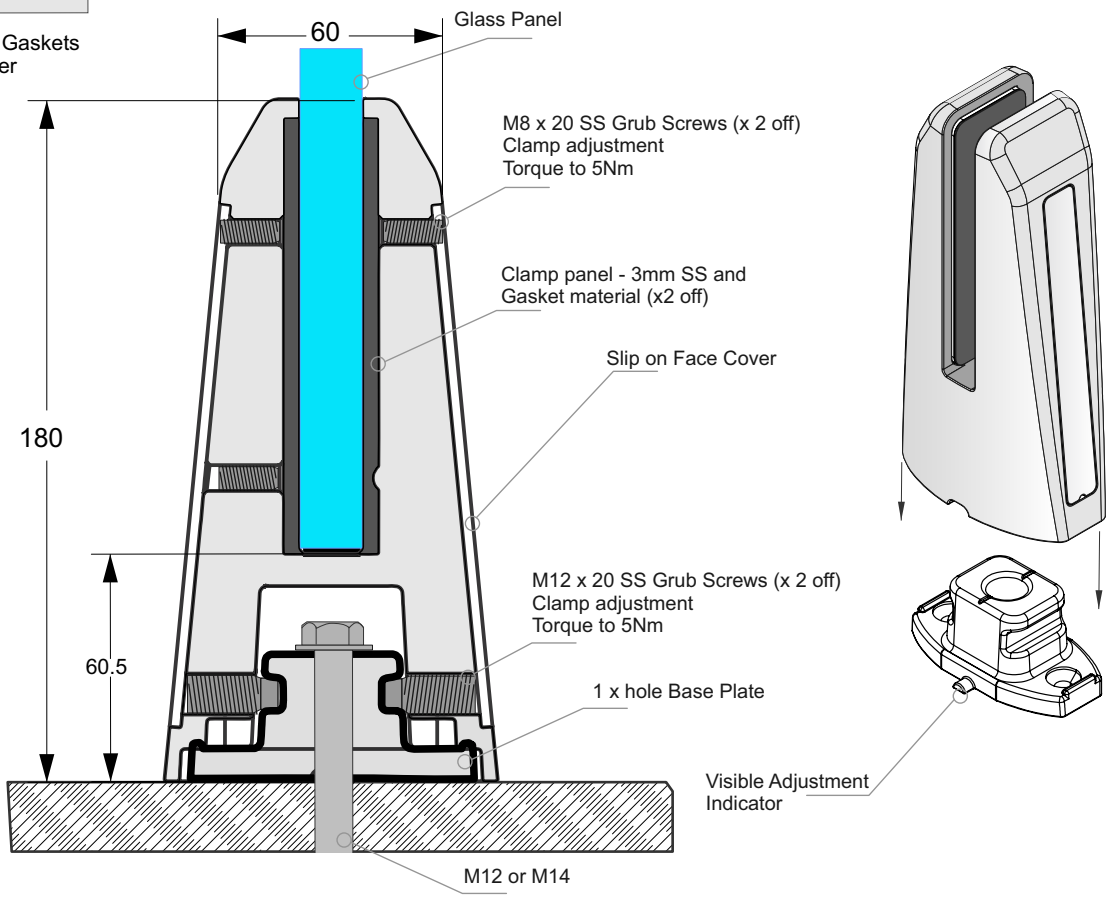
Notes:

1 - Clamp panels, 3mm SS and Gasket material. Held in place with JMF/X03 Double sided tape
2 - Glass Clamping - Tighten bottom grubscrews first, then two top screws. Do not over tighten, max torque 5Nm (Lateral Spigot Adjustment +/- 2mm)
3 - Matador Cover Panels. Held in place with JMF/X02 Double sided tape
4 - Use top grub screws for vertical alignment of the glass panel.
5 - Ensure that the glass panel is not in contact with any of the Matador Spigot
6a - For height adjustment pack the bottom of the glass with additional bottom gaskets
6b - For alternative adjustment use the M8 grub screws in the base plate to adjust the height then fill with drypack grout.
Use a drypack grout which complies NZS 4210:2001 and sets to min 40MPa.

Juralco Edgetec Matador® Series II Balustrade System - Top Fix to Base plate

Matador® Series II Mini Post
JET/MPM/SPG

Supplied as a Kit incl Gaskets
and Slip on Base cover



Notes:

1 - Clamp panels, 3mm SS and Gasket material. Held in place with JMF/X03 Double sided tape
2 - Glass Clamping - Tighten bottom grubscrews first, then two top screws. Do not over tighten, max torque 5Nm (Lateral Spigot Adjustment +/- 2mm)
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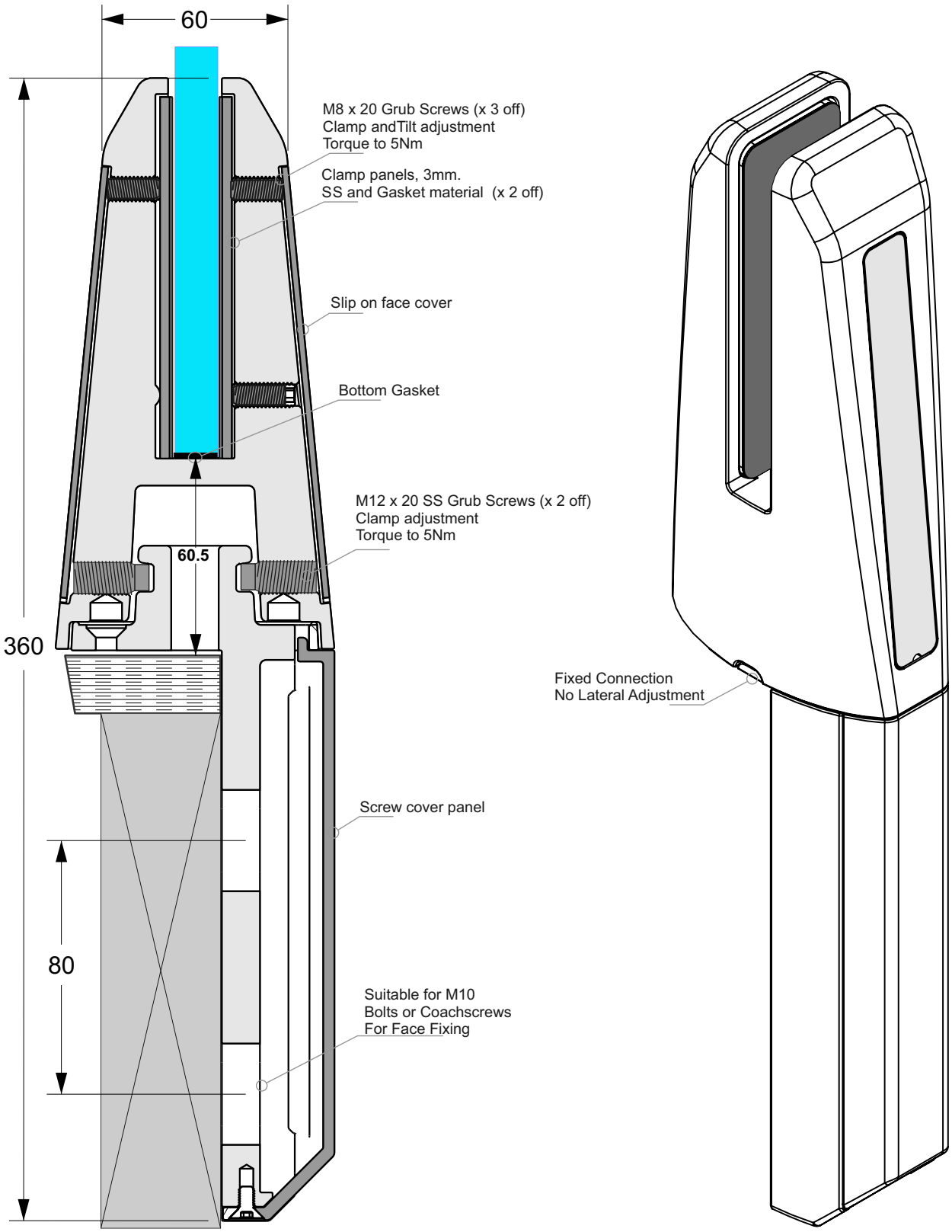
Use a drypack grout which complies NZS 4210:2001 and sets to min 40MPa.



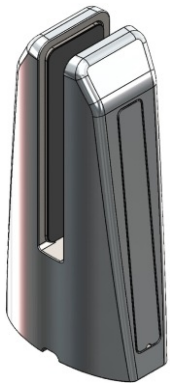
Elevation showing the Main Features
For a Face Fix Bracket

Notes:
1 - Clamp panels, 3mm SS and Gasket material . Held in place with JMF/X03 Double sided tape
2 - Glass Clamping - Tighten bottom grubscrew first, then two top screws. Do not over tighten, max torque 5Nm. (No Lateral Spigot Adjustment)
3 - Matador Cover Panels. Held in place with JMF/X02 Double sided tape
4 - Use top grub screw for vertical alignment of the glass panel.
5 - Ensure that the glass panel is not in contact with any of the Matador Spigot

Juralco Edgetec Matador® Series II Balustrade System - Components

Top Fix Mini Post
JET/MPM/SPG

Finishes SSS, PSS



Face Fix Base with cover
JET/MPM/FP2

Finishes SSS, PSS

Post Screw Cover
JET/MPM/SPG/COVER

Finishes SSS, PSS, SCC

Hidden Base Plate
JET/MPM/BP1

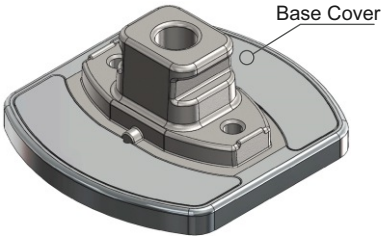
Top Fix

Finishes SSS, PSS

4 Hole Base Plate, Hidden Fix
JET/MPM/BP5

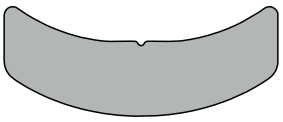
Top Fix

Finishes SSS, PSS

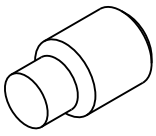


Base Cover
JET/MPM/BP5/COVER

Finishes SSS, PSS, SCC

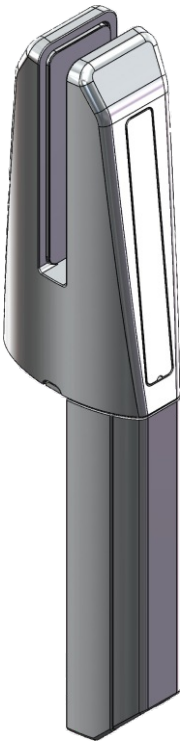


M12 x 20 Dog Point
Grub Screw



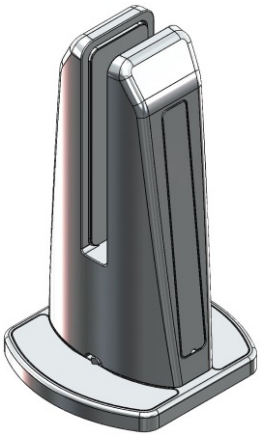
Mini Post with Face Fix Base
JET/MPM/F2

Finishes SSS, PSS, SCC



Mini Post with 4 - Hole Top Fix Base Plate
JET/MPM/T5

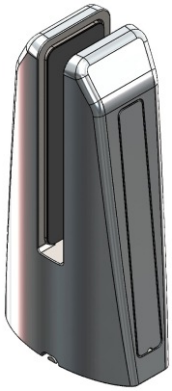
Finishes SSS, PSS, SCC



KIT SET

Mini Post with Hidden Top Fix Base Plate
JET/MPM/T1

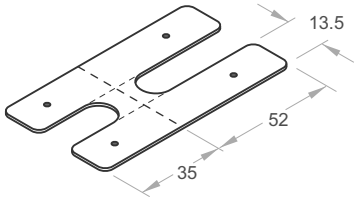
Finishes SSS, PSS, SCC



KIT SET

Plastic Packer - Glass

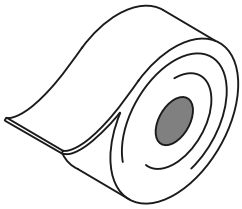
Part No	Thickness
H/PP1.5	1.5mm
H/PP2	2mm
H/PP3	3mm
H/PP4	4mm
H/PP5	5mm



Cut down to suit. 35x13.5, 52x13.5

Foam Tape 100mm x 4.8mm JVB/FTAPE100

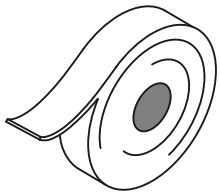
Base Plate Separator for Concrete, Steel and Timber



Single sided 100mm wide x 15.2mt Roll

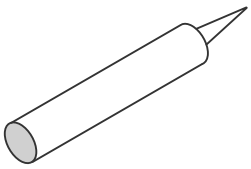
Foam Tape 38mm x 4.8mm JVB/FTAPE38

Face fix Post Separator for Concrete, Steel and Timber



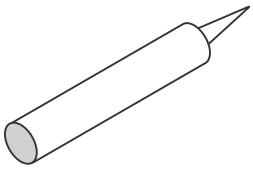
Single sided 38mm wide x 15.2mt Roll

SIKA Supergrip JECSUPERGRIP30



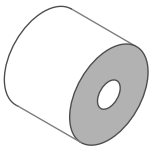
For All Coachscrews fixings

Rhodorsil V60 Clear Silicone H/RTV419098



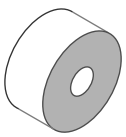
Construction Silicone

Face Fix Spacer JVB125/30mm



38mm dia x 30mm long. Maximum 60mm

Face Fix Spacer JVB125/15mm

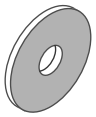


38mm dia x 15mm long. Maximum 60mm

Face Fix Spacer JVB125/10mm

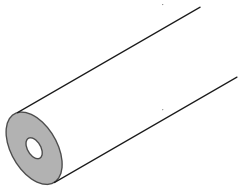
38mm dia x 10mm long. Maximum 60mm

EPDM Spacer Washer JVB126



38mm dia x 3mm Maximum 60mm

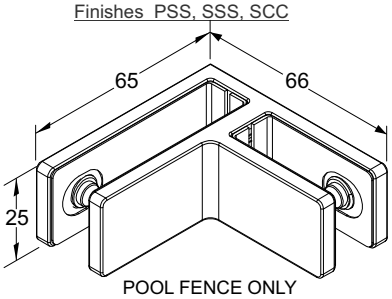
Face Fix Spacer PN JVB 125



38mm dia x 1m long - 11mm dia Hole

JET60 90 deg Slim Pool Glass Clamp 10-12mm Glass

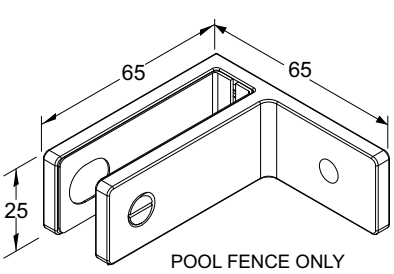
Finishes PSS, SSS, SCC



POOL FENCE ONLY

JET62 Wall Slim Pool Glass Clamp 10-12mm Glass

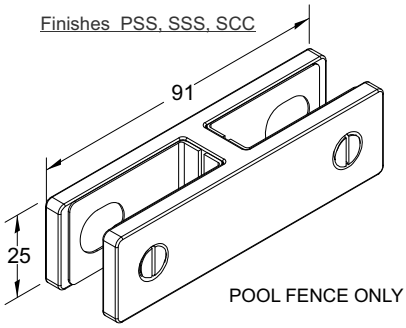
Finishes PSS, SSS, SCC



POOL FENCE ONLY

JET61 180 deg Slim Pool Glass Clamp 10-12mm Glass

Finishes PSS, SSS, SCC



POOL FENCE ONLY

Juralco Edgetec Matador® Series II Balustrade System
Dimension Tables and Design Loads

Dimension Table - Balustrade Occupancy

Extra High Wind Zones (up to and including)
A, A Other and C3, B and E only

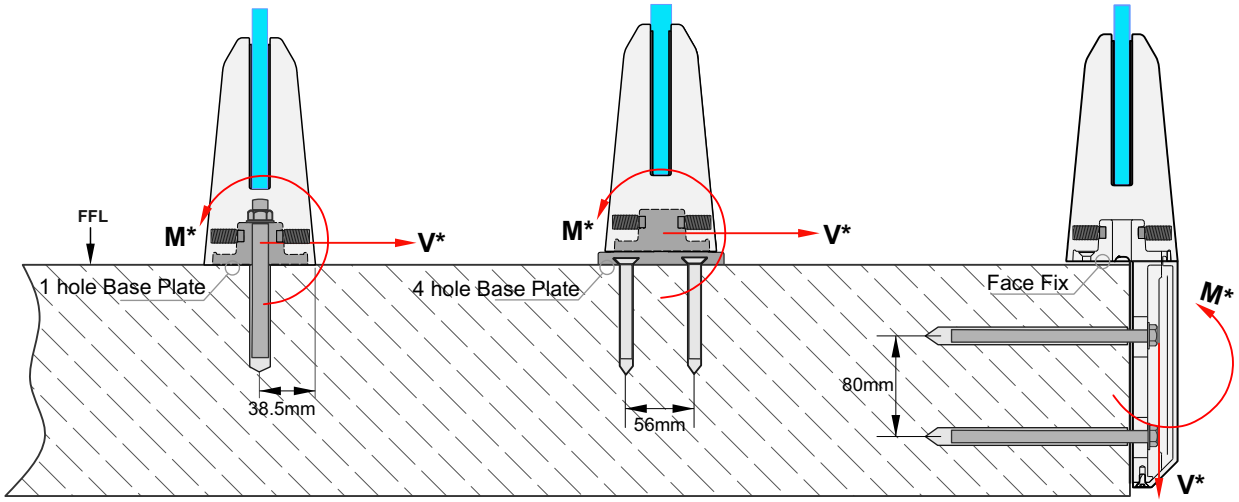
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)	M* (kNm/m)		V*(kN)	Importance level 2 SLS Wind (kPa)		ULS Wind (kPa)
					Top	Face		NZ1,2,3	Nz4	
12T, 13.52SG	High	1200	720	250	1.1	1.2	1.3	1.2	1.3	1.6
	Very High	1100			1.0	1.1	1.5	1.5	1.7	2.0
	Extra High	1000			0.9	1.1	1.7	1.9	2.0	2.5
15T	High	1300			1.1	1.2	1.4	1.2	1.3	1.6
	Very High	1250			1.2	1.3	1.7	1.5	1.7	2.0
	Extra High	1200			1.3	1.5	2.0	1.9	2.0	2.5

Dimension Table - Pool Fence

Wind Zones (up to and including)
Pool Fence only
Applies to Pool Fences not protecting a fall of 1.0m or more

Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)	M* (kNm/m)		V*(kN)	Importance level 2 SLS Wind (kPa)		ULS Wind (kPa)
					Top	Face		NZ1,2,3	Nz4	
12T, 13.52SG	High	1200	1000	500	1.1	1.3	1.8	1.2	1.3	1.6
	Very High	1200	750	375	1.1	1.3	1.8	1.5	1.7	2.0
15T	High	1300	1000	500	1.3	1.5	2.0	1.2	1.3	1.6
	Very High	1300	750	375	1.3	1.5	2.0	1.5	1.7	2.0
	Extra High	1300	600	300	1.3	1.5	2.0	1.9	2.0	2.5



Glass Type

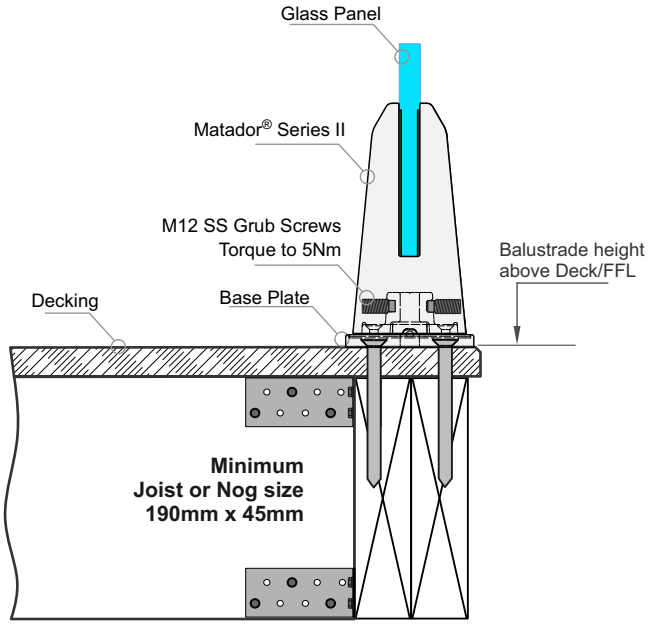
Glass Thickness (mm)	Interlayer Thickness & Type	Minimum Panel Width (mm)	Maximum Panel Width (mm)
12T	-	200	1900
13.52SG	6/1.52/6	1700 with Stiffeners or 200 without Stiffeners	See manufacturers limits
15T	-	200	1900

- Matador Series II is always installed on or above Finished Floor Level
- The Project Engineer must ensure the structure can support the appropriate loads
- Design loads can be used for Project Engineer to verify non standard fixing method and support structures.
- Maximum 30mm deck/spacers (top fix and 60mm of JVB125 spacers (Face Fix)
- 1-Hole Base Plate (**JET/MPM/BP1**) to Triple Joist is only suitable for Pool Fence using the 12T, 13.52SG Pool Dimension
- For 13.52 SG Stiffener Brackets or Handrail must be used when above 1050mm BH or width is below 1700mm for barrier protecting a fall - not required for Pool Fence ONLY
- Maximum 10mm tolerance allowed to Barrier Height
- Minimum Glass strength 100MPa, all edges polished
- See “Interlinking Rail Manual” for maximum interlinking spans

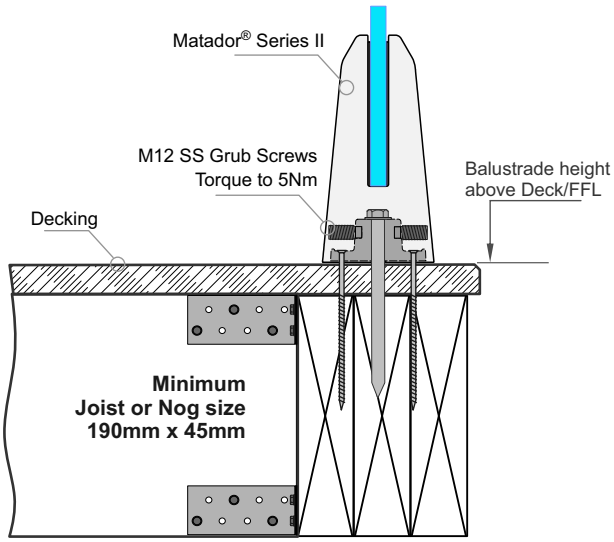
Approved Timber Construction Options, fixing into Double Joists

SS Coachscrews, Bolts or Threaded Rod

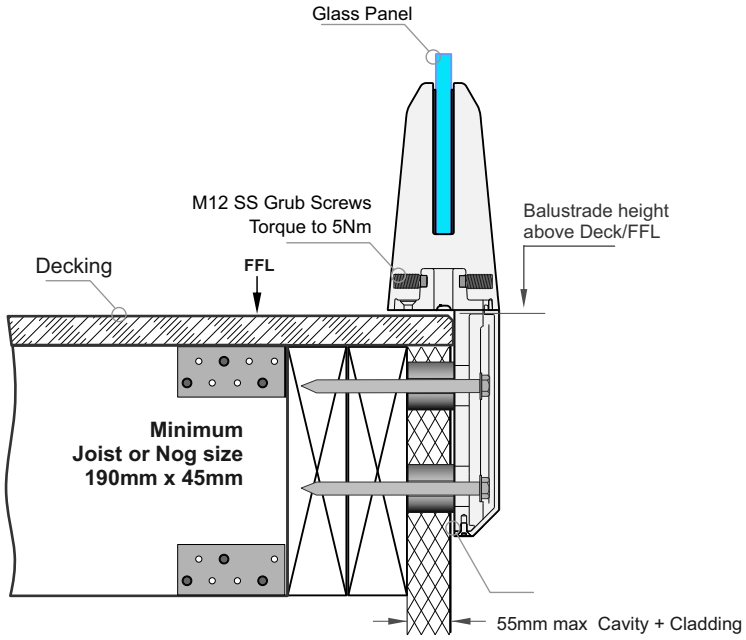
Refer individual construction pages for further details



1 - Top Fix to Double Joist - 4 x M10 SS Coachscrew, 4 hole base plate



2 - Top Fix to Triple Joist - 1 x M12 SS Coachscrew, 1 hole base plate



3 - Face Fix attach through Cavity Wall to Double Joists using JVB125 Spacers (60mm max)

Juralco Edgetec Matador® Series II Balustrade System - Typical Fixing
Complies with NZS3604:2011 - Double Boundary Joists

Typical Fix to Timber - JET/MPM/T5, 105mm x 105mm, 4 hole Base Plate - M10 C/S SS Coachscrews

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

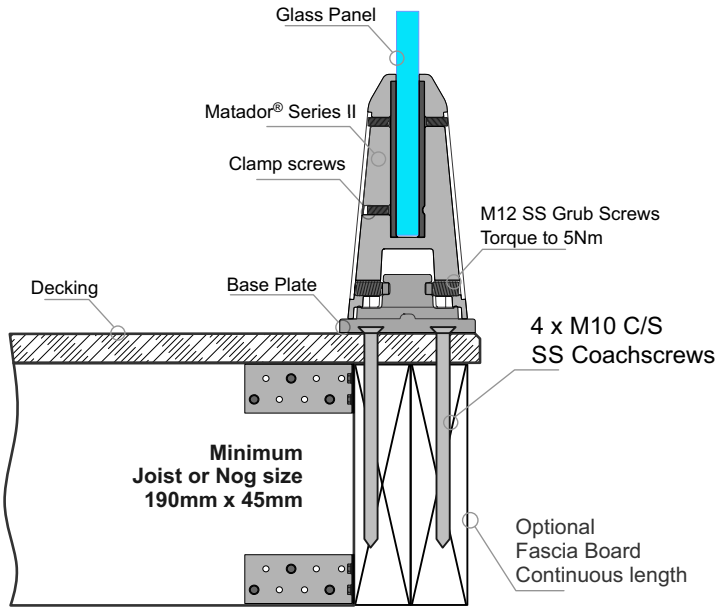
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

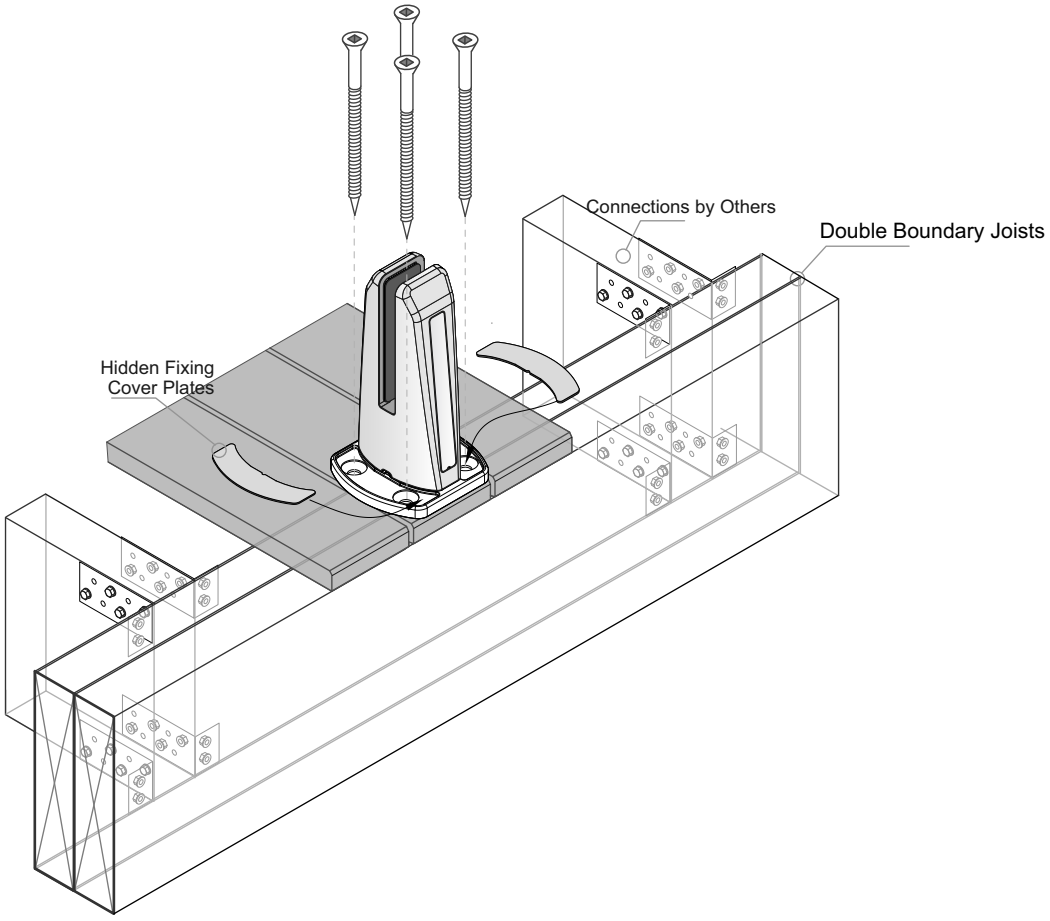
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)



Important Notes:
1 - A Project engineer must ensure the structure can support the appropriate loads
2 - Coachscrews 100mm min thread engagement into joists
3 - Bond all coachscrews with SIKA Supergrip to full depth
4 - All fixings must be Stainless Steel
5 - 30mm Max of decking/spacers used



Juralco Edgetec Matador® Series II Balustrade System - Typical Fixing
Complies with NZS3604:2011 - Triple Boundary Joists

Typical Fix to Timber - JET/MPM/T1, 77mm x 40mm, 1 hole Base Plate - M12 SS Coachscrews

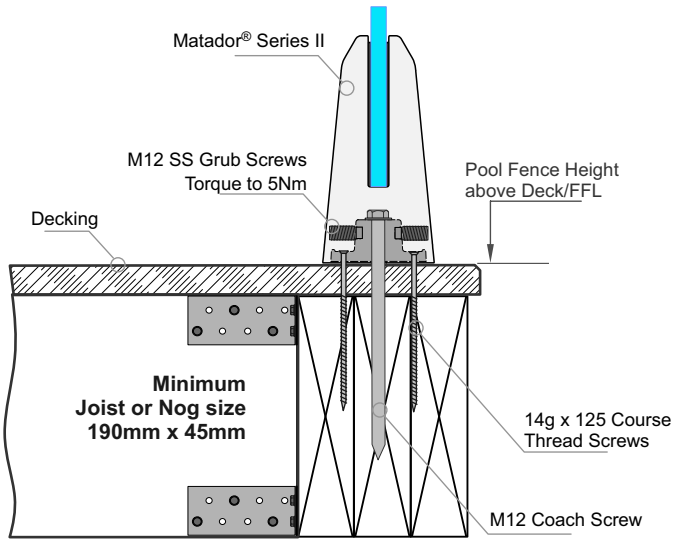
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

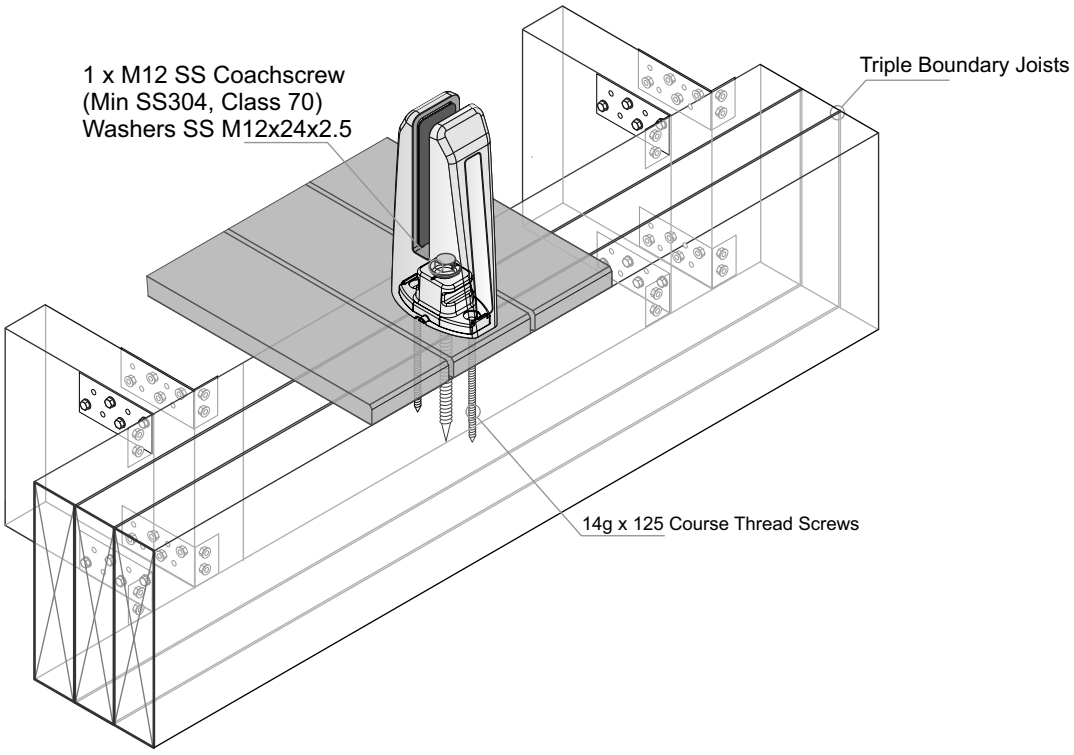
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	Medium	1200	1000	500
	High	1200	750	375
	Very High	1200	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)



Important Notes:
1 - A Project engineer must ensure the structure can support the appropriate loads
2 - Coachscrews 130mm min thread engagement into joists
3 - Bond all coachscrews with SIKA Supergrip to full depth
4 - All fixings must be Stainless Steel
5- 30mm Max of decking/spacers used
6- Not Suitable as a Balustrade



Typical TOP Fix to Timber on Steel - JET/MPM/T1, 77mm x 40mm, 1hole Base Plate - M12 SS Bolts

Extra High Wind Zones (up to and including)
A, A Other and C3 only

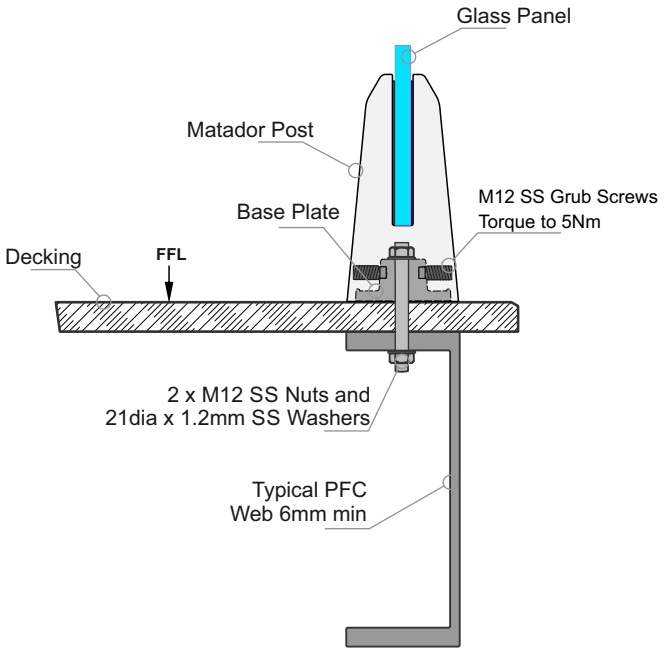
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

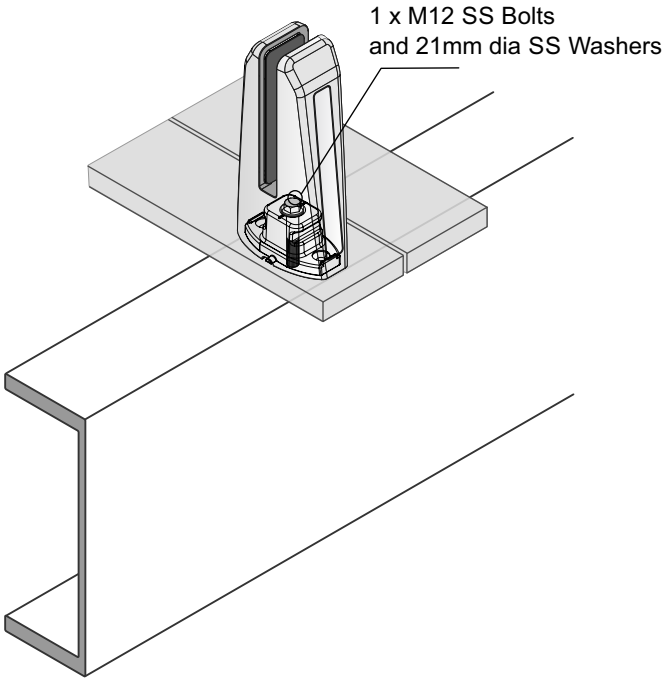
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300



General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - Substructure shown indicatively only
3 - All fixings must be Stainless Steel
4 - 30mm Max of decking/spacers used



Typical TOP Fix direct to Steel - JET/MPM/T1, 77mm x 40mm, 1 hole Base Plate - M10 SS Bolts

Extra High Wind Zones (up to and including)
A, A Other and C3 only

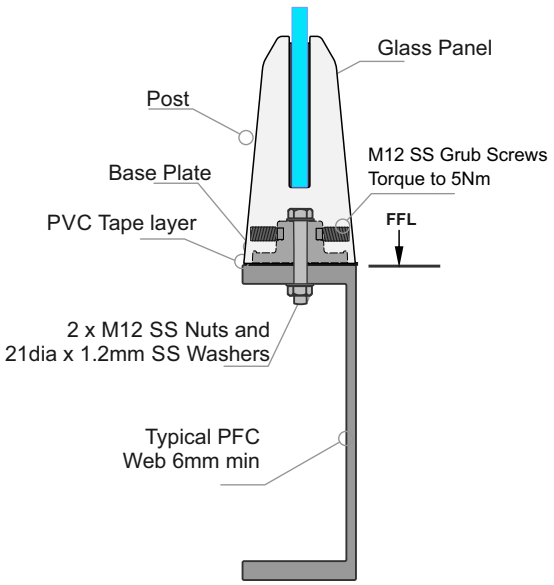
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

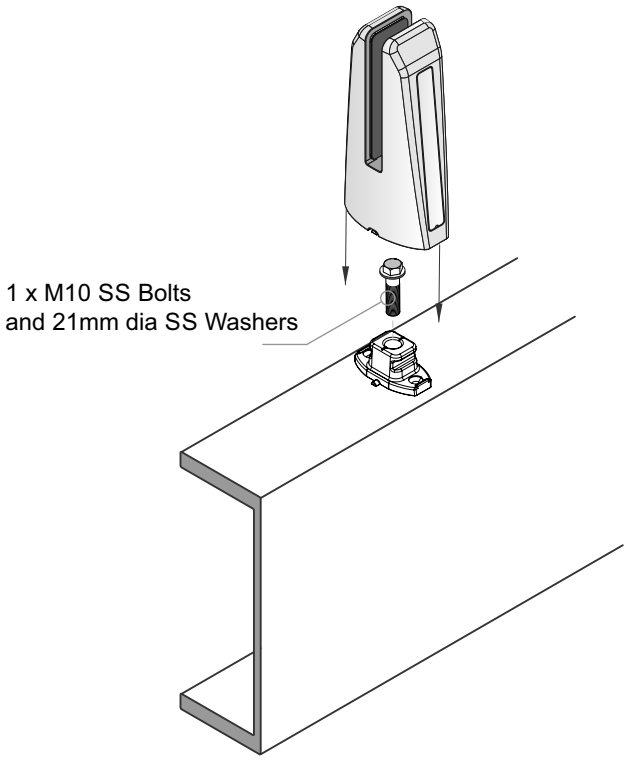
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300



General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - There must be a PVC Tape layer between the Baseplate and Steel
3 - Substructure shown indicatively only
4 - All fixings must be Stainless Steel



Typical Fix to Concrete - JET/MPM/T1, 77mm x 40mm, 1 hole Base Plate - M12 SS Studs

Extra High Wind Zones (up to and including)
A, A Other and C3 only

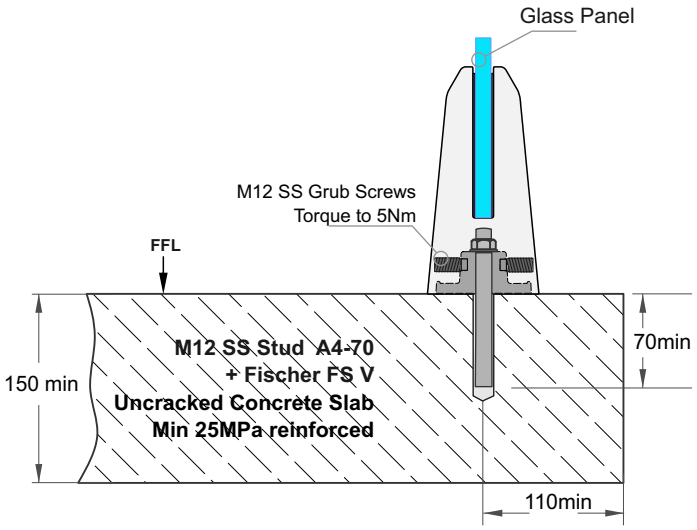
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	Medium	1200	1000	500
	High	1200	750	375
	Very High	1200	600	300



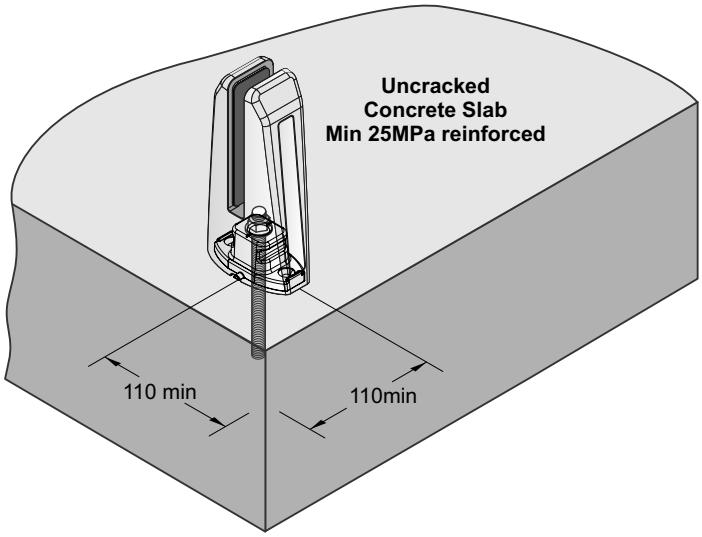
Important Notes:
1 - A Project engineer must ensure the structure can support the appropriate loads
2 - All fixings must engage the structural slab
3 - A PVC Tape layer must be installed between the Baseplate and Concrete
4 - All fixings must be Stainless Steel
5 - 30mm Max of decking/spacers used

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

Installation details Fischer EM Plus 390 S

Thread diameter	M12
Drill hole diameter	= 14 mm
Drill hole depth	= 80 mm
Anchorage depth	= 70 mm
Drilling method	Hammer drilling
Drill hole cleaning	4 times blowing, 4 times brushing, 4 times blowing

No borehole cleaning required in case of using a hollow drill bit, e.g. fischer FHD.



Typical TOP Fix to Concrete - JET/MPM/T5 - 105mm x 105mm, 4 hole Base Plate - M10 C/S Concrete Screws

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

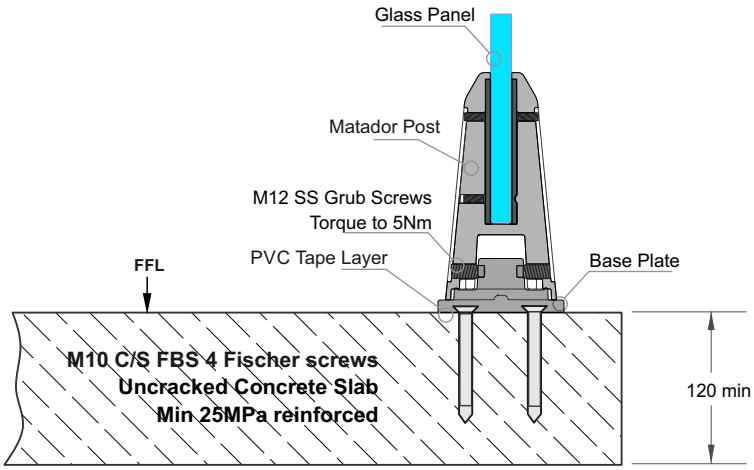
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

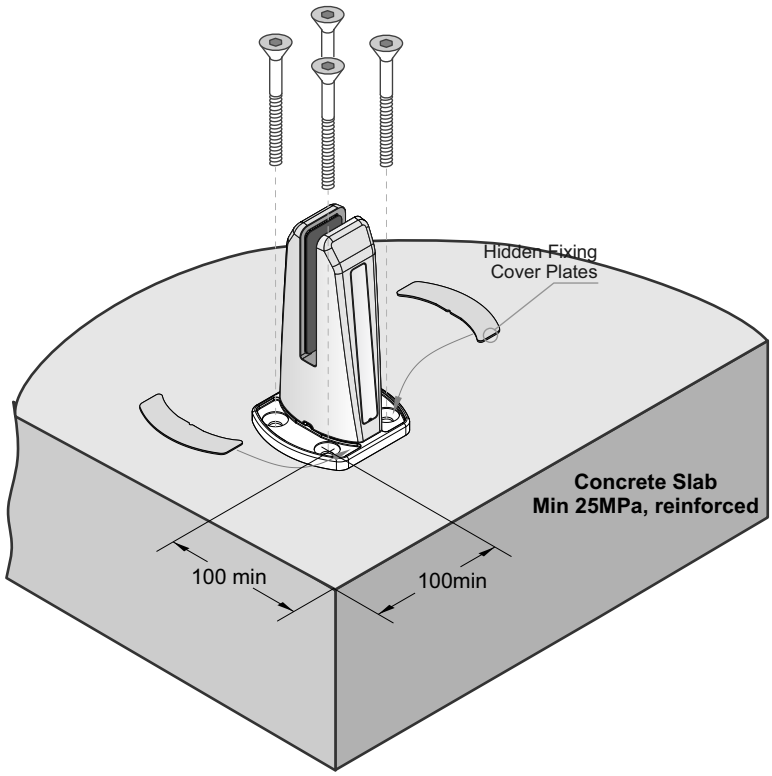


Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - All fixings must engage the structural slab
3 - A PVC Tape layer must be installed between the Baseplate and Concrete
4 - Substructure shown indicatively only
5 - All fixings must be Stainless Steel
6- 30mm Max decking/spacers used

Installation details
Fischer FBS II 8 x 80 C/S Screws

Thread diameter	= M10
Drill hole diameter	= 8 mm
Drill hole depth	= 90 mm
Anchorage depth	= 52 mm
Drilling method	Hammer drilling
Drill hole cleaning	Blow out by hand

No borehole cleaning required in case of using a hollow drill bit, e.g. fischer FHD.



Juralco Edgetec® Mini Post Balustrade System - Typical Fixing
Complies with NZS3604:2011 - Double Boundary Joists

Typical FACE Fix Post to Timber - JET/MPM/F2 - M10 SS Coachscrews

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

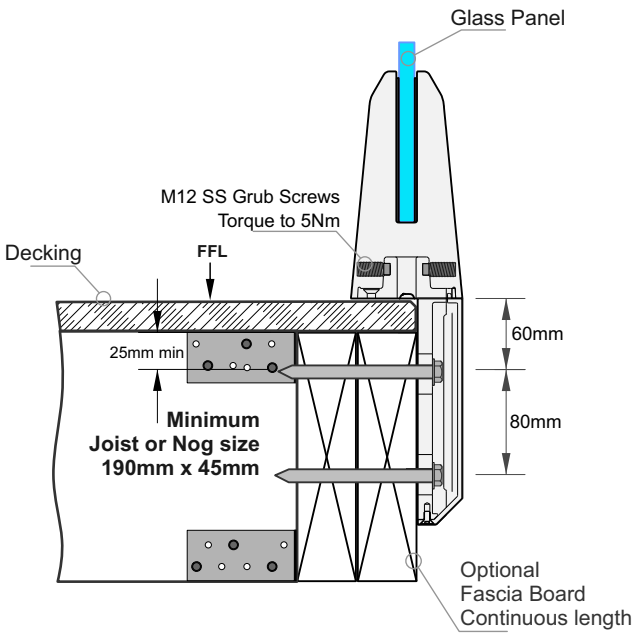
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

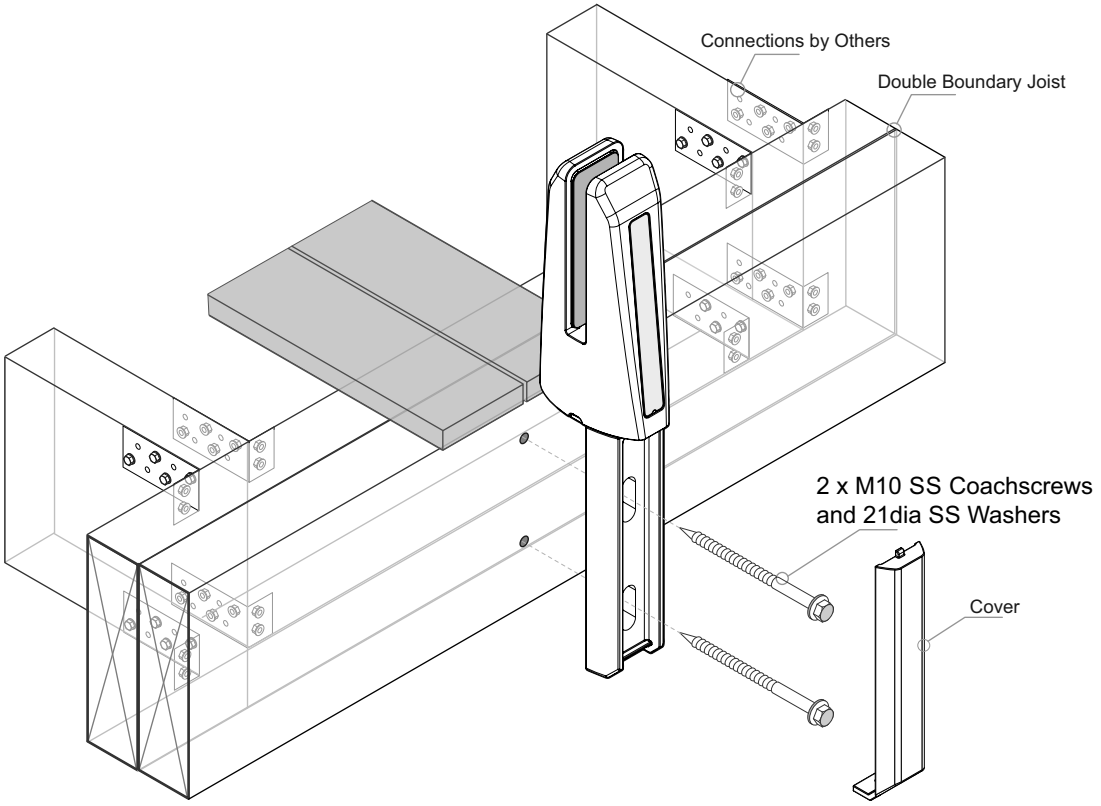
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)



Important Notes:
1 - The Project Engineer must ensure the structure can support the appropriate loads
2 - Timber SG8 minimum strength
3 - Coachscrews 90mm min engagement into joists. Drill 6mm holes
4 - Bond all coachscrews with SIKA Supergrip30 to full depth
5 - Substructure shown indicatively only
6 - All Fixings must be Stainless steel
7 - Max 60mm spacing back to structure including JVB125 Spacers



Juralco Edgetec® Mini Post Balustrade System - Typical Fixing
Complies with NZS3604:2011 - Double Boundary Joists

Typical FACE Fix Post to Timber - JET/MPM/F2 - M10 SS Bolts or M10 SS Threaded Rod

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

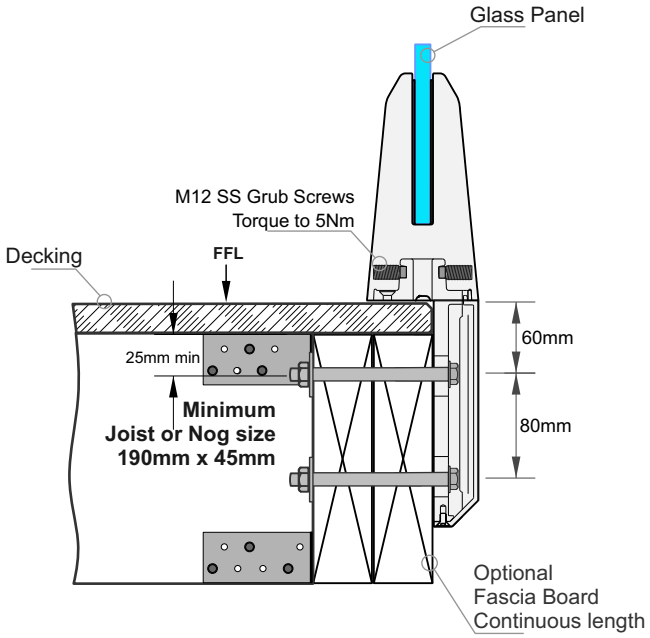
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

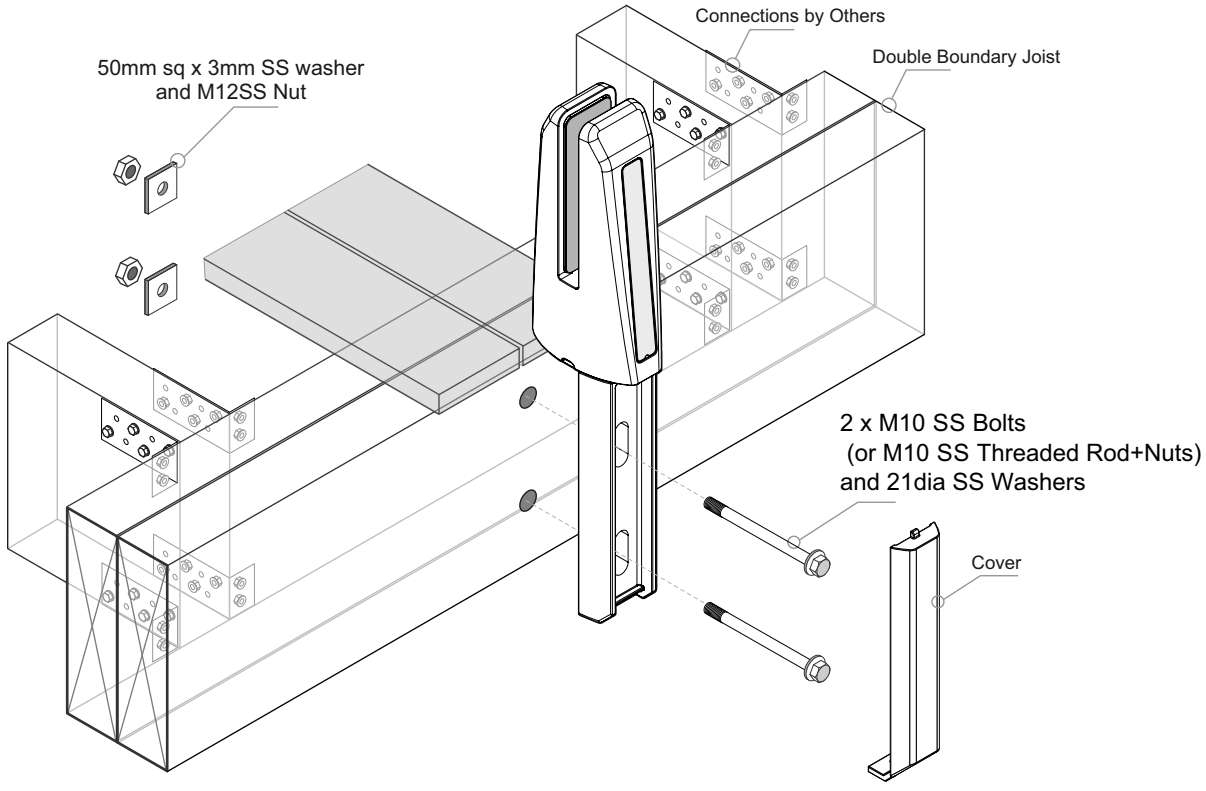
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)



Important Notes:
1 - The Project Engineer must ensure the structure can support the appropriate loads
2 - Timber SG8 minimum strength
3 - Substructure shown indicatively only
4 - All Fixings must be Stainless steel
5 - Max 60mm spacing back to structure including JVB125 Spacers



Typical FACE Fix Post Through a Cavity - JET/MPM/F2 - M10 SS Coachscrews and Spacers

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

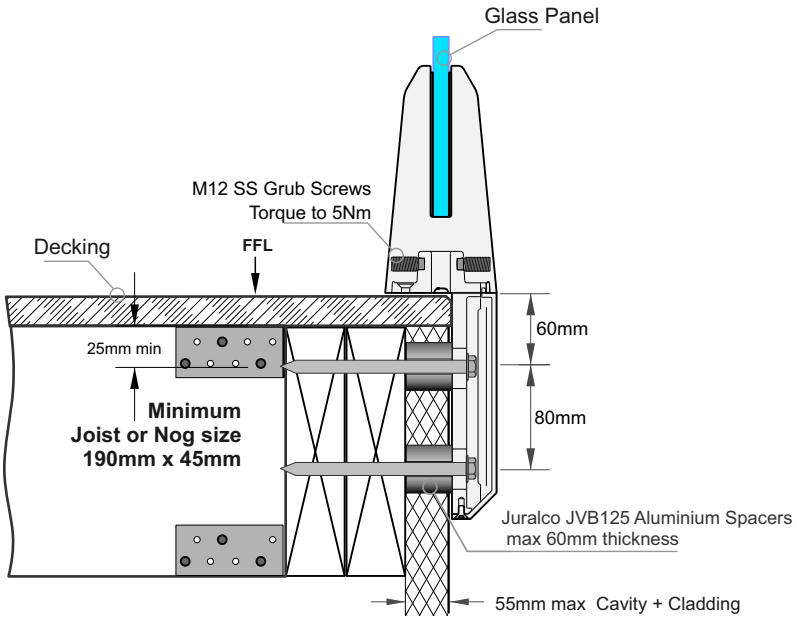
Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

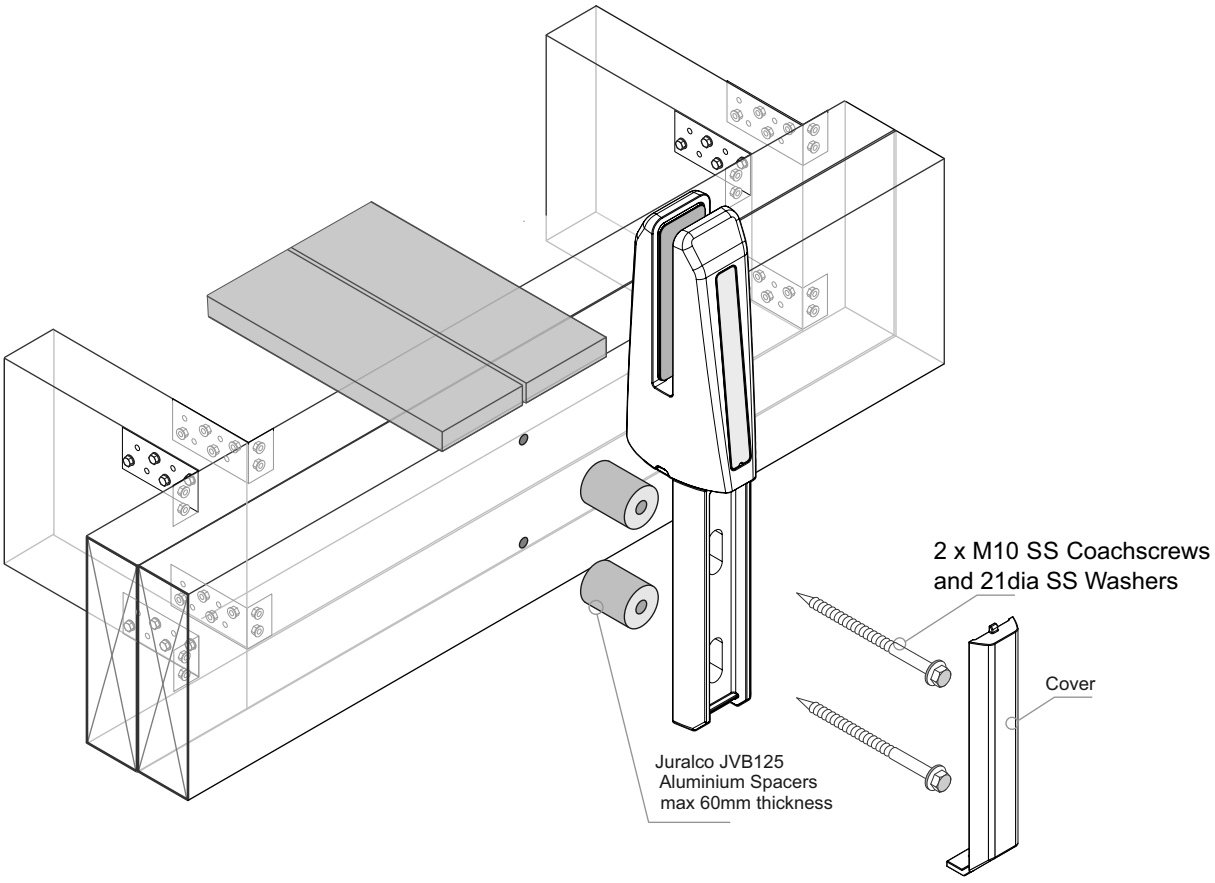
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)



Important Notes:
1 - The Project Engineer must ensure the structure can support the appropriate loads
2 - Timber SG8 minimum strength
3 - Coachscrews 90mm min engagement into joists. Drill 6mm holes
4 - Bond all coachscrews with SIKA Supergrip30 to full depth
5 - Substructure shown indicatively only
6 - All Fixings must be Stainless steel
7 - Max 60mm spacing back to structure including JVB125 Spacers



Typical FACE Fix to Steel, Wooden Packers - JET/MPM/F2 - M10 SS Bolts

Extra High Wind Zones (up to and including)
A, A Other and C3 only

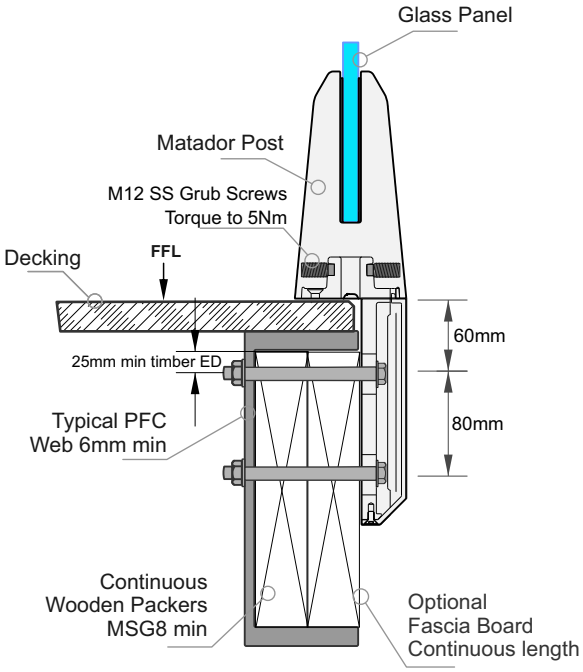
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

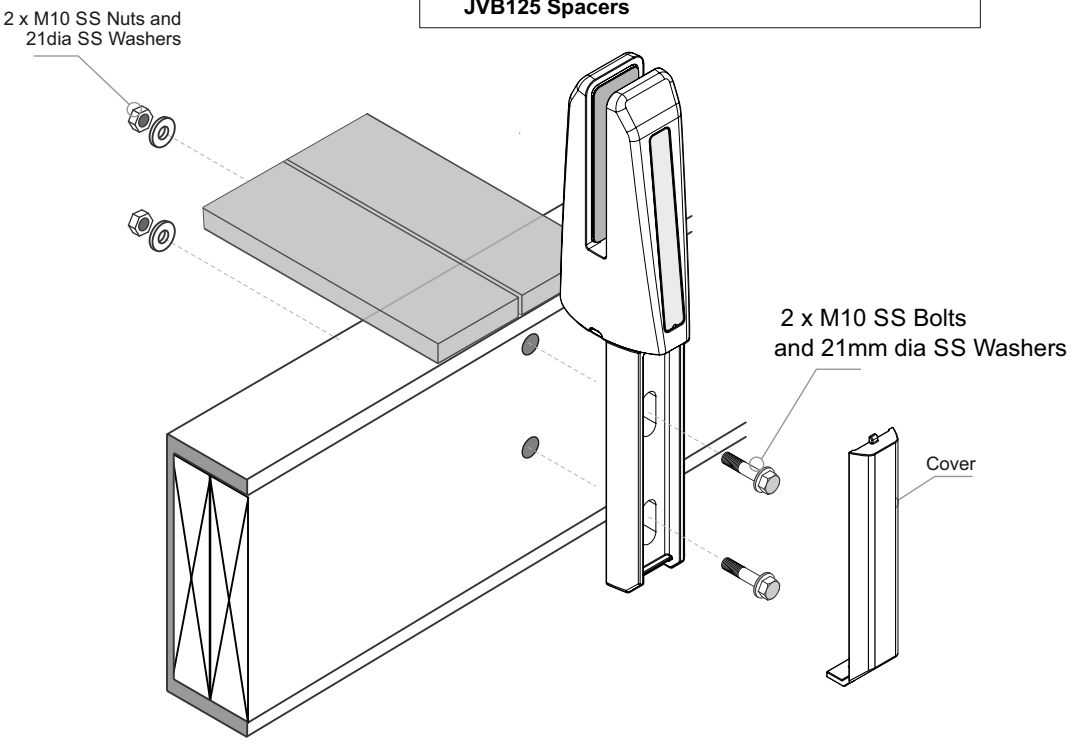
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300



General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - Timber SG8 minimum strength
3 - A PVC Layer must be installed between the MiniPost and Steel Flange
4 - Substructure shown indicatively only.
5 - All fixings must be Stainless Steel
6 - Max 60mm spacing back to structure including JVB125 Spacers



Typical FACE Fix to Steel - JET/MPM/F2 - M10 SS Bolts

Extra High Wind Zones (up to and including)
A, A Other and C3 only

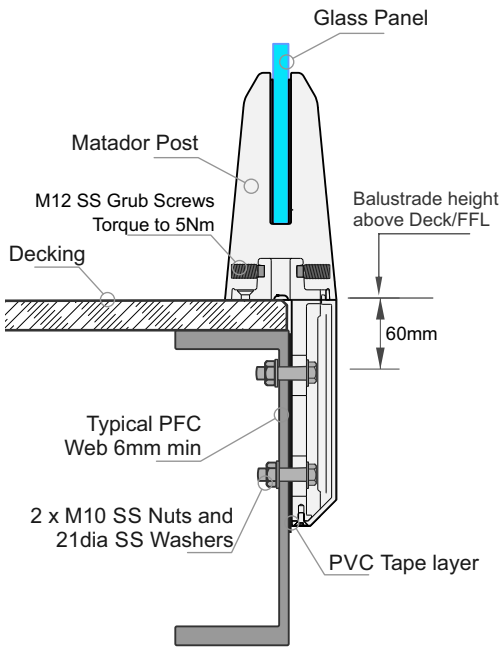
Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

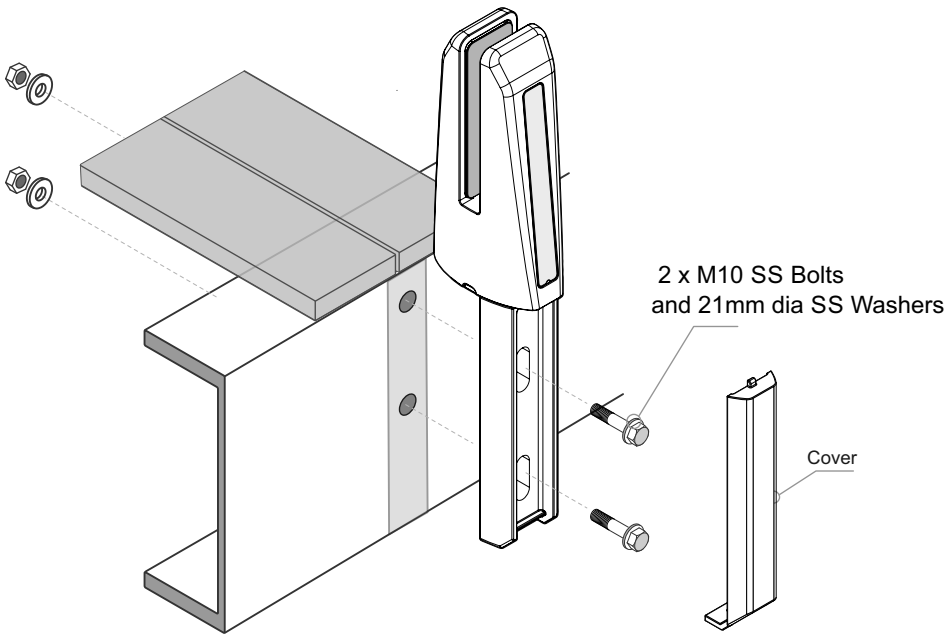
Pool Fence applies to Top and Face Fix only

Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300



General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths
and the use of Top Interlinking Rails (T only)
or Stiffener Brackets (SG only)

Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - A PVC Layer must be installed between the MiniPost and Steel
3 - Substructure shown indicatively only.
4 - All fixings must be Stainless Steel
5 - Max 60mm spacing back to structure including JVB125 Spacers



Typical FACE Fix to Concrete - JET/MPM/F2 - M10 SS Studs

Extra High Wind Zones (up to and including)
A, A Other and C3 only

Glass Thickness, Type	Wind Zone (up to)	Balustrade Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	720	250
	Very High	1100		
	Extra High	1000		
15T	High	1300		
	Very High	1250		
	Extra High	1200		

Wind Zones (up to and including)
Pool Fence only

Applies to Pool Fences not protecting a fall of 1.0m or more

Pool Fence applies to Top and Face Fix only

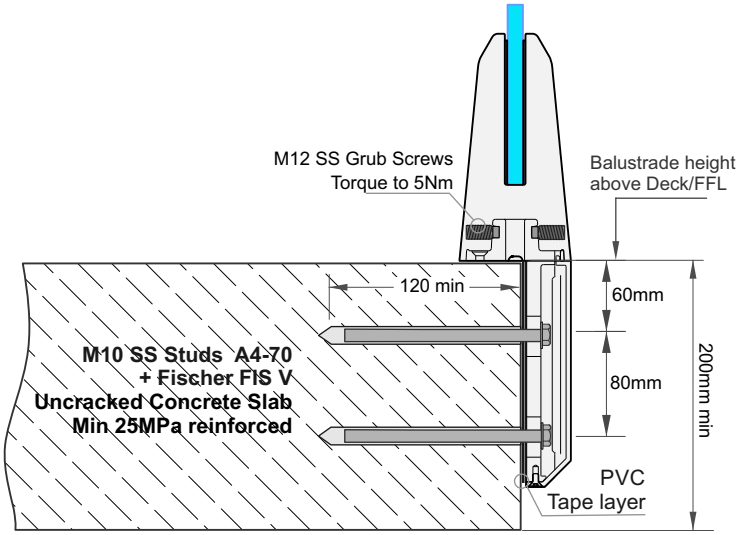
Glass Thickness, Type	Wind Zone (up to)	Fence Height (max)	Post Spacing (max)	Glass Overhang (max)
12T, 13.52SG	High	1200	1000	500
	Very High	1200	750	375
15T	High	1300	1000	500
	Very High	1300	750	375
	Extra High	1300	600	300

General Notes:
1 - Glass thickness, mm
Glass type T= Toughened,
SG = SentryGlas
2 - All measurements mm
3 - Refer to Elevations for Min/Max Panel widths and the use of Top Interlinking Rails (T only) or Stiffener Brackets (SG only)

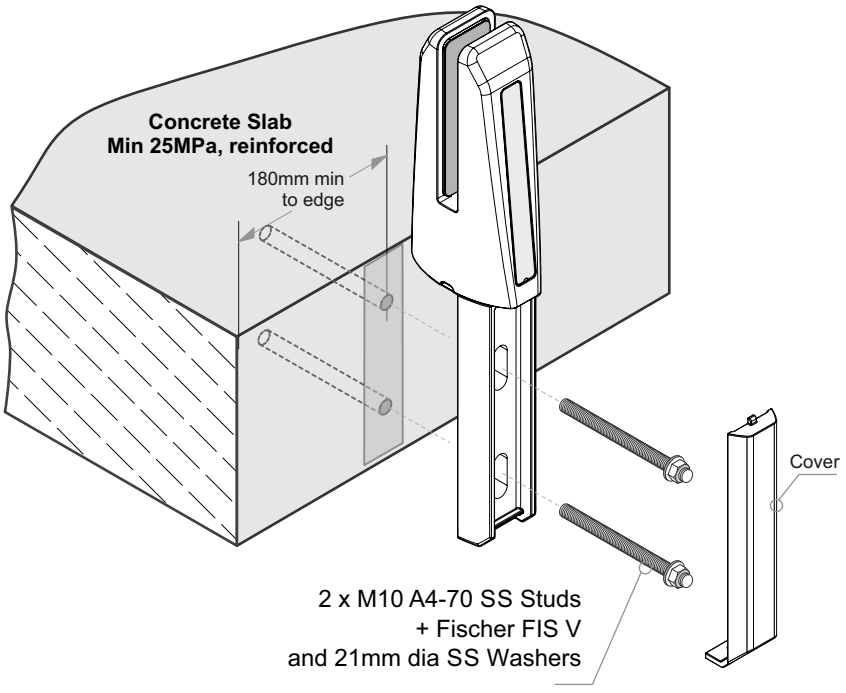
Installation details Fischer FIS V 300T

Thread diameter	M10
Drill hole diameter	= 12 mm
Drill hole depth	= 130 mm
Anchorage depth	= 120 mm
Drilling method	Hammer drilling
Drill hole cleaning	4 times blowing, 4 times brushing, 4 times blowing

No borehole cleaning required in case of using a hollow drill bit, e.g. fischer FHD.

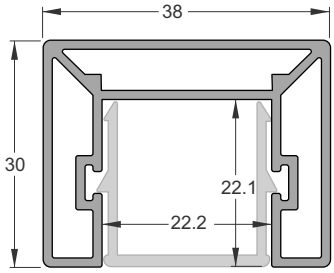


Important Notes:
1 - The Project engineer must ensure the structure can support the appropriate loads
2 - All fixings must engage the structural slab
3 - A PVC Tape layer must be installed between the MiniPost and Concrete
4 - Substructure shown indicatively only
5 - All fixings must be Stainless Steel
6 - Max 60mm spacing back to structure including JVB125 Spacers

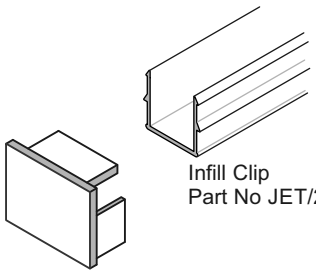


Juralco 38mm Rectangular Interlinking Top Rail

Suitable for 12- 15mm Glass

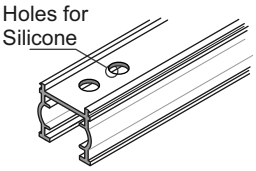


Rectangular Interlinking Top Rail
Part No JET/220/5.8
Also showing Infill Clip, for
use in between Glass Panels



Infill Clip
Part No JET/215/5.8

Interlinking Top
Rail End Cap
Part No JET 37



Interlinking Top Rail Gasket
for 12 mmToughened Glass
Part No JET/Gasket 12/2.9

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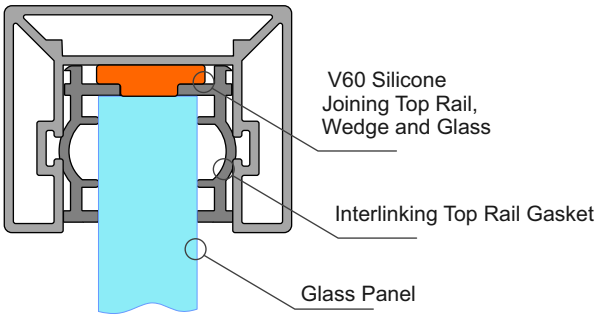
1 - 12mm Glass and Gasket

Application Notes:
- Cut short lengths of Gasket (50mm) and place say every 700mm.
- Cut/adjust Interlinking rail to correct dimensions, test in place.
- Remove all, install full cut lengths of Gasket to glass top edge

- Assemble Top Rail + Joiners and suitable End plates

- Place blobs of V60 silicone in every Gasket hole
- Then place Top Rail extrusion + Joiners and End plates in place clipping firmly to Gasket
- Tape all down, wait 24 hrs to fully bond. Clean up.

Note: Ends must be attached to structure or post,
- Joins must have a suitable joiner plate



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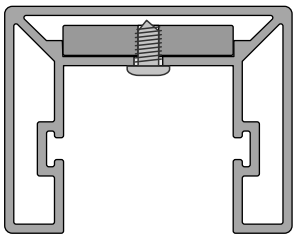
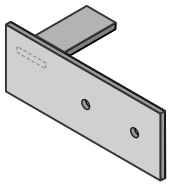
2 - End Plate Brackets

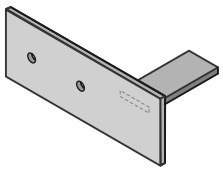


End Plate
Tabs all 22.5 x 4mm SS.

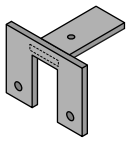
End Plates: (After cutting extrusions to length)
- With End Plate in place, spot drill from below for position
- Drill out to SS tab to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive Screw, 2 per plate.
- End Plate must be securely attached to Post or structure.



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40LH



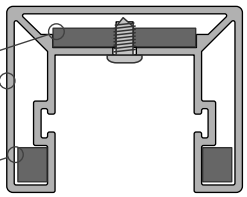
Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40RH



Interlinking Top Rail
End Bracket
SS. 60mm x 46mm
JET 42

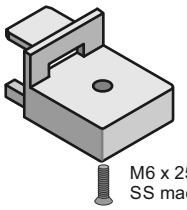
Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

1 - Connectors

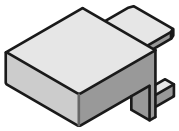


Swivel Kits: (After cutting extrusions to length)
- With Swivel in place, spot drill from below for position
- Drill out Swivel to 3mm dia, extrusion to 4mm dia
- Use No6 x 1/4in SS ST Pan sq drive screws, 2 x ea side of joint
- Both sides must be attached.
- Join together with the M6 x 25 C/S SS Screw

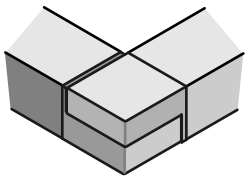
Interlinking Top Rail
Horizontal Fixed
90 deg Connector
JET 45A

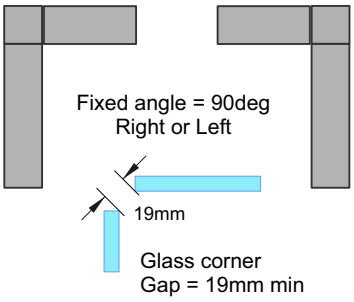


Interlinking Top Rail
Horizontal Fixed
90 deg Connector
JET 45B

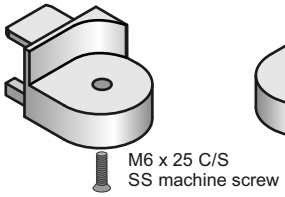


Rectangular Interlinking Top Rail
Horizontal Fixed 90deg Kit
JET220/90deg Corner Kit
(JET 45A and B + screw)

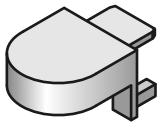




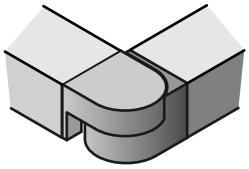
Interlinking Top Rail
Horizontal 0 - 90deg
Swivel Connector
JET 46A

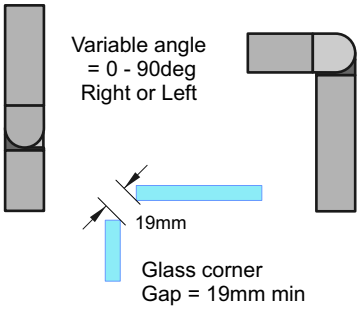


Interlinking Top Rail
Horizontal 0 - 90deg
Swivel Connector
JET 46B

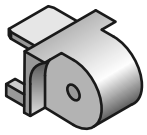


Rectangular Interlinking Top Rail
Horizontal 0 - 90 deg Right/Left
Swivel Connector Kit
JET220/Horizontal Adj Corner Kit
(JET 46A and B + screw)

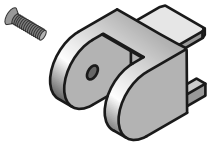




Interlinking Top Rail
Vertical 35deg up
to 35 deg down
Swivel Connector
JET 47A

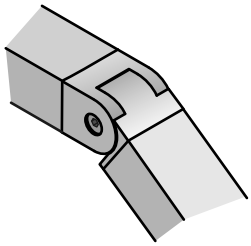


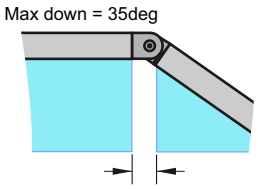
M6 x 25 C/S
SS machine screw

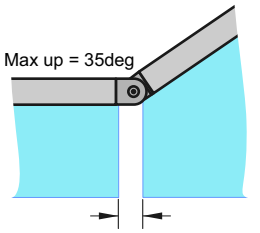


Interlinking Top Rail
Vertical 35deg up
to 35 deg down
Swivel Connector
JET 47B

Interlinking Top Rail Vertical 35deg up
to 35 deg down. Swivel Connector Kit
JET220/Vertical Adj Corner Kit
(JET 47A and B + screw)







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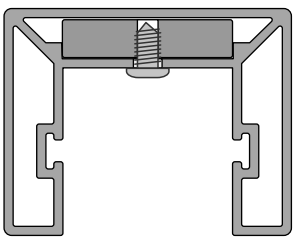
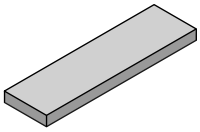
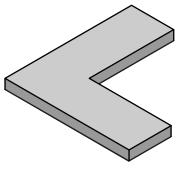
2 - Joiners



Joiners: (After cutting extrusions to length)
- With Joiner in place, spot drill from below for position
- Drill out to joiner to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive screws, 2 x ea side of joint
- Both ends must be attached.
- Joins, where required must be at the end of Glass Panels



Interlinking Top Rail
Straight Joiner
80x22.8x5mm
JET 30

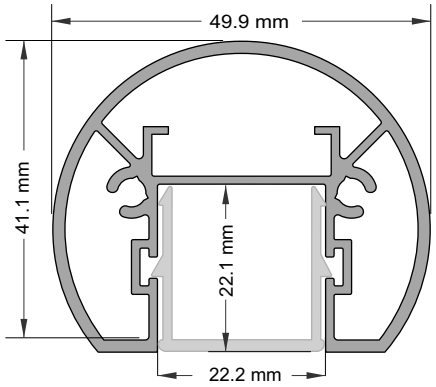


Interlinking Top Rail
Corner Joiner
75x75x5mm
JET 31

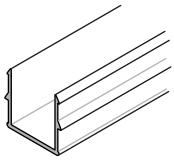
Joiners both 22.5 x 5mm Aluminium

Juralco 50mm Round Interlinking Top Rail

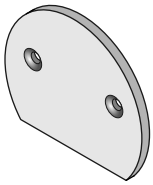
Suitable for 12- 15mm Glass



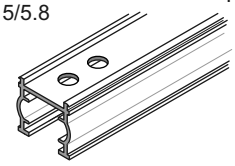
Round Interlinking Top Rail
Part No JET/211/5.8
Also showing Infill Clip, for
use in between Glass Panels



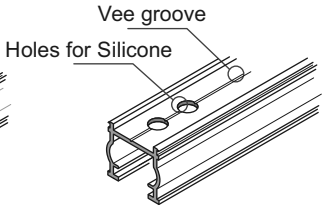
Infill Clip
Part No JET/215/5.8



Round Interlinking
Top Rail End Cap
Part No JET/231



Interlinking Top Rail Gasket
for 12 mmToughened Glass
Part No JET /Gasket 12/2.9



Interlinking Top Rail Gasket
for 15 mmToughened Glass
Part No JET /Gasket 15/2.9

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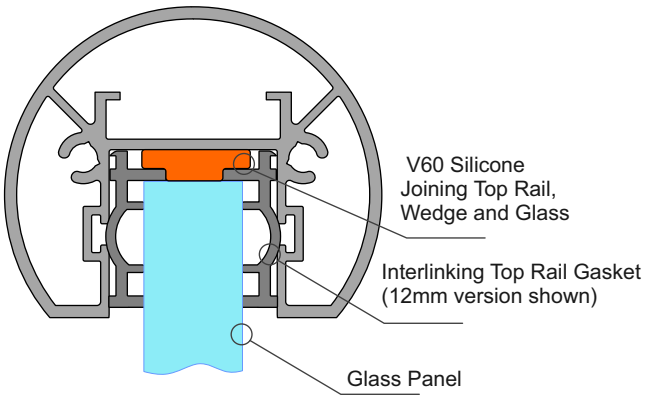
1 - 12mm Glass and Gasket

Application Notes:
- Cut short lengths of Gasket (50mm) and place say every 700mm.
- Cut/adjust Interlinking rail to correct dimensions, test in place.
- Remove all, install full cut lengths of Gasket to glass top edge

- Assemble Top Rail + Joiners and suitable End plates

- Place blobs of V60 silicone in every Gasket hole
- Then place Top Rail extrusion + Joiners and End plates in place
  clipping firmly to Gasket
- Tape all down, wait 24 hrs to fully bond. Clean up.

Note: Ends must be attached to structure or post,
- Joins must have a suitable joiner plate



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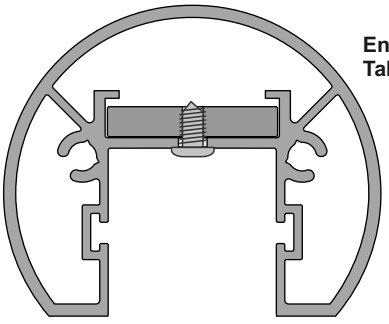
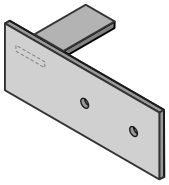
2 - End Plate Brackets

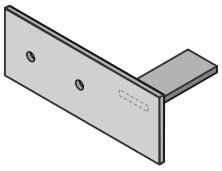


End Plate
Tabs all 22.5 x 4mm SS.

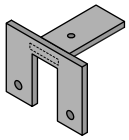
End Plates: (After cutting extrusions to length)
- With End Plate in place, spot drill from below for position
- Drill out to SS tab to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive Screw, 2 per plate
- End Plate must be securely attached to Post or structure.



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40LH



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40RH

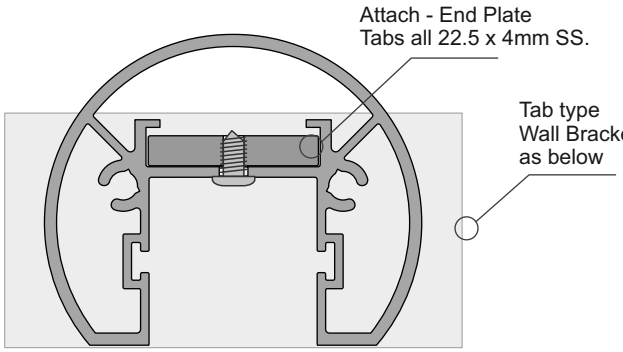


Interlinking Top Rail
End Bracket
SS. 60mm x 46mm
JET 42

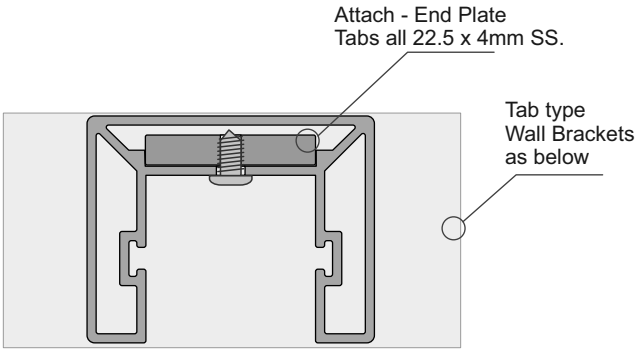
Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

Juralco 38mm Rectangular and 50mm Round Interlinking Top Rail - End Bracket Attachments

Applies to 38mm Rectangular and 50mm Round InterlinkingTop Rails only

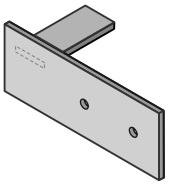


Round Interlinking Top Rail Extrusion
JET/211/5.8

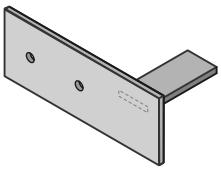


Interlinking Top Rail Extrusion
JET/220/5.8

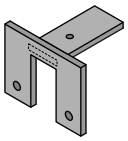
Interlinking Top Rail End Bracket Options - Both types above - Tab attach Type



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40LH



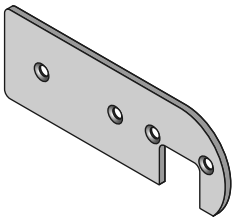
Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40RH



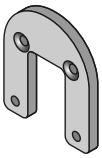
Interlinking Top Rail
End Bracket
SS. 60mm x 46mm
JET 42

Tabs all 22.5 x 4mm SS.
Front faces all 3mm SS

Interlinking Top Rail End Bracket Options - Round Type only - Attach into Screw ports



Interlinking Top Rail
Wall type offset End Plate
Round Rail type only
120x42x3mm, Al
C/s both sides = RH or LH
JET 233



Interlinking Top Rail
Wall type End Plate
Round Rail type only
50x58x5mm, Al
JET 232

General Notes:

- All fixings to be Stainless Steel
- PVC Tape layer between Structure and Bracket
- ULS Point load N* = 0.9kN, inwards, outwards or down and in tension

Note : **Fixing to Steel**
- use 2 off 8g SS TEK Screws or M6 SS Bolts
- Steel 2mm min thickness
- Steel 300MPA minimum
- 15mm min distance to any Edges

Note : **Fixing to Timber Wall**
- use 2 off 8g SS Screws, 35mm min into studs.
- use Sika Supergrip 2hr
- 30mm min distance to Horizontal Edge
- If Weatherboard use suitable predrilled Wedge
- Timber stud wall to be designed and detailed in accordance with NZS 1720.1:2002 Tiimber Structures Part 1 - Design methods or NZS3604

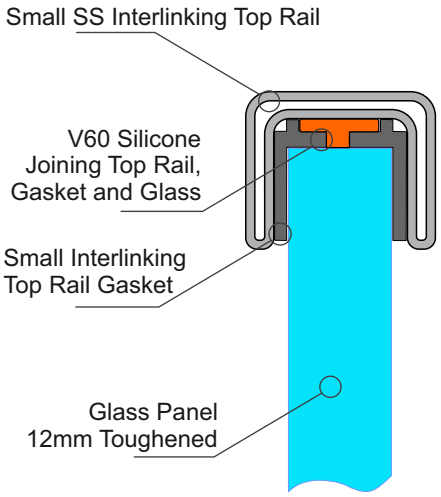
Note : **Fixing to Juralco EDGE Post**
- use 2 off 8g x 25 SS PK Screws

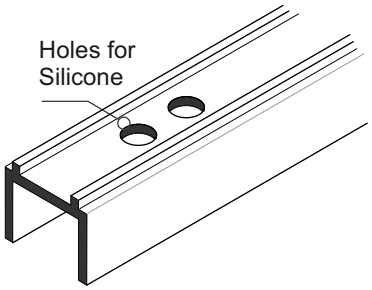
Note : **Fixing to Concrete Wall**
- use 2 off M6 x70 SS Screw Anchors
- Solid Concrete min 20Mpa
- Block wall Concrete filled/Reinforced
- 140mm min Wall thickness
- 70mm min distance to Horizontal Edge
- 100mm min distance to Vertical Edge
- Blockwork wall must be corefilled /reinforced and is to be designed and detailed in accordance with NZ4230 or NZ4229

Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

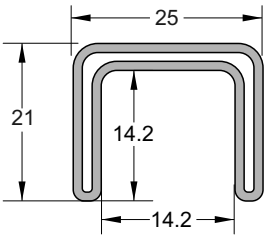
This page applies to 12mm Toughened Glass only

25mm SS Interlinking Top Rail





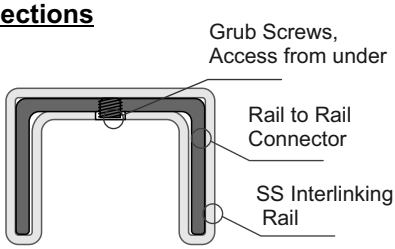
SMALL SS INTERLINKING
TOP RAIL GASKET
JET/490GT/12/2.9 (Black)

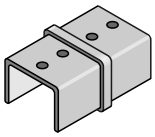


SMALL SS INTERLINKING TOP RAIL
JET/490/5.8/SSS JET/490/5.8/SCC
Duplex 2205

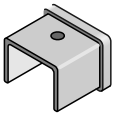
25mm SS Interlinking Rail Connections

Note : All these Brackets use M5 x 6 SS Grub Screws.
If necessary these holes must be Drilled + tapped M5, as shown.
The underside of the Interlinking Rail must be drilled
M6 to match M5 tapped holes positions, for access to Grub screws
- Joins, where required must be at the end of Glass Panels
Available as Satin(SSS) or Powdercoated SCC finishes

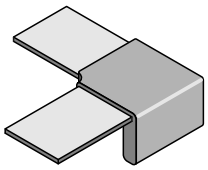




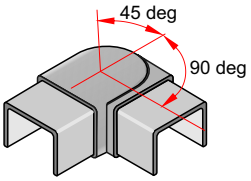
180deg INLINE JOINER
Duplex 2205
JET491/SSS JET491/SCC
21mm x 25mm x 51mm deep



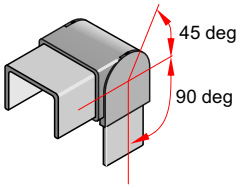
END CAP Duplex 2205
JET492/SSS JET492/SCC
21mm x 25mm x 25mm deep



90deg JOINER Duplex 2205
JET493/SSS JET493/SCC
21mm x 80mm x 80mm



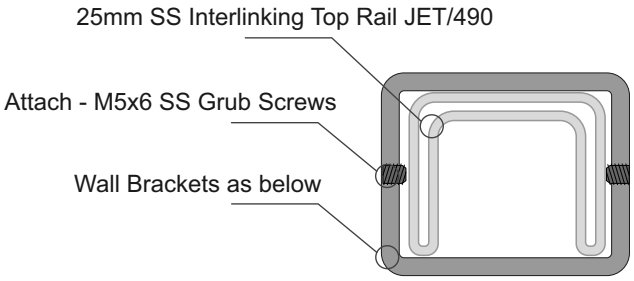
+90 to - 45 deg ADJUSTABLE HORIZONTAL JOINER Duplex 2205
JET494/SSS JET494/SCC
21mm x25mm x 75mm overall deep



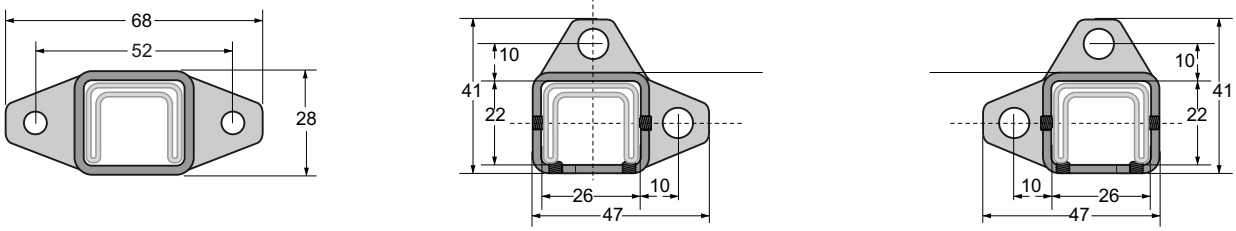
+90 to - 45 deg ADJUSTABLE VERTICAL JOINER Duplex 2205
JET495/SSS JET495/SCC
21mm x25mm x 73mm overall deep

Juralco 25mm SS Interlinking Top Rail - End Brackets

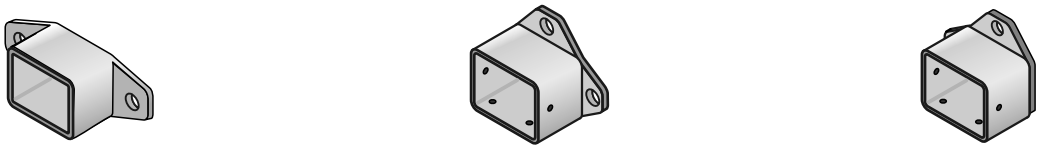
This page applies to 12mm Toughened Glass only



Brackets for Fixing to Wall or End Post for 25mm SS Interlinking Rail



Note : All these Brackets use M5x6mm SS Grub Screws



WALL BRACKET Duplex 2205
JET496/SSS JET/496/SCC
68mm x 28mm x 30mm deep

WALL BRACKET - RH. Duplec 2205
JET497/RH/SSS JET497/RH/SCC
41mm x 47mm x 30mm deep

WALL BRACKET - LH Duplex 2205
JET497/LH/SSS JET497/RH/SCC
41mm x 47mm x 30mm deep

General Notes:

- All fixings to be Stainless Steel.
- PVC Tape layer between Structure and Bracket
- ULS Point load N* = 0.9kN, inwards, outwards or down and in tension

Note : **Fixing to Steel**
- use 2 off 8g SS TEK Screws or M6 SS Bolts
- Steel 2mm min thickness
- Steel 300MPA minimum
- 15mm min distance to any Edges

Note : **Fixing to Timber Wall**
- use 2 off 8g SS Screws, 35mm min into studs.
- use Sika Supergrip 2hr
- 30mm min distance to Horizontal Edge
- If Weatherboard use suitable predrilled Wedge
- Timber stud wall to be designed and detailed in accordance with NZS 1720.1:2002 Timber Structures Part 1 - Design methods or NZS3604

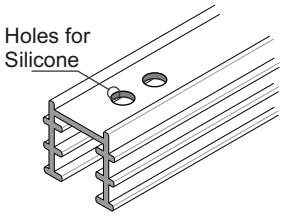
Note : **Fixing to Juralco EDGE Post**
- use 2 off 8g x 25 SS PK Screws

Note : **Fixing to Concrete Wall**
- use 2 off M6 x70 SS Screw Anchors
- Solid Concrete min 20Mpa
- Block wall Concrete filled/Reinforced
- 140mm min Wall thickness
- 70mm min distance to Horizontal Edge
- 100mm min distance to Vertical Edge
- Blockwork wall must be corefilled /reinforced and is to be designed and detailed in accordance with NZ4230 or NZ4229

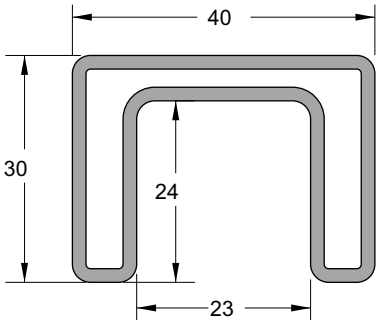
Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

Juralco 40mm SS Interlinking Top Rail

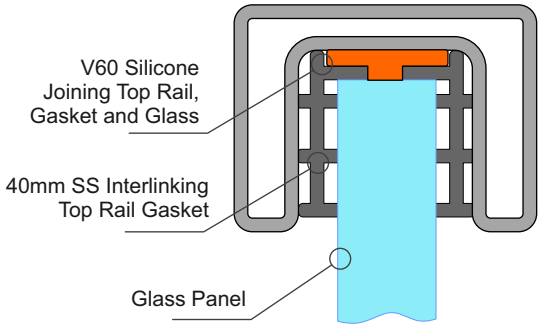
Suitable for 12 - 15mm Glass



SS Interlinking Top Rail
12mm Glass Gasket
JET/430GT/12/2.9



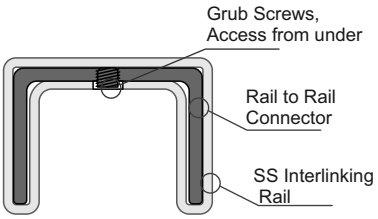
SS INTERLINKING TOP RAIL
JET/430/PSS/5.8

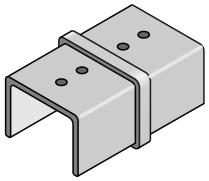


V60 Silicone sealant

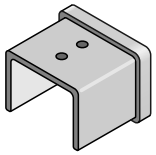
40mm SS Interlinking Rail Connectiors

Note : All these Brackets use M5 x 6 SS Grub Screws.
If necessary these holes must be Drilled + tapped M5, as shown.
The under side of the Interlinking Rail must be drilled
M6/7 to match M5 tapped holes positions, for access to Grub screws
- Joins, where required must be at the end of Glass Panels

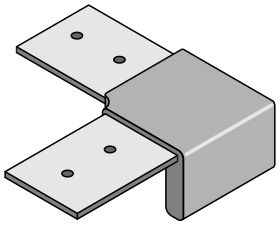




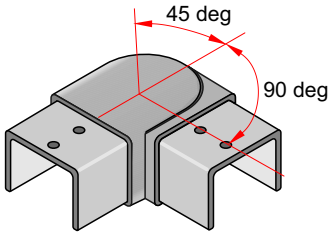
180deg INLINE JOINER 2205
JET/431/PSS
60mm x 40mm x 30mm deep



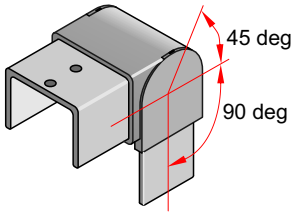
END CAP 2205
JET/432/PSS
33mm x 40mm x 30mm deep



90deg JOINER 2205
JET/433/PSS
95mm x 95mm x 30mm deep



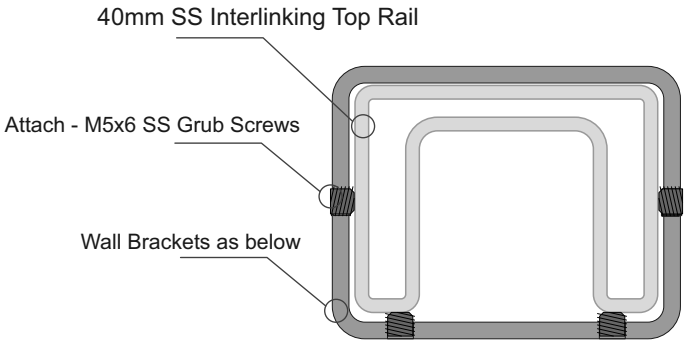
+90 to - 45 deg ADJUSTABLE
HORIZONTAL JOINER 2205
JET/434/PSS
70mm x 70mm x 30mm deep



+90 to - 45 deg ADJUSTABLE
VERTICAL JOINER 2205
JET/435/PSS
60mm x 60mm x 40mm wide

Juralco 40mm SS Interlinking Top Rail - End Brackets

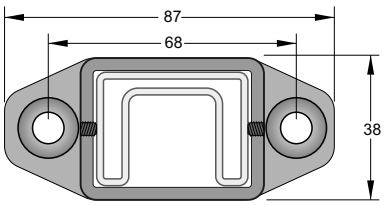
This page applies to 12mm Toughened Glass only

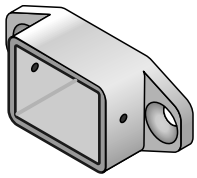


SS INTERLINKING TOP RAIL
Part No JET/430/PSS/5.8

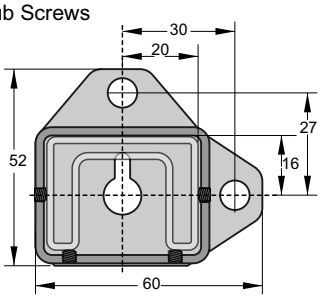
Brackets for Fixing to Wall or End Post for 40mm SS Interlinking Rail

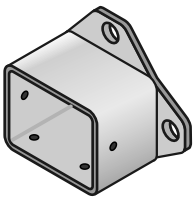
Note : All these Brackets use M5 x 8mm SS Grub Screws



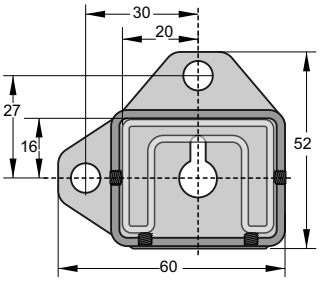


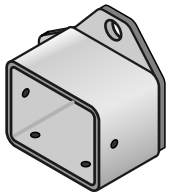
WALL BRACKET 2 FIX 2205
Part No JET/436/PSS
87mm x 37mm x 25mm deep





WALL BRACKET 2 FIX - RH 2205
Part No JET/437/RH/PSS
52mm x 60mm x 33mm deep





WALL BRACKET 2 FIX - LH 2205
Part No JET/437/LH/PSS
52mm x 60mm x 33mm deep

General Notes:

- All fixings to be Stainless Steel - PVC Tape layer between Structure and Bracket
- ULS Point load N* = 0.9kN, inwards, outwards or down and in tension

Note : **Fixing to Steel**
- use 2 off 8g SS TEK Screws or M6 SS Bolts
- Steel 2mm min thickness
- Steel 300MPA minimum
- 15mm min distance to any Edges

Note : **Fixing to Timber Wall**
- use 2 off 8g SS Screws, 35mm min into studs.
- use Sika Supergrip 2hr
- 30mm min distance to Horizontal Edge
- If Weatherboard use suitable predrilled Wedge
- Timber stud wall to be designed and detailed in accordance with NZ3603 or NZ3604

Note : **Fixing to Juralco EDGE Post**
- use 2 off 8g x 25 SS PK Screws

Note : **Fixing to Concrete Wall**
- use 2 off M6 x70 SS Screw Anchors
- Solid Concrete min 20Mpa
- Block wall Concrete filled/Reinforced
- 140mm min Wall thickness
- 70mm min distance to Horizontal Edge
- 100mm min distance to Vertical Edge
- Blockwork wall must be corefilled /reinforced and is to be designed and detailed in accordance with NZ4230 or NZ4229

Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

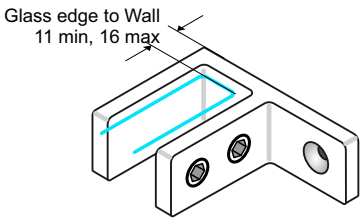
Juralco Glass Panel Stiffener Brackets

Suitable for 12-15mm Glass

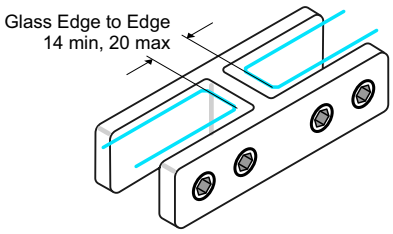
Recommended use:
- SentryGlas Balustrades above 1050mm
- Pool Fencing

Top Edge, Frameless Glass Stiffeners.

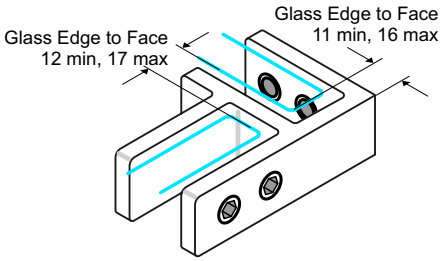
- Install 200mm max from Glass Top edge
- Supplied as a kit, with screws, a variety of Gaskets and a SS clamp Plate
- Duplex 2205 SS construction. Polished (PSS), Satin (SSS) or Powder coat SCC Finishes



90 Deg Glass to Wall
75x505x25mm
Part No JET/72/PSS
Part No JET/72/SSS
Part No JET/72/SCC

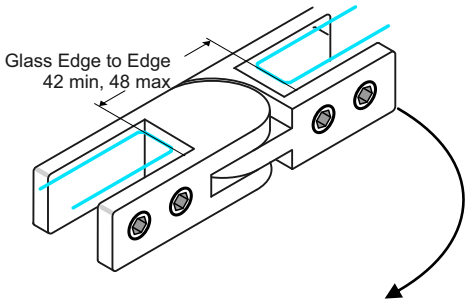


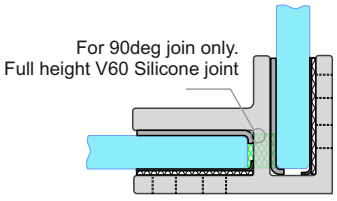
180 Deg Glass to Glass
70x34x25mm
Part No JET/71/PSS
Part No JET/71/SSS
Part No JET/71/SCC



90 deg Glass to Glass
65x55x25mm
Part No JET/70/PSS
Part No JET/70/SSS
Part No JET/70/SCC

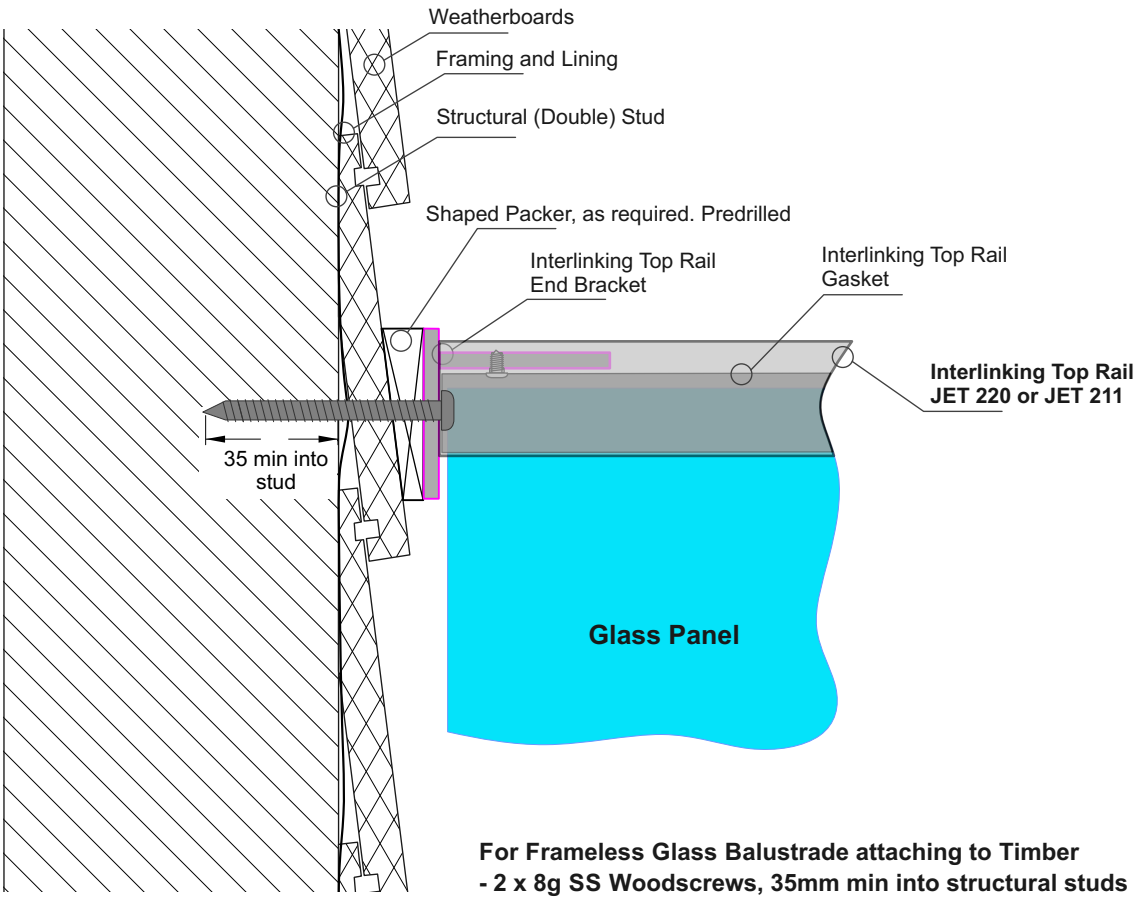
90 - 180 Deg
Adjustable Glass to Glass
135x34x25mm
Part No JET/73/PSS
Part No JET/73/SSS
Part No JET/73/SCC





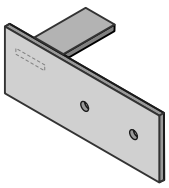
Juralco Interlinking Top Rail End Bracket fixing to a Timber Wall

Applies to 38mm Rectangular and 50mm Round InterlinkingTop Rails only

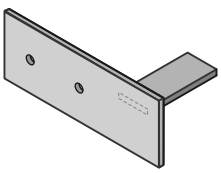


For Frameless Glass Balustrade attaching to Timber
- 2 x 8g SS Woodscrews, 35mm min into structural studs
- 20mm min to edge of stud in all directions

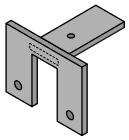
Interlinking Top Rail End Bracket Options - Drawing above shows JET40



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40LH



Interlinking Top Rail
Wall type End Plate
SS. 120x45mm
JET 40RH

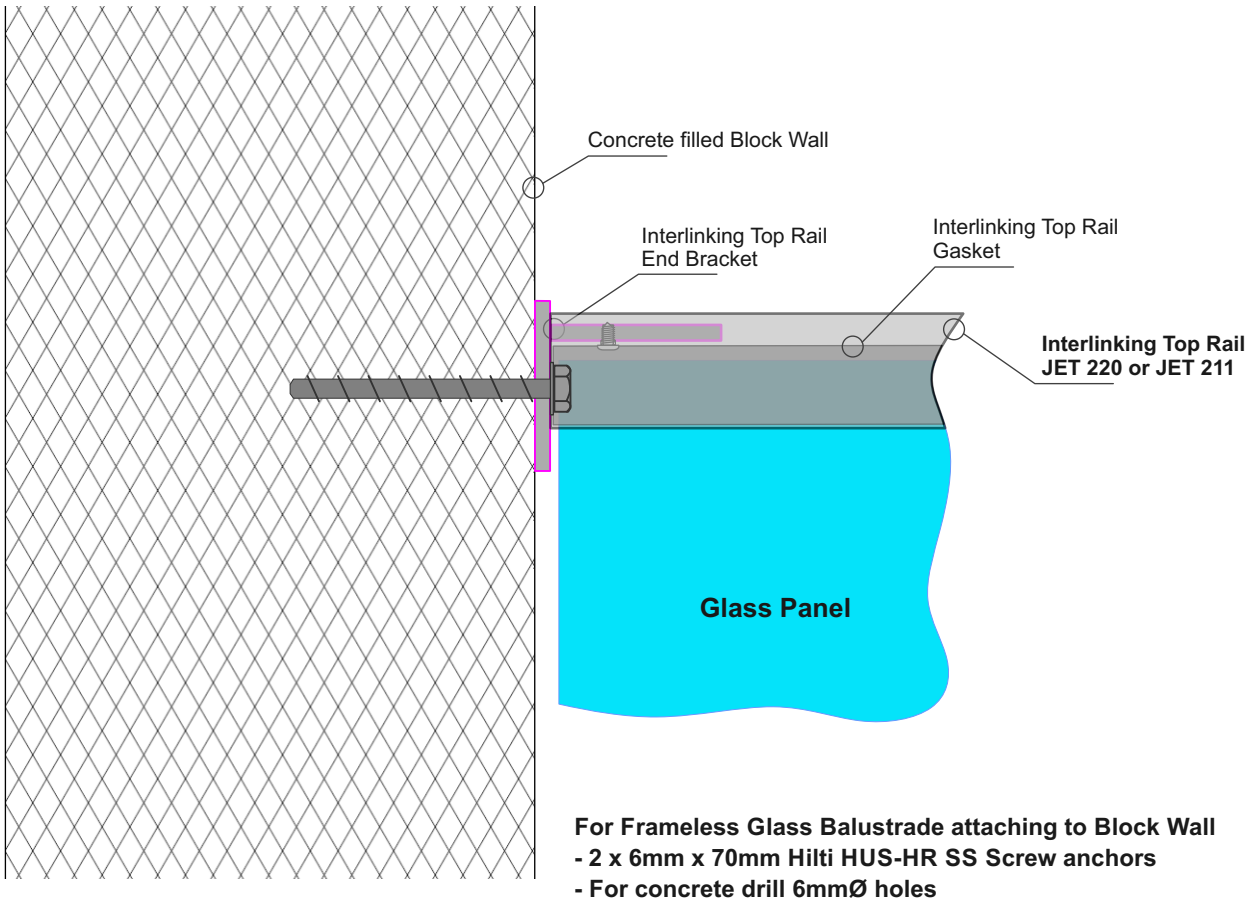


Interlinking Top Rail
End Bracket
SS. 60mm x 46mm
Part No JET 42

Notes:
- All fixings to be stainless steel
- Timber stud wall to be designed by Project structural engineer for loads imposed by Balustrade.
- ULS Point load N* = 0.9kN, inwards, outwards or down.
- Minimum Stud size = 90mm x 45mm
- Minimum Timber grade = SgG8
- Timber stud wall to be designed and detailed in accordance with NZS 1720.1:2002 Timber Structures Part 1 - Design methods or NZS3604

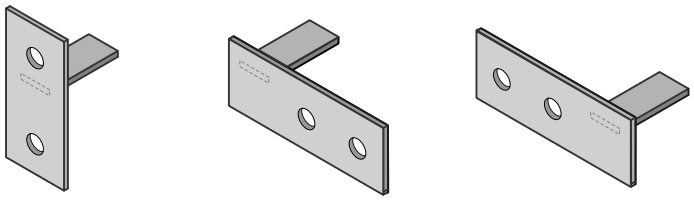
Juralco Interlinking Top Rail End Bracket fixing to a Concrete Wall

Applies to 38mm Rectangular and 50mm Round InterlinkingTop Rails only



For Frameless Glass Balustrade attaching to Block Wall
- 2 x 6mm x 70mm Hilti HUS-HR SS Screw anchors
- For concrete drill 6mmØ holes
- 70mm min to side edge of concrete, 100mm to top edge.

Interlinking Top Rail End Bracket Options - Drawing above shows JET40



Interlinking Top Rail Wall type End Plate SS. 100x45mm JET 38

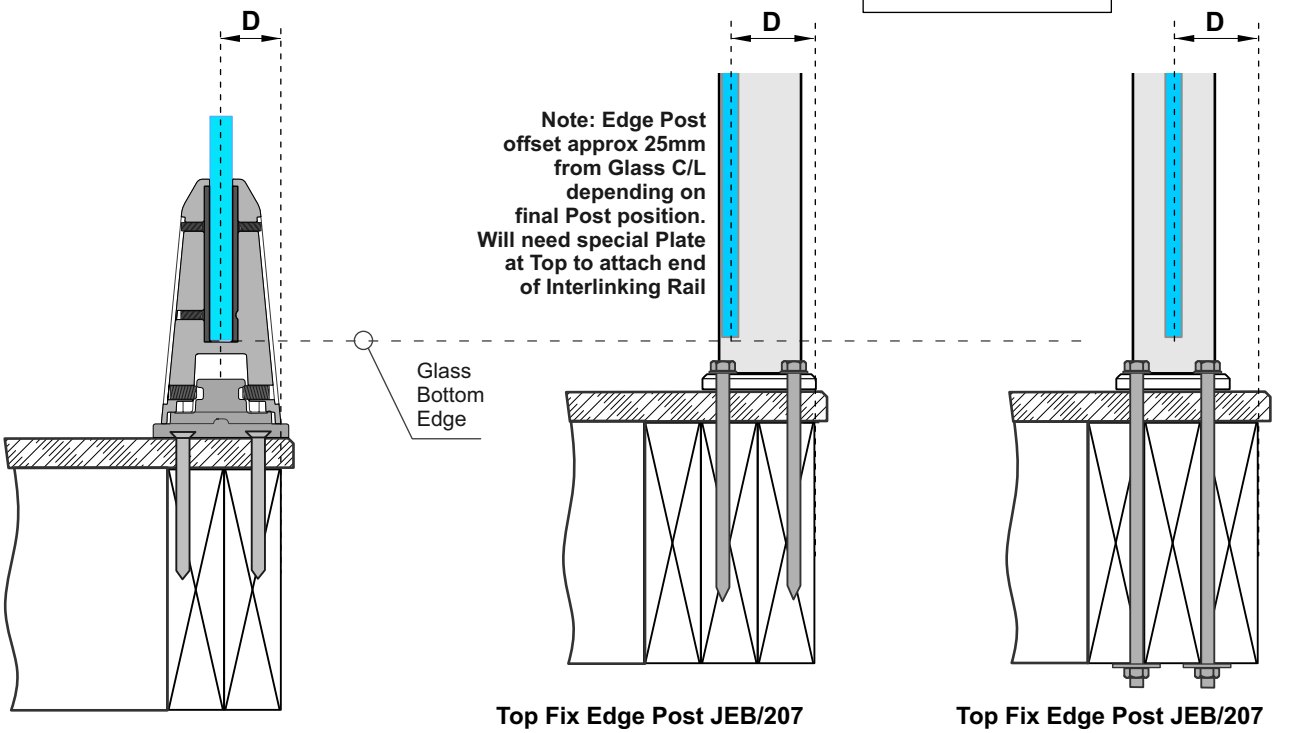
Interlinking Top Rail Wall type End Plate SS. 120x45mm JET 40LH

Interlinking Top Rail Wall type End Plate SS. 120x45mm JET 40RH

Drill out holes to 9mmØ

Notes:
- All fixings to be stainless steel
- Blockwall to be designed by Project structural engineer for loads imposed by Balustrade.
- ULS Point load N* = 0.9kN, inwards, outwards or down.
- Minimum blockwork thickness = 140mm
- Minimum core fill concrete strength = 17.5MPa
- Blockwork wall must be corefilled /reinforced and is to be designed and detailed in accordance with NZ4230 or NZ4229

Applies to InterlinkingTop Rails suitable for 12mm Toughened Glass

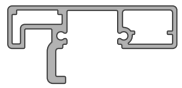


Matador Series II MiniPost

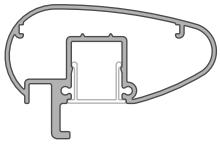
Top Fix Edge Post JEB/207 as an End Post + Coachscrews Using a Top Rail + End Brackets

Top Fix Edge Post JEB/207 as an End Post + Bolts Using a Top Rail + End Brackets

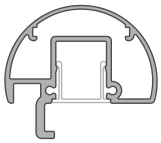
Juralco Interlinking Rails



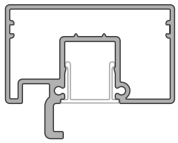
INTERLINKING RAIL
JEB/222/5.8



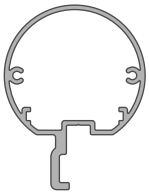
AEROFOIL HANDRAIL
JEB/217/5.8



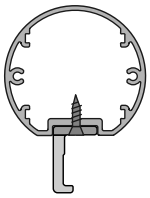
ROUND HANDRAIL
JEB/209/5.8



RECTANGULAR
HANDRAIL
JEB/216/5.8



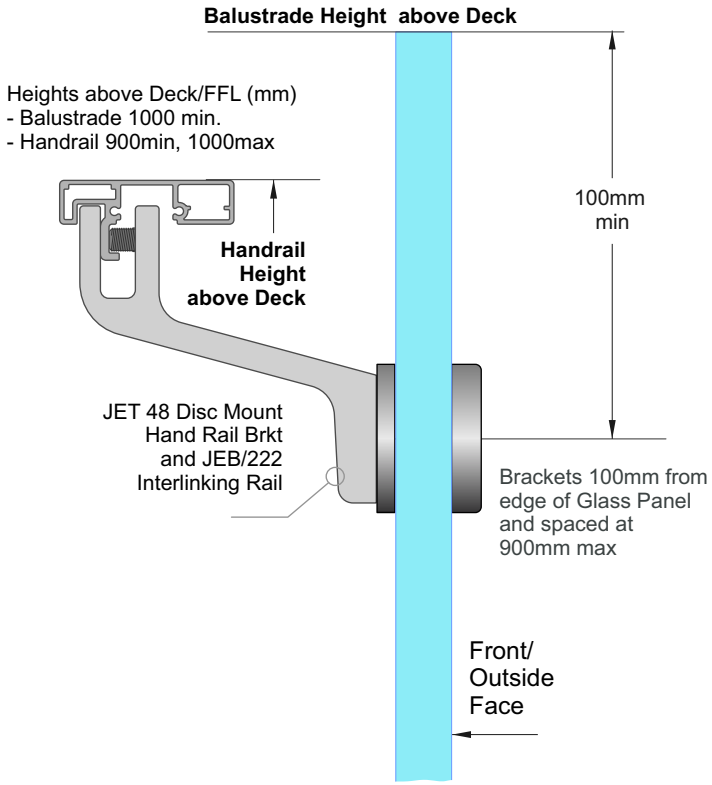
CIRCULAR
HANDRAIL
JEB/221/5.8



CIRCULAR
HANDRAIL
JEB/223/5.8
+ Clip JEC38

Suitable Interlinking Rail and Handrails (as Interlinking Rails)

Interlinking or Handrails on Deck side.



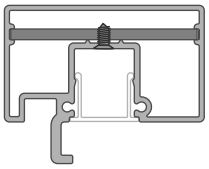
Frameless Glass Systems
Infinity, Double and Single Disc,
MiniPost, Matador Mini Post
and JH Clamp

Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets. Applies to Handrails used as Interlinking Rails

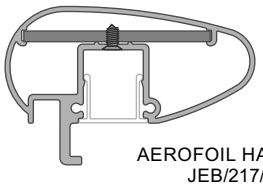
Juralco Handrail Components - Joiners

Rectangular Handrails and 75mm Aerofoil - End Cap, Straight and 90deg corners

All ex 3mm Aluminium



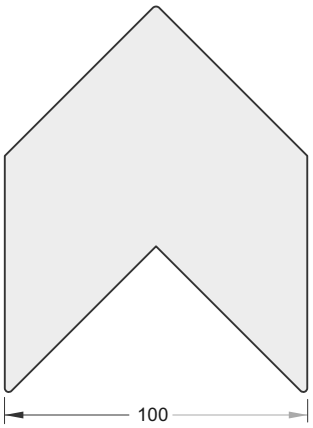
RECTANGULAR HANDRAIL
JEB/216/5.8



AEROFOIL HANDRAIL
JEB/217/5.8

Rectangular and 75m Aerofoil Inline Joiner
Use 56.5 x 3 flat bar JA/189/5.0

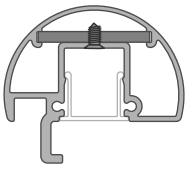
Use No6 x 1/4in SS pan sq drive screws, 2 ea side of joint



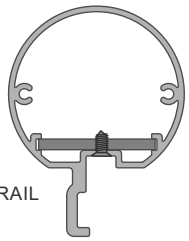
Rectangular and 75m Aerofoil
90deg Corner Joiner JEC 01

Round and Circular Handrail, End Cap, Straight and 90deg corners

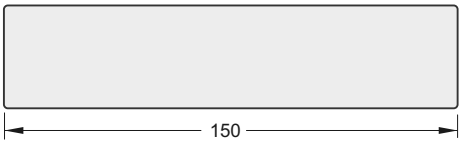
All ex 3mm Aluminium



ROUND HANDRAIL
JEB/209/5.8

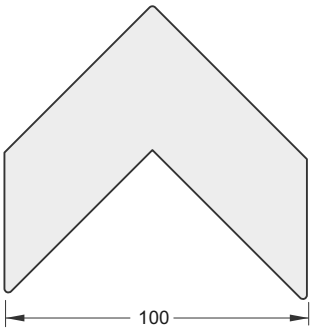


CIRCULAR HANDRAIL
JEB/221/5.8



Round and Circular Inline Joiner
Use 34.0 x 3 flat bar JA/188/5.0

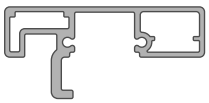
Use No6 x 1/4in SS pan sq drive screws, 2 ea side of joint



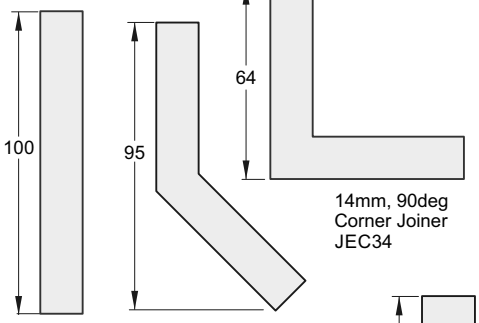
Round and Circular 90deg Corner Joiner
JEC 04

Interlinking Rail End Cap, Straight 135 deg and 90deg corners

All ex 3mm Aluminium



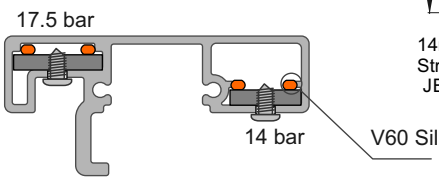
STANDARD HANDRAIL
JEB/222/5.8

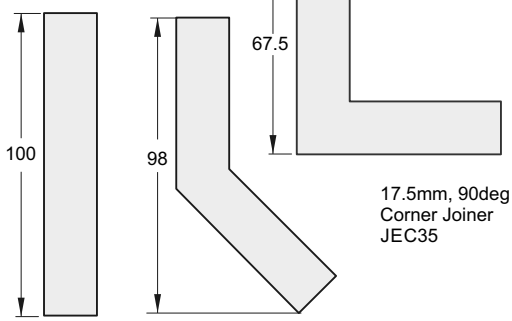


14mm, 90deg
Corner Joiner
JEC34

14mm
Straight Joiner
JEC32

14mm, 135deg
Corner Joiner
JEC36





17.5mm, 90deg
Corner Joiner
JEC35

17.5mm
Straight Joiner
JEC33

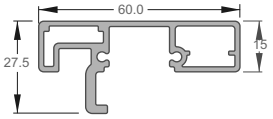
17.5mm, 135deg
Corner Joiner
JEC37

Joiners:
- With Joiner in place, spot drill from below for position
- Drill out joiner to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive screw
- Insert dobs of V60 Silicone inside cavities before inserting
- Both ends to be attached.
- Joins must be within 300mm of Post
- Minimum distance between screw and end of handrail is 10mm

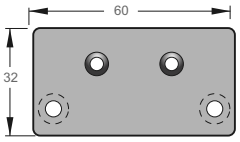
Juralco Handrail End Plates for Attaching to a Structure or Edge Deck mounted Post

End Caps for Handrails, Wall or Edge Post attach for JEB 222, 217, 209, 216 and 221 Handrails

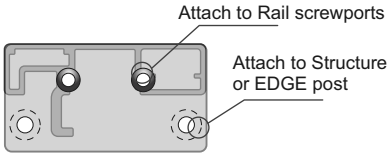
End Caps
all ex 3mm Aluminium



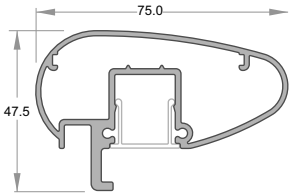
HANDRAIL
Part No JEB/222/5.8



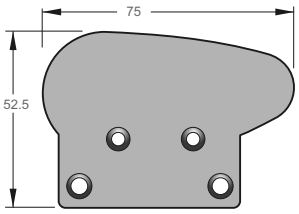
HANDRAIL
WALL ATTACH END PLATE
Part No JEC215/WC



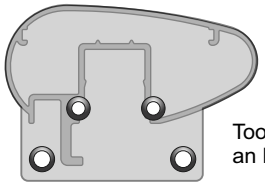
For RH and LH



AEROFOIL HANDRAIL
Part No JEB/217/5.8

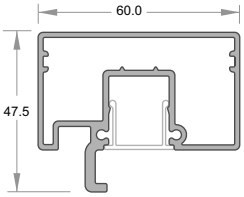


HANDRAIL
WALL ATTACH END PLATE
Part No JEC217/WC

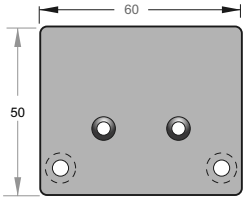


Too wide for
an EDGE Post

For RH and LH



RECTANGULAR
HANDRAIL
Part No JEB/216/5.8



HANDRAIL
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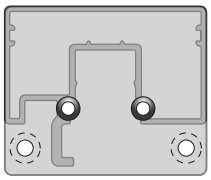
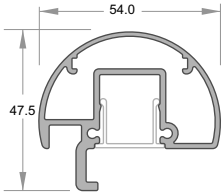
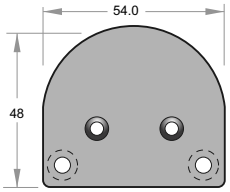
Part No JEC216/WC



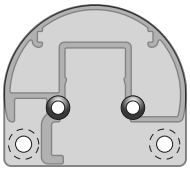
For RH and LH



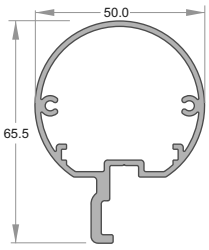
HALF ROUND HANDRAIL
Part No JEB/209/5.8



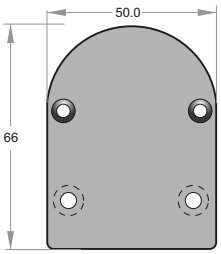
HANDRAIL
WALL ATTACH END PLATE
Part No JEC209/WC



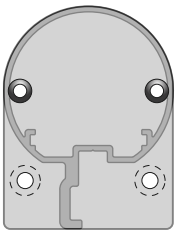
For RH and LH



CIRCULAR HANDRAIL
Part No JEB/221/5.8



HANDRAIL
WALL ATTACH END PLATE
Part No JEC221/WC



For RH and LH

General Notes: - All fixings to be Stainless Steel. - EPDM layer between Structure and End Cap
- ULS Point load N* = 0.9kN, inwards, outwards or down and in tension

Note : **Fixing to Steel**
- use 2 off 8g SS TEK Screws or M6 SS Bolts
- Steel 2mm min thickness
- Steel 300MPA minimum
- 15mm min distance to any Edges

Note : **Fixing to Timber Wall**
- use 2 off 8g SS Screws, 35mm min into studs.
- use Sika Supergrip 2hr
- 30mm min distance to Horizontal Edge
- If Weatherboard use suitable predrilled Wedge
- Timber stud wall to be designed and detailed in accordance with NZ3603 or NZ3604

Note : **Fixing to Juralco EDGE Post**
- use 2 off 8g x 25 SS PK Screws

Note : **Fixing to Concrete Wall**
- use 2 off M6 x70 SS Screw Anchors
- Solid Concrete min 20Mpa
- Block wall Concrete filled/Reinforced
- 140mm min Wall thickness
- 70mm min distance to Horizontal Edge
- 100mm min distance to Vertical Edge
- Blockwork wall must be corefilled /reinforced and is to be designed and detailed in accordance with NZ4230 or NZ4229

Glass Cleaning and Maintenance

Architectural glass products must be properly cleaned during the construction period so visual and aesthetic clarity are maintained. Because glass can be permanently damaged if improperly cleaned, glass producers and fabricators recommend strict compliance with the following procedures.

First, determine whether the glass is clear, tinted or reflective. Surface damage is more noticeable on reflective glass compared with the other glass products. If the reflective coated surface is exposed, either on the exterior or interior, special care must be taken when cleaning, as scratches can result in coating removal and a visible change in light transmittance. Cleaning tinted and reflective glass in direct sunlight should be avoided. Cleaning should begin at the top of the building and continue to the lower levels.

Commence cleaning by soaking the glass surfaces with clean water and a soap solution to loosen dirt or debris. Then, using a mild, non-abrasive commercial window washing solution, uniformly apply the solution to the glass surfaces with a non-abrasive applicator and follow with a squeegee to remove all of the cleaning solution from the glass surface.

Ensure that no metal parts of the cleaning equipment touch the glass surface and that no abrasive particles are trapped between the glass and the cleaning materials. All water and cleaning solution residue should be dried from the window gaskets, sealants and frames.

Scratches and Metal Scrapers

Scratches can occur from hard pointed objects or poor handling, but most often occurs from the careless removal of foreign matter from the glass surface.

Mortar splatter and paint are common offenders and efforts to remove after hardening almost always lead to surface damage. It is essential that the foreign materials are removed before they harden. Better still, if construction work continues after glazing, that the glazed areas are protected by adhesive plastic films or suitable tarpaulins or covers.

One of the common mistakes made by non-glass trades people, including glass cleaning contractors, is the use of razor blades or other metal scrapers on a large portion of the glass surface. Using large blades to scrape a window clean carries considerable risk of causing damage to the glass.

The glass industry, fabricators, distributors and installers neither condones nor recommends any scraping of glass surfaces with metal blades or knives. Such scraping usually permanently damages or scratches the glass surfaces. When paint or other construction materials cannot be removed with normal cleaning procedures, a new 25mm razor blade may have to be used. The razor blade should be used on small spots only. Cleaning should be done in one direction only. Never scrape in a back and forth motion as this could trap particles under the blade that could scratch the glass.

Blades or scrapers can dislodge “pickup” on toughened glass. There are fine particles of glass that are fused onto the surface during toughening. Once dislodged they can scratch the glass.

Glass Cleaning, Do’s and Don’ts

DO NOT..

- Do Not - Use Scrapers of any type or size on a Glass surface
- Do Not - Leave building dirt or residues to remain on Glass for a period of time.
- Do Not - Begin cleaning glass until you have identified the surface type.
- Do Not - Clean Glass surfaces in direct sunlight.
- Do Not - Allow dirty water or cleaning residues to remain on the Glass.
- Do Not - Begin cleaning before rinsing off a loose residues.
- Do Not - Use abrasive cleaning solutions, materials or solvents.
- Do Not - Allow metal parts of the cleaning equipment to come in contact with the Glass.
- Do Not - Trap abrasive particles between the cleaning material and the Glass.

DO...

- Clean glass promptly when dirt or building residues appear.
- Determine glass surface type.
- Exercise special care when cleaning coated surfaces.
- Avoid cleaning glass surfaces in direct sunlight.
- Start cleaning at the top of a building, then continue to lower levels.
- Soak the glass surface in a clean soapy solution before cleaning.
- Use a mild non abrasive commercial cleaner.
- Use a squeege to remove all cleaning solution.
- Try your procedures on a small window and check.
- Caution other trades re the care and protection of the glass surfaces.

Residues of surface grit may be present from the toughening production process.
These grit particles must not be dragged across the surface.
NEVER use Metal Scrapers

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Powder Coating Installation Care

Warning re use of solvents:
- In some cases strong solvents are recommended for thinning various types of paints and also for cleaning up mastics and sealants.
- These can be harmful to the extended life of the powder coated surface, and must not be used for cleaning purposes.
- It is important to note that the damage will not be visible immediately and may take up to l2 months to develop.

If paint splashes or sealants and mastics need to be removed then the following may be safely used:
Methylated Spirits, Ethyl Alcohol, Isopropanol or preferably a mild detergent in warm water.

Joinery Protection during Installation:
All the activity on a construction site means that your powder coated items may get knocked or scratched, splattered with mortar, plaster, textured coating or paint during the later stages of construction.

Please ensure that all powder coated articles are masked or covered at this time. It is far easier to prevent accidents than to try and correct them. Should your joinery receive mortar or paint splashes see that these are removed before cure and follow the instructions contained in this brochure.

Typical sticker used to warn other trades of the need to protect and mask off powder coated joinery (applies to anodised joinery also)

"IMPORTANT ALL TRADES"
This valuable aluminium joinery will suffer permanent damage from: plaster, mortar and paint splashes - Protect if splashes occur - Immediately wash down joinery with water or meths - Do not allow splashes to harden! ~ Do not use solvents! - Do not remove this label until final clean completed.

This photograph display damage that has occurred on site, post installation. The photo of the masked joinery displays clear signs of damage that could have occurred were it not masked. Please ensure that your joinery is protected right through the entire construction process.

Powder Coating Maintenance

External - Maintenance Program:
To extend the life of external powder coated articles and to comply with warranty requirements for powder coated aluminium joinery, a simple, regular maintenance program must be implemented.
The effects of ultra violet light, atmospheric pollution, dirt, grime and airborne salt deposits will all accumulate over time and must be removed or surface staining and weathering will occur, leading to an unsightly appearance.

For external coatings, cleaning should take place every six months. In areas where pollutants are more prevalent, such as beachfront houses and industrial or geothermal areas, then a cleaning program should be carried out on a more frequent basis ie. every one to three months.

Fences or Balustrades in close proximity to swimming pools must be washed down every six months, to clean off chlorine and salt deposits.

Cleaning your powder coating:
1. Carefully remove any loose surface deposits with a wet sponge.
2. Use a soft brush (non abrasive) and a mild household detergent (do not use solvents) in warm water, remove dust, salt and other deposits.
3. Rinse off with clean fresh water.

Restoring weathered or scratched surfaces:
Repair of Scuffed or Scratched surfaces
Dulux Spray Cans are available in all colour card colours.

Repair of Small Scratches or Chips.
Dulux Dabsticks are ideally suited for the repair of small scratches.
Dabsticks may not be available in all colour card colours.

Repair of Weathered areas.
Dulux Gloss Up is a light to medium cutting cream ideally suited for gloss restoration and has been specifically designed for this purpose.
Gloss Up contains no waxes or silicone and is a one step system.

Contact Dulux Powder Coatings , ph 0064 9 441 8244

Care and Maintenance of Stainless Steel

Introduction

Stainless steels are selected for applications where their inherent corrosion resistance, strength and aesthetic appeal are required. However, dependent on the service conditions, stainless steels will stain and discolour due to surface deposits and so cannot be assumed to be completely maintenance-free. In order to achieve maximum corrosion resistance and aesthetic appeal, the surface of the stainless steel must be kept clean. Provided the grade of stainless steel and the surface finish are correctly selected, and cleaning schedules carried out on a regular basis, good performance and long service life will result.

For the correct selection of a Stainless Steel grade, with respect to Location, see Table below.

Factors affecting maintenance

Surface contamination and the formation of deposits on the surface of the stainless steel must be prevented. These deposits may be minute particles of iron or rust generated during construction. Industrial and even naturally occurring atmospheric conditions can produce deposits which can be equally corrosive, e.g. salt deposits from marine conditions.

Working environments can also provide aggressive conditions such as heat and humidity in swimming pool buildings. These conditions can result in surface discolouration of stainless steels and so maintenance on a more frequent basis may be required.

Modern processes use many cleaners, sterilizers and bleaches for hygienic purposes. Proprietary solutions, when used in accordance with makers' instructions, should be safe but if used incorrectly (e.g. warm or concentrated), may cause discolouration or corrosion on stainless steels. Strong acid solutions are sometimes used to clean masonry and tiling of buildings. These acids should never be used where contact with metals, including stainless steel, is possible. If this happens, the acid solution must be removed immediately, followed by dilution and rinsing with clean water.

Stainless Steel Cleaning After Installation

During the installation process finger marks, particle transfers from tools and other building site contaminants may end up being left on the surface of the fittings. These contaminants will allow corrosive elements to stick to the outside of the product increasing the opportunity for brownish spots otherwise known as "tea staining" to occur on the surface.

We recommend after installation to wipe clean the Stainless Steel fittings with either warm soapy water or as small amount of WD40 Multi Use Product applied first to a rag. Take care when cleaning brushed stainless steel to always wipe in the direction of the grain and always remove any cleaning product residue from the glass before finishing up.

Maintenance programme

With care taken during fabrication and installation, cleaning before 'hand-over' should not present any problems. More attention may be required if the installation period has been prolonged or hand-over delayed. Where surface contamination is suspected, immediate cleaning after site fixing should avoid problems later.

The frequency of cleaning is dependent on the application. This may vary from once to four times a year for external applications, Recommendations on cleaning frequencies in architectural applications are shown below.

Cleaning frequency

<table>
<tr><td colspan="3">Reccommended Cleaning for various grades of Stainless Steel</td></tr>
<tr><td>Location</td><td>304 Grade</td><td>316 Duplex 2205 Grade</td></tr>
<tr><td>Surbarban or Rural</td><td colspan="2">Clean at 6-12mth intervals or as necessary</td></tr>
<tr><td>Industrial or Urban</td><td>Clean at 3-6mth intervals</td><td rowspan="2">Clean at 6-12mth intervals</td></tr>
<tr><td>Coastal or Marine</td><td>Not recommended</td></tr>
</table>