



XPAN

EXTRUDED ALUMINIUM PANELS

A CHOICE OF EXCELLENCE



EXTRUDED ALUMINIUM PANELS



Residential building - Brooklyn NY
Architect: Serge Drouin
XWAVE



Office / Residential - XLINE

EXTRUDED ARCHITECTURE

The extrusion manufacturing process is recognized to be the best way to achieve high precision aluminium products.

Promoclad® has chosen this technology to produce XPAN Extruded Aluminium Panels for rainscreen cladding applications.



INTRODUCTION

With a variety of standard profiles, XPAN Extruded Aluminium Panels was born with the intent to be the first extruded aluminium rainscreen system having the possibility of combining many different shapes on the same elevation, this to give more chances to architects and designers instead of the usual flat or corrugated wall. Now with XPAN it is possible to have both solutions and even more.

In fact the cladding can be personalized, alternating the different profiles, giving to the wall fantastic visual effects. Only with extrusions can be done what with other technologies would be too tough in terms of fabrication.



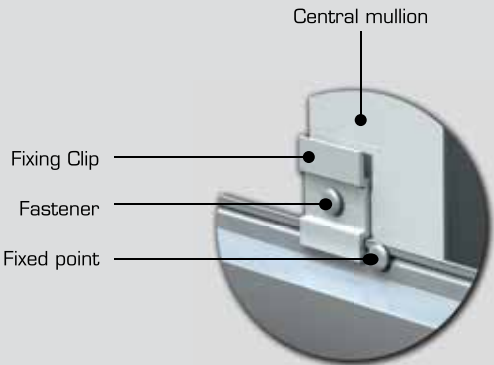
FIXING METHOD



XPAN unique fixing method, was designed to be easy, intuitive and fast. Today many installation companies and contractors exhalt XPAN system for this reason. It works exactly as expected. What makes XPAN system so smart, is the use of an extruded aluminium fixing Clip which holds the panels against the substructure. The Clip element, which has been extensively tested and certified to prove its structural resistance, is fixed to the subframe by means of stainless steel fasteners.

The Clip has a small lip on the back which is inserted into the receiving groove at the top of the panel. The standard length of the Clip will be approximately 30mm. The panels will be installed one on top of the other, having regard for the chosen panel/panel joint dimension via a spacing gauge (G). XPAN fixing method allows panels to freely expand and contract.

To avoid panels sliding from their position, it is necessary to fix the panel directly to the central mullion using a fixed point fastener as shown below.



XPAN ADVANTAGES

What makes XPAN really unique is that it represents the first extruded cladding system made of 300mm. module size extruded profiles. We have chosen the 300mm. in order to have less panels to install.

There are many other advantages that make of XPAN the best solution available, such as:

- Extreme rigidity
- Reduced quantity of subframe
- Reduced erection time
- Fast and easy fixing method
- Panels are ready to be installed
- Small quantities can be supplied in different colors and finishes
- Endless combination possibilities
- Bespoke profiles can be designed



FEATURES

- Large module size
- Length up to 6000mm.
- Mechanical secret fix
- Rainscreen principles
- Suitable for new-build or over-cladding
- Polyester Powder Coatings (free from Volatile Organic Compounds - VOC)
- Anodized finishes
- High impact resistance
- Wide spanning capability
- Combine different profiles to provide unique aesthetic appearances
- Variable joint dimension up to 5mm. (5mm. recommended)
- Fixing method allows for thermal expansion and contraction
- Excellent corrosion resistance (EN AW-6060 Alloy)
- Incombustible
- Can be totally recycled
- XPAN profiles contribute to obtain LEED credits (recycled content)
- CE marking available on request



ECO FRIENDLY

XPAN is made of aluminium, and this would be enough to say that it is environmentally friendly, as aluminium can be 100% recycled.

In addition to this great advantage, XPAN is manufactured in a plant which adopts over 40% of recycled aluminium to make the extrusion billets used to produce XPAN.

We must also mention the fact that the use of Polyester Powder Coating process for painting XPAN panels contain no VOC's (Volatile Organic Compounds) and are totally metal, lead, chromate and solvent free. VOC-free powder coating does not generate hazardous waste as the powder is not mixed with solvents or other additives and this creates an obvious environmental advantage for both suppliers and users alike.



THE RANGE

XPAN standard range consists of several profiles available in different shapes and dimensions. Many others will be added to increase even further design possibilities.

XPAN profile range is divided in:

- Panels
- Louver blades for ventilation/sunscreens

XLINE - Flat surface profile

XRAIL - Flat profile with horizontal grooves

XWAVE - Sinusoidal profile

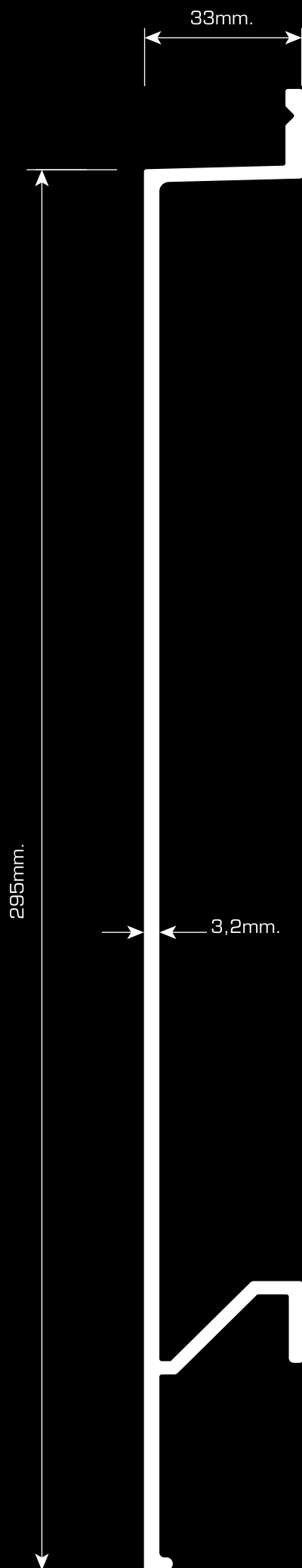
XWING - Concave/convex profile

XAIR - Louver blade

XSHADE - Louver blade

XPAN Baguette System





XLINE

With its flat, smooth surface **XLINE** represents probably the most desired profile where a straight linear aspect is required without, for this reason, renouncing its beauty.

XLINE is also used in combination with the other **XPAN** profiles in order to emphasize their geometrical aspect.

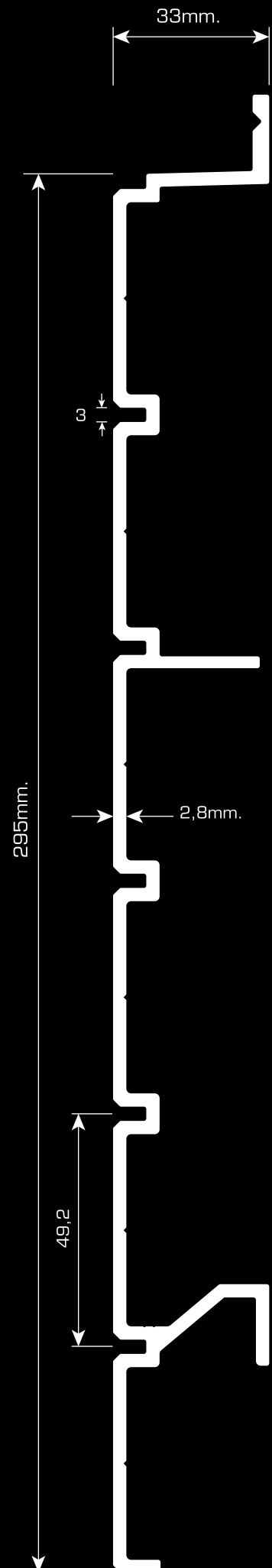
- Module size: 300mm.
- Alloy/Temper: EN-AW 6060/T6
- Thickness: 3,2mm.
- Profile depth: 33mm.
- General tolerances according to UNI EN 12020-2

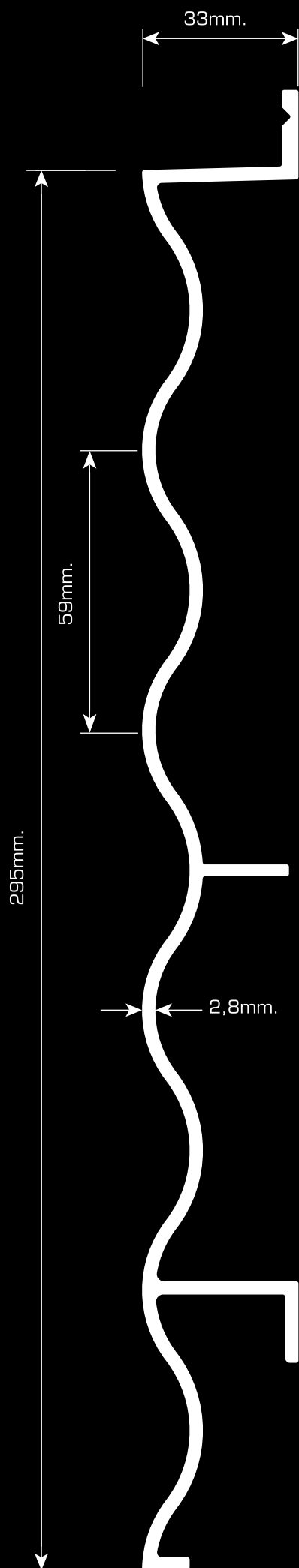


XRAIL

The **XRAIL** profile, is a flat extruded aluminium panel marked in its length with five horizontal grooves. These grooves are giving the profile a special texture and, in addition, they have the function to receive **XPAN Baguette** profiles.

- Module size: 300mm.
- Alloy/Temper: EN-AW 6060/T6
- Thickness: 2,8mm.
- Profile depth: 33mm.
- Grooves distance: 49,2mm.
- Grooves dimension: 3x7mm.
- General tolerances according to UNI EN 755-9





XWAVE

XWAVE profile gives interesting shadow effects to the design of the wall cladding. **XWAVE** has an incredible visual impact when used in combination with the other **XPAN** profiles, especially **XLINE**.

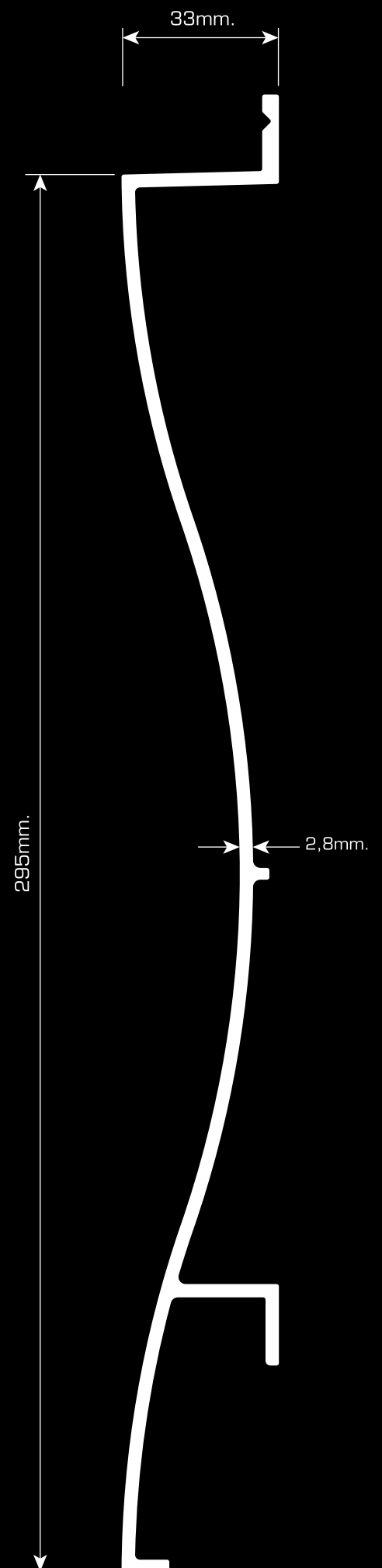
- Module size: 300mm.
- Alloy/Temper: EN-AW 6060/T6
- Thickness: 2,8mm.
- Profile depth: 33mm.
- Wave pitch: 59mm.
- Wave depth: 10mm.
- General tolerances according to UNI EN 755-9

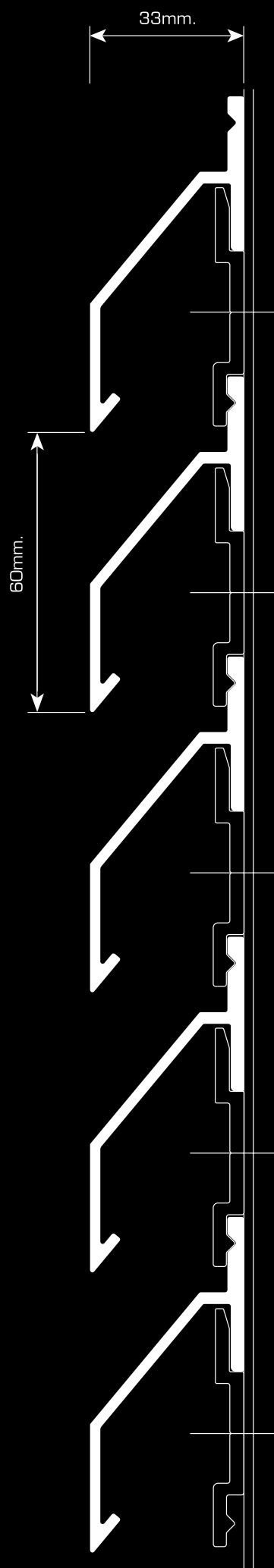


XWING

The **XWING** profile is probably the most innovative of the whole range. Its concave shape in the middle and convex at the top and bottom, produces a wave of 300mm., which can be repeated if used by itself, or gives a particular singular appearance to the wall cladding if used in combination with the other **XPAN** profiles.

- Module size: 300mm.
- Alloy/Temper: EN-AW 6060/T6
- Thickness: 2,8mm.
- Profile depth: 33mm.
- Wave depth: 25mm.
- General tolerances according to UNI EN 755-9





XAIR

XAIR is an extruded aluminium louver blade for the ventilation of the facade. **XAIR** allows an air flow of approximately 34% of the clad surface. Its use can vary depending on the requirements: for aesthetical purposes, or to clad technical service areas or where a visual screen is required.

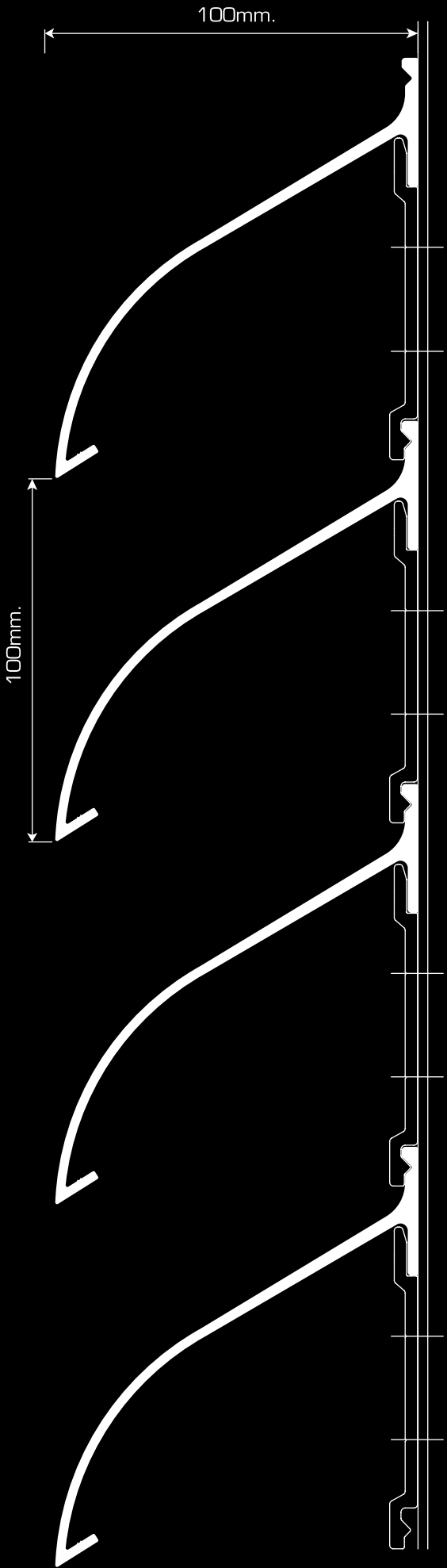
- Blade pitch: 60mm. (n.5 blades reach 300mm.)
- Alloy/Temper: EN-AW 6060/T6
- Average thickness: 2,2mm.
- Profile depth: 33mm.
- Air flow capacity: 34%
- General tolerances according to UNI EN 755-9



XSHADE

If you need a louver blade system with good sun protection and a good air flow capacity, **XSHADE** is the product for you. Its particular dimension and shape makes it perfect to be used wherever a protection from direct sun light is required. The extruded blades have a safe mechanical fixing method which prevents them popping out of their position when under wind loads. This profile allows an air flow of approximately 50% of the clad surface.

- Blade pitch: 100mm.
- Alloy/Temper: EN-AW 6060/T6
- Average thickness: 2,5mm.
- Profile depth: 100mm.
- Air flow capacity: 50%
- General tolerances according to UNI EN 755-9
- Certified fixing Clip





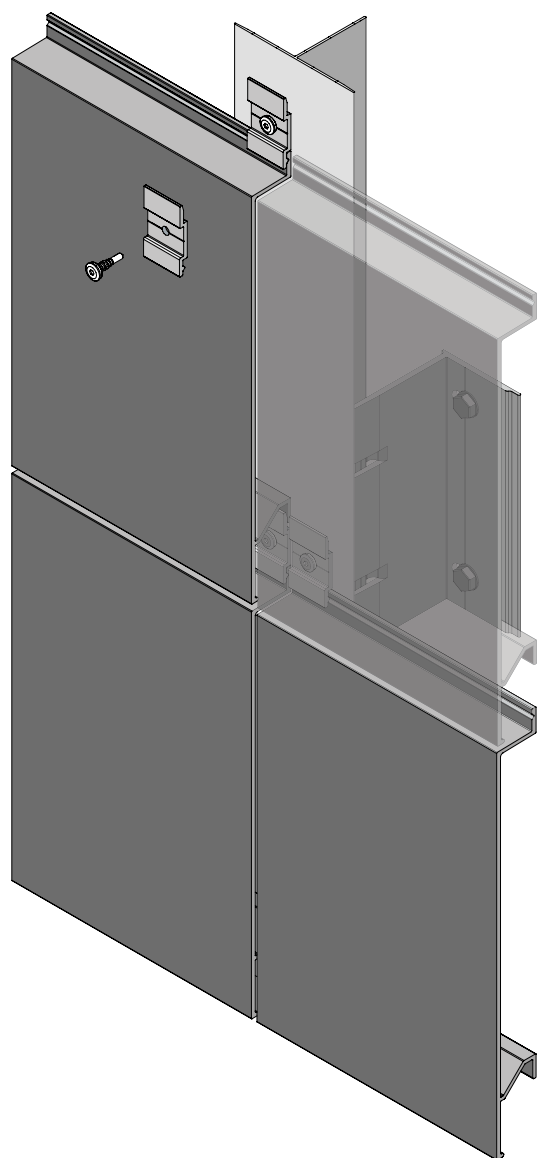
Sport centre - XWAVE





Residential complex - XWING

GENERAL DETAILS



1. Vertical joint
2. Horizontal joint
3. Central mullion detail
4. Base
5. Coping
6. Internal corner
7. External corner options with flashings

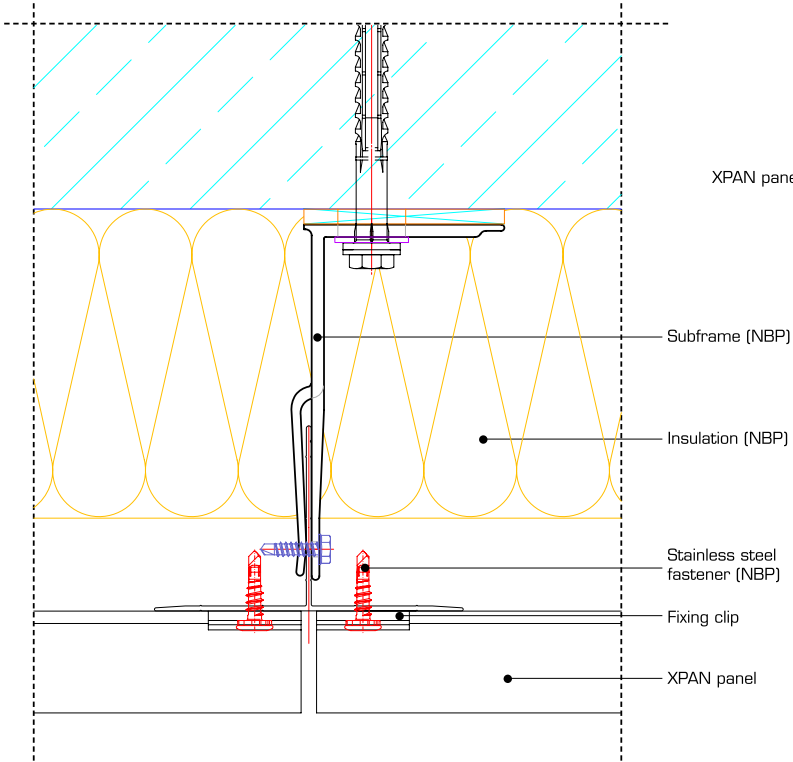
NBP = Not By Promoclad

All drawings are out of scale

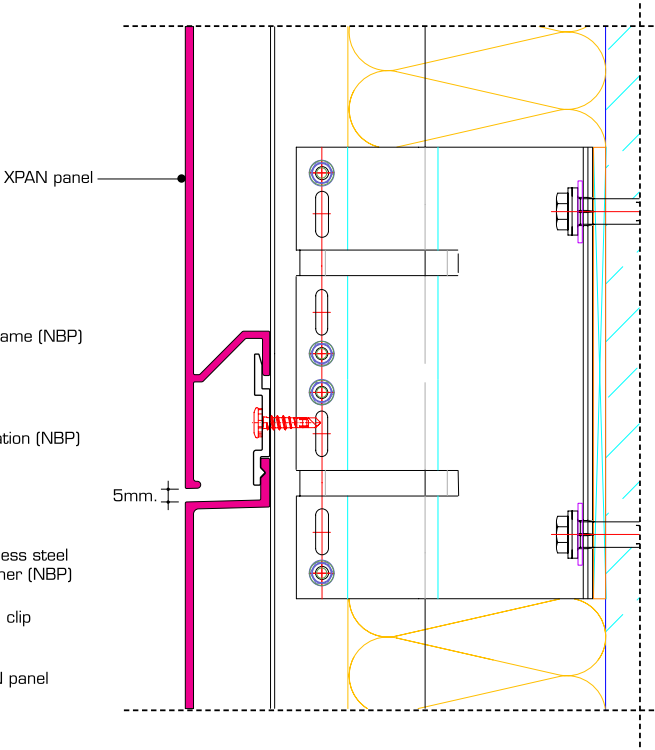
The information and technical details included in this brochure are not intended to provide the specific design for any particular installation.
Promoclad S.r.l. disclaims any liability arising from the use of such drawings.

Substructure, fasteners and/or rivets are not supplied by Promoclad.

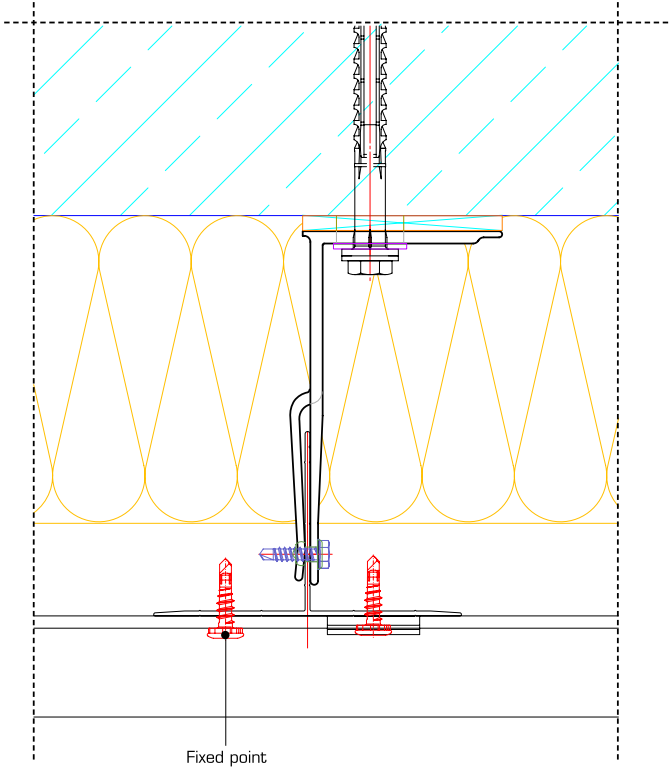
1. Horizontal section



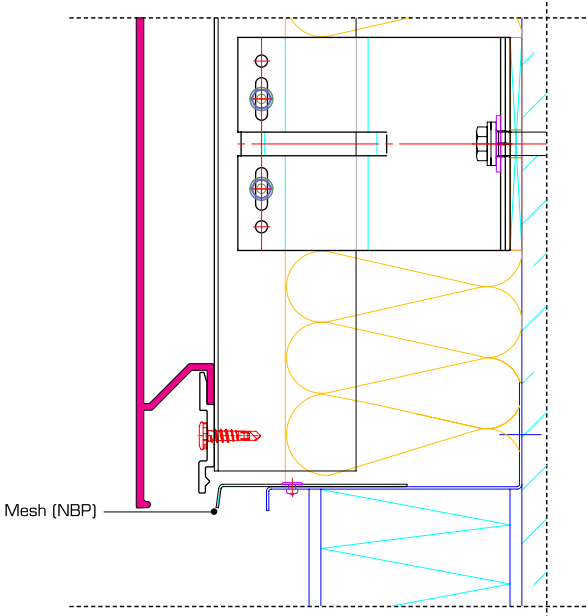
2. Vertical section



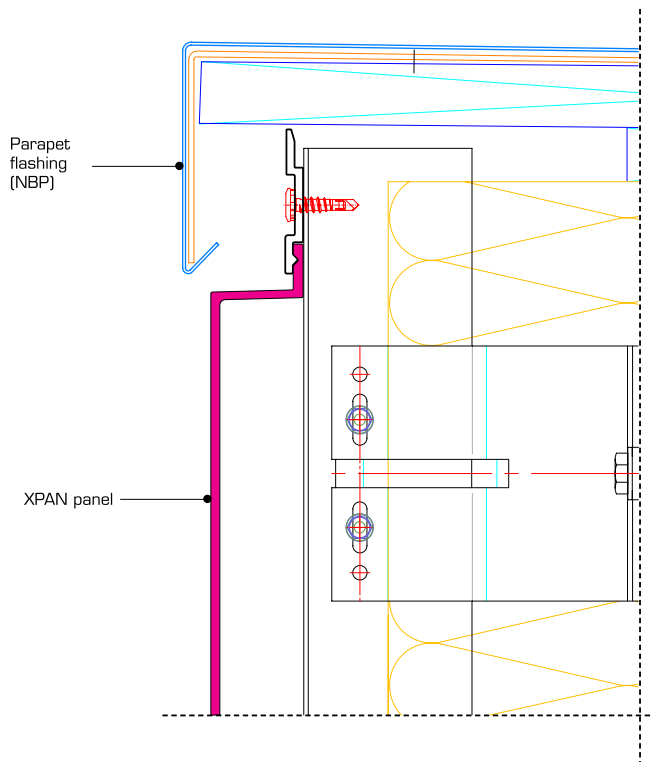
3. Central mullion detail



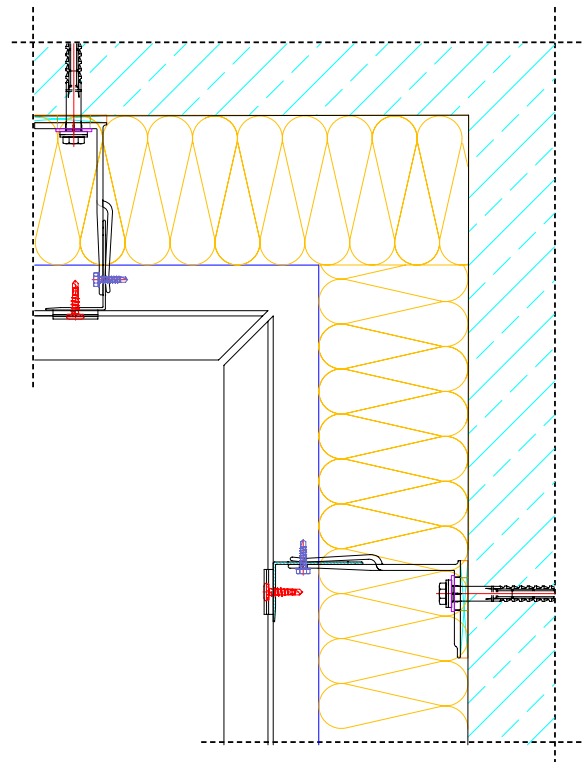
4. Base



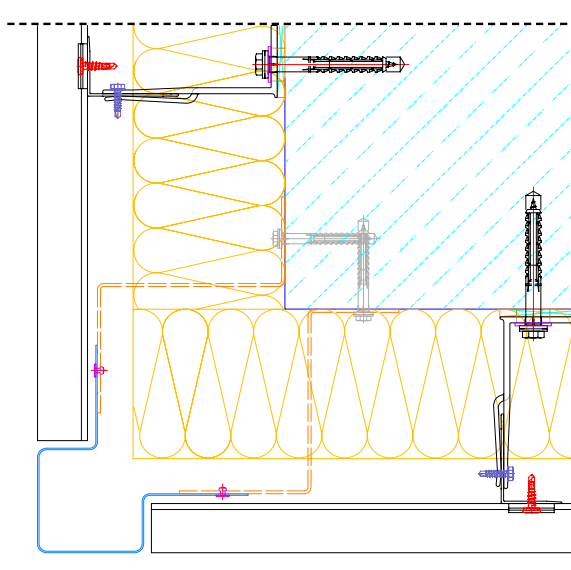
5. Coping



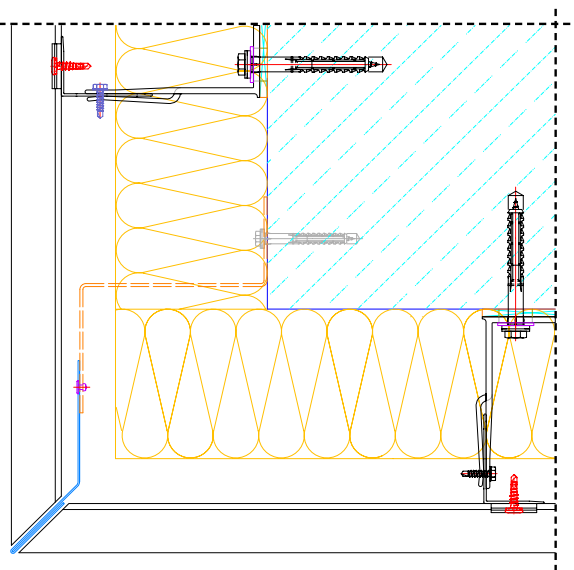
6. Internal corner



7. External corner options with flashings*



Type A



Type B

(*) All flashings shown are indicative and are not supplied with the system.
Each cladding contractor must develop its own solution according to the project requirements.

XPAN

BAGUETTE SYSTEM

XPAN BAGUETTE SYSTEM is an innovative and patented solar shading system.

This system has been designed to make installation easy, fast, with consequent economical benefits.

Extruded aluminium baguette profiles are fixed to a support rail shaped in such a way to help installers to align baguettes with great precision.

Baguette profiles can be positioned at various distances which are pre-determined by the support rail.

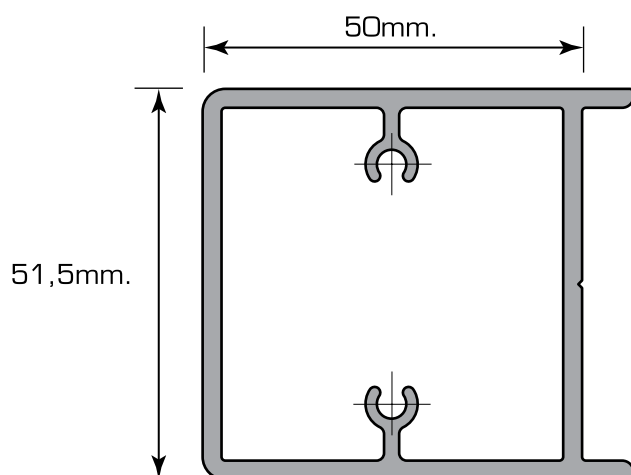
Once baguette profiles are fixed to the support rails on the ground (by means of stainless steel fasteners or rivets), the assembled module can be installed to the substructure using the same fixing method of other XPAN panels. This means that the system can be laid both horizontally and vertically.

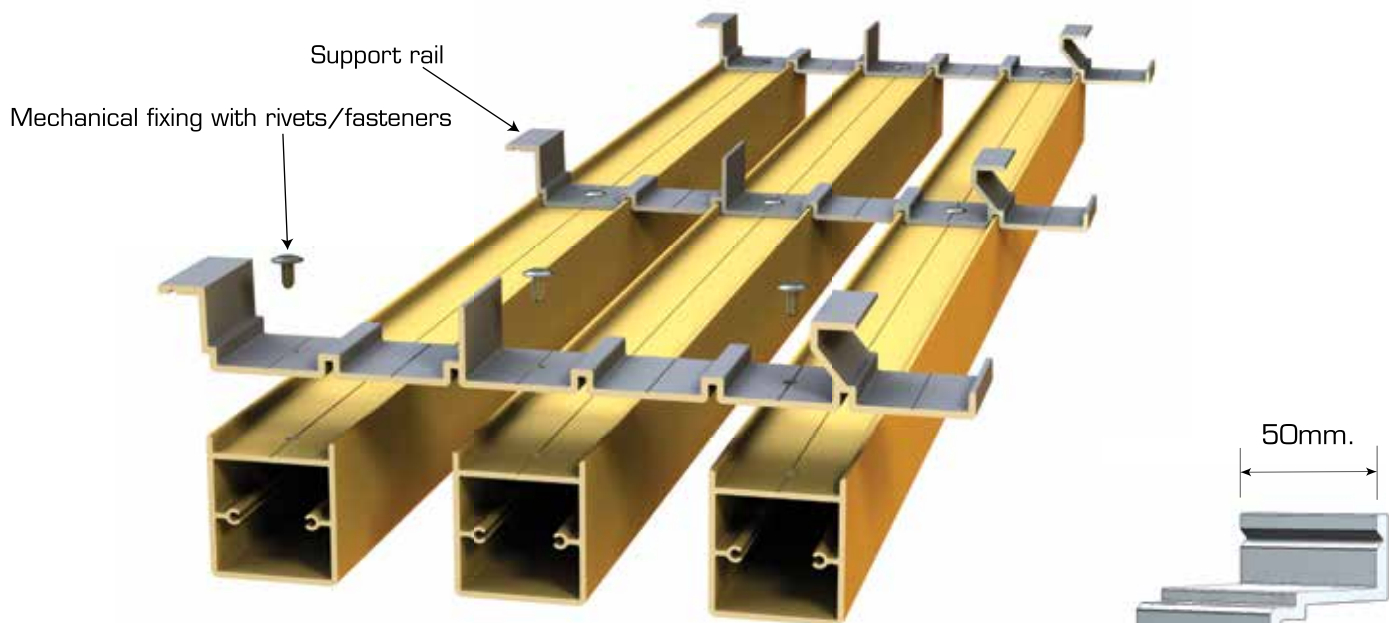
The Support Rail is in actual fact the XRAIL extruded aluminium panel which is cut in 50mm. length elements as shown in the following sketches.

XPAN BAGUETTE SYSTEM BENEFITS

- Extreme flexibility in baguette distance
- Very simple fabrication
- Very easy installation method
- Time and cost saving
- Wide spanning capability

Basic baguette profile section





Baguette profile description

- General dimension (mm): 51,5x50
- Material: extruded aluminium EN AW 6060 T6 alloy
- Length: up to 6000mm.
- Finishes: mill finish; Polyester Powder Coated in any RAL color; Wood Grain Powder Coating; Anodized

Support rail description

- Standard size (mm): 295x50x33
- Material: extruded aluminium EN AW 6060 T6 alloy
- Finish: generally supplied in silver or black anodized finish

Other features

- Fixing method allows for thermal expansion and contraction
- No visible fixings
- Can be combined with other XPAN panels
- Baguette profile can be curved
- Excellent corrosion resistance
- Maximum weight: 16,0 Kg./sqm.
- Incumbustible
- Can be totally recycled
- XPAN Baguette System contributes to obtain LEED credits



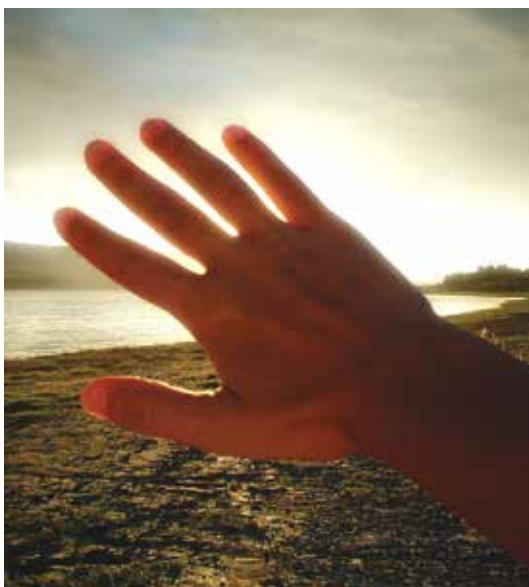
Support rail view

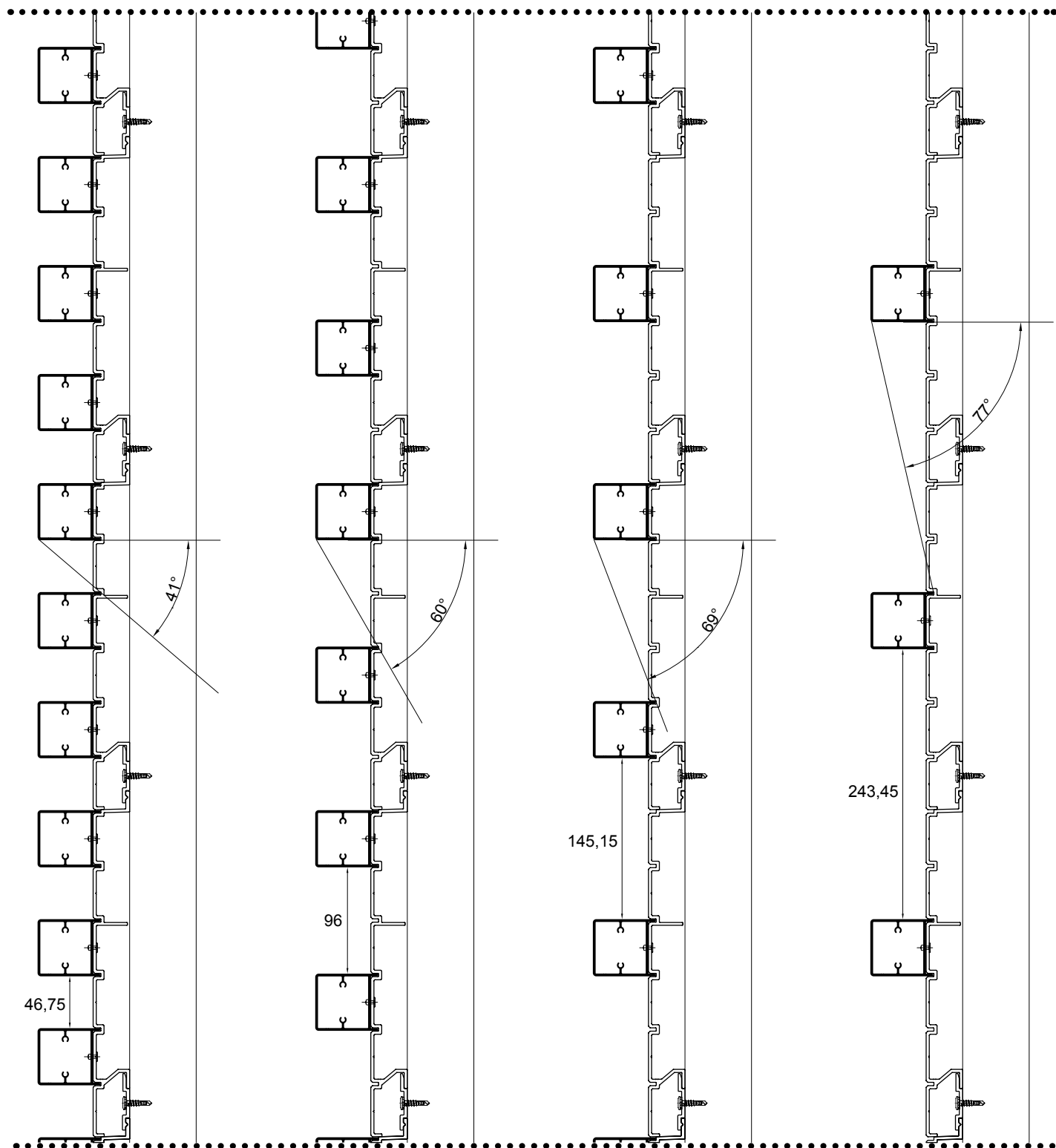
ADJUSTABLE LIGHT FILTRATION



XPAN Baguette System allows to position the baguette profiles at various distances in order to achieve the required light penetration into the building. This gives great flexibility to the designer who can decide to diversify the amount of light filtration, varying the distance of the baguettes on the same elevation where this is required.

The right level of sun control will ensure a much more comfortable environment, especially in geographic locations where sunlight is particularly strong.





Baguette pitch: 98,3mm.
Limit angle of sunray incidence: 41°
Perpendicular visual opening: 47%

Baguette pitch: 147,5mm.
Limit angle of sunray incidence: 60°
Perpendicular visual opening: 65%

Baguette pitch: 196,7mm.
Limit angle of sunray incidence: 69°
Perpendicular visual opening: 74%

Baguette pitch: 295mm.
Limit angle of sunray incidence: 77°
Perpendicular visual opening: 82%



WOOD EFFECT COATINGS



Aluminium end cap (optional)

  MADE IN ITALY



w w w . p r o m o c l a d . c o m



i n f o @ p r o m o c l a d . c o m

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