

ISSUE 7-24 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, shutters and awnings, shower screens, wardrobe doors and organisers and internal doors.

The Juralco Edgetec® Double Disc Anchor Balustrade system is designed for Frameless Glass, from 12mm to 17.52mm, Faced fixed and for Residential or Commercial use. The system is extremely versatile and can be made in a range of configurations to suit most modern architectural requirements.

- Juralco Edgetec® Double Disc Anchor Balustrade System
- Glass Panels from 12mm Toughened Safety Glass to 17.52mm SentryGlas
- Discs spaced at horizontally 300mm or 400mm depending on Wind Zone
- Disc centres standard at 110mm.
- Simple installation. Allows horizontal and vertical glass adjustment.



Edgetec Double Disc Satin Black, Square Trim with Top Interlinking Rail

- Tested to NZ standard NZS4203 and NZS1170
- Conforms to NZS4223.3.2016
- Top Interlinking Rail to conform to NZS4223.3.2016
- Balustrade options up to Very High, and Free Standing Pool Fence options up to Extra High Wind Zones



Edgetec Double Disc SS, C/S screw fixings with Top Interlinking Rail



Edgetec Double Disc Satin Black, hidden fixings with Top Interlinking Rail



Edgetec Double Disc SS, C/S screw fixings with Top Interlinking Rail

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

### Double Disc Balustrade is for Domestic and Residential Occupancy types A, A Other and C3 and for Commercial Occupancy Types B, E and C3 Occupancy Types as per AS/NZ 1170.1.2002. <u>Not suitable for Commercial C1/C2, C5 and D</u> applications

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 balconiesand edges of roofs. (see C3)	Residential,12mm Toughened Glass, 15.2mm Laminated Safety Glass 13.52 Laminated SentryGlas
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.	Commercial,15mm Toughened Glass, 17.2mm Laminated Safety Glass 17.52 Laminated SentryGlas
A Other, C3	Areas without obstacles for moving people and not susceptible to over crowding	Stairs, landings, external balconies, edges of roofs etc.	Residential or Commercial as detailed above

### Note 1 All for 12mm or 15mm Toughened Glass, 15.2mm or 17.2mm Laminated Glass and 13.52mm or 17.52mm SentryGlas All edges polished, all Holes to be smooth and chip and crack free

Note 2	Juralco Balustrade Systems building code compliance documentation requires all balustrade installations are to be completed in accordance with the requirements of our authorised installer certification.					
Note 3	All Frameless glass balustrades, except for SentryGlas must have an Interlinking Rail to conform to NZS 4223.3.2016 Not Required for Swimming Pools					
Note 4	The Dulux powder coating warranty period is conditional upon the Balustrade being maintained in accordance with the					
	Dulux 'Care and Maintenance Instructions'. See Warnings concerning Coastal conditions.					
	Contact your balustrade installer for a copy of the Care and Maintenance procedure.					

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# Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System - Specifications, Powder Coating Juralco Aluminium Building Products Ltd (JABP)

### Specifications for Juralco Edgetec® Double Disc Anchor Balustrade System

### 1. Scope

- This specification details the documents the Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System refers to in relation to the New Zealand Building Code, the manufacturer's documents, products used in the System, requirements in relation to fixing and surface finishing.

#### 2. NZBC Compliance

- The Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System has been tested by Lautrec Technology Group Ltd to demonstrate compliance with the structural requirements of the New Zealand Building Code and AS/NZS 1170 : 2002 occupancy A, A Other and C3. Options for Low, Medium, High, Very High and Extra High Wind Zones for Balustrades connected to buildings meeting the scope of NZS3604. Options for Very High and Extra High Wind Zones for free standing Pool fences, not protecting a fall of 1.0m or more.
- The Structural Engineering design includes the requirements of B1 Structure, B2 Durability, F2 Hazardous material and F4 Safety from falling, all from the Building Code.
- Verification Method B1 / VM1, B2/AS1, F4 / AS1
- All glass used in the Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System must conform to AS/NZS 2208.
- Complies with NZS4223.3.2016

#### 3. Manufacturer's Documents

- The Juralco Edgetec<sup>®</sup> Double Disc Anchor 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 . Enquires to Juralco PS1 for assistance.

#### 4. Products

- Only extrusions, components and hardware supplied by or specified by JABP may be used in the Juralco Edgetec^® Double Disc Anchor Balustrade System
- Aluminium extrusions, components and hardware unless specified are manufactured to 6060 T5 specifications
- Stainless Steel components, hardware, fixings all components to 316 grade
- Glass all glass used in the Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System must conform to the specifications as listed in the Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System manual with each panel conforming to AS/NZS2208 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Double Disc Anchor Balustrade System must only be installed in accordance with the Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System manual
- The Juralco Edgetec® Double Disc Anchor 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<sup>®</sup>. Also Duralloy<sup>®</sup> and Duratec<sup>®</sup>. All as per specs above. Juralco Powder coated prices are for Duralloy Plus<sup>®</sup> and Duralloy<sup>®</sup> (same pricing). Duratec<sup>®</sup> prices on application.

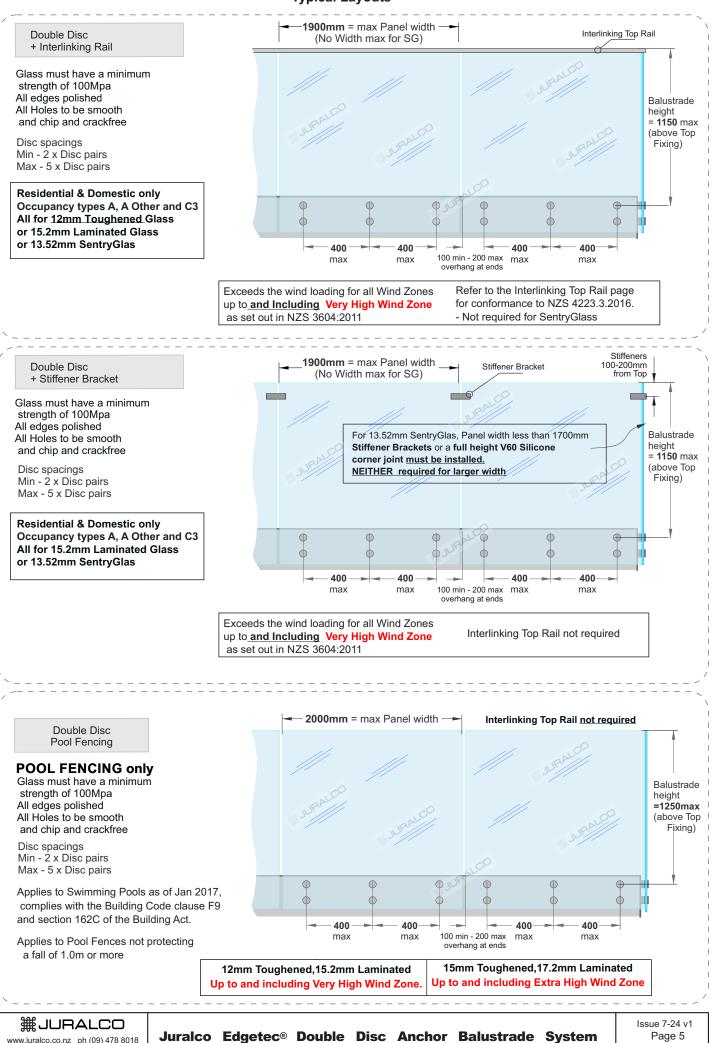
Attachment to structures A PVC Tape or similar material spacer must be used to separate powder coated aluminium items from all concrete and steel structures. Failure to do so can lead to the chemicals in the structure affecting the powder coating, leading to corrosion.

<u>Swimming Pools</u> 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

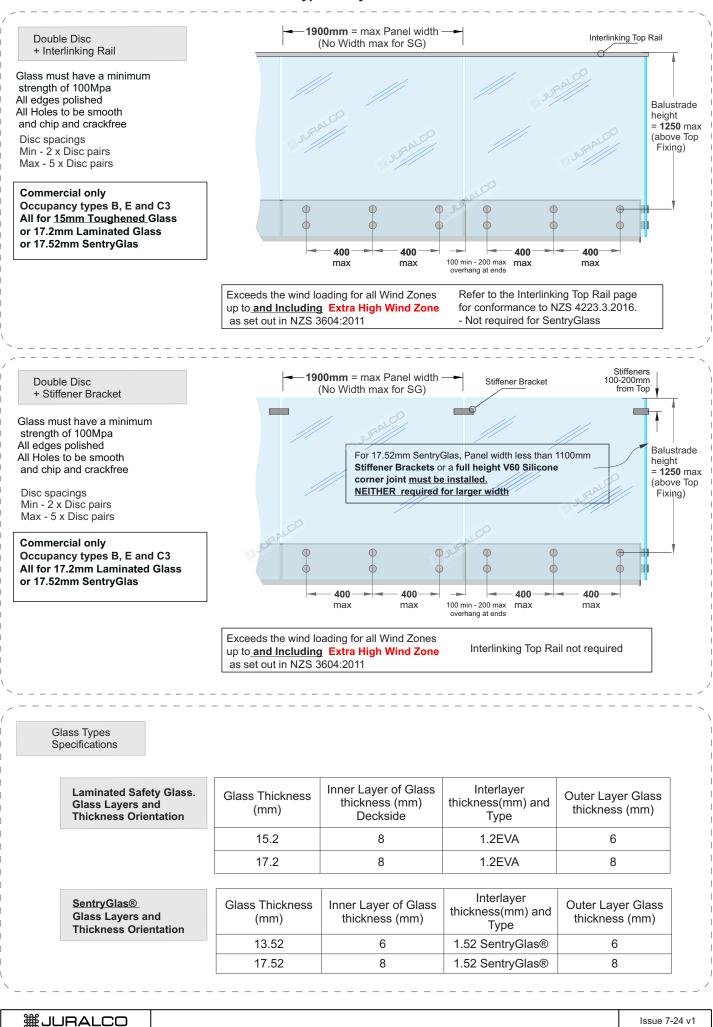
in accordance with the Dulux 'Care and Maintenance Instructions'. Download from Dulux or refer to the back page of this manual.

# Juralco Edgetec® Double Disc Anchor Balustrade System Typical Layouts



www.juralco.co.nz ph (09) 478 8018

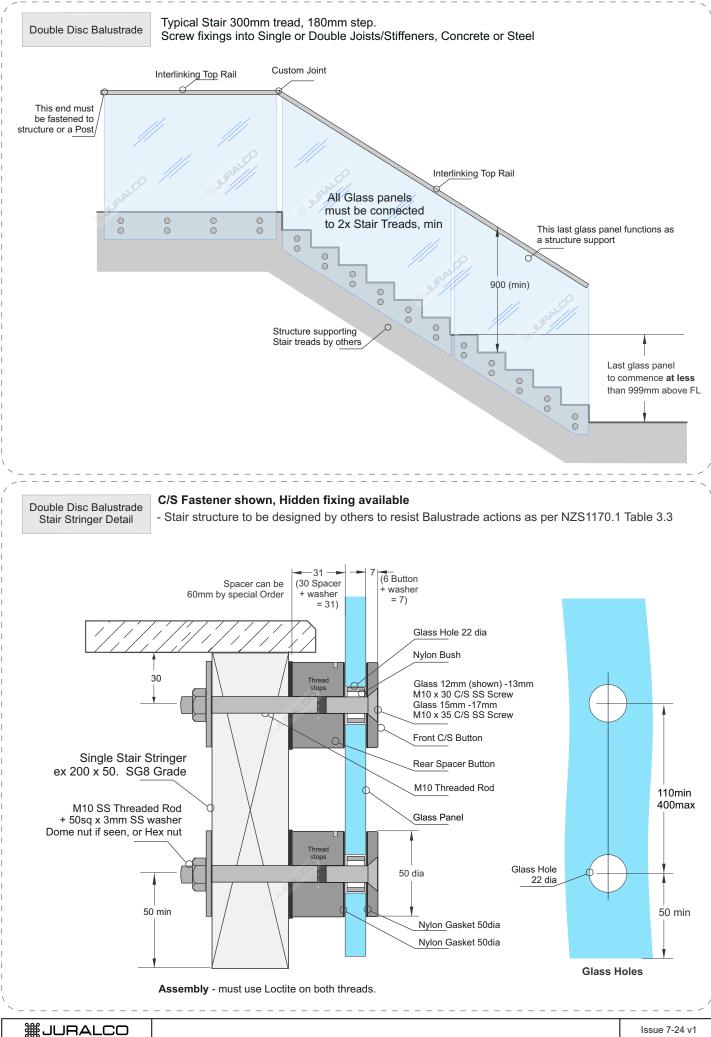
# Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System Typical Layouts



Juralco Edgetec® Double Disc Anchor Balustrade System

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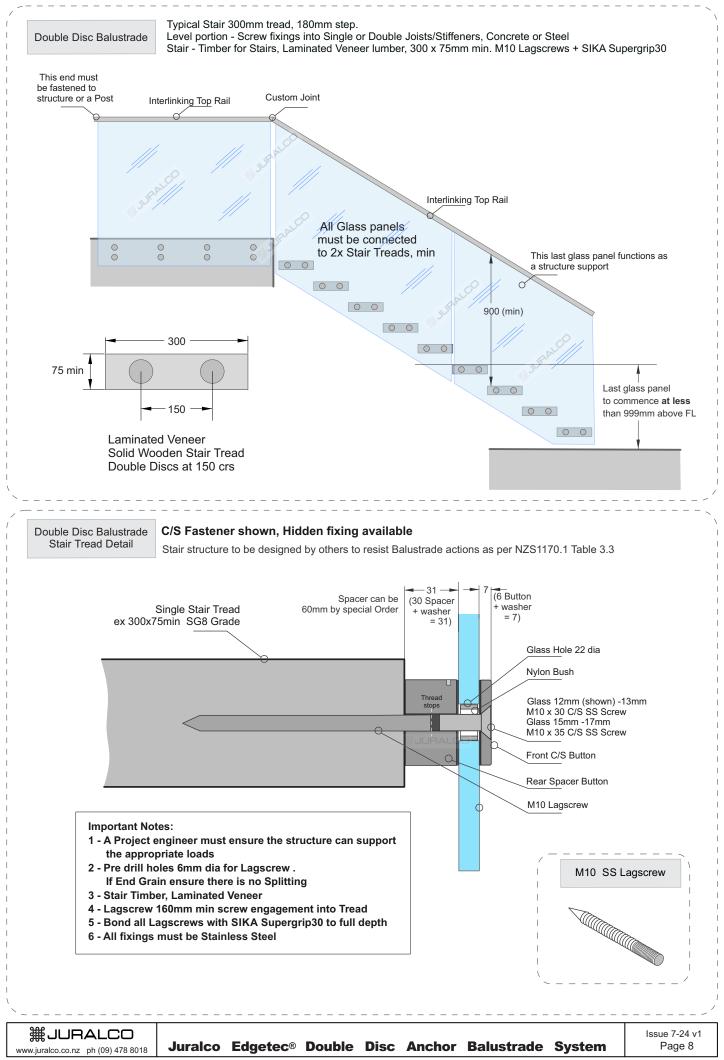
www.juralco.co.nz ph (09) 478 8018

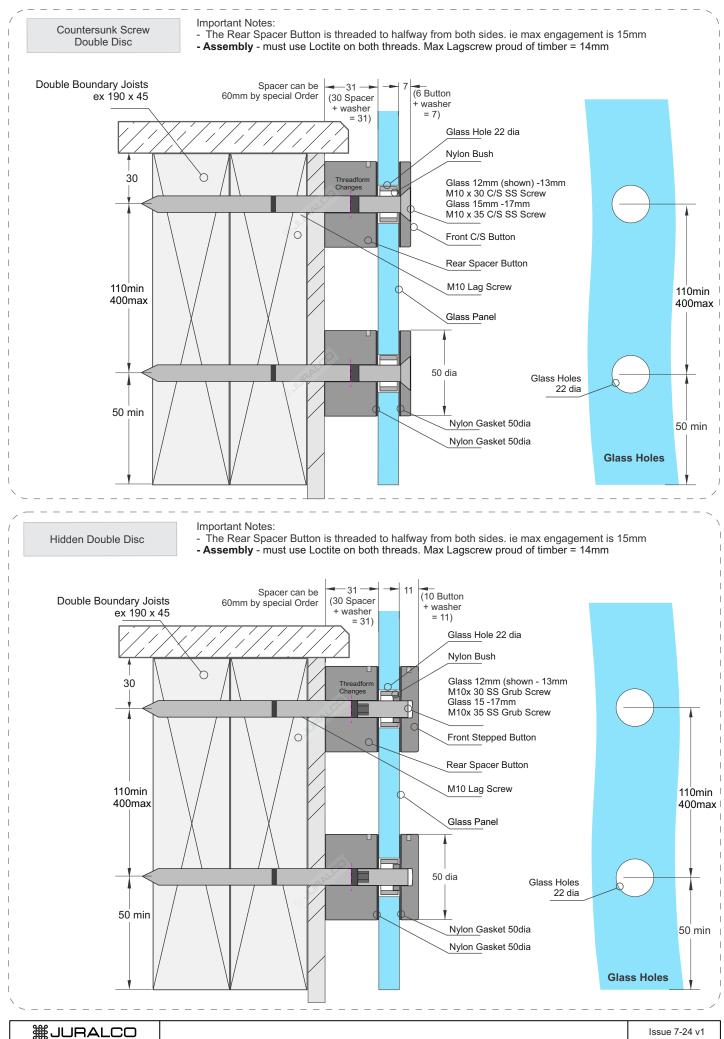
### Juralco Edgetec® Double Disc Anchor Balustrade System - Typical Stair Layout

Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System

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# Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System - Typical Stair Layout



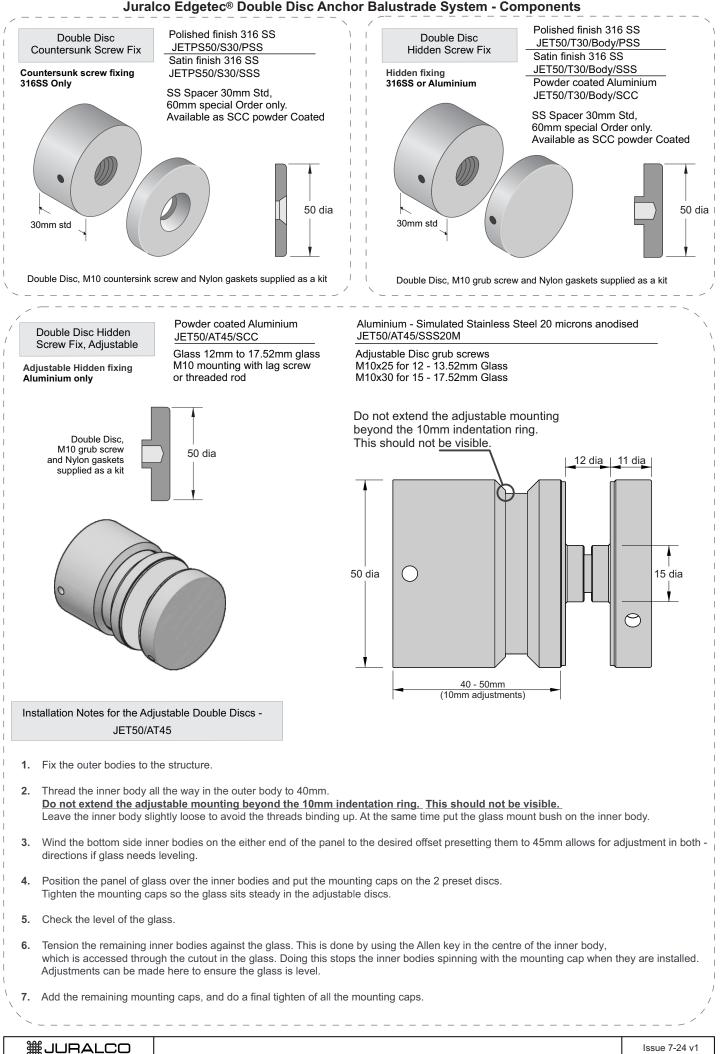


### Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System - Typical Fixings

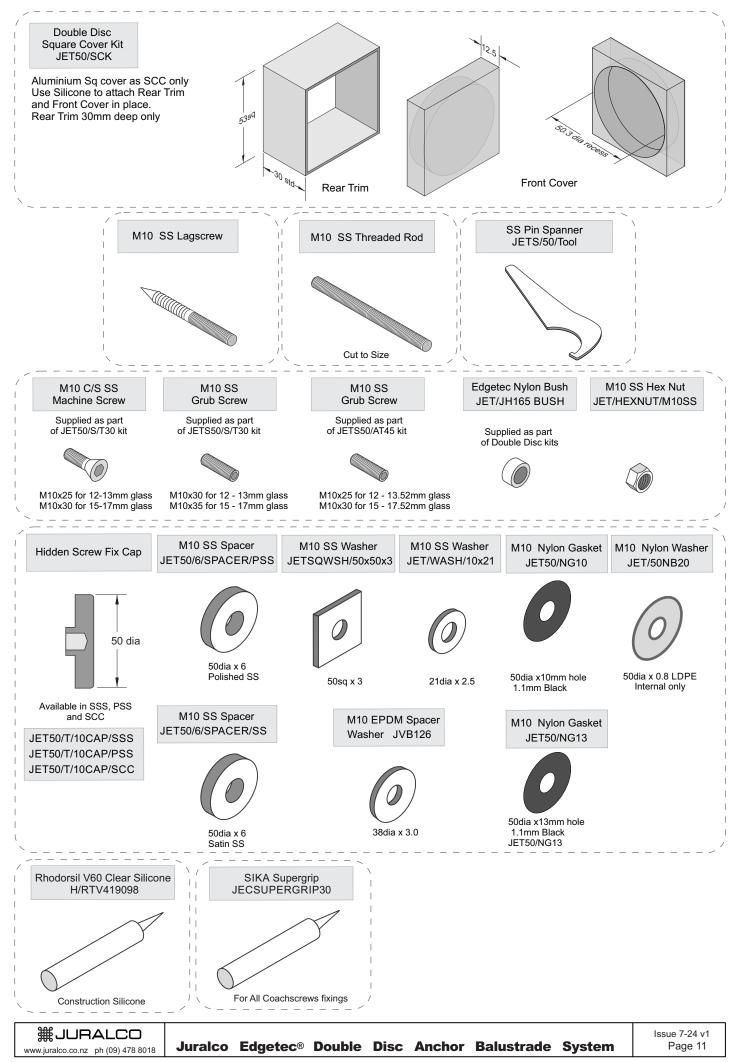
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Juralco Edgetec® Double Disc Anchor Balustrade System

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### Juralco Edgetec® Double Disc Anchor Balustrade System - Components



## Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System Typical Fixing - Residential, Commercial or Pool <u>Complies with NZS3604:2011</u> - Double Boundary Joists

Typical FACE Fix to Timber - M10 SS Lagscrews

Up to and including Very High Wind Zones Residential. Occupancy A,A Other and C3			Up to and including Extra High Wind Zones Commercial. Occupancy B,E and C3				
Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)		
12 T			15 T				
15.2L	1150	400	17.2L	1250	400		
13.52SG			17.52SG				
_							

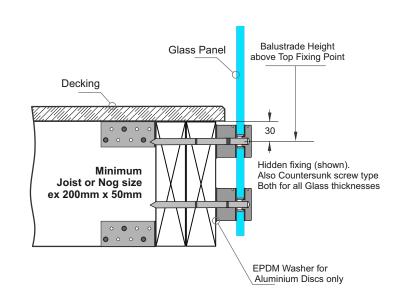
Occupancy A, A Other, B, E and C3. 0.75kN/m

•	ind inc Wind 2 Fence	Zone	Up to and including Extra High Wind Zone Pool Fence only				
Applies t	Applies to Pool Fences not protecting a fall of 1.0m or more						
Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz		

Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz
Thickness,	Height	Spacing	Thickness,	Height	Spacing
Туре	(max)	(max)	Туре	(max)	(max)
12T,15.2L	1250	400	15T,17.2L	1250	400

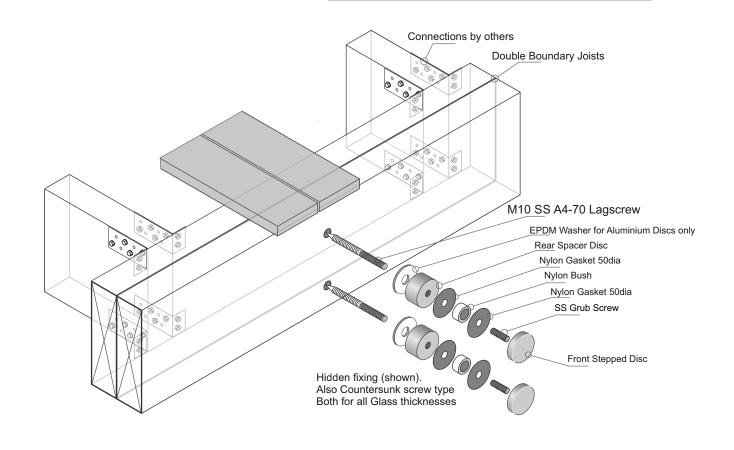
#### General Notes:

- 1 Glass thickness mm
- Glass type T= Toughened, L = Laminated SG = SentryGlas
- 2 All measurements mm
- 3 Balustrade Height, above Top Fixing Point
- 4 Refer to Elevations for Min/Max Panel widths



Important Installation notes:

- 1 The Project Engineer must ensure the structure can support the appropriate loads
- 2 Substructure shown indicatively only. Timber SG8 minimum strength
- 3 Lagscrews 90mm engagement into joists All Lagscrews pre drill 6mm holes
- 4 Bond all Lagscrews with SIKA Supergrip30 to full depth
- 5 All Fixings must be Stainless steel



### Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System Typical Fixing - Residential, Commercial or Pool <u>Complies with NZS3604:2011</u> - Double Boundary Joists

Typical FACE Fix to Timber - M10 SS Threaded Rod

Up to and including Very High Wind Zones Residential. Occupancy A,A Other and C3			Up to and including Extra High Wind Zones Commercial. Occupancy B,E and C3			
Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	
12 T			15 T			
15.2L	1150	400	17.2L	1250	400	
13.52SG			17.52SG			

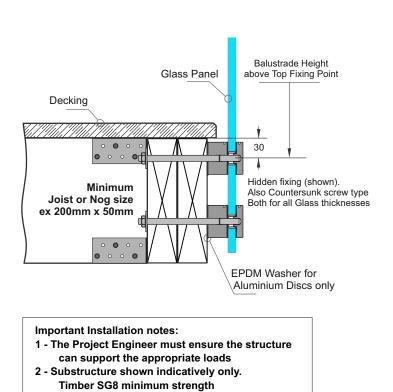
Occupancy A, A Other, B, E and C3. 0.75kN/m

Up to and including High Wind Zone Pool Fence only				Up to and including Extra High Wind Zone Pool Fence only				
Applies to Pool Fences not protecting a fall of 1.0m or more								

Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz
Thickness,	Height	Spacing	Thickness,	Height	Spacing
Туре	(max)	(max)	Туре	(max)	(max)
12T,15.2L	1250	400	15T,17.2L	1250	400

#### General Notes:

- 1 Glass thickness mm
- Glass type T= Toughened, L = Laminated SG = SentryGlas
- 2 All measurements mm
- 3 Balustrade Height, above Top Fixing Point
- 4 Refer to Elevations for Min/Max Panel widths



3 - All Fixings must be Stainless steel

Connections by others **Double Boundary Joists** M10 SS Nuts +50mm sq x 3mm SS Washers (í) 0 M10 SS A4-70 Threaded Rod EPDM Washer for  $\bigcirc$ Aluminium Discs only Rear Spacer Disc Nylon Gasket 50dia Nylon Bush 0 Nylon Gasket 50dia SS Grub Screw Front Stepped Disc Hidden fixing (shown). Also Countersunk screw type Both for all Glass thicknesses

# Typical FACE Fix to Steel - M10 SS Threaded Rod

Very H Reside	<b>and inc</b> <b>igh Winc</b> ntial. Occ Other an	d Zones cupancy	Up to and including Extra High Wind Zones Commercial. Occupancy B,E and C3				
Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)		
12 T			15 T				
15.2L	1150	400	17.2L	1250	400		
13.52SG			17.52SG				

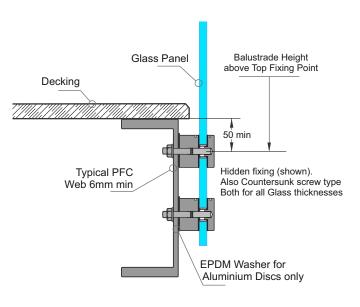
Occupancy A, A Other, B, E and C3. 0.75kN/m

	ind inc Wind 2 Fence	Zone	Up to and including Extra High Wind Zone Pool Fence only				
Applies t	Applies to Pool Fences not protecting a fall of 1.0m or more						
Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz		

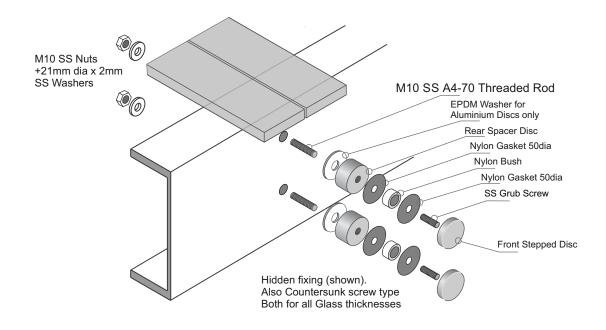
Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz
Thickness,	Height	Spacing	Thickness,	Height	Spacing
Туре	(max)	(max)	Туре	(max)	(max)
12T,15.2L	1250	400	15T,17.2L	1250	400

#### General Notes:

- 1 Glass thickness mm
- Glass type T= Toughened, L = Laminated SG = SentryGlas
- 2 All measurements mm
- 3 Balustrade Height, above Top Fixing Point
- 4 Refer to Elevations for Min/Max Panel widths



Important Installation Notes: 1 - A Project engineer must ensure the structure can support the appropriate loads 2 - All fixings must be Stainless Steel



# Typical FACE Fix to Steel - M10 SS Threaded Rod + Tapped Hole

Up to and including Very High Wind Zones Residential. Occupancy A,A Other and C3		Up to and including Extra High Wind Zones Commercial. Occupancy B,E and C3			
Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)
12 T			15 T		
15.2L	1150	400	17.2L	1250	400
13.52SG			17.52SG		
Occurrency A. A. Other, D. E. and C2. O. 751-NI/m					

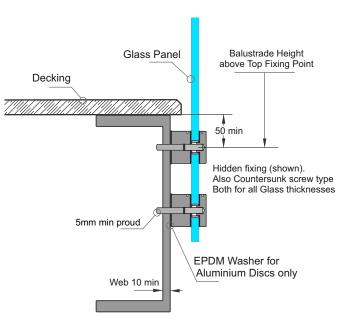
Occupancy A, A Other, B, E and C3. 0.75kN/m

Up to and including High Wind Zone Pool Fence only			Up to a Extra Hi Pool		nd Zone
Applies to	o Pool Fe	rotecting a	fall of 1.0	m or more	
Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz

Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz
Thickness,	Height	Spacing	Thickness,	Height	Spacing
Type	(max)	(max)	Type	(max)	(max)
12T,15.2L	1250	400	15T,17.2L	1250	400

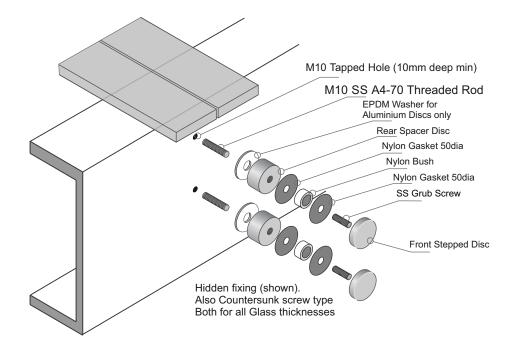
#### General Notes:

- 1 Glass thickness mm
- Glass type T= Toughened, L = Laminated SG = SentryGlas
- 2 All measurements mm
- 3 Balustrade Height, above Top Fixing Point
- 4 Refer to Elevations for Min/Max Panel widths



#### Important Installation Notes:

- 1 A Project engineer must ensure the structure
- can support the appropriate loads
- 2 Thread engagement into Web 10mm min
- 3 All fixings must be Stainless Steel



# Typical FACE Fix to Steel, Wooden Packer - M10 SS Threaded Rod

Up to and including Very High Wind Zones Residential. Occupancy A,A Other and C3		Up to and including Extra High Wind Zones Commercial. Occupancy B,E and C3			
Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)	Glass Thickness, Type	Balustrade Height (max)	Disc Horiz Spacing (max)
12 T			15 T		
15.2L	1150	400	17.2L	1250	400
13.52SG			17.52SG		
0	Occurrency A. A. Other, D. E. and C.2. A. 751-NI/m				

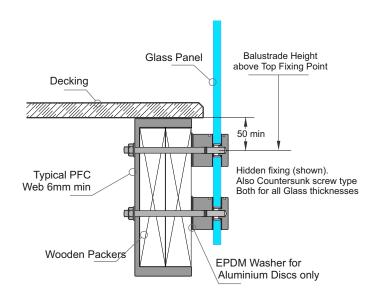
Occupancy A, A Other, B, E and C3. 0.75kN/m

Up to and including High Wind Zone Pool Fence only			Up to a Extra Hi Pool		d Zone
Applies to Pool Fences not protecting a fall of 1.0m or more					m or more
01	Erman	Disculturation	01	Errore	Disculture

Glass	Fence	Disc Horiz	Glass	Fence	Disc Horiz
Thickness,	Height	Spacing	Thickness,	Height	Spacing
Туре	(max)	(max)	Туре	(max)	(max)
12T,15.2L	1250	400	15T,17.2L	1250	400

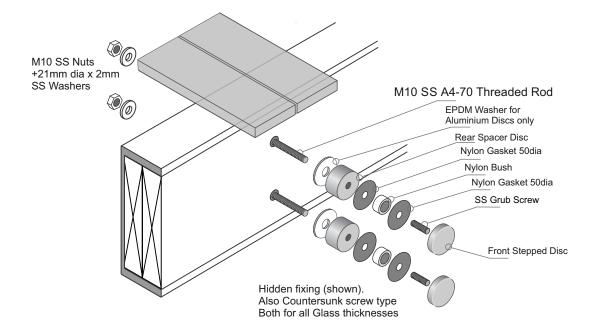
#### General Notes:

- 1 Glass thickness mm
- Glass type T= Toughened, L = Laminated SG = SentryGlas
- 2 All measurements mm
- 3 Balustrade Height, above Top Fixing Point
- 4 Refer to Elevations for Min/Max Panel widths

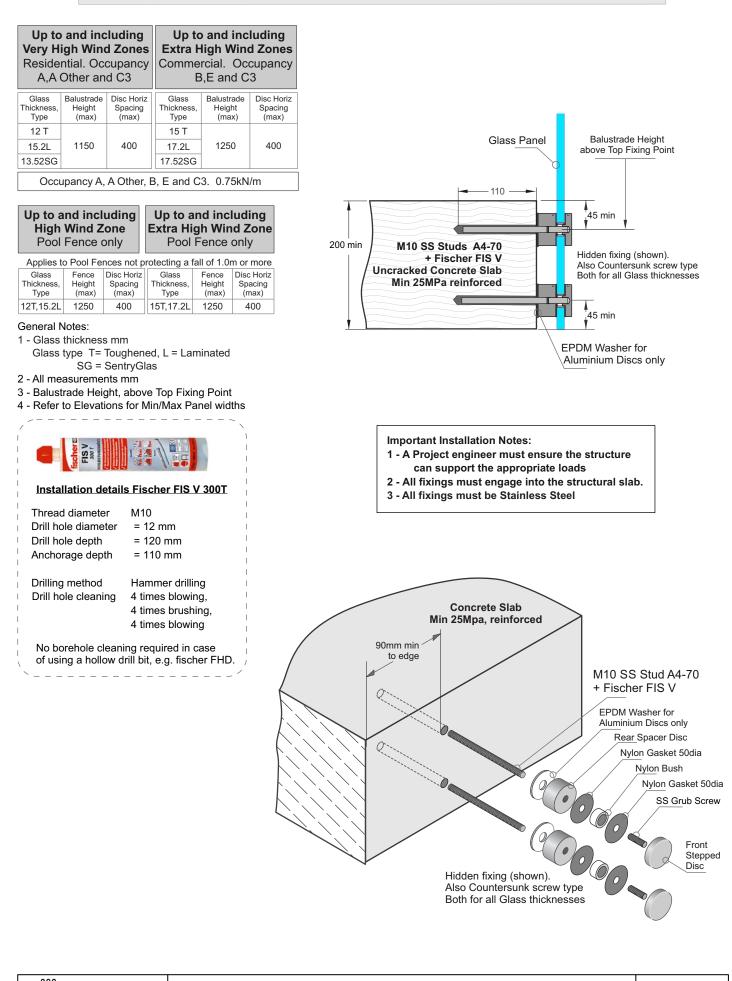


Important Installation Notes:

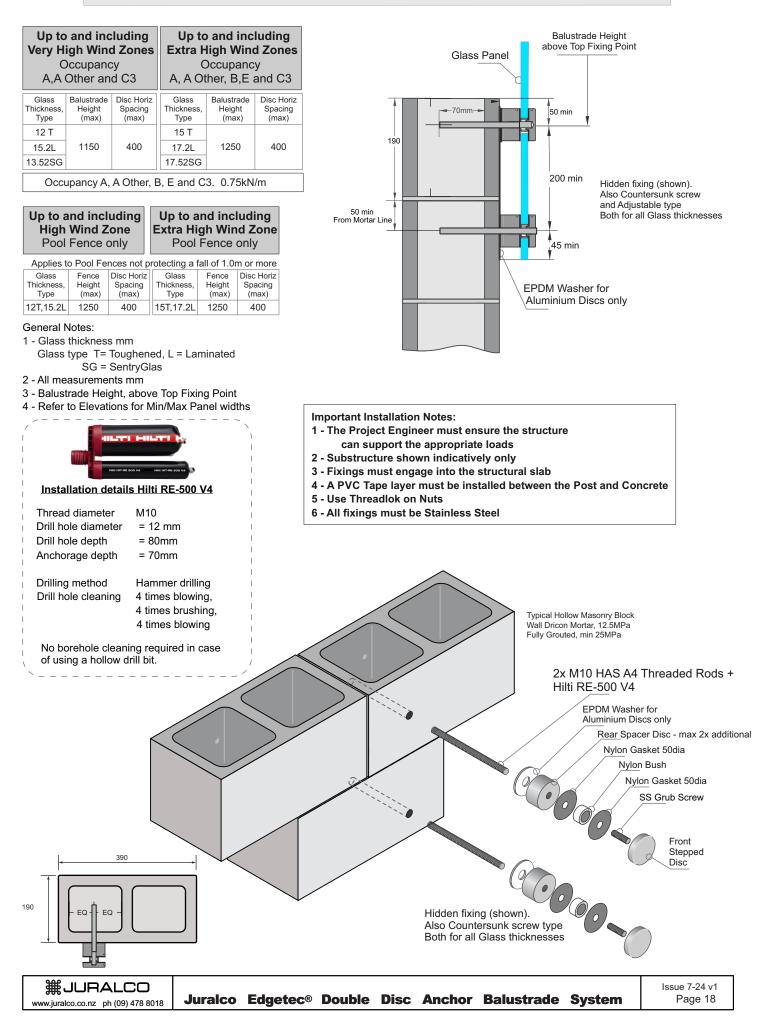
- 1 A Project engineer must ensure the structure can support the appropriate loads
- 2 All fixings must be Stainless Steel
- 3 Any Cladding/Facing between discs and the Steelwork must have a bearing strength greater than wet MSG8



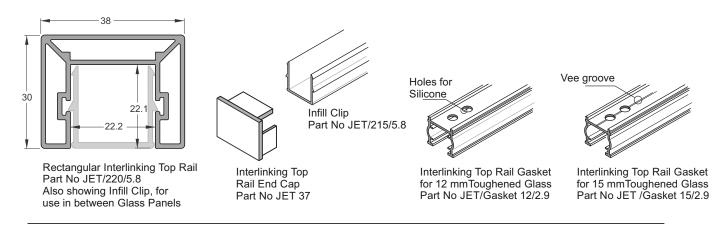
# Typical FACE Fix to Concrete - M10 SS Threaded Rod



# Typical FACE Fix to Blockwall - M10 SS Threaded Rod



# 38mm Rectangular Interlinking Top Rail



#### 1 - 12, 15mm Glass and Gasket

Application Notes:

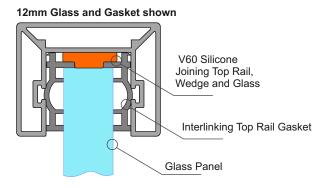
- Cut short lengths of Gasket (50mm) and place say every 700mm.

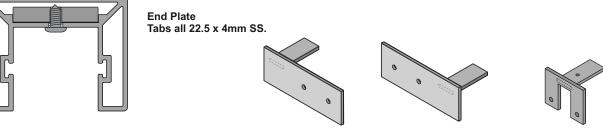
- Cut/adjust Interlinking rail to correct dimensions, test in place.
- Remove all, install full cut lengths of Gasket to glass top edge
- Assemble Top Rail + Joiners and suitable End plates
- Place blobs of V60 silicone in every Gasket hole
- Then place Top Rail extrusion + Joiners and End plates in 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

### 2 - End Plate Brackets





End Plates: (After cutting extrusions to length)

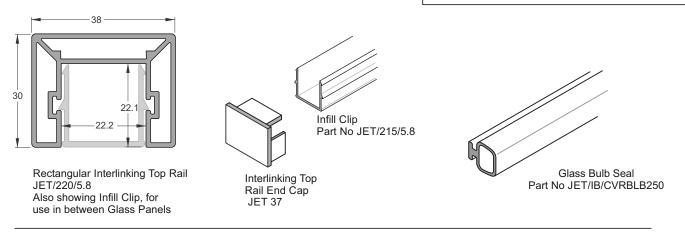
- With End Plate in place, spot drill from below for position - Drill out to SS tab to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive Screw, 2 per plate.
- End Plate must be securely attached to Post or structure.

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

# 38mm Rectangular Interlinking Top Rail

### This Page applies to 15.2mm and 17.2mm Laminated Safety Glass only



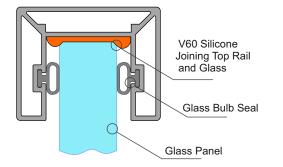
#### 1 - 15.2, 17.2mm Glass and Gasket

#### Application Notes:

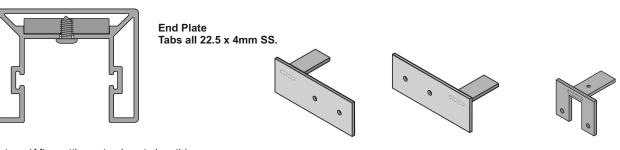
- Assemble Top Rail + Joiners and suitable End plates
- Place Full lengths of Bulb seal in place.
- Place blobs of V60 silicone along top edge of Glass at similar spacings to Gasket on previous page.
- Then place Top Rail extrusion and bulb seals firmly onto Glass.
- Tape all down, wait 24 hrs to fully bond. Clean up.

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

#### 15.2mm Glass and Gasket shown



### 2 - End Plate Brackets



End Plates: (After cutting extrusions to length)

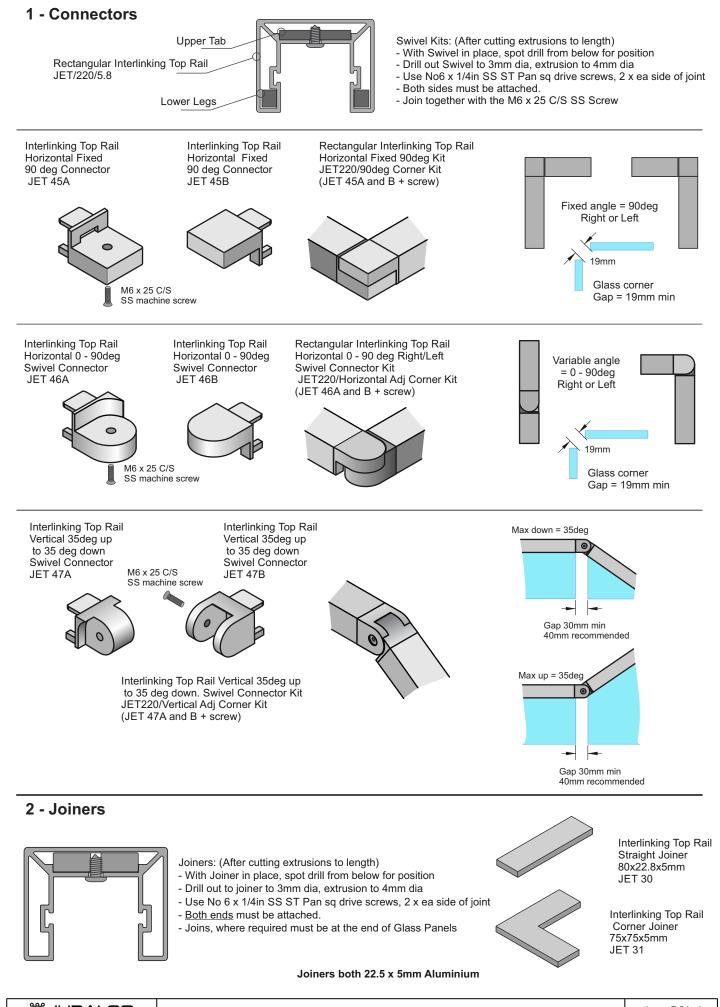
- With End Plate in place, spot drill from below for position
- Drill out to SS tab to 3mm dia, extrusion to 4mm dia - Use No 6 x 1/4in SS ST Pan sq drive Screw, 2 per plate.
- End Plate must be securely attached to Post or structure.

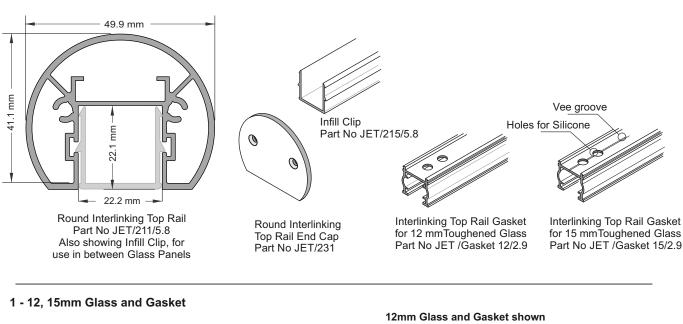
Interlinking Top Rail Wall type End Plate SS. 120x45mm JET 40LH

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

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

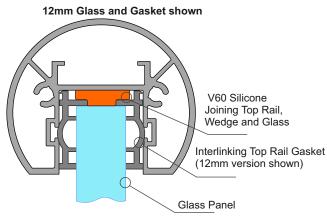
# Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets



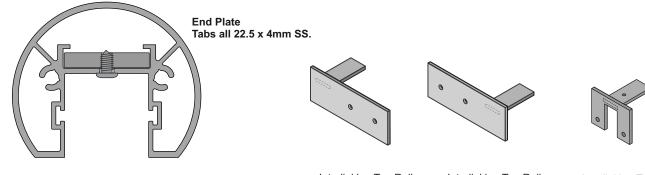


Application Notes:

- 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



#### 2 - End Plate Brackets



End Plates: (After cutting extrusions to length)

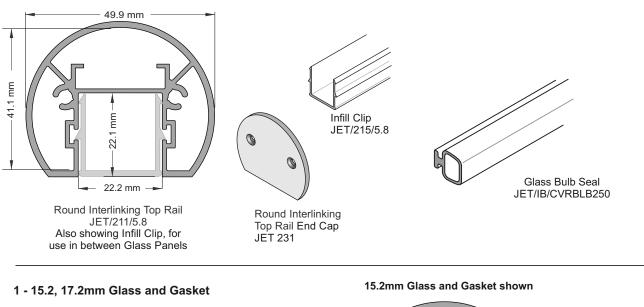
- With End Plate in place, spot drill from below for position
- Drill out to SS tab to 3mm dia, extrusion to 4mm dia
- Use No 6 x 1/4in SS ST Pan sq drive Screw, 2 per plate - End Plate must be securely attached to Post or structure.

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

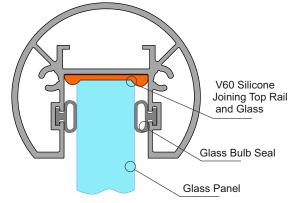
# Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets



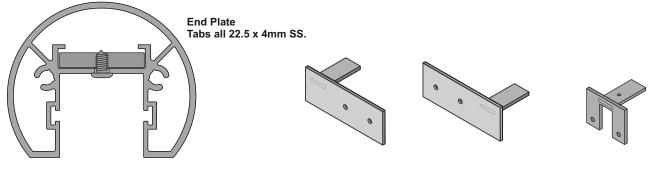
Application Notes:

- Assemble Top Rail + Joiners and suitable End plates
- Place Full lengths of Bulb seal in place.
- Place blobs of V60 silicone along top edge of Glass at similar spacings to Gasket on previous page.
- Then place Top Rail extrusion and bulb seals firmly onto Glass.
- 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



#### 2 - End Plate Brackets



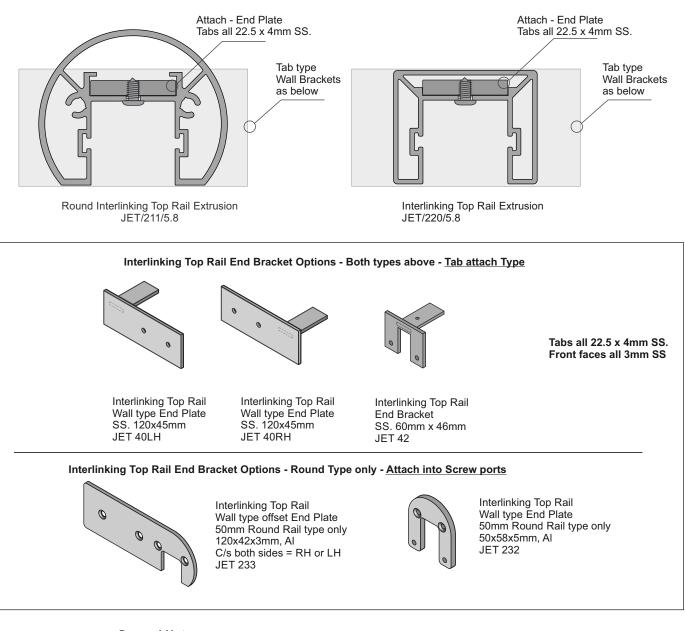
End Plates: (After cutting extrusions to length)

- 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



# 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 1720.1:2022 Timber Structures Part 1 - Design methods or NZ3604

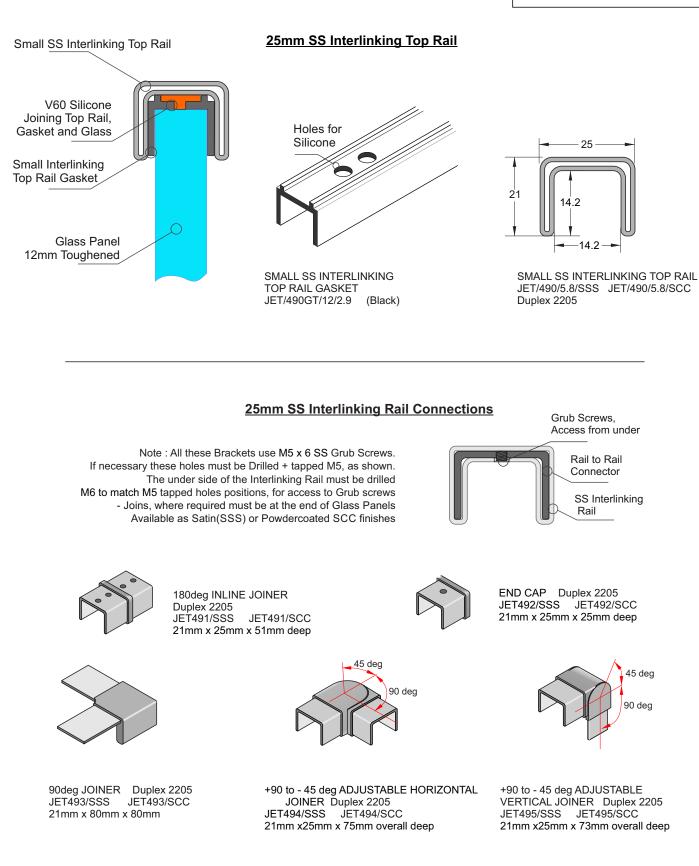
Note : Fixing to Juralco EDGE Post

- use 2 off 8g x 25 SS PK Screws

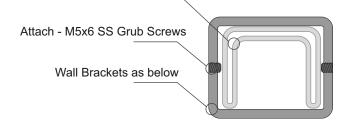
# Note : Fixing to Concrete Wall

- 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

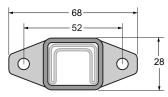
Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

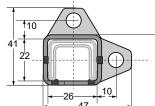


25mm SS Interlinking Top Rail JET/490



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

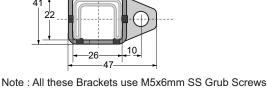




10 10 26



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 1720.1:2022 Timber Structures Part 1 - Design methods or NZ3604

Note : Fixing to Juralco EDGE Post

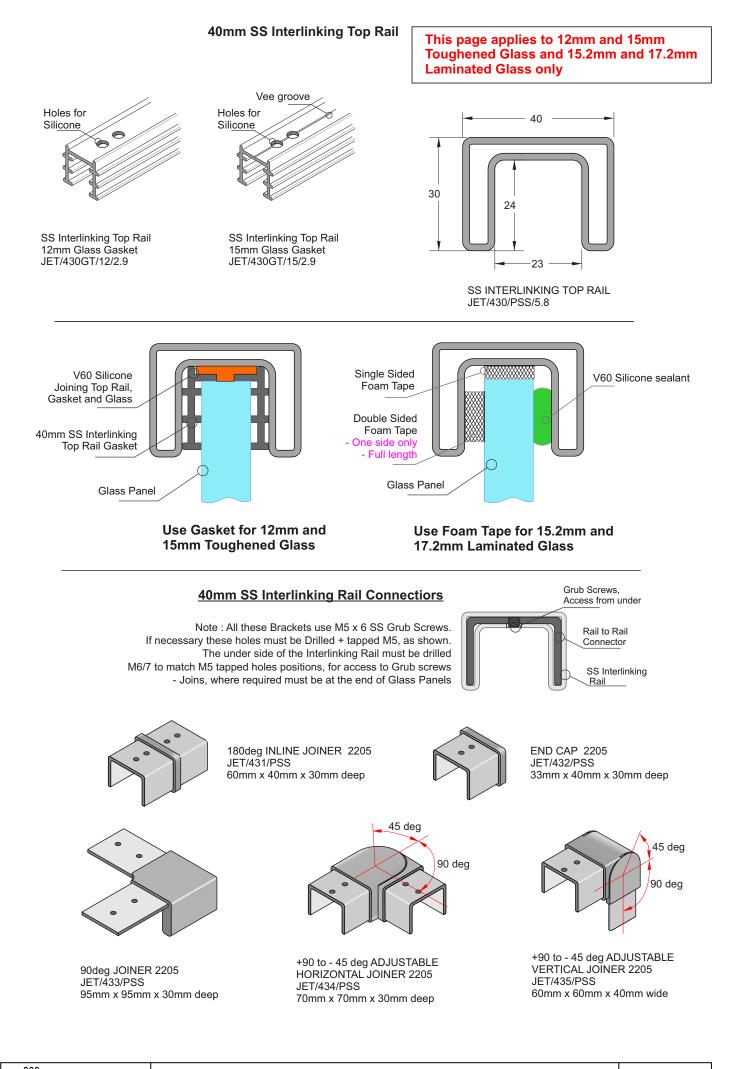
- use 2 off 8g x 25 SS PK Screws

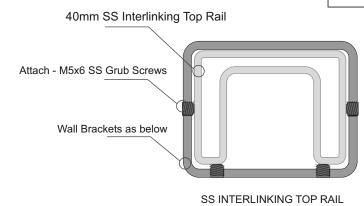
### Note : Fixing to Concrete Wall

- 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

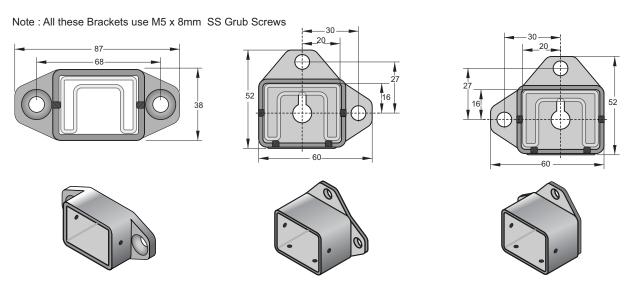
Juralco Edgetec® Double Disc Anchor Balustrade System





Part No JET/430/PSS/5.8

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



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 NZS 1720.1:2022 Timber Structures Part 1 - Design methods 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

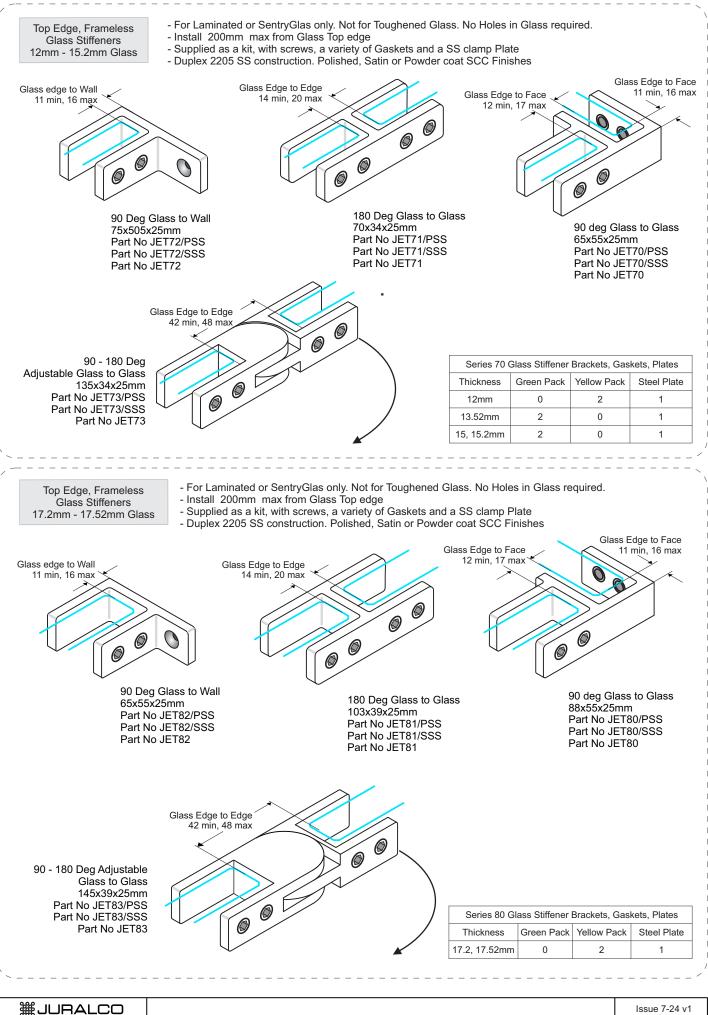
Important Note: All Interlinking rails, at their ends must be attached to a Building Structure or to an Edge Post attached to the Deck structure, using Rail End Plates/Brackets

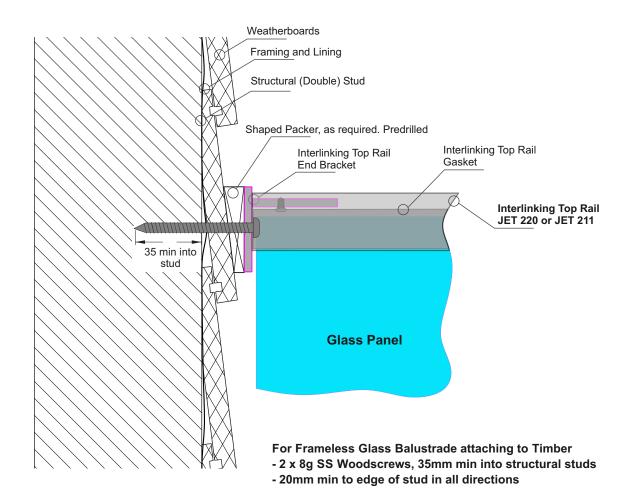
Toughened Glass and 15.2mm and 17.2mm Laminated Glass only

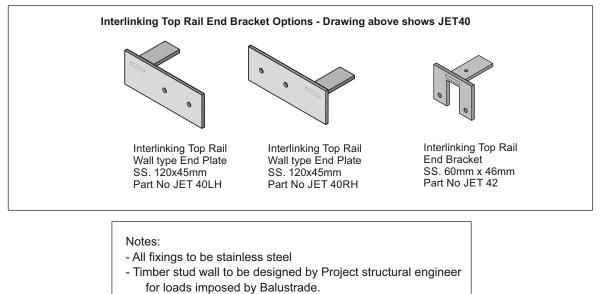
This page applies to 12mm and 15mm

Juralco Edgetec<sup>®</sup> Double Disc Anchor Balustrade System

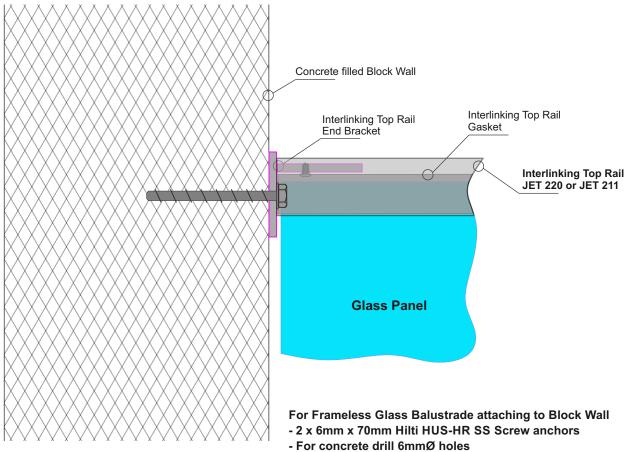
### **Frameless Glass Stiffener Brackets**



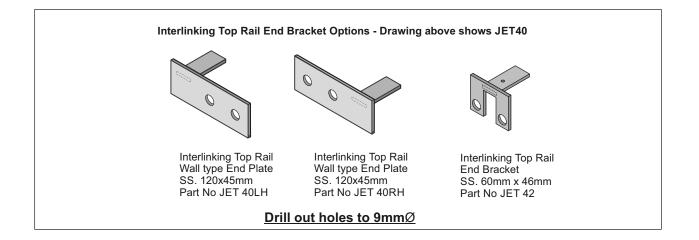




- ULS Point load N\* = 0.9kN, inwards, outwards or down.
- Minimum Stud size = 90mm x 45mm
- Minimum Timber grade = SG8
- -Timber stud wall to be designed and detailed in accordance with NZS 1720.1:2022 Timber Structures Part 1 - Design methods or NZ3604

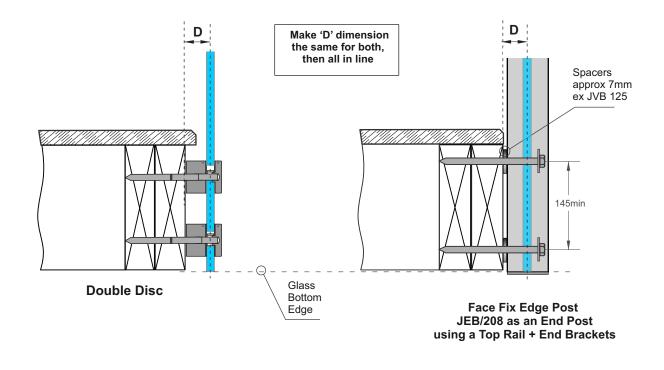


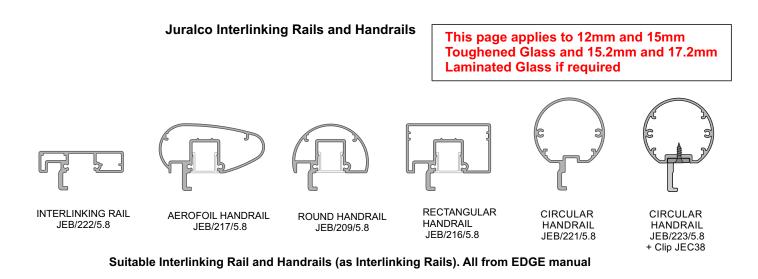
- 70mm min to side edge of concrete, 100mm to top edge.



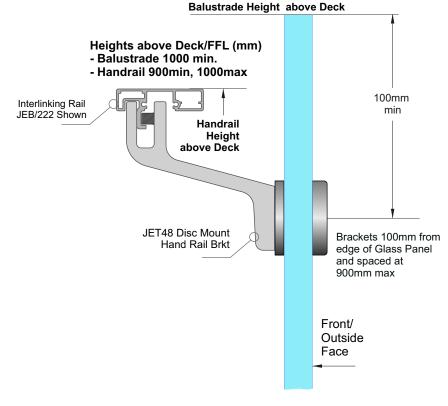
#### Notes:

- 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





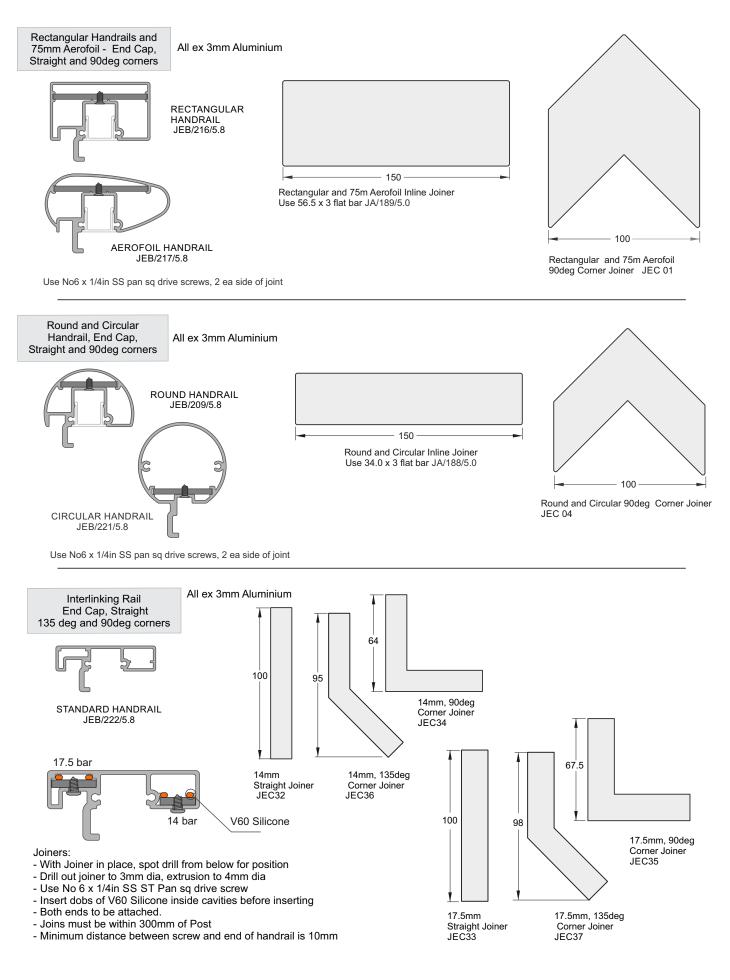
# Interlinking or Handrails on Deck side.



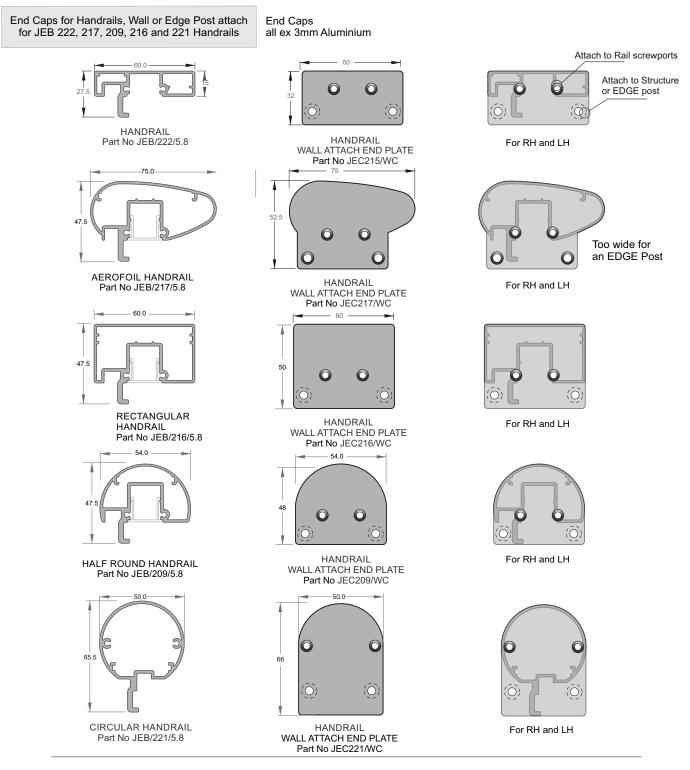
**Frameless Glass Systems** 

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

### **Handrail Joiners**



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



**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 NZS 1720.1:2022 Timber Structures Part 1 - Design methods 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 Care and Maintenance**

#### 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 on to the surface during toughening. Once dislodged they can scratch the glass.

# Glass Cleaning, Do's and Don'ts DO NOT..

<u>00 NOT..</u>

- 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

All above reprinted with permission from Metro Glass Tech

# **Powder Coating Care and Maintenance**

### 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 I2 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 <u>masked or covered</u> 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 <u>simple, regular</u> 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.

#### Cleaning your powder coating:

Carefully remove any loose surface deposits with a wet sponge.
Use a soft brush (non abrasive) and a mild household detergent (do not use solvents) in warm water, remove dust, salt and other deposits.
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 <u>as small amount of</u> <u>WD40 Multi Use Product</u> 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**

Reccommended Cleaning for various grades of Stainless Steel					
Location	304 Grade	316 Grade			
Surbarban or Rural	Clean at 6-12mth intervals or as necessary				
Industrial or Urban	Clean at 3-6mth intervals	Clean at 6-12mth intervals			
Coastal or Marine	Not recommended				

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