

EXPOSED FASTENING WITH SCREWS OR RIVETS
NATURCLAD, NATURSOFFIT-W, NATURHARDPANEL-W

PARKLEX PRODEMA

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets

NATURCLAD-W, NATURCLAD-B, NATURSOFFIT-W and NATURHARDPANEL-W panels can be installed by using exposed fastening with screws or rivets.

Panel dimensions:
 8' x 4' (2400 x 1220mm)
 8.86' x 4' (2700 x 1220 mm) upon request

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

Panel layout:

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 air chamber behind the panels. In the event that the wall is not perfectly plumb, wall brackets or shims are used to adjust the depth of the channel installation.

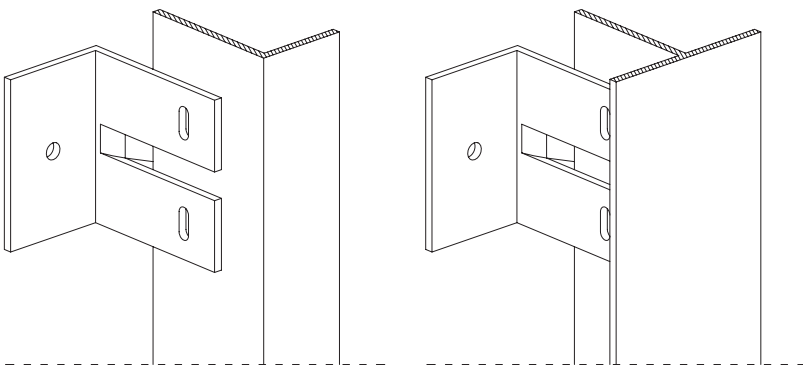
	HORIZONTAL	VERTICAL
NATURCLAD-W	✓	✓
NATURCLAD-B	✓	✓
NATSURSOFFIT-W	✓	✓
NATURHARDPANEL-W	✓	✓

Panel thicknesses:

	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm	22mm
NATURCLAD-W	✓	✓	✓	✓	✓	✓	✓	✓	✓
NATURCLAD-B	✓	✓	✓	✓	✓	✓	✓	✓	✓
NATSURSOFFIT-W	✓	✓	✓	✓	✓				
NATURHARDPANEL-W	✓	✓	✓	✓	✓	✓	✓	✓	✓

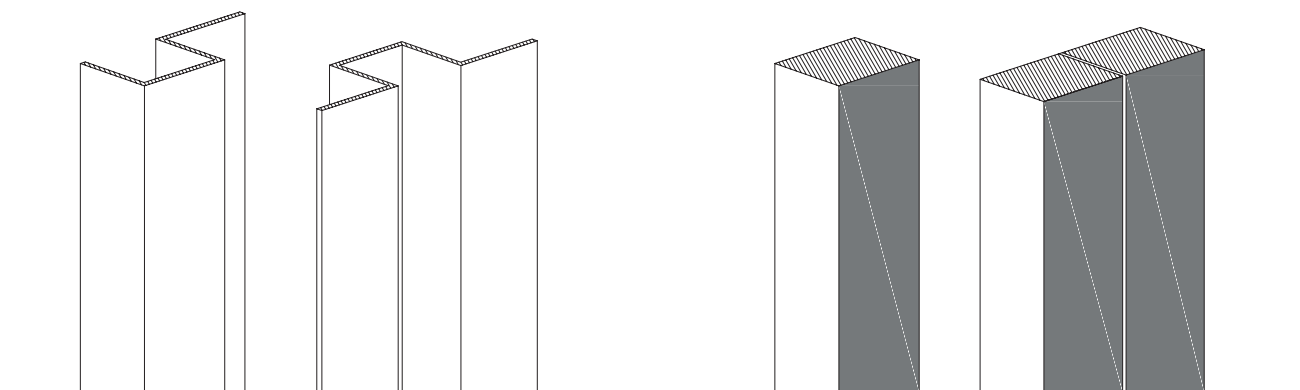
Subframe:

Aluminium Ls, T and wall brackets



Aluminium Js and Hats

Wooden batten



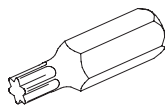
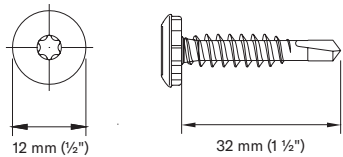
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System Components:

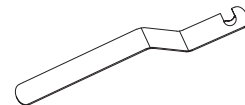
Fixing

Recommended installation tools

SX3 D12: Screw for mounting on metal profiles. Drill capacity in aluminum: max. 3 mm (1/8") and min. 2,5 mm (3/32"). Drill capacity in steel: max. 2 mm (5/64") and min. 1,5 mm (1/16"). Torx head.

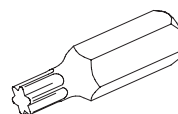
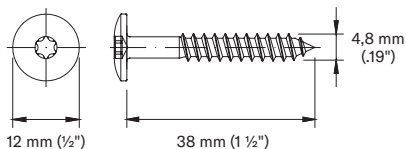


T25W Adapter
For SX3 screws with Torx head



SX Centering seat
Ensures the concentric insertion of the screw to the panel, as well as its perpendicularity.

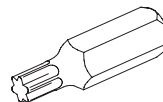
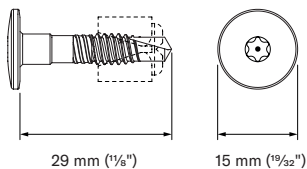
TWS-D12: Screw for fixing to timber battens. Torx head.



T20 W Adapter
For TW-S screws with Torx head.

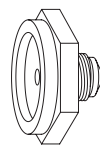
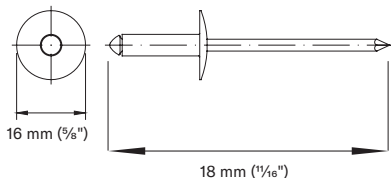
ONLY FOR USA AND CANADA:

SX4-D15-CSB10 screw for mounting on metal profiles. Specially designed for F core 8mm panels. Torx head. Subframe thickness (aluminium or steel) : 2,5mm

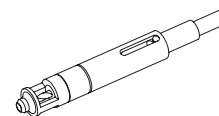


T25W Adapter
For SX3 screws with Torx head

AP16: Rivet for fixing to aluminum profiles. Assembly capacity: 18 mm (11/16"): 9,5 mm (3/8") - 13,5 mm (17/32")

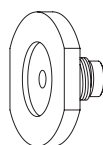
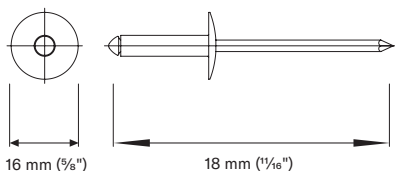


AP Nozzle
This is fitted into the riveter for rivet installation on floating points.

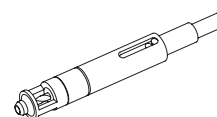


Centering seat with integrated bit
Enables to perform the pre-drilling of the subframe concentrically to the wall.

SSO-D15: Rivet for fixing to aluminum profiles in the event of applications located at a distance of ≤ 1 Km from the sea. Assembly capacity depending on the shaft length: 18 mm (11/16"): 8 mm (5/16") - 12 mm (15/32").



SSO-D15 Rivet 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.

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets

Assembly instructions:

Ventilation behind the panel is required.

The ventilated facade has several advantages over a conventional facade:

- Permeability: Moving air difuses water vapour from the inside out and facilitates the ventilation of the facade, 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 ventilation of the facade. This reduces the amount of thermal energy that reaches the inside of the building. The internal structure is protected from direct radiation and from other elements
- Acoustic protection: The panels also act as a barrier for acoustic waves reducing the amount of noise coming from the outside.

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

Cladding panels must be installed as a ventilated facade; therefore, they must be separated from the wall with profiles, which are installed vertically, forming a chamber with a space of $\geq 20\text{ mm}$ ($\frac{3}{4}$ "), except in those countries whose technical codes require a superior air gap.

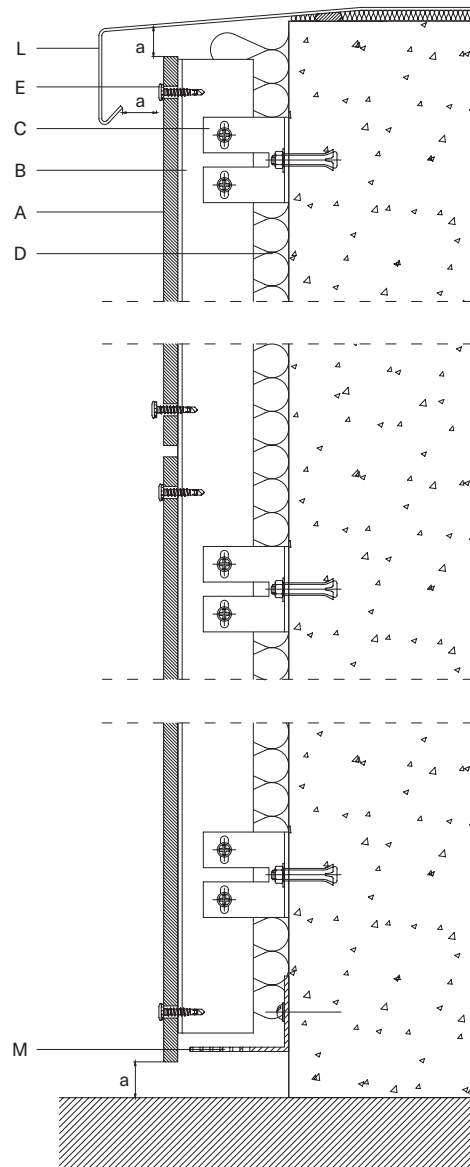
In the event that some type of insulation is installed, a double-profile subframe or a single-profile subframe with adjustable supporting elements must be installed, ensuring that the chamber is maintained. To permit air circulation in the ventilated chamber, the air intake and output must be correctly dimensioned.

Head ventilation:

The ventilation at the head of the chamber must be $\geq 20\text{ mm}$ ($\frac{3}{4}$ "). This ventilation space must be left to ensure that the air gap is continuous.

Base ventilation:

The ventilation at the base of the chamber must be $\geq 20\text{ mm}$ ($\frac{3}{4}$ "). This ventilation space must be left whenever there is a new facade base, both in the upper lintel of the windows and in the doors.



- A. Cladding panel
- B. Vertical metal profile
- C. Wall bracket
- D. Insulation
- E. Screw
- L. Metal sheet
- M. Screen

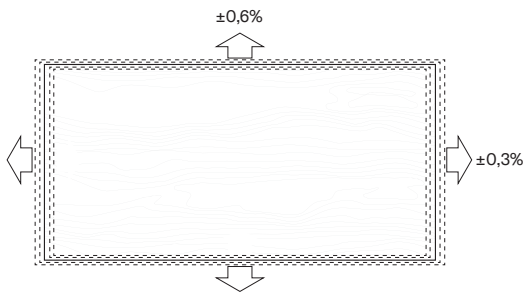
$a \geq 20\text{ mm}$ ($\frac{3}{4}$ ") (except for specific code requirements)

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Dimensional Stability:

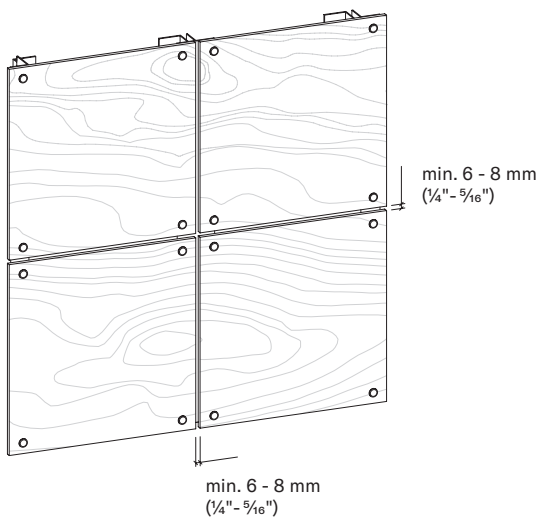
It must be kept in mind that the exterior panels will be exposed to temperature and humidity variations over the years, and they are composed of natural wood. Given that wood is a living material which suffers dimensional variations due to these changes, it is important that the fasteners used are the indicated by PARKLEX PRODEMA, allowing the panels to move and not blocking their 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 movement. The thickness of these joints depends on the panel dimensions and the facade design. As an example, for panels measuring 2440x1220 mm (4'x8'), these joints must be at least 6-8 mm (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.



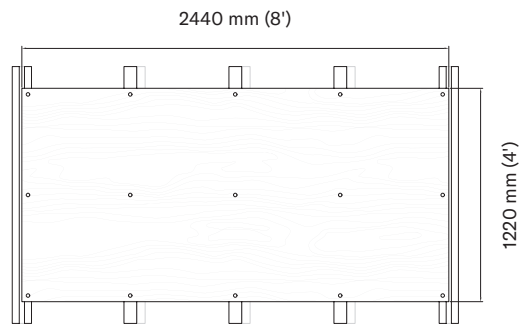
Minimum Support Points per Panel:

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

The distances between supporting points depend on the panel thickness.

Distance between fasteners:

THICKNESS	MAXIMUM DISTANCE
8 mm (5/16"), 10 mm (3/8")	600 mm (24")
≥12 mm (1/2")	800 mm (32")



Profile distribution for 8-10 mm (5/16"-3/8") Cladding.

Three supporting points are required in every direction:

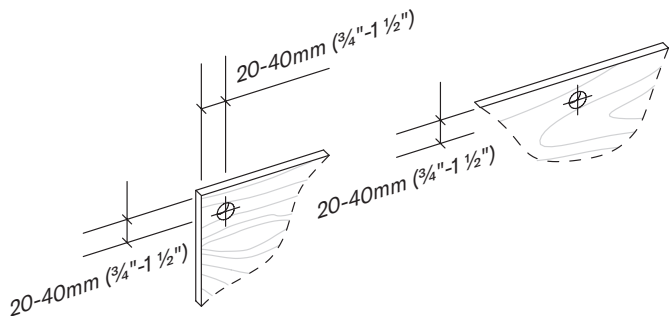
Pieces between 350mm and 600mm need an additional intermediate point. Narrower pieces can be installed with only two supporting points. See table below.

Exposed fixing	
2 support points	3 support points
100-350mm (4"-14")	350-600mm (14"-24")
Exception	

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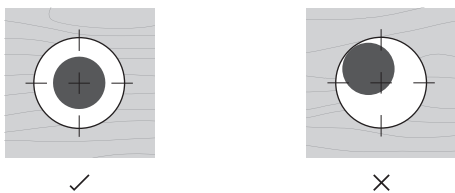
Distance from the edge of the panel to the panel perforation:

The distance between the center point of the screw/ rivet and the panel edge must be between 20-40 mm (3/4"-1 1/2").

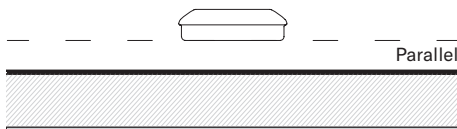


Position of the Screw or Rivet when installing the panel:

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 excessive pressure on the panel and allows its movement due to dilatations.



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 an excessive tightening torque of the rivets to the panel.

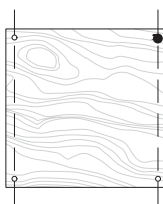
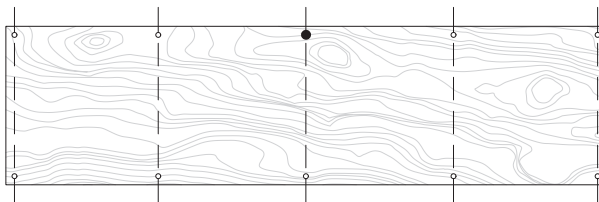
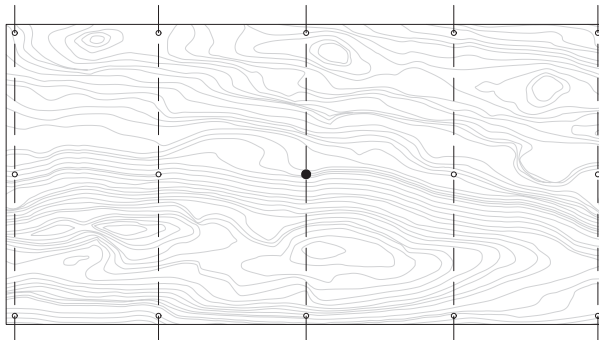
PARKLEX PRODEMA recommends using either GESIPA Accubird PRO CAS, GESIPA Powerbird PRO CAS or GESIPA Accubird riveting guns to ensure a correct application.

Countersunk screws are not allowed:

PARKLEX PRODEMA does not allow installing panels with countersunk screws that prevent the contraction and expansion of the panels.

Diameter of holes for Screws or Rivets:

All mounting points must be floating -please check sizes for floating points-, except for one, which must be fixed with a diameter of at least 5,5mm (1/4"). This fixed point must be as close as possible to the center of the panel.



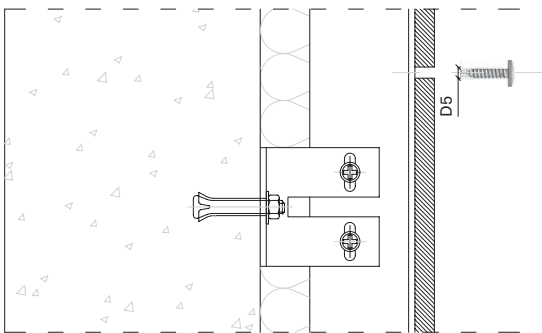
- Fixed Points
- Floating Points

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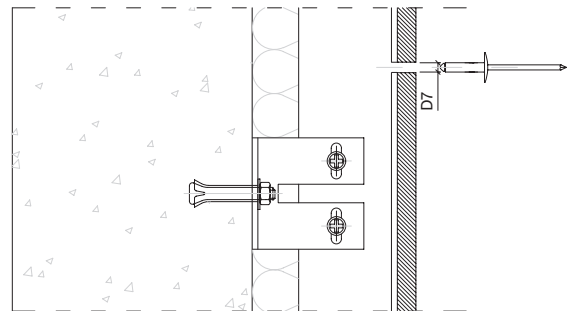
Types of Fasteners:

SCREW (for F core 8mm panels) ONLY AVAILABLE for USA and Canada
Only 2.5mm (1/8") thick metal channels
SX4-D15-CSB10

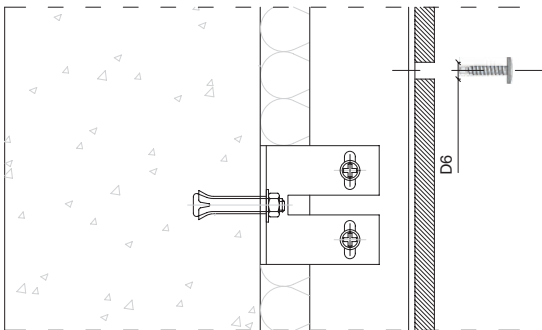
RIVET
Aluminum profile AP16 (5 mm x 18 mm)



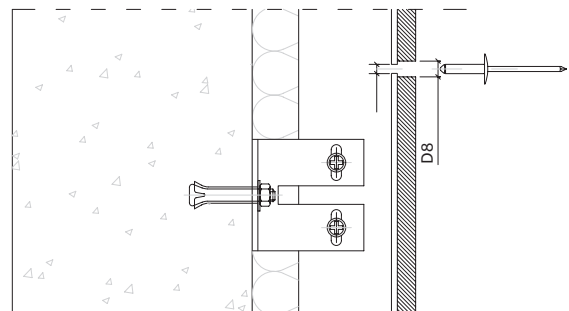
[Fixed point]



[Fixed point]



[Floating point]



[Floating point]

D5 - 5.5 mm (1/4")

D6 - 10 mm (3/8")

D7 - 5.1 mm (1/4")

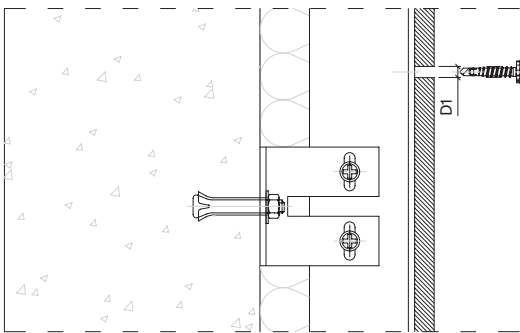
D8 - 8.1 mm (21/64")

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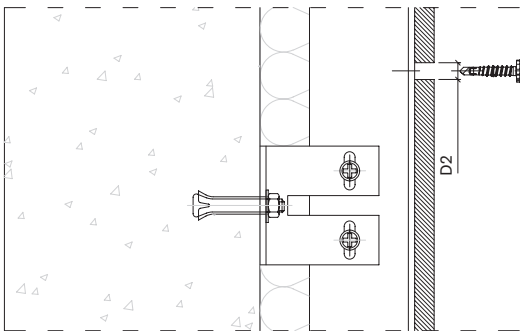
Types of Fasteners:

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

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

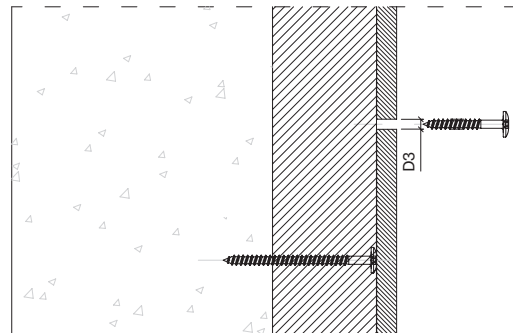


[Fixed point]

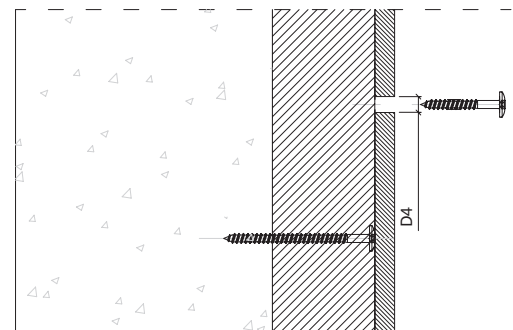


[Floating point]

D1 - 5.5mm (1/4")
 D2 - 8.5mm (11/32")



[Fixed point]



[Floating point]

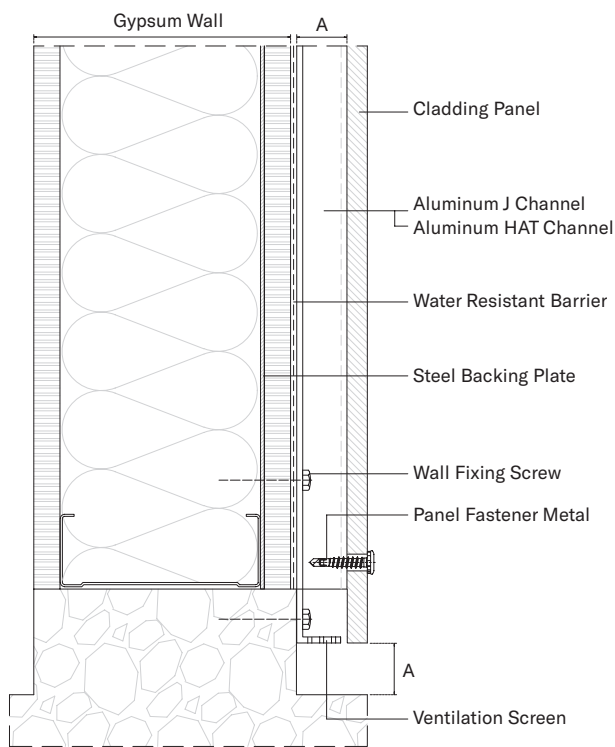
D3 - 5.5mm (1/4")
 D4 - 8.5mm (11/32")

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets

Installation details:

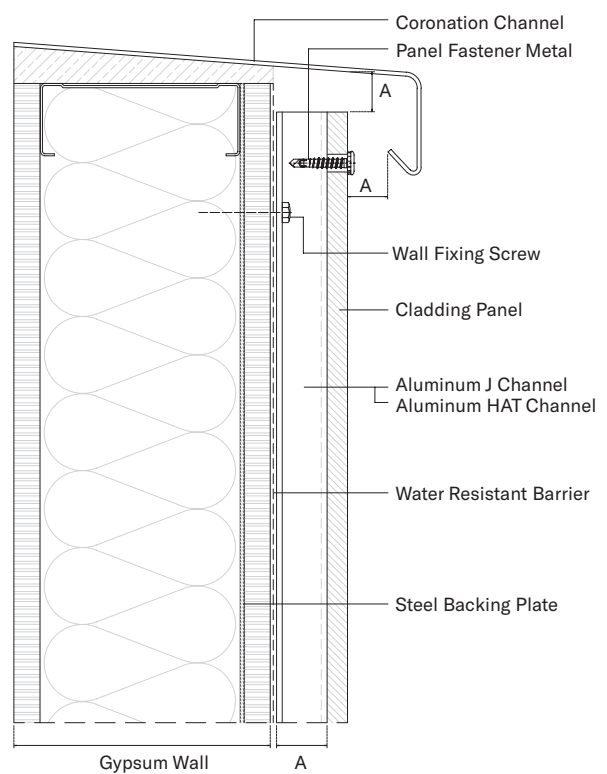
PARKLEX PRODEMA has an extensive range of solutions showing all types of installation details to address corners, windows, crowns, etc. All of these details are available on the Technical Area of the PARKLEX PRODEMA website.

BASE DETAIL



A > 20 mm (3/4")

HEAD DETAIL

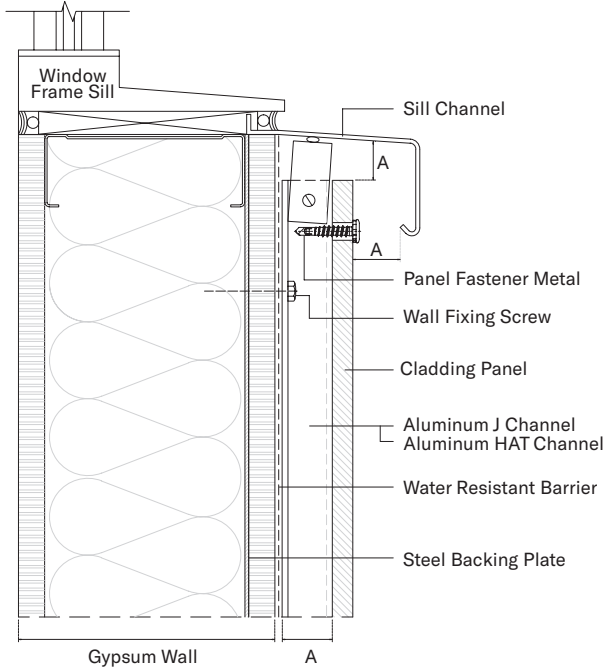


A > 20 mm (3/4")

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets

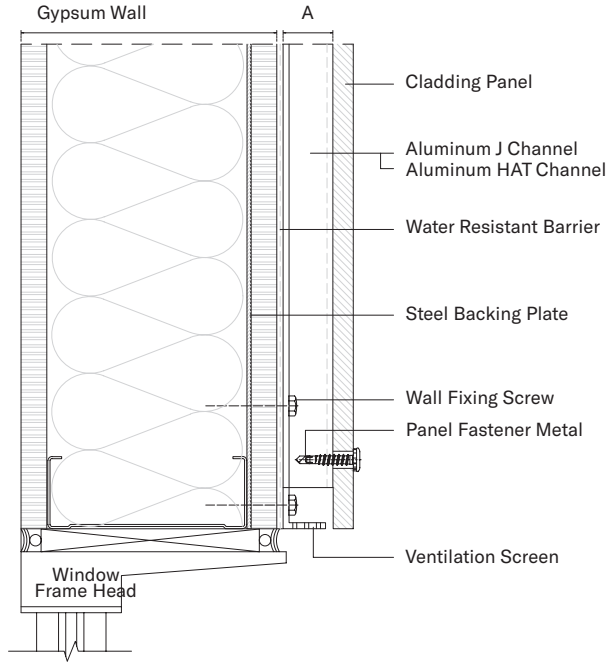
WINDOW SILL

A > 20 mm (3/4")



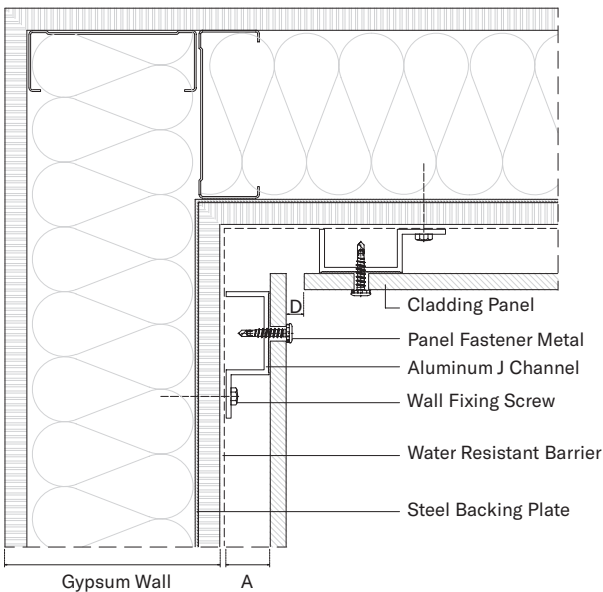
WINDOW HEAD

A > 20 mm (3/4")



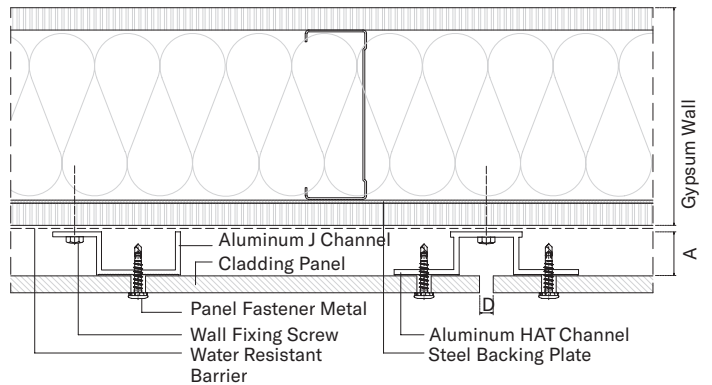
INSIDE CORNER

A > 20 mm (3/4")
D > 6 mm (1/4")

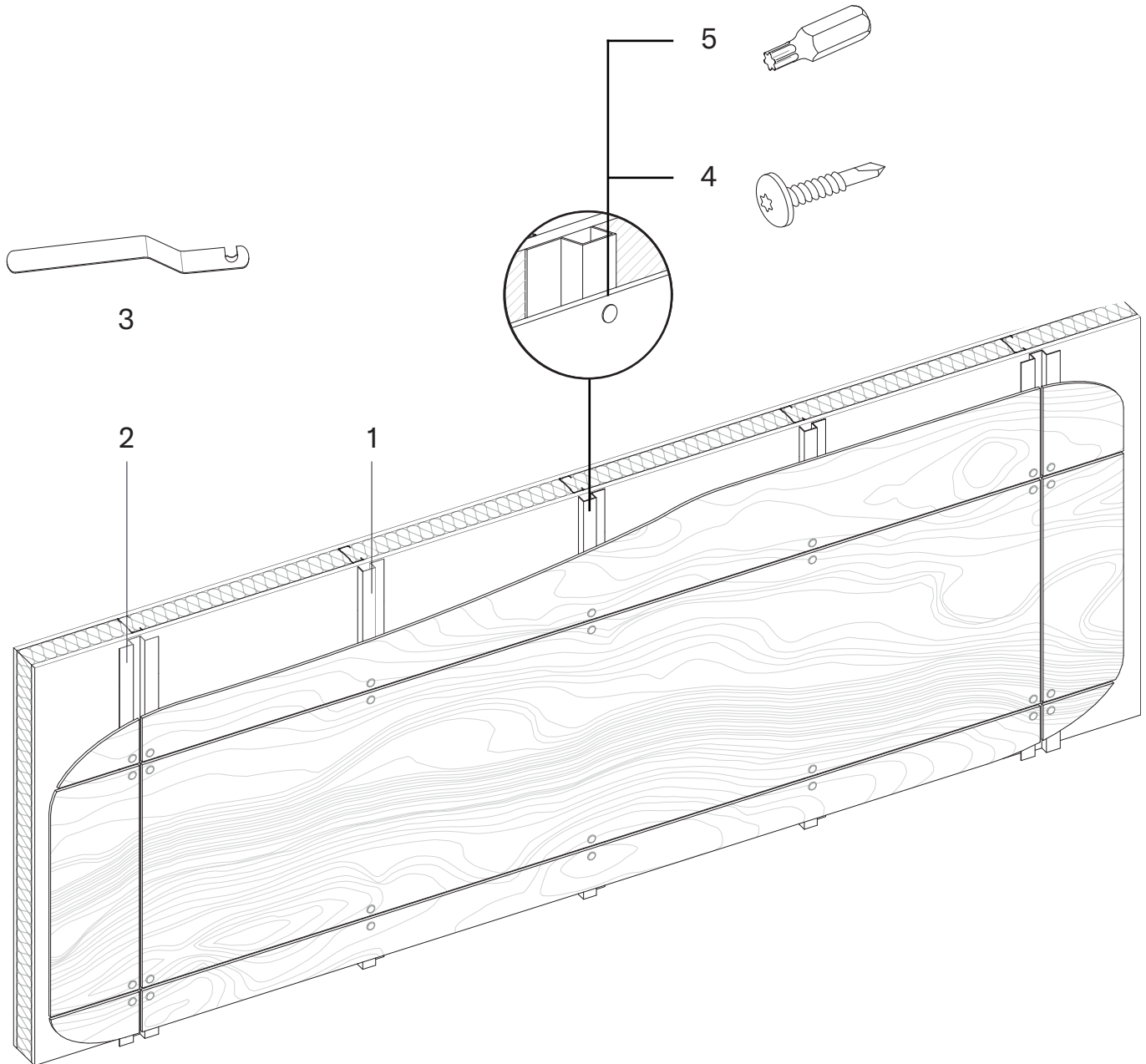


VERTICAL JOINT

A > 20 mm (3/4")
D > 6 mm (1/4")



How to install PARKLEX PRODEMA using exposed fastening with screws or rivets



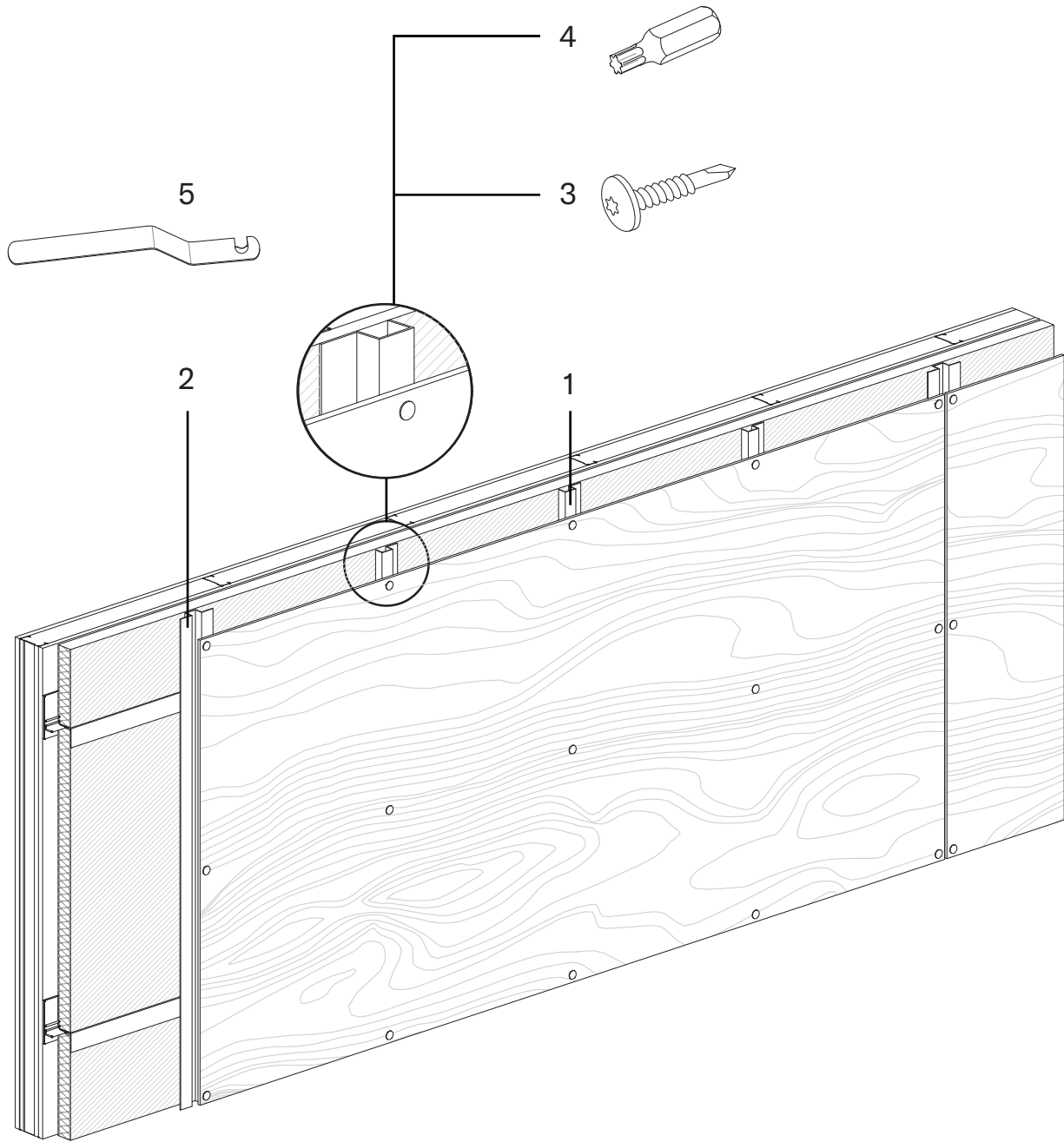
EXPOSED INSTALLATION SYSTEM
JAYS AND HATS

1. J Profile (1" deep): 10' Aluminum / L = 3m
2. Hat Profile (1" deep): 10' Aluminum / L = 3m
3. Centering Device for SX3 Screws
4. SX3 15-D12-5 TORX Screws for Metal - Painted
5. 11/32" Titanium Coated Twist Drill Bit

Available panel sizes:
2440 / 2700 mm x 1220mm
96" / 107" x 48"

Panel thickness \geq 8mm

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets



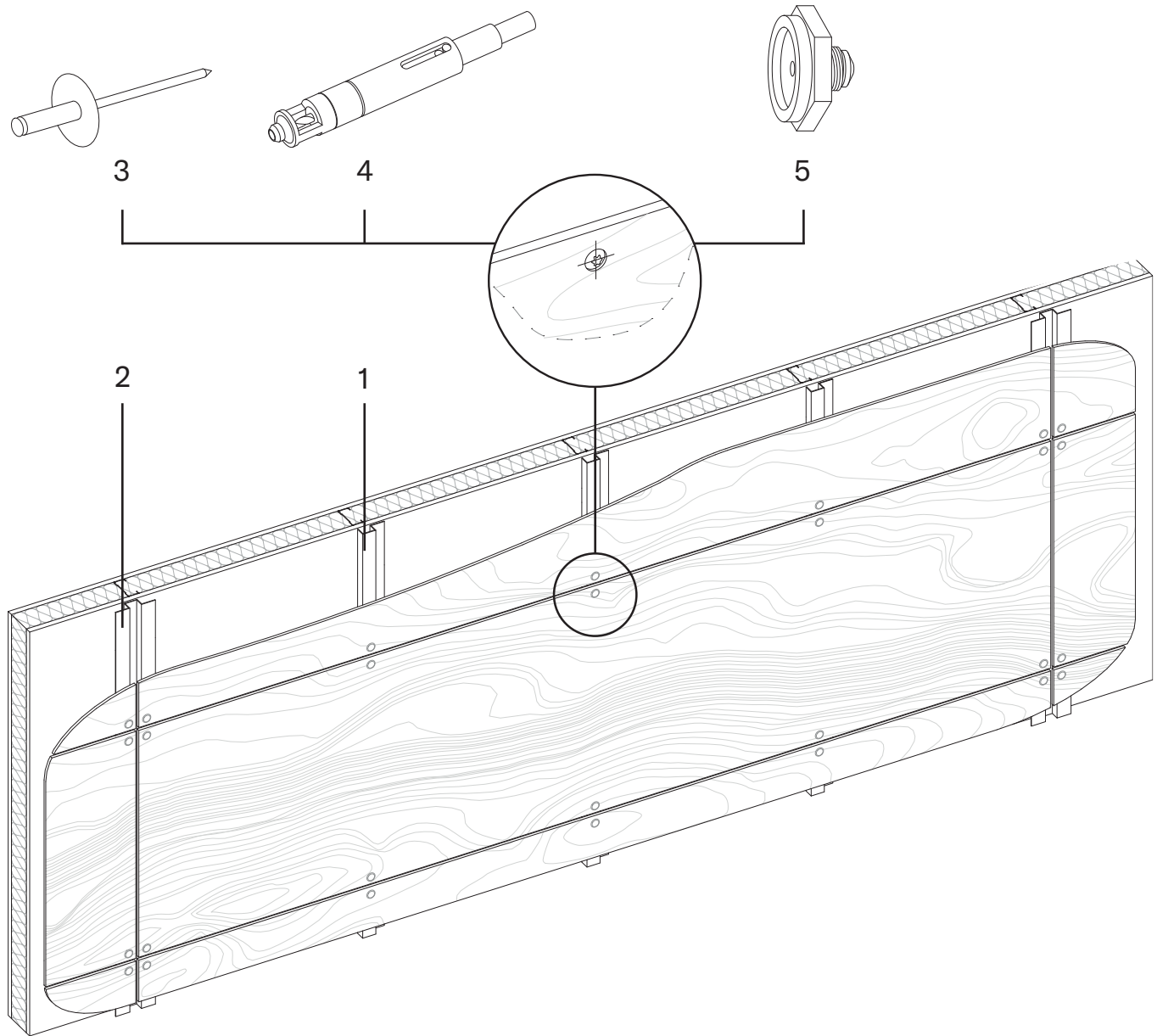
EXPOSED INSTALLATION SYSTEM
NFPA 285

- 1. J Profile (1" deep): 10' Aluminum / L = 3m
- 2. Hat Profile (1" deep): 10' Aluminum / L = 3m
- 3. SX3 15-D12-5 TORX Screws for Metal - Painted
- 4. 11/32" Titanium Coated Twist Drill Bit
- 5. Centering Device for SX3 Screws

Available panel sizes:
2440 / 2700 mm x 1220mm
96" / 107" x 48"

Panel thickness: 8 - 10mm

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets



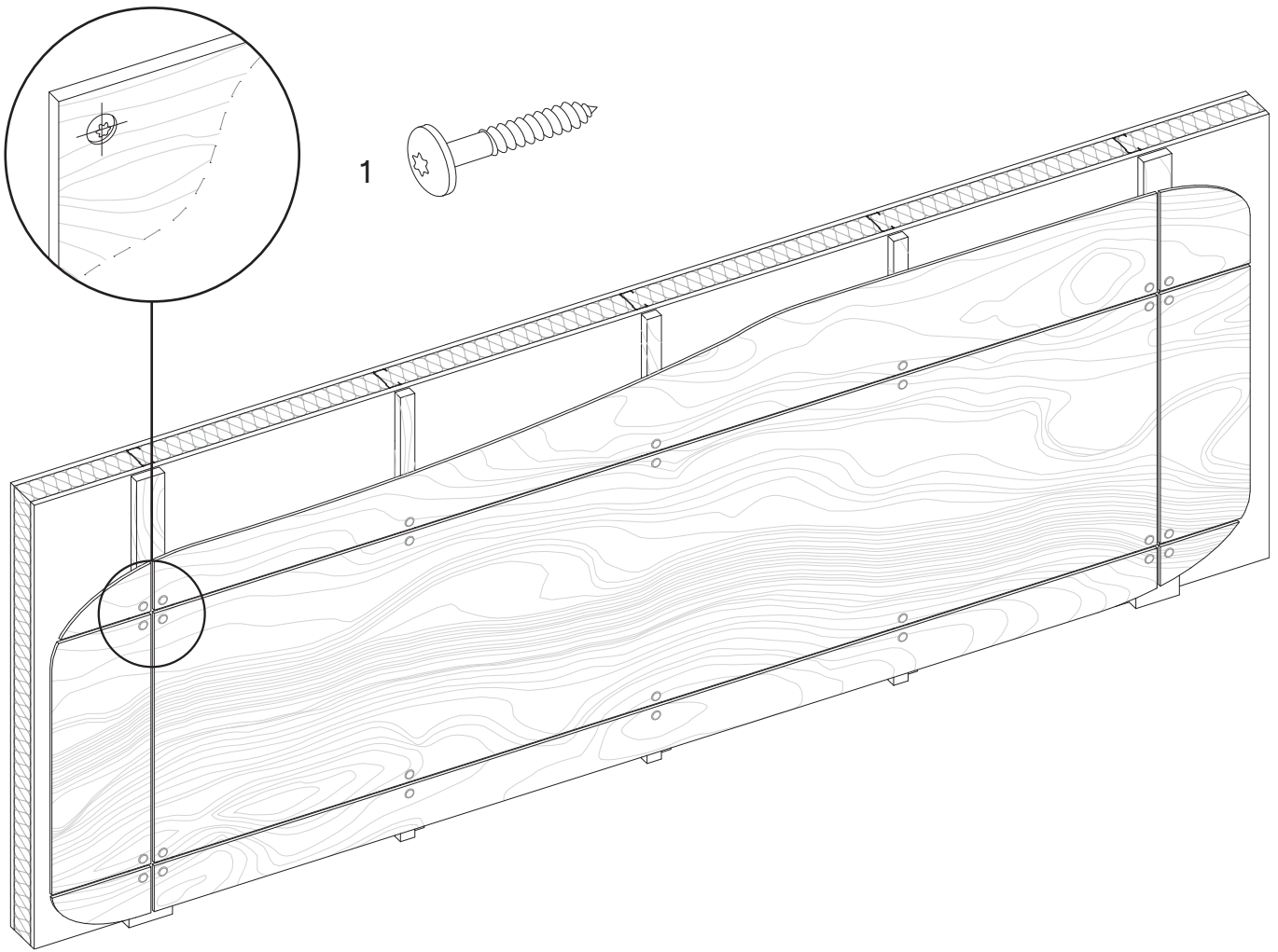
EXPOSED INSTALLATION SYSTEM WITH RIVETS
JAYS AND HATS

- 1. J Profile (1" deep): 10' Aluminum
- 2. Hat Profile (1" deep): 10' Aluminum
- 3. AP16 L18 Rivet - Laquered
- 4. Centering Device with Drill Included for AP Rivets
- 5. Nozzle for Rivet AP Floating Point

Available panel sizes:
2440 / 2700 mm x 1220mm
96" / 107" x 48"

Panel thickness \geq 8mm

How to install PARKLEX PRODEMA using exposed fastening with screws or rivets



EXPOSED INSTALLATION SYSTEM
WOOD SUBFRAME

Available panel sizes:
2440 / 2700 mm x 1220mm
96" / 107" x 48"

1. TW-S D12-4 Screw for Wood - Painted

Panel thickness \geq 8mm