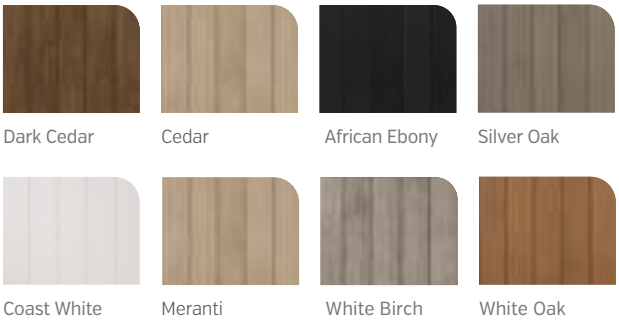
# Alu Selekta Channel and Castelation Screenclad

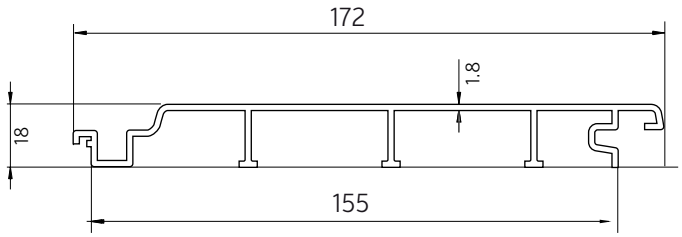
INSTALLATION INSTRUCTIONS

## Product description

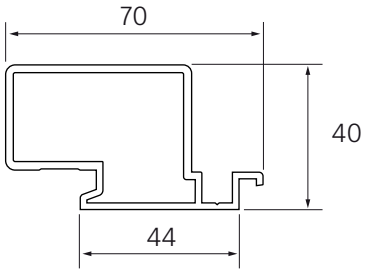
Modinex Alu Selekta Channel and Castelation is an innovative exterior cladding product made from highly durable solid extruded aluminum. This non-combustible cladding looks just like timber and can be alternated as a sustainable option. Eco-friendly, low maintenance and incredibly durable, it's ideal for high rises and bushre rated areas designed for ease of installation.

## Colours

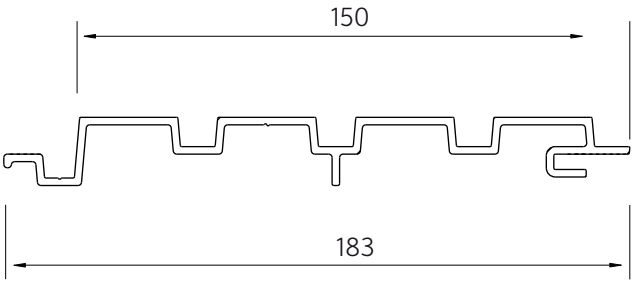



**AluSelekta 155** (AS155x18)




**Batten** (ESECBP)




**Castelation**

**DECLARATION:** Please check suitability to your project with your professional endorsed specifier.
Not to be used on Class 2 to 10 structures over 20 metres in height as a continuous façade without sign off from a structural and fire engineer.

*Installation guide if followed, complies with AS/NZS 2904 and is installed in accordance with AS15621*

*Alu Selekta Channel and Castelation installation instruction published, January 2022*



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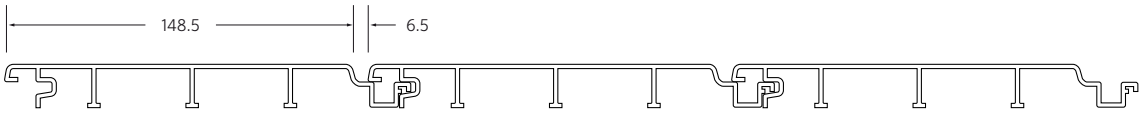
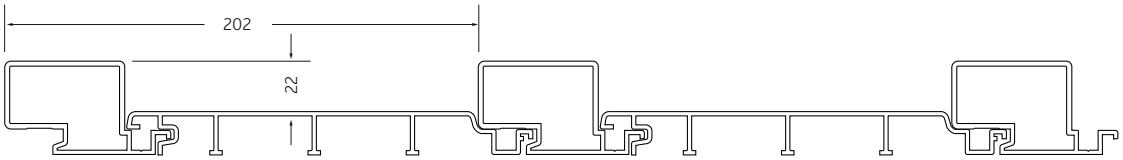
## General information, profile dimensions, calculating the required quantity & guidelines

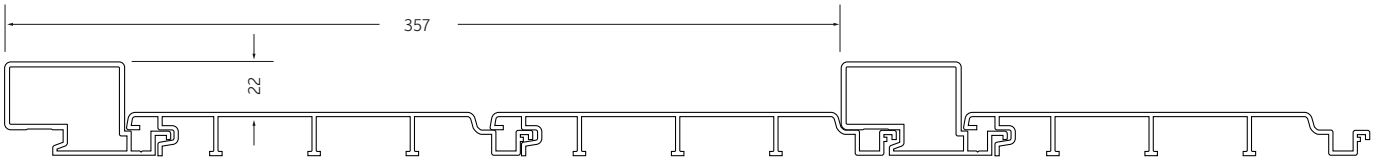
The scope of these installation instructions covers all installation variants of façade cladding, including soffits.



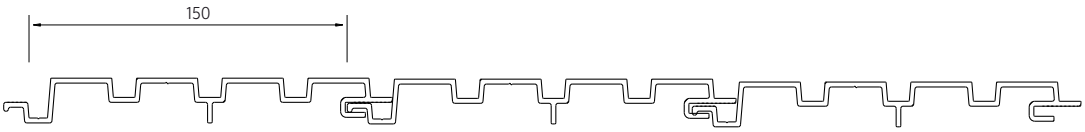

**AluSelekta Groove Profile Cladding** – Option 1




**AluSelekta Batten Profile Cladding** – Option 2




**AluSelekta Batten Profile Cladding** – Option 3




**AluSelekta Castelation Profile Cladding** - Option 4

*Installation guide if followed, complies with AS/NZS 2904 and is installed in accordance with AS15621*

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## Calculating the required quantity (Calculation values exclude cutting waste)

| | Coverage width | Standard lengths | Required quantity/m² Façade profile | Required quantity/m² Galvanised screws 3.9 x 16mm |
|---|---|---|---|---|
| Modinex Alu Selekta Channel Clad at max. fastening spacing = 625 mm | | | | |
| Alu Selekta Channel | 155 mm | 5400 mm | 6.45 linear m | 10.3 pcs. |
| Alu Selekta Castellation | 190 mm | 5400 mm | NIL | 10.3 pcs. |

### Sub-framework for façade cladding

Typical top hat spacing is 625mm. Increased wind sunction at the edge areas of the building walls must be considered when planning the sub-framework. The fastening spacing of the Alu Selekta profiles must be reduced to max. 300 mm in these areas; additional support battens must be provided as necessary.

### Installation lengths

For installation length is 5400 mm as set lengths. Expansion joints are dependent on local temperature fluctuations.

### Wind loadings

This is a simplified form or general rule of thumb for wind loadings. The product has been tested and results reported by Summermore Pty Ltd. to the requirements of:

### Generic Structural Design Certificate (supplied by Summermores Engineering – refer to the Alu Selekta Channel warranty)

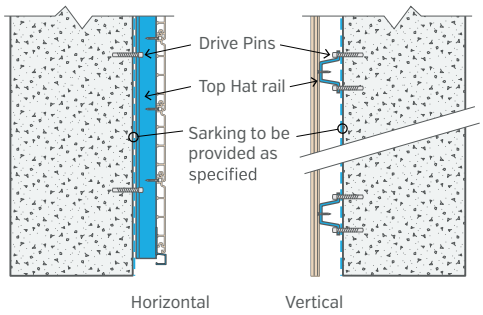
The Alu Selekta Channel is design certified and complies with the following provisions of the Building Act 1993, Building Regulations 2018 or Nation Construction Code.

| Act, Regulation or NCC | Section, Regulation, Part, Performance Requirement or Other Provision |
|---|---|
| AS/NZS1170.0:2002 | Structural Design Actions–General Principles |
| AS/NZS1170.1: 2002 | Structural Design Actions–Permanent, Imposed & Other Actions |
| AS/NZS1170.2:2011 | Structural Design Actions–Wind Actions |
| AS/NZS1664.1:1997 | Aluminium Structures – Limit State Design |
| AS/NZS1664.2:1997 | Aluminium Structures – Allowable Stress Design |

### Important Building Design Notes:

- The supporting wall must be watertight and correct flashings used in the event of any water penetration i.e. severe storms
- Refer to installation instructions for joint options
- Galvinised mild steel top hats are recommended with a minimum of 0.75mm thick G550 pull out capacity.
- Suggest drive pin / fixings for top hat to concrete or blockwork substrate to engineer specifications.
- Always confirm with a registered structural engineer.

Alu Selekta Channel cladding fixed to top hat sections per engineers specifications.




**Notes:**

The Building Design Engineer is to provide the design zones relating to Local Pressure requirements of AS/NZS 1170.2:2011 CL5.4.4.

The wood decors are equivalent to natural wood surfaces, meaning that different grain textures are possible within a single shipment (plain and/or mottled). Unfortunately, sorting at the factory is not possible! In order to obtain a uniform overall finish, we recommend considering this fact and, for example, laying out the façade profiles before starting with the installation.

*Installation guide if followed, complies with AS/NZS 2904 and is installed in accordance with AS15621*

*Alu Selekta Channel and Castelation installation instruction published, January 2022*



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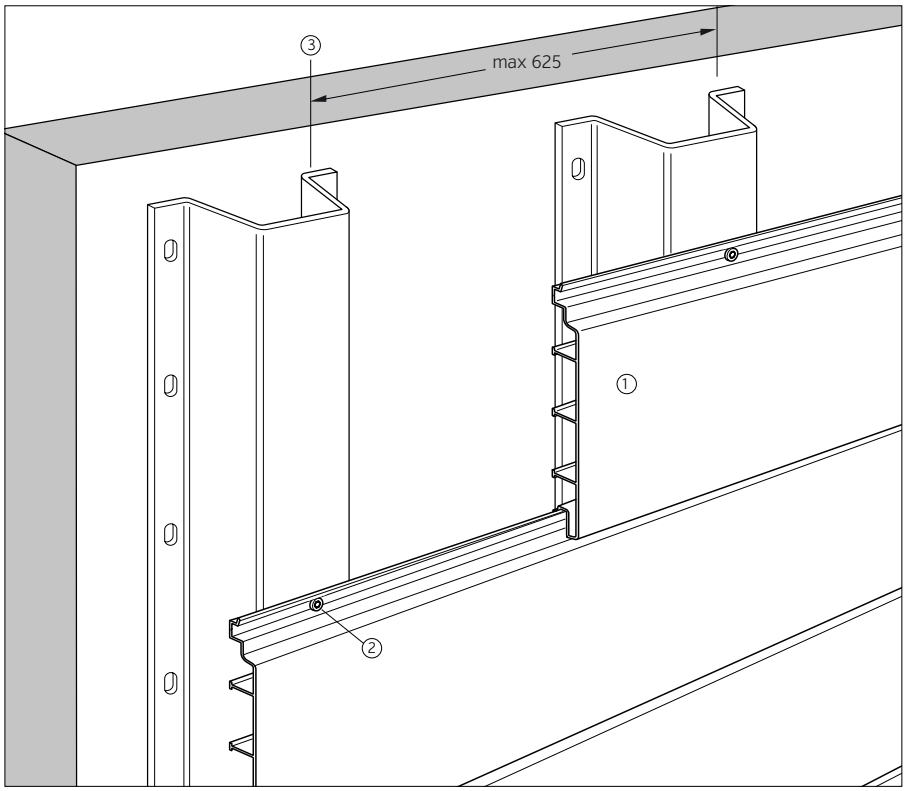
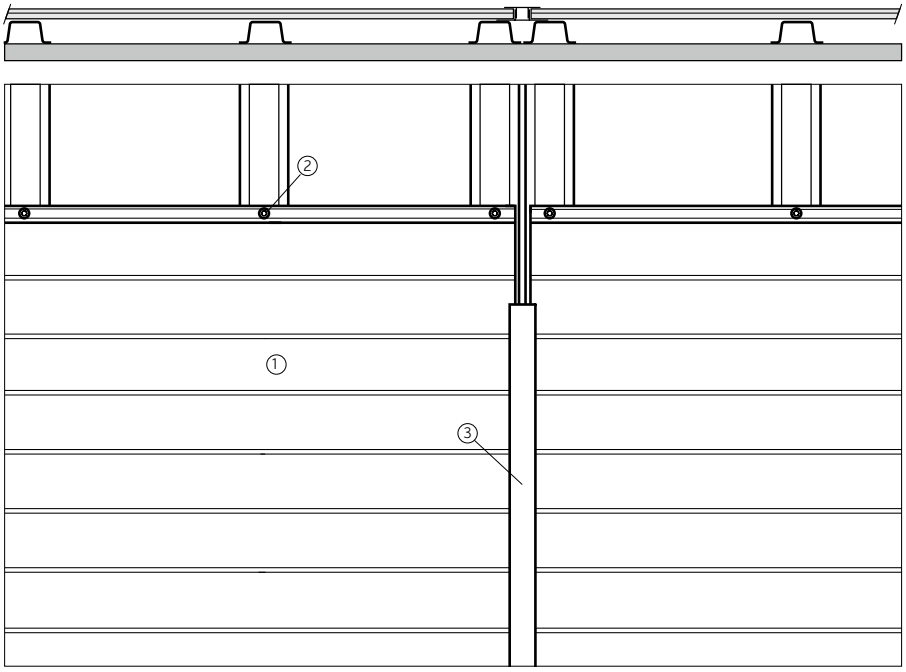
## Horizontal installation

1. Alu Selekta façade profiles
2. 8-18x16 Metal Self Tapping Screw (Screw head must be a minimum of 8mm in Diameter)
3. Sub-Framework is to be provided by a minimum thickness 0.75mm G550 Battens spaced in accordance with the Summermore Design Tables. Fixing of the Sub-Framework Battens to the Sub-Structure is to be designed for by others.




A. Typical fixing detail

1. Alu Selekta façade profiles
2. 8-18x16 Metal Self Tapping Screw
3. Cover profile.




B. Typical joiner detail

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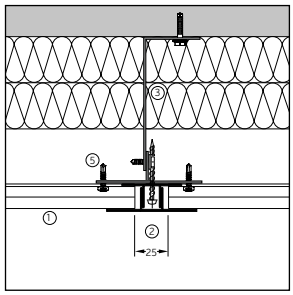
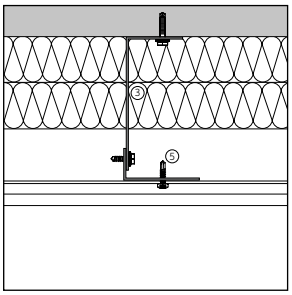
## Horizontal installation

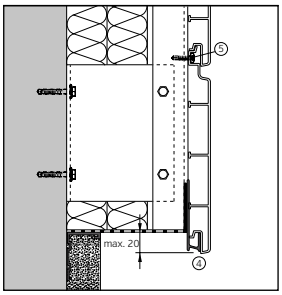
1. Alu Selekta façade profiles
2. Cover profile
3. Sub-framework
4. Horizontal Starter profile
5. 8-18x16 Metal Self Tapping Screw
6. Top hat section
7. Drive Pin
8. Internal/external corner profile.




A. Joiner detail



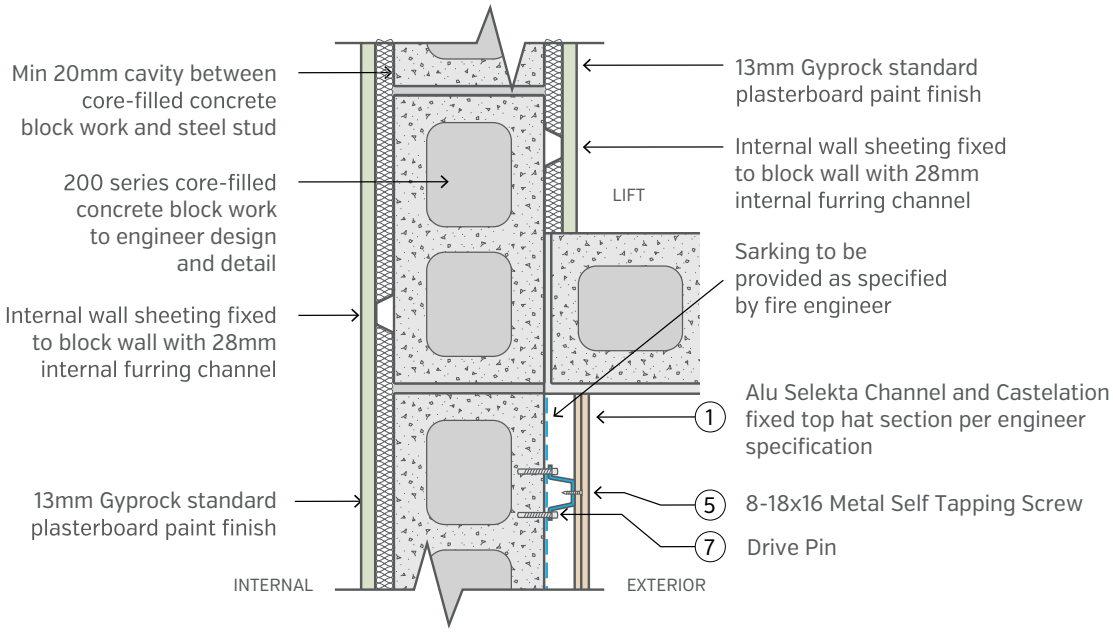
B. Fixing detail



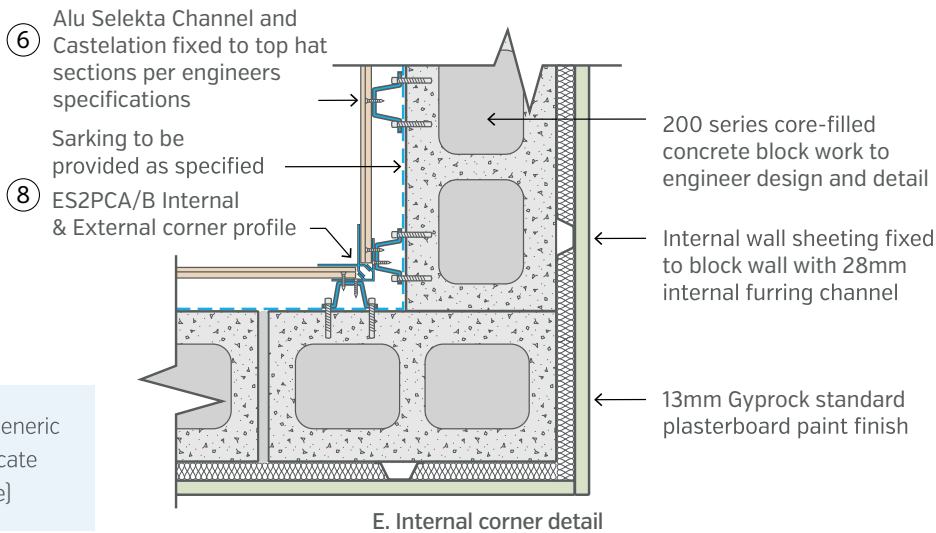

C. Vertical junction

Details are for light-weight construction techniques.

**Note:**
Minimum 0.75mm G550 Battens spaced in accordance with the Summermore Design Tables




D. Corner detail




E. Internal corner detail

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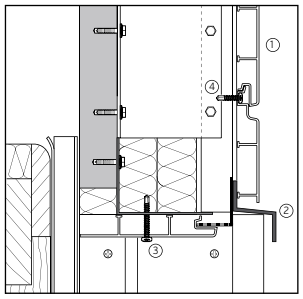
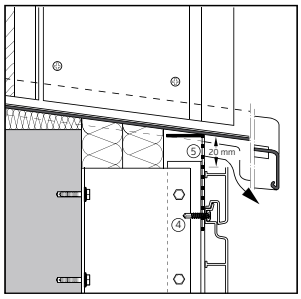
## Horizontal installation

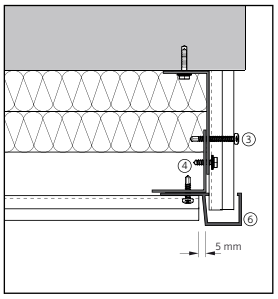
1. Alu Selekta façade profiles
2. Z profile
3. 8-18x16 Metal Self Tapping Screw
4. 8-18x16 Metal Self Tapping Screw
5. Ventilation profile 30/90
6. Connection profile F
7. ESA 40x20 L-profile
8. ESECB External corner box profile
9. Top hat section
10. Drive Pin
11. Starter profile – horizontal.



A. Junction detail

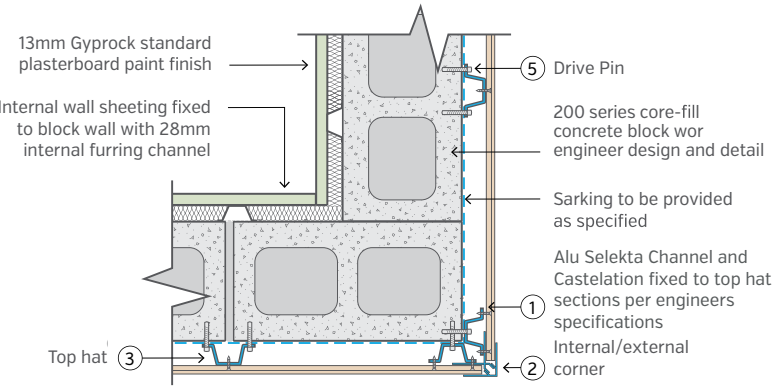



B. Window detail

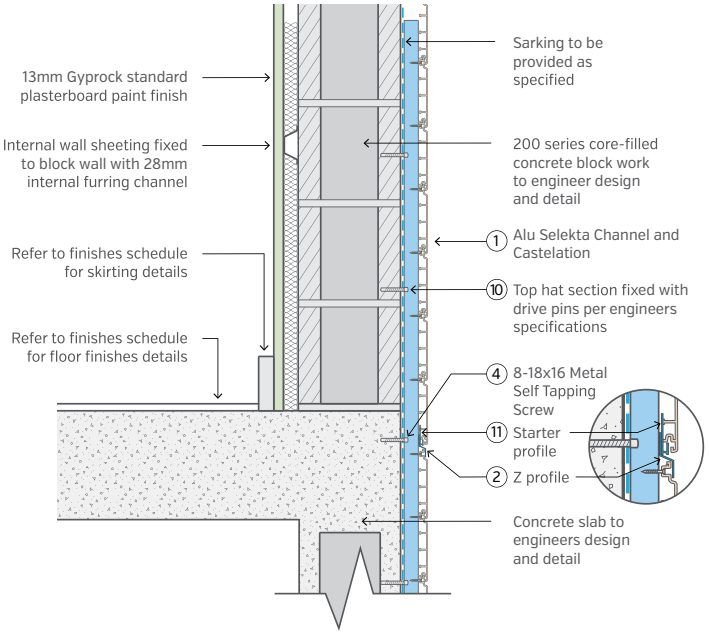



C. Soffit detail

Details are for light-weight construction techniques.




D. Light weight construction façade to soffit detail




E. Starter detail

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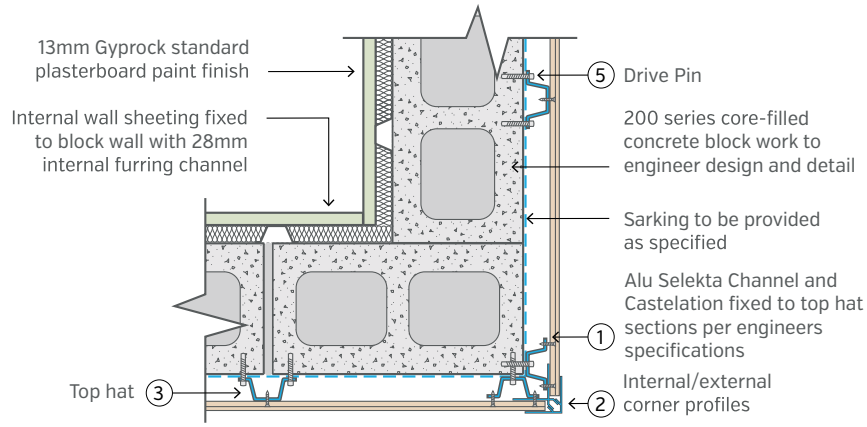
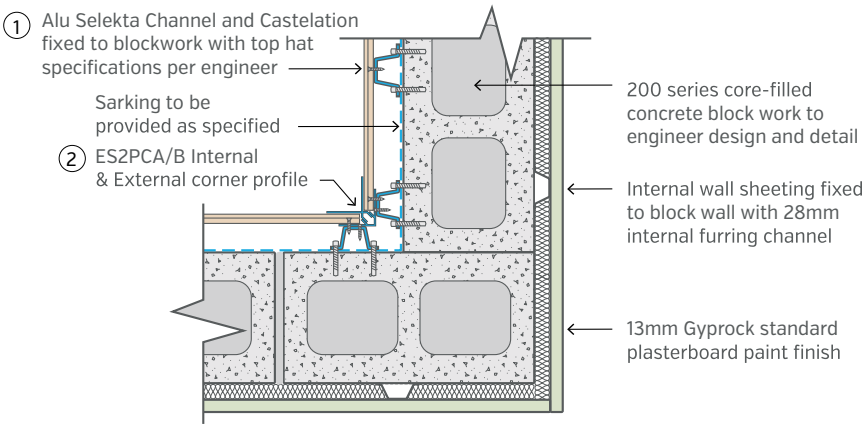
## Horizontal installation

1. Alu Selekta
2. Internal / external corner profile
3. Top hat section
4. 8-18x16 Metal Self Tapping Screw
5. Drive Pin




A. External corner details - masonry wall




B. Alternative internal corner detail - masonry wall

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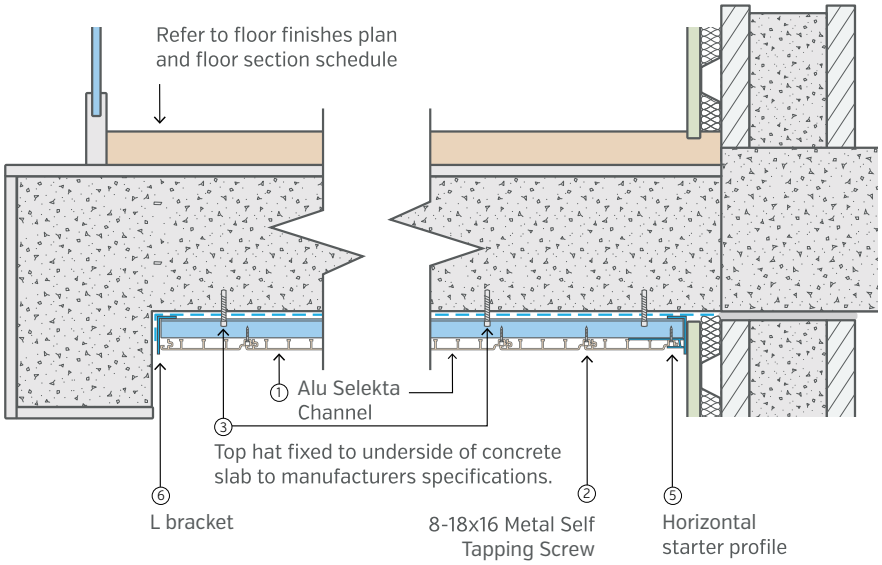
## Soffit installation

1. Alu Selekta façade profiles
2. 8-18x16 Metal Self Tapping Screw
3. Sub-framework, spacing approx. 625 mm, structural analysis to be performed by the customer
4. 8-18x16 Metal Self Tapping Screw
5. Starter profile
6. L bracket.



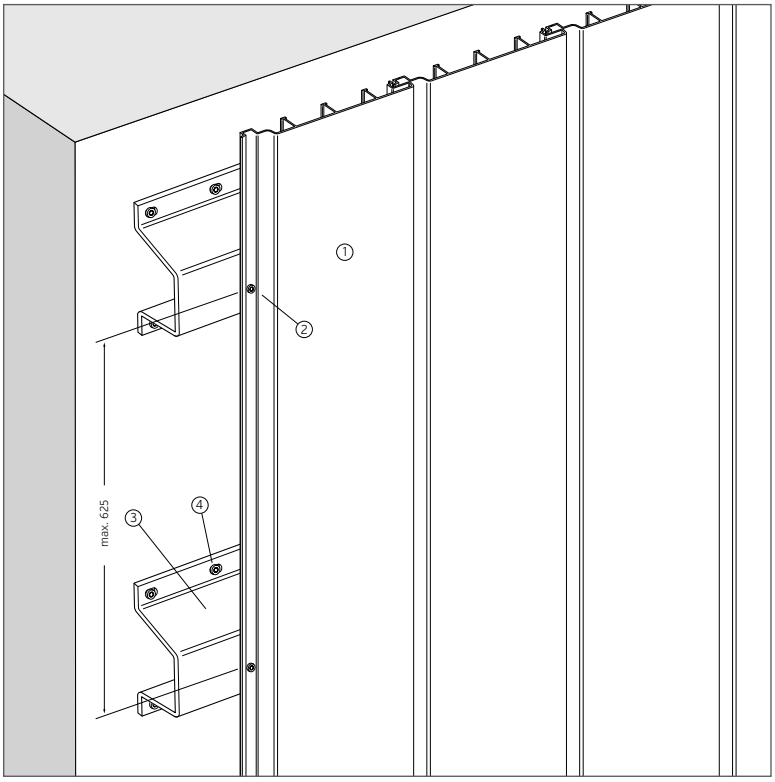

A. Soffit installation detail

### Important Building Design Notes:

- Designed with positive interlock so planks are self-supporting, as fixed into position in ceiling spaces.

## Vertical installation

1. Alu Selekta façade profiles
2. 8-18x16 Metal Self Tapping Screw
3. Sub-framework, spacing approx. 625 mm, structural analysis to be performed by the customer
4. Drive Pin.




B. Vertical installation detail

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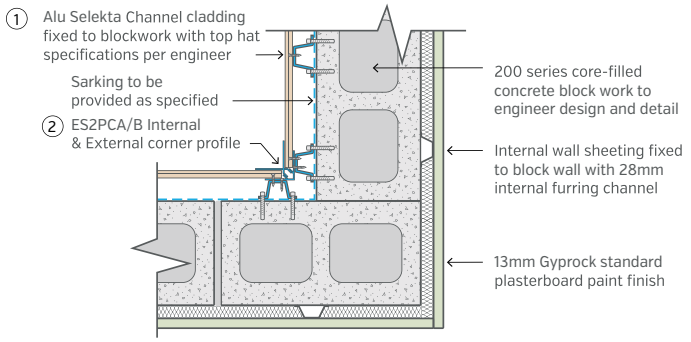
## Vertical installation

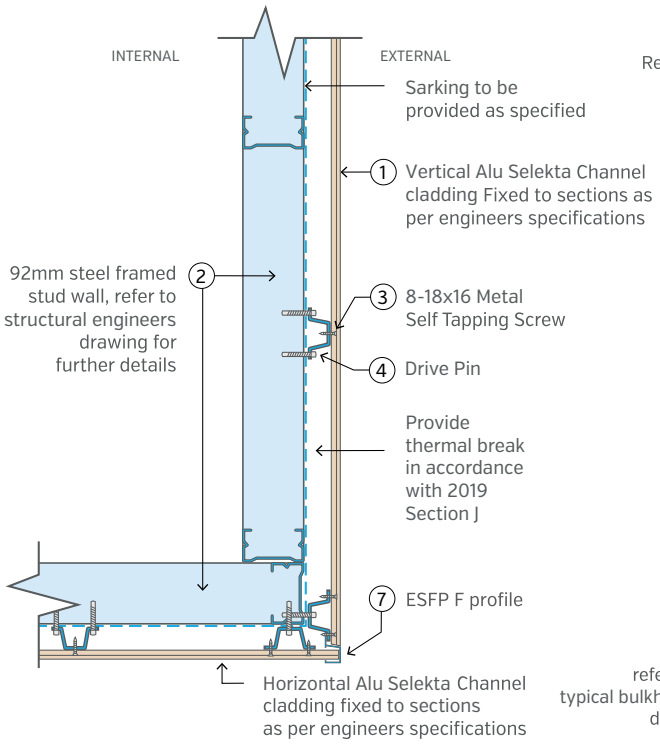
1. Alu Selekta façade profiles
2. Sub-framework
3. 8-18x16 Metal Self Tapping Screw
4. Drive Pin
5. Aluminum external corner profile
6. Aluminum internal corner profile
7. F profile
8. Top Hat Section
9. Vertical starter profile
10. Z profile



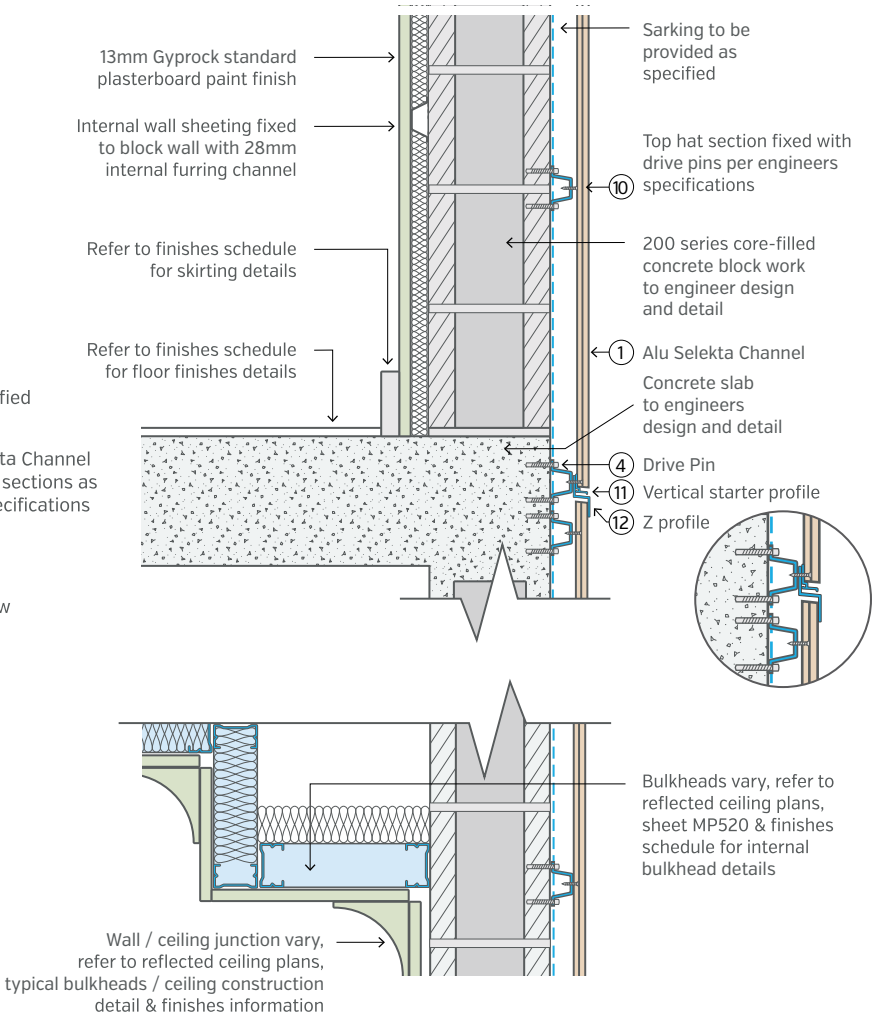

A. Alternative internal corner detail - masonry wall

Alternative details utilising light-weight construction techniques.

**Please Note:** Refer to Generic Structural Design Certificate (available on our website)




B. Light weight corner detail




C. External masonry wall detail

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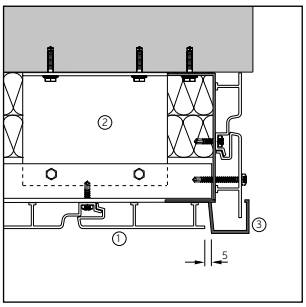
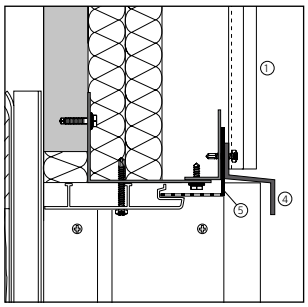
## Vertical installation

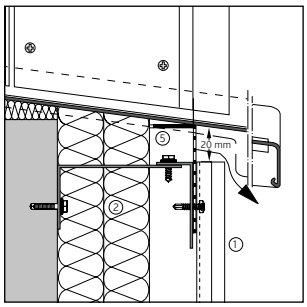
1. Alu Selekta façade profiles
2. Sub-framework
3. Connection profile F
4. Z profile
5. Ventilation profile 30/90
6. Internal/external corner profile
7. L bracket 20x20 fixed to Alu Selekta Channel with 8-18x16 Metal Self Tapping Screw.



A. Soffit detail

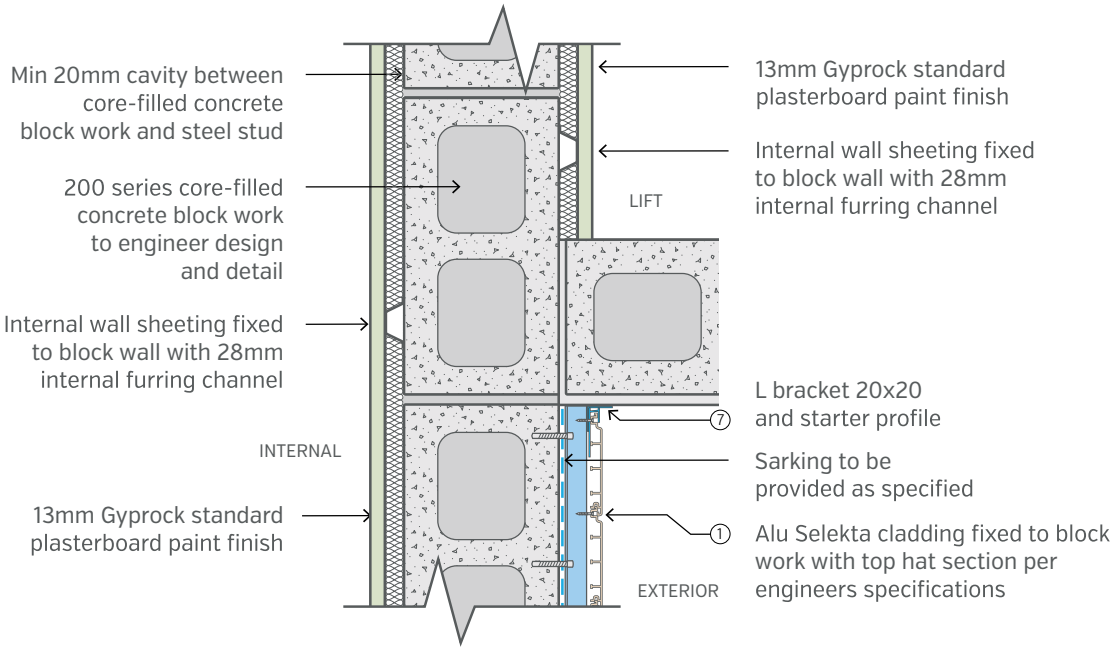


B. Window head detail

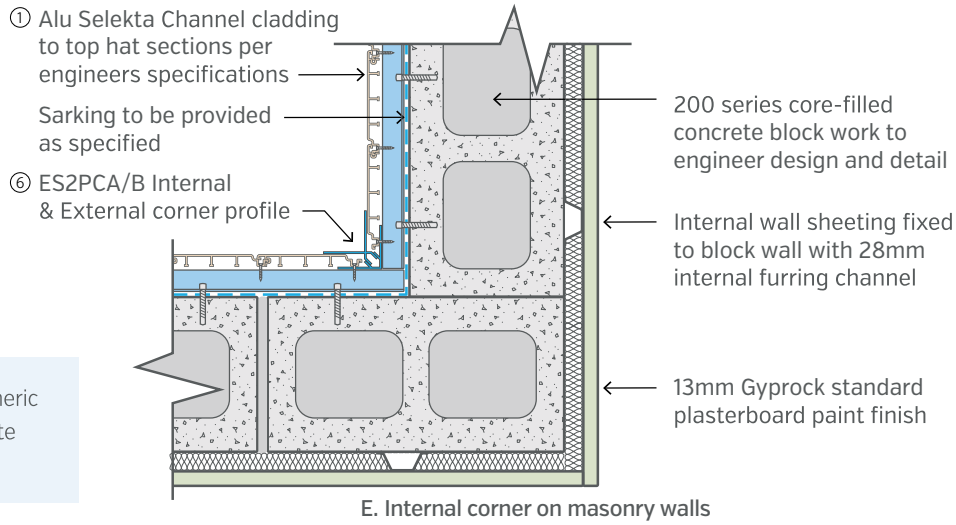



C. Window sill detail

Alternative details utilising light-weight construction techniques.




D. Wall junction detail




E. Internal corner on masonry walls

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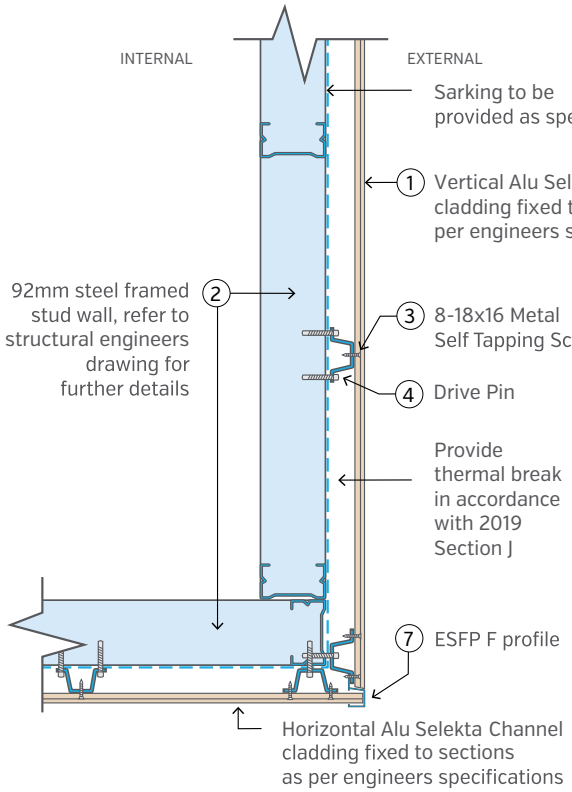
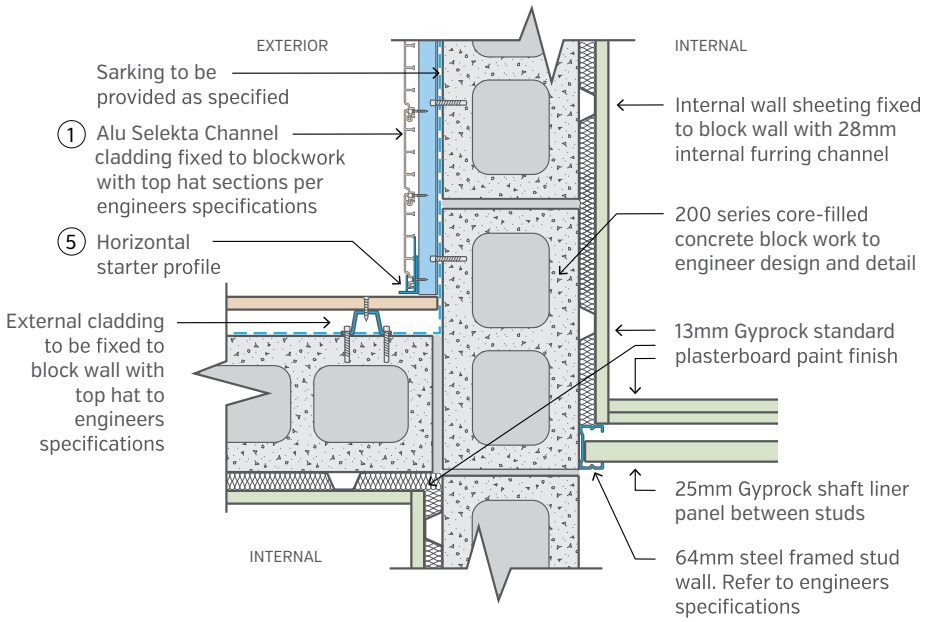
## Vertical installation

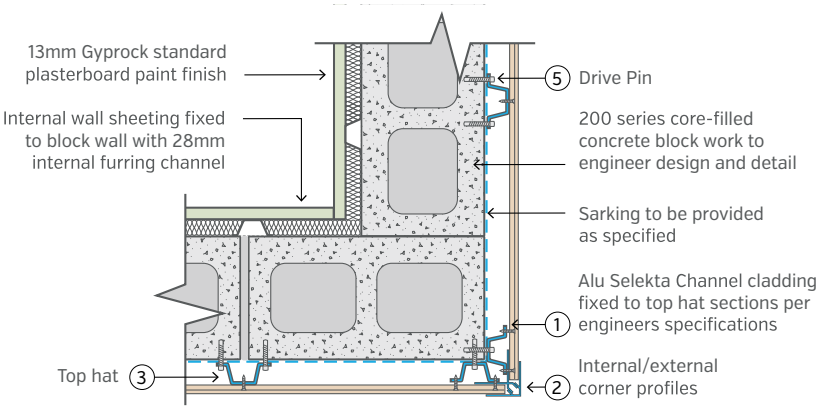
1. Alu Selekta façade profiles
2. Sub-framework
3. 8-18x16 Metal Self Tapping Screw
4. Drive Pin
5. Horizontal starter profile
6. ESPF profile




A. Light weight façade & soffit detail




B. Internal wall termination detail




C. External corner on masonry wall detail

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# General guidelines

## Handling

The Alu Selekta Channel profiles must be stored in their packaging, lying flat until use.

## Sawing with power tools

Aluminium saw blade must be used to cut profile.

## Fastening the façade profiles

Suggest 8-18x16 Metal Self Tapping Screw (Screw head must be a minimum of 8mm in Diameter) or equivalent. Pre-drill Ø 0.4mm holes. Centre the fastening screws onto the screen recess grooves. To fasten efficiently, the screw head rests against the surface.

## Fastening of all connection profiles

Suggest 8-18x16 Metal Self Tapping Screw (Screw head must be a minimum of 8mm in Diameter).

**Please note:** Contact your structural engineer for further compliance with your project wind load and terrain category requirements.

**Generic Structural Design Certificate:**
Battens spaced in accordance with the Summermore Design Tables. Fixing of the Sub-Framework Battens to the Sub-Structure is to be designed for by others.

## Sub-framework

Façade profiles are typically fastened to a galvanised mild steel structural sub-frame. In principle, the following guidelines should be followed:

a) Compliance to Australian & NZ Building Codes is essential.

b) Fixing of the Sub-Framework Battens to the Sub-Structure is to be designed for by others.

c) The support battens must be fastened as per Australian Building Codes. The support battens must be fastened as per Australian Building Codes and in accordance with Design Advice by Others.

d) The sub-framework must be level and plumb.

e) Sub-Framework is to be provided by a minimum thickness 0.75mm G550 Battens spaced in accordance with the Summermore Design Tables.

## Cut edges

Cut edges with a sharp aluminium saw blade. In coastal regions (up to approximately 50 km inland), all cut edges must be protected against corrosion. Paint ends if required.

## Expansion

8-18x16 Metal Self Tapping Screw clearance allowed for in profile.

The length change of the façade profiles is approximately 1 mm/linear m, for a 40°C temperature differential. Expansion joints of 5 mm must be maintained at profile butt joints and profile connections.

## Maintenance

On an annual basis use a soft sponge or cloth, hose with water and mild detergent, non-abrasive soap with the pH range of 5-9 to clean the powder coated area of dirt, grim and other debris. Pressure washing and the use of harsh detergents or chemicals is not recommended. Include in your maintenance records the following: date, time, specific products used, name of maintenance person and their designation, maintenance company name and general condition of the powder coated finish.

*If you have additional questions, please contact Modinex Architectural – 1800 156 455. Subject to changes due to technical improvements.*