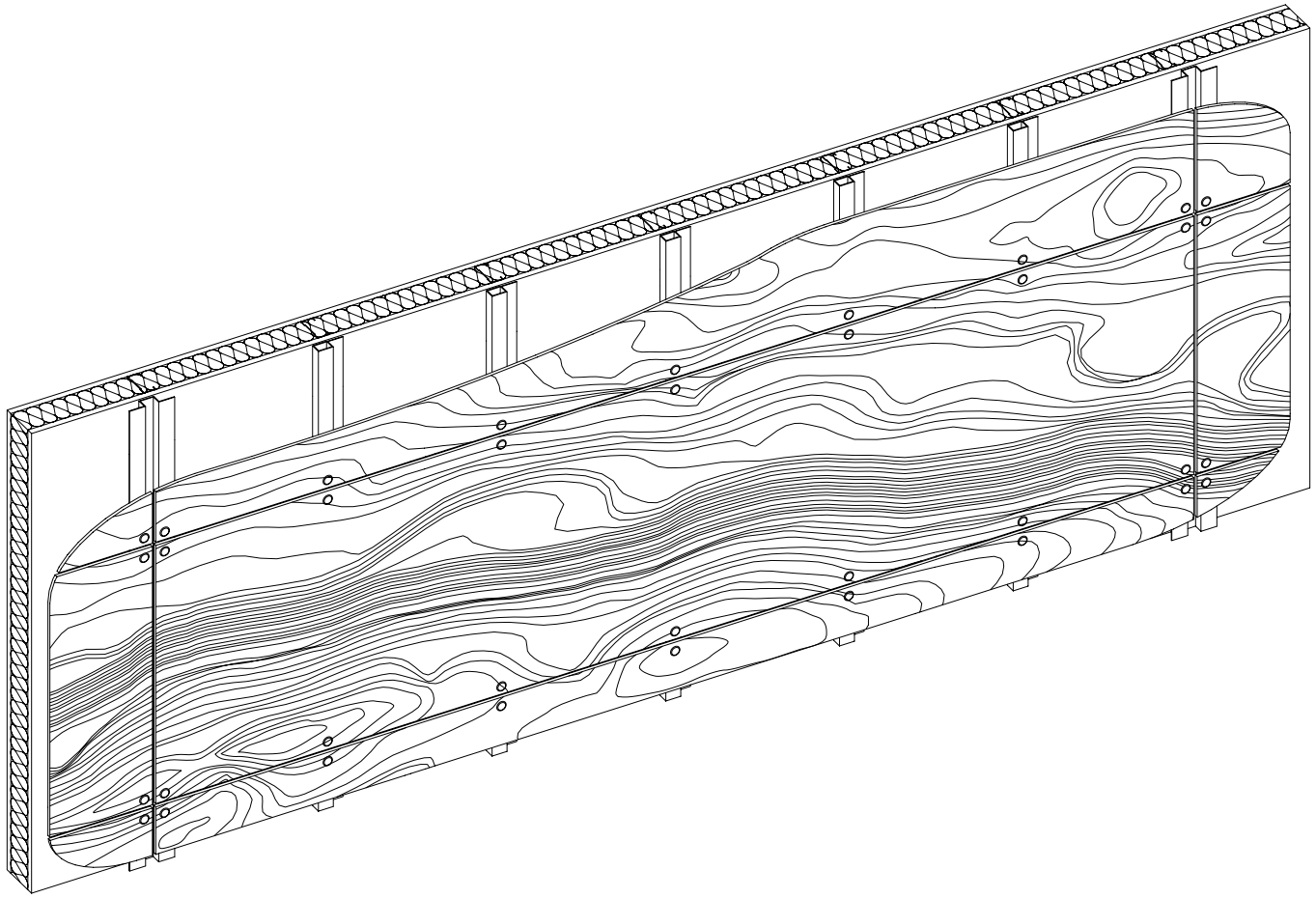


EXPOSED FASTENING WITH SCREWS OR RIVETS
GRCLAD

PARKLEX PRODEMA

V.3. 2024/09

How to install GRCLAD using exposed fastening with screws or rivets

GRCLAD-W and GRCLAD-B panels can be installed by using exposed fastening with screws or rivets.

This installation system is valid for installing on to facades, exterior soffits or interior walls and ceilings.

Panels may be installed using visible mechanical fasteners, such as screws or rivets lacquered the same finish as the panel. The panels are mounted on vertical profiles to create a ventilated chamber behind the panels. In the event that the wall is not perfectly vertically aligned, wall brackets or shims are used to regulate the depth of the channel installation.

Panel thicknesses: 6,4 mm

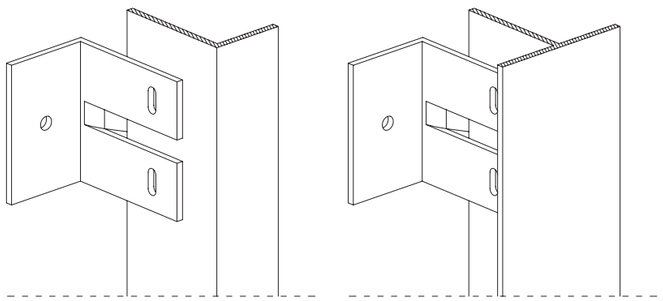
Panel dimensions: 8’ x 4’

Panel layout:

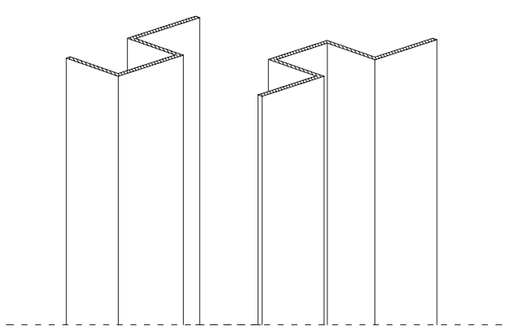
	HORIZONTAL	VERTICAL
GRCLAD-W	√	√
GRCLAD-B	√	√

Substructure subframe:

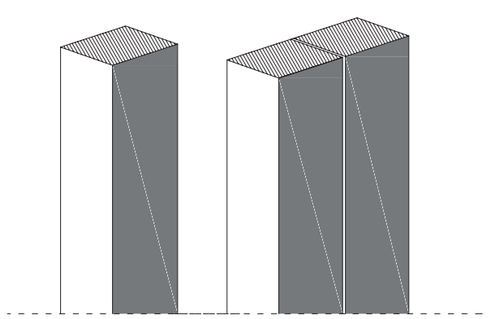
Aluminium Ls, T and wall brackets



Aluminium Js and Hats



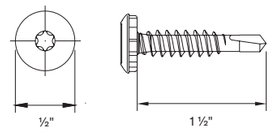
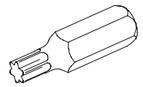
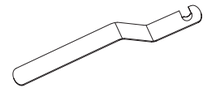
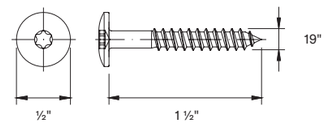
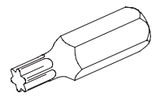
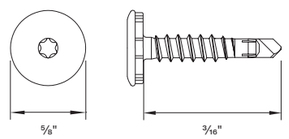
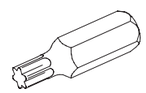
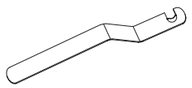
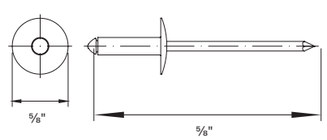
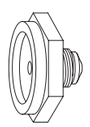
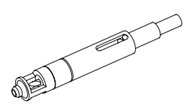
Wooden batten



System Components:

TYPES OF FASTENERS

Installation accessories for Exposed Fastening with Screws or Rivets

Fixing	Recommended installation tools
SX3-L12, SX3 D12: Screw for mounting on metal profiles. Drill capacity in aluminum: max. ⅛" and min. 3⁄32". Drill capacity in steel: max. 5⁄64" and min. 1⁄16". Torx head. 	 T25W Adapter For SX3 screws with Torx head  SX Centering seat Ensures the concentric insertion of the screw to the panel, as well as its perpendicularity.
TWS-D12: Screw for fixing to timber battens. Torx head. 	 T20 W Adapter For TW-S screws with Torx head.
SX3-D16 Screw for mounting on metal profiles specially designed for dry areas. Torx head. Drill capacity in aluminum: max. ⅛" and min. 3⁄32". Drill capacity in steel: max. 5⁄64" and min. 1⁄16". 	 T25W Adapter For SX3 screws with Torx head  SX Centering seat Ensures the concentric insertion of the screw to the panel, as well as its perpendicularity.
AP16: Rivet for fixing to aluminum profiles. Assembly capacity: 5⁄8": 5⁄16" - 31⁄64" 	 AP Nozzle This is fitted into the riveter for rivet installation on floating points.  Centering seat with integrated bit Enables to perform the pre-drilling of the subframe concentrically to the wall.

Assembly instructions:

The ventilated facade has several advantages over a conventional façade:

– Permeability: Moving air difuses water vapour from the inside out and facilitates the ventilation of the façade, preventing condensation behind the panels.

– Water protection: Moving air provides protection from the elements, because it avoids water filtering the building.

– Thermal insulation: The load-bearing frame is insulated from the exterior subframe, eliminating thermal bridges. In this manner, temperature fluctuations are reduced in the interior, leading to energy savings.

– Solar protection: Thermal confort is improved inside the building by preventing overheating in the summer, as it facilitates 'breathing' of the façade. This reduces the amount of thermal energy that reaches the inside of the building. The internal structure is protected from direct radiation and from the elements

– Acoustic protection: The panels also act as a barrier for acoustic waves reducing the amount of noise coming from the outside.

Ventilation behind the panel is required.

For the installation of panels in ventilated façade mode, the panels are installed on vertical profiles, creating an interrupted flow of air in the rear part of the panel.

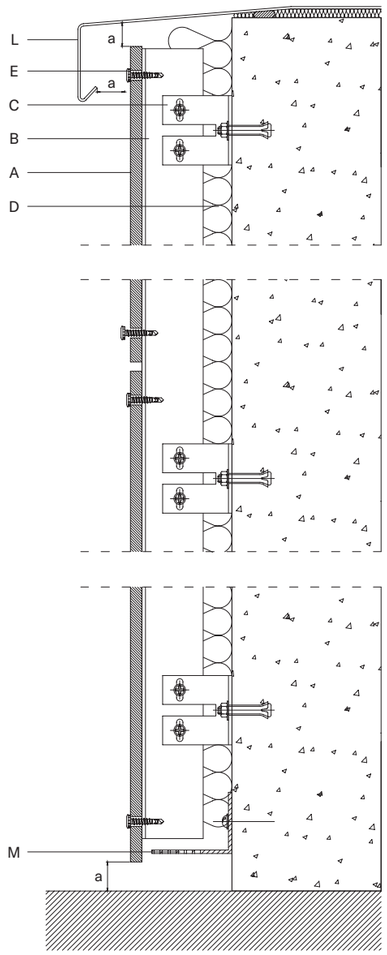
Cladding panels must be installed as a ventilated façade; therefore, they must be separated from the wall with profiles, which are installed vertically, forming a chamber with a free ventilated space of ≥ ¾", except in those countries with specific technical documents. In the event that some type of insulation is installed, a double-profile subframe or a single-profile subframe with adjustable supporting elements must be installed, ensuring that the chamber is maintained. To permit air circulation in the ventilated chamber, the air intake and output must be correctly proportioned.

Head ventilation:

The ventilation at the head of the chamber must be ≥ ¾". This ventilation space must be left whenever there is an interruption in the face of the cladding panels.

Base ventilation:

The ventilation at the base of the chamber must be ≥ ¾". This ventilation space must be left whenever there is a new base i.e. if the cladding panels are interrupted by windows or other elements.

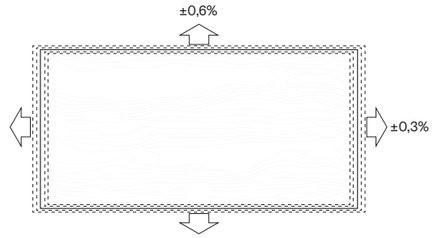


A. Cladding panel
B. Vertical metal profile
C. Wall bracket
D. Insulation
E. Screw
L. Metal sheet
M. Screen
a ≥ ¾" (except for specific technical documents)

Dimensional Stability:

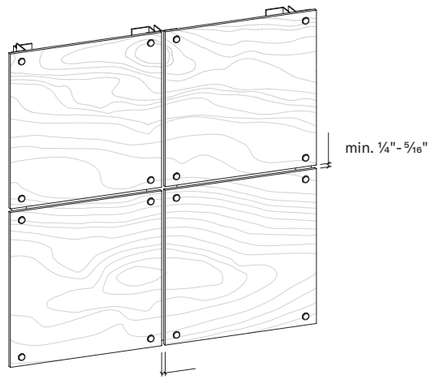
It must be kept in mind that the exterior panels will be exposed to changing seasons over the years, and they are composed of natural wood. Given that wood is a living material which suffers dimensional variations due to changes in humidity and temperature, it is important that the fixings used are the indicated by PARKLEX PRODEMA, allowing the panels to move and not blocking their free expansion and contraction.

All our cladding panels are resistant to vapor, water, snow and ice. However, we do not recommend submerging panels permanently or for extended periods of time.



Expansion Joints:

It is necessary to leave expansion joints around the perimeter of all panels to ensure they can absorb any expansion movements. The thickness of these joints depends on the panel dimensions and the façade design. As an example, for panels measuring 4'x8', these joints must be at least 1/4" - 5/16". It is recommended not to seal the joints with flexible materials, as this may lead to an accumulation of dirt around the edges of the panels.

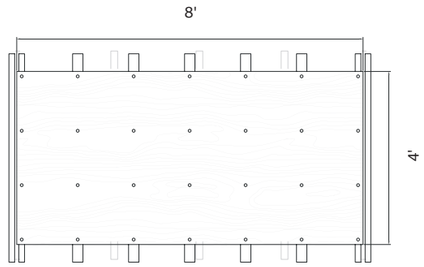


Minimum Support Points per Panel:

For fastening the screws on PARKLEX PRODEMA panels it is required to do predrilled holes on the panel.

Distance between fasteners:

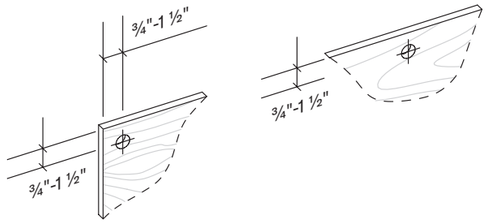
THICKNESS	MAXIMUM DISTANCE
¼" (6,4 mm)	16"



Profile distribution for ¼" cladding

Distance from the edge of the panel to the panel perforation:

The distance between the center point of the screw/ rivet and the panel edge must be between 3/4" – 1 1/2".



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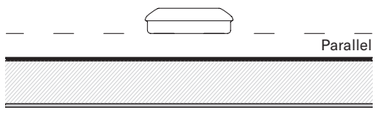
How to install GRCLAD using exposed fastening with screws or rivets

Position of the Screw or Rivet when installing the panel:

The screw / rivet must be centered in the hole to permit dimensional variations.

It is also very important for the fixing head to be completely parallel with the panel surface. Be sure that the head of the fastener doesn't make an excesive pressure on the panel and allows its movement due to dilatations. It is recommended the use of a depth locator during installation.



When using rivets for the facade installation, it is mandatory to use the specified centering seat and AP nozzle in order to allow a correct tolerance between the rivet and the panel. This accessories also avoid overclamping the rivets to the panel, which can lead to possible issues.

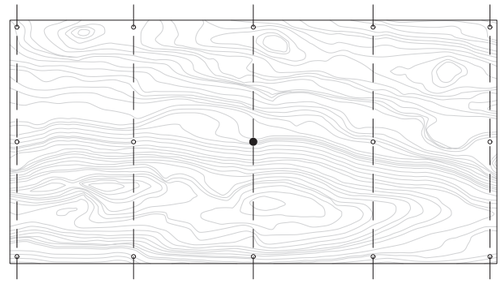
PARKLEX PRODEMA recommends using either GESIPA Accubird PRO CAS, GESIPA Powerbird PRO CAS or GESIPA Accubird riveting guns to ensure a correct application.

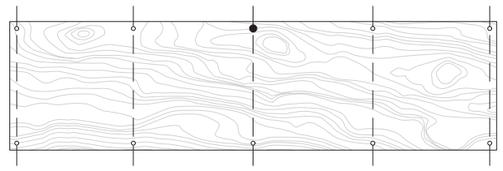
Countersunk screws are not allowed:

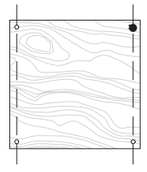
PARKLEX PRODEMA does not allow installing tongue and groove panels for exterior façades. This system is fastened using countersunk screws that prevent the panels from moving, which is insufficient for the proper functioning of the PARKLEX PRODEMA panels.

Diameter of holes for Screws or Rivets:

All mounting points must be floating with a diameter of at least 11/32", except for one, which must be fixed with a diameter of at least 1/4". This fixed point must be as close as possible to the center of the panel.



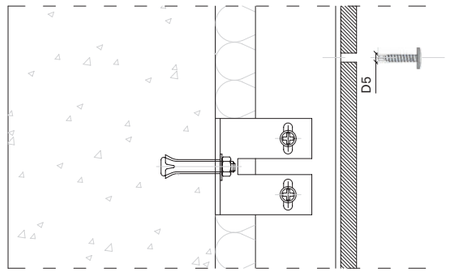




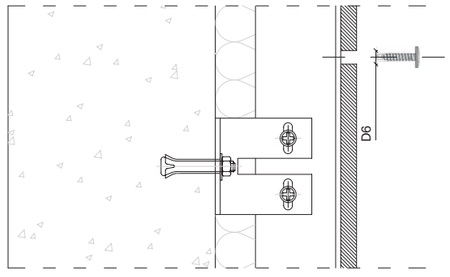
● Fixed Points
○ Floating Points

Types of Fasteners:

SCREW (for dry climates)
Metal profile
SX3-D16 (5.5 mm x 32 mm)
Torque of 3Nm (25 lb in)



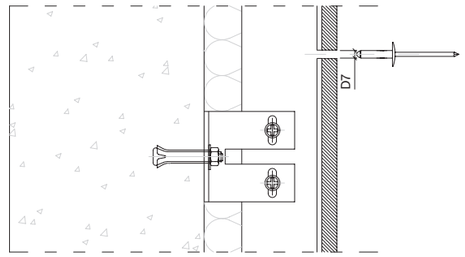
[Fixed point]



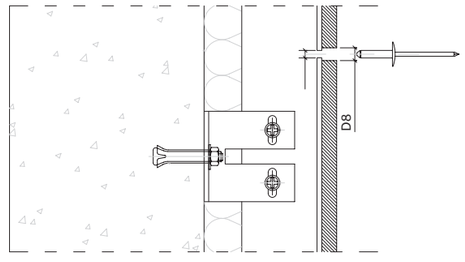
[Floating point]

D5 - 1/4"
D6 - 3/8"

RIVET
Aluminum profile
AP16 (5 mm x 16 mm)



[Fixed point]



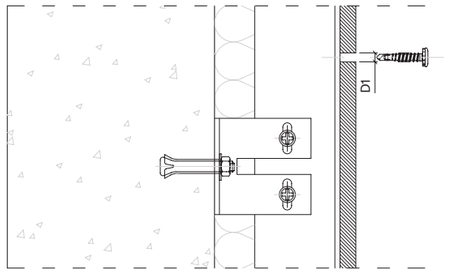
[Floating point]

D7 - 1/4"
D8 - 21/64"

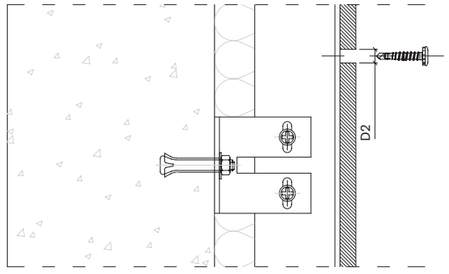
How to install GRCLAD using exposed fastening with screws or rivets

Types of Fasteners:

SCREW
Metal profile
SX3-D12 (5.5 mm x 32 mm), SX3-L12
Torque of 3Nm (25 lb in)



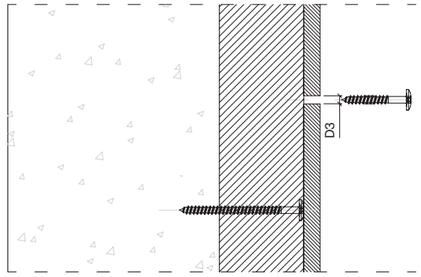
[Fixed point]



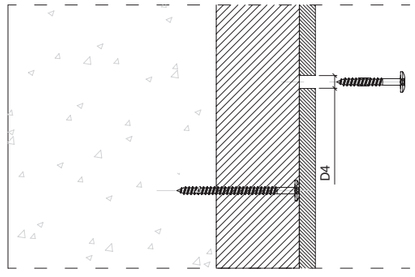
[Floating point]

D1 - 1/4"
D2 - 11/32"

SCREW
Timber batten
TWS D12 (4.8 mm x 38 mm)



[Fixed point]



[Floating point]

D3 - 1/4"
D4 - 11/32"

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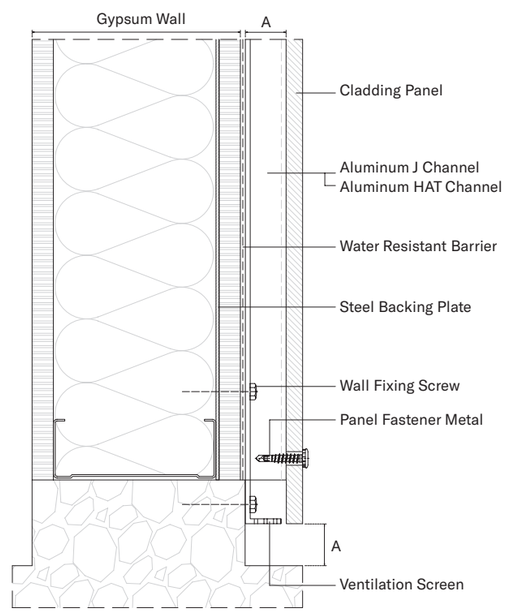
Installation details:

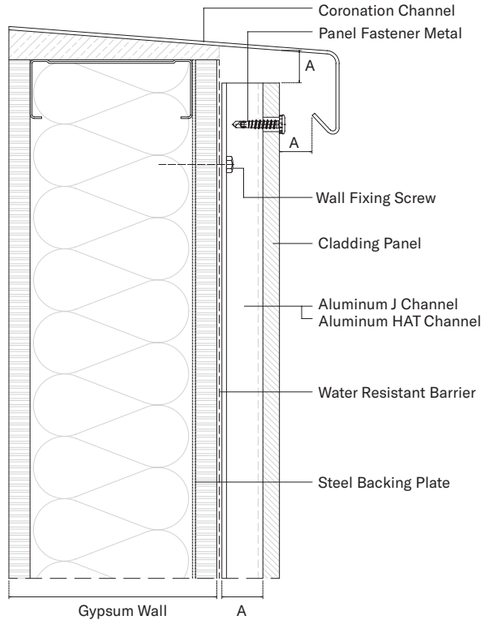
PARKLEX PRODEMA has an extensive range of solutions showing all types of installation details to address corners, windows, crowns, etc. All of these details are available on the Technical Area of the PARKLEX PRODEMA website.

BASE DETAIL



A > ¾"

HEAD DETAIL

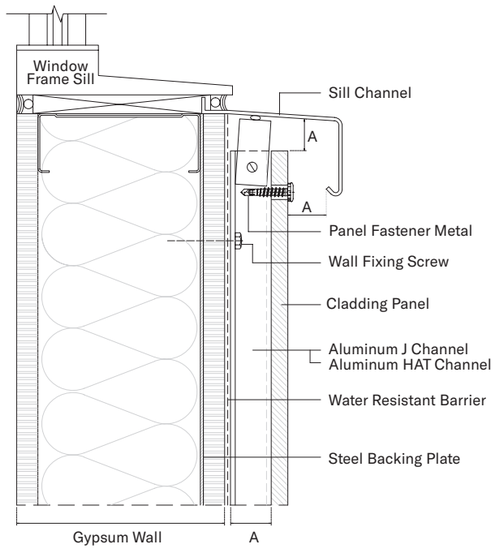


A > ¾"

How to install GRCLAD using exposed fastening with screws or rivets

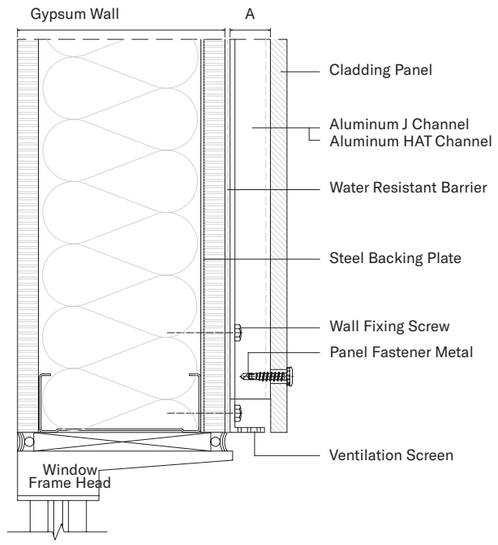
WINDOW SILL

A > ¾ “



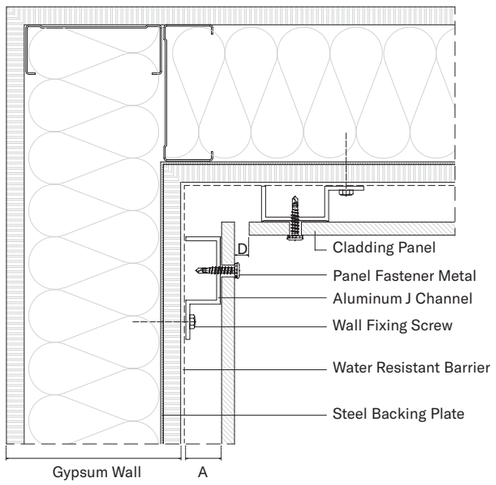
WINDOW HEAD

A > ¾ “



INSIDE CORNER

A > ¾ “
D > ¼ “



VERTICAL JOINT

A > ¾ “
D > ¼ “