



**TECHNICAL SPECIFICATION OF
SUNSHADE CONSTRUCTION WITH HIDDEN CLIP SYSTEM**

PI-FIX SUNSHADE SYSTEMS:

It is a plastic element with aluminum carcass (underlay), which is used in solid wood and composite decking, cladding, linear overhead ceiling and sunshade applications. It is also called hidden clipping of wood, and used in the installation of the carcass, which allows local change and renewal without breaking the sequence.

The product is used for installing various exterior and interior woods by fixing them on the carcass at desired distances, also used for the distance adjustment in the wooden array, template etc.

Additional measuring tool will provide ease of installation.

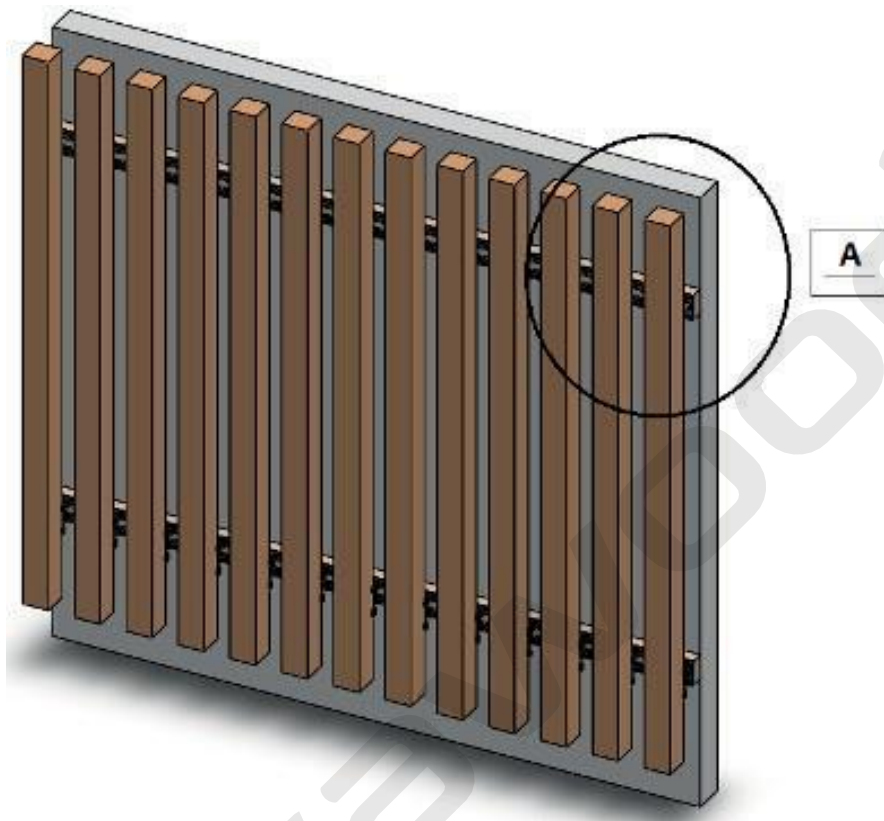
This setting can be changed flexibly after installation in any desired size while it is installed.

These clips provide an easy and flexible gap in all type of width lumbers without the need for An adaptor or adjusting element. The design supports the flexible installation model. It is ensured that the clips are attached to the carcass in equal distance and parallelized system without the need for an additional adapter system to each size. Thus, the gaps in the decking and facade slabs remain at the desired level and smoothness.

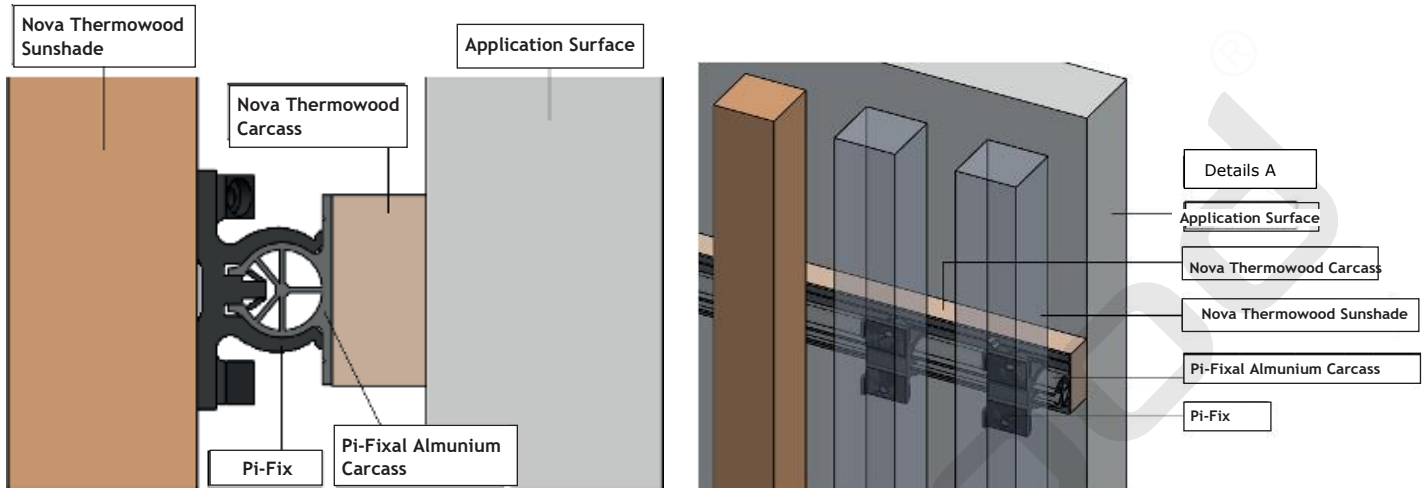
The Pi-Fix system is a hidden and practical wood fixation (installation) element that is invisible from the front view and allows perfect air circulation, by providing "push-in and locking" with the help of its uniquely shaped aluminum carcass and centering and spouting feature of the clip fixed on wood.

Clip system; It can also be easily applied to wood-supported, uniquely formed aluminum carcasses.

1. System Model:



2. Details of System A:



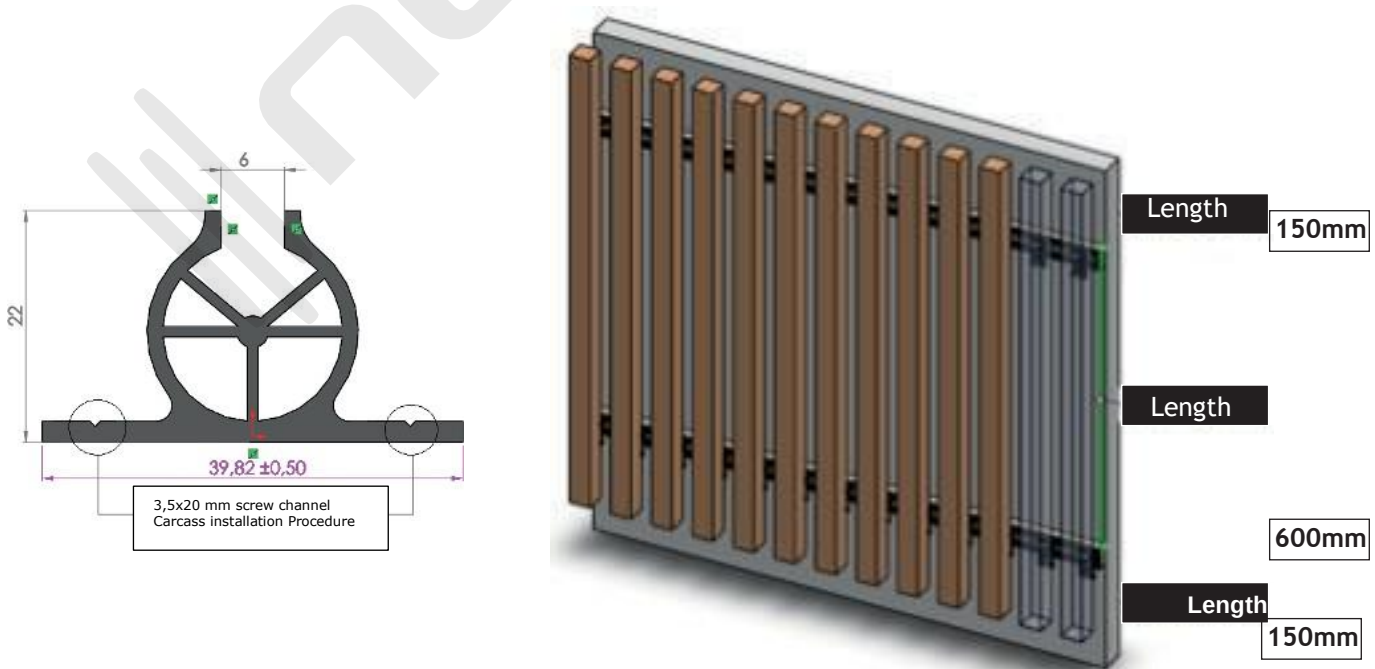
3. System Components:

3.1. Nova Thermowood Carcass

Dimensions (mm) : 20x40, 40x40
 Material: : Thermowood Ash / Pine
 Installation Detail : 7.5x60 mm Buldex should be applied on the solid surface level with screws.
 Screw Axis Distance: Should not exceed 500 mm

If the application surface is level and smooth, there will be no need to use wooden carcass.

3.2. Pi-Fixal Aluminium Carcass



Dimensions: All dimensions are in the most appropriate value and form according to Pi-Fix (the right to change dimensions is reserved.)

Material: 6000 (6063 or equivalent) series is made of Aluminium profile.

Weight: 0,58 kgf / Linear Meter

Colour: Black Matte, if sufficient production quantities are reached, it can also be produced in standard special colors.

Installation Details: It should be screwed vertically on the thermowood carcass with a 3.5x20 mm A2 quality stainless screw.

Screw Axis Distance: It should be applied on both sides, in a diagonal array and should not exceed 300 mm.

Aluminium Carcass Axis Distance: They should not exceed 600 mm and exactly parallel to each other. The end protrusions of the sunshades from the axis of the carcass should not exceed 150 mm

Quantity Calculation:

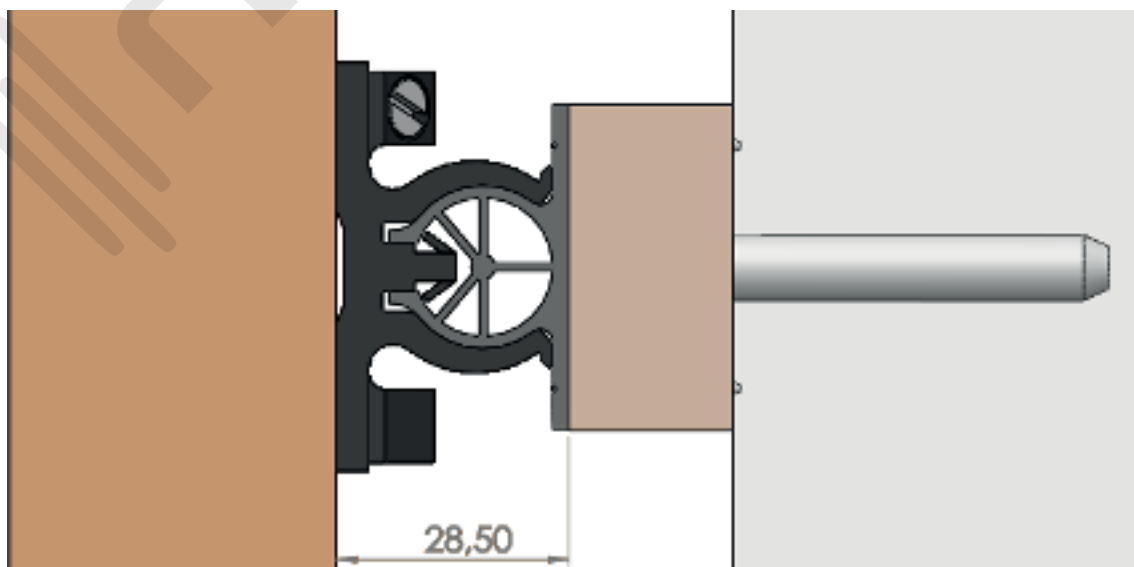
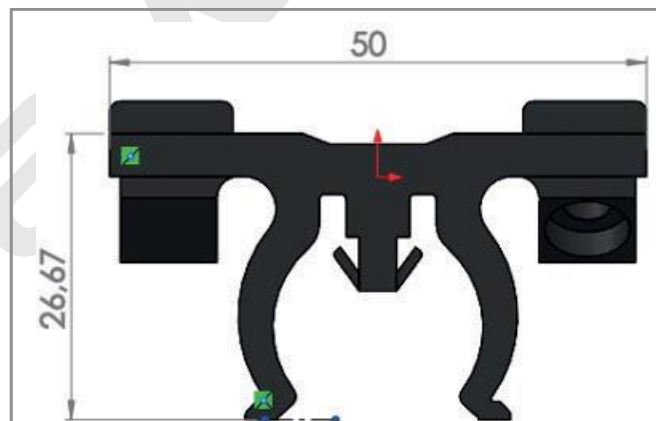
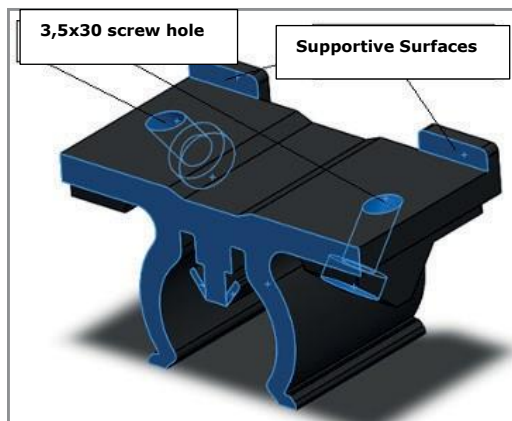
Example: 1000 Linear Meter Cladding

Calculation; Pi-Fixal Unit = 2,25

(2,25 x m² Cladding)

Formula: 100 m² x 2,25 = 225 LM Pi-Fixal anticipated to use.

3.3 Pi-Fix



Dimensions (mm): 50x26x26.67

Material: PA6 or equivalent polymer

Installation Details: It is applied to the back surface of the thermowood sunshade with a 3,5x30 mm A2 quality stainless wood screw. The support edges should fit well to the sunshade edge and should be arranged in a symmetrical manner.

Pi-Fix Distance: Pi-Fixal aluminum carcass is fixed on the thermowood sunshade with a gap of 600 mm, corresponding to the axis.

Pi-Fix Usage Quantity:

Example: 1250 LM Cladding Calculation;

Pi-Fix unit = 2,25 (2,5x ... LM Cladding)

Formula: 1250 LM Sunshade x 2,25 = 2812 pieces

(Note: If the covering surface of the sunshade is more than 40 mm, the Pi-Fixes should be applied in a diagonal array, one on each aluminum carcass.)

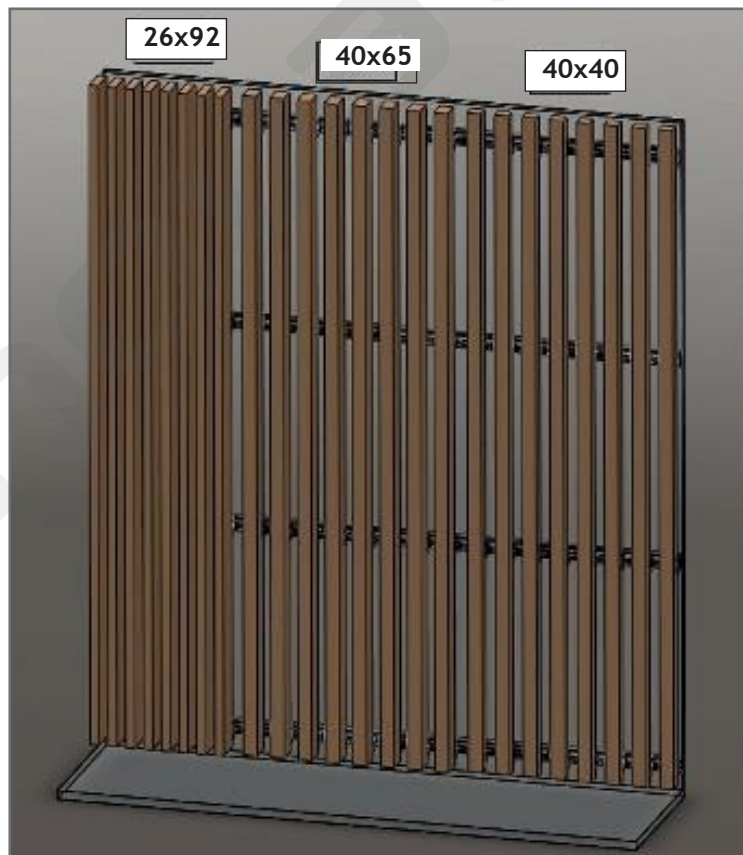
3.4. Nova Thermowood Sunshade

Dimensions (mm): 40x40 / 65 / 90 mm, 25 / 26x40 / 55 / 65 / 90 mm,

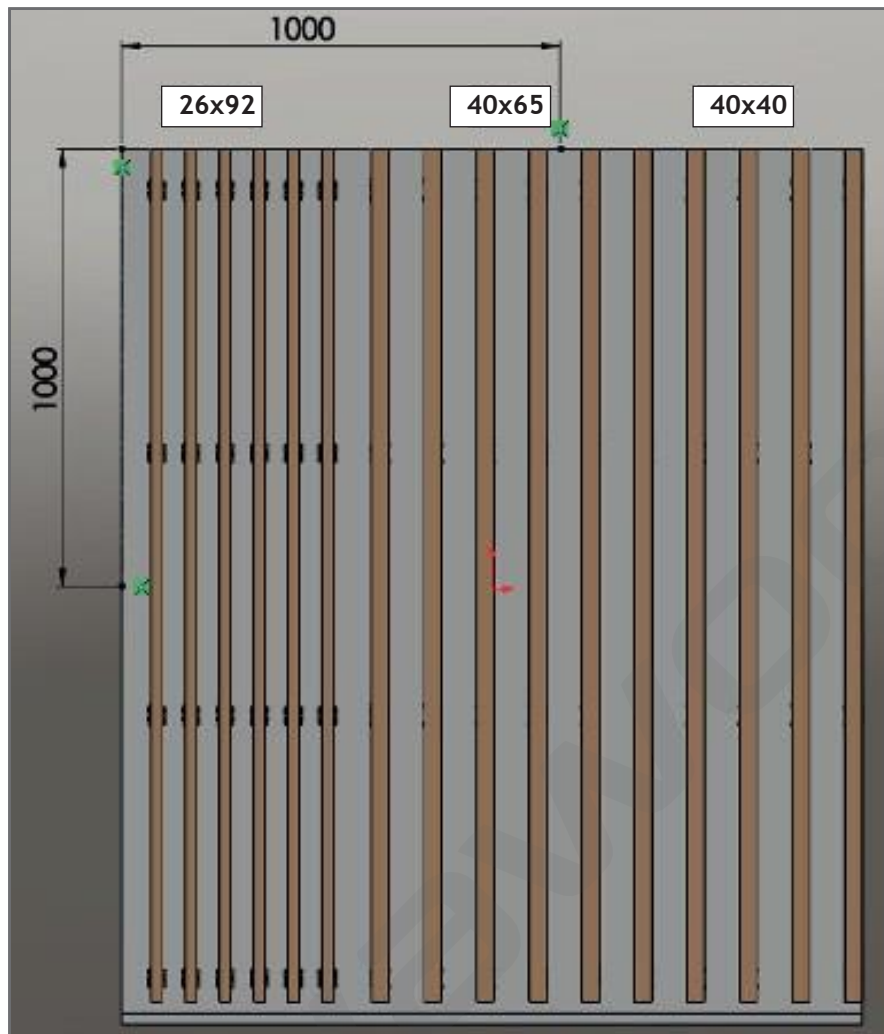
Material: Nova Thermowood Ash, Iroko, Pine, Tulipwood, Ayous.

Installation Details: Sunshades with Pi-Fix on the back side should be fixed on the Pi-Fixal with the desired gaps.

Sunshade Distance: It should be applied at specified gaps in the architectural projects.

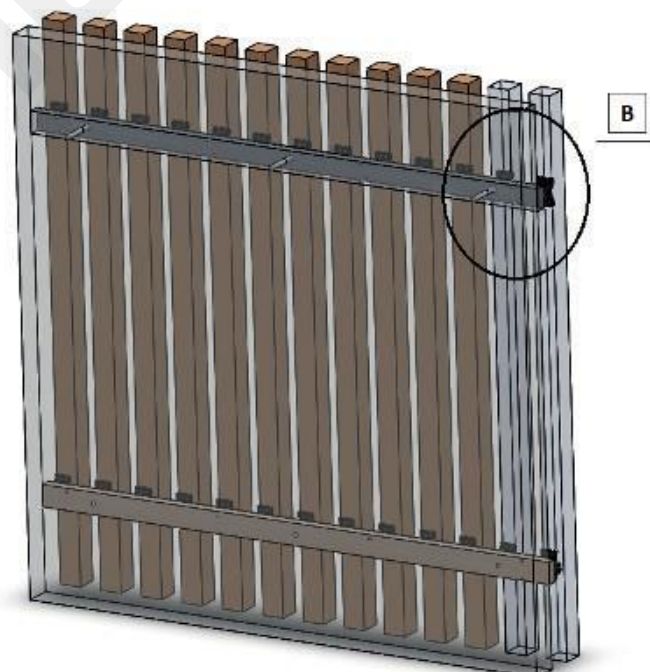


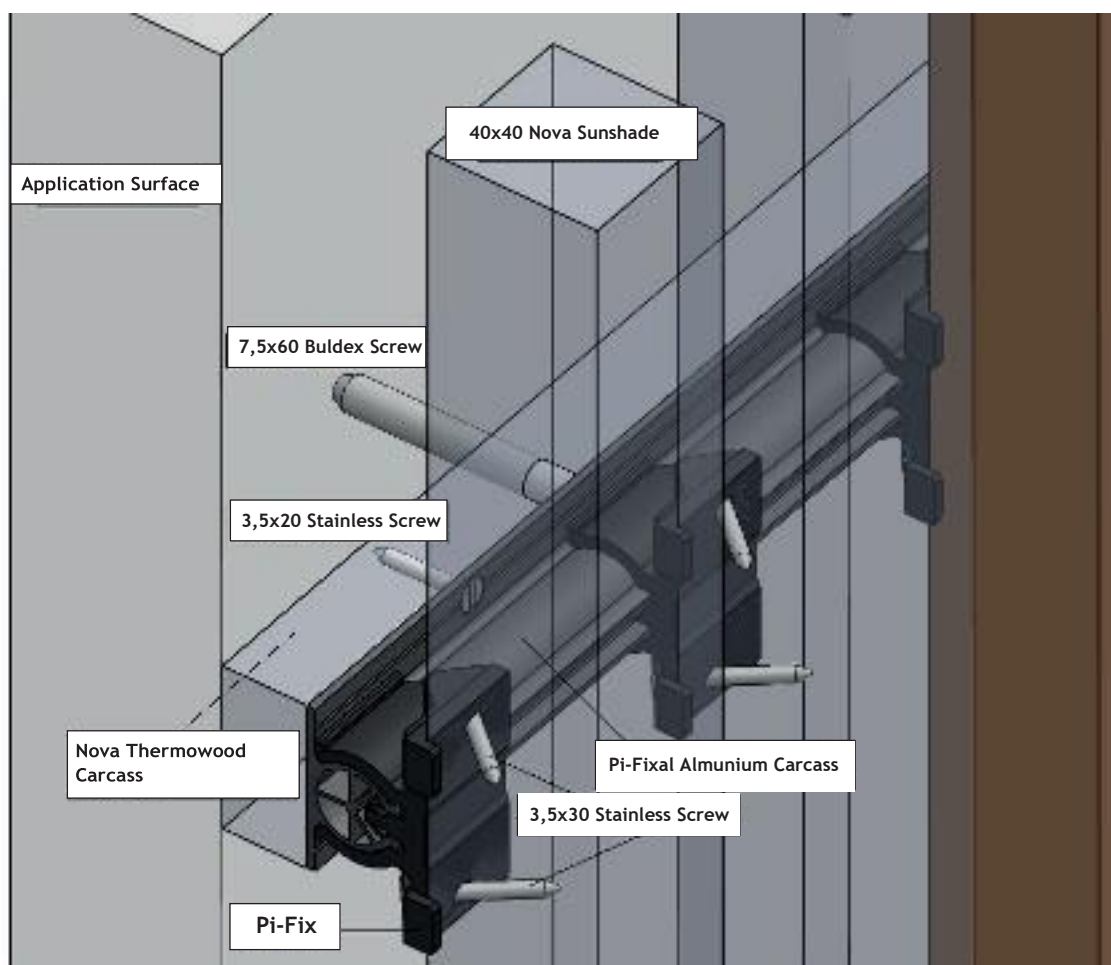
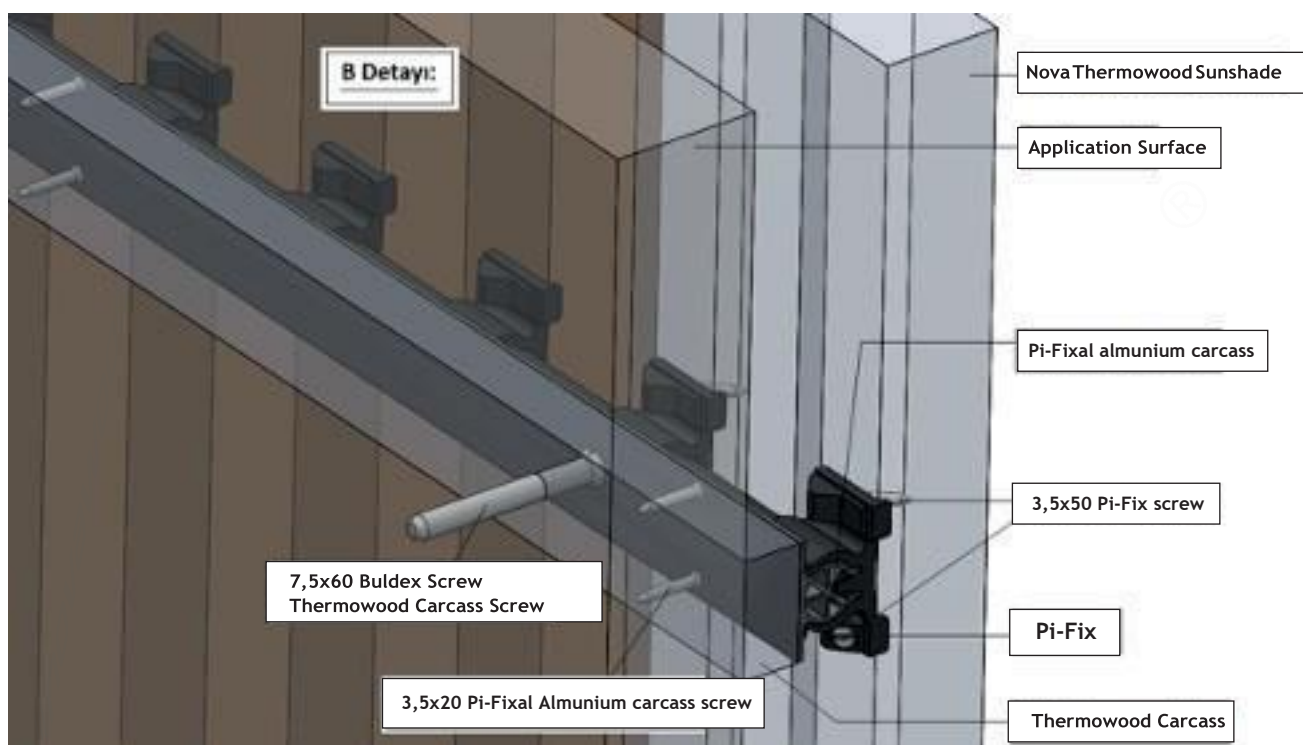
(Full size use of Pi-Fixal)



(Split Length use of Pi-Fixal)

4. Installation details of Sunshading systems:





Pi-Fix Clips Advantages:

1. **Ease of Installation:** It has the feature of easy installation with low fixing force. The clip system has two types. In the first, it is a passing and locking function, and in the other, it is a headless angled nail system to prevent planar slips with pre-stressed compression. The resilience of the system (spring resistance during installation) produced by the sum of both capped and capless nail systems and should be smooth to ensure that the grooved set and crispy/brittle wood do not break the channel edge protrusion lips during installation. The pre-stressed suppression feature makes Pi-Fix clips unique.
2. **Elimination of loosening and unraveling after installation**
3. **Providing the possibility of installing pre-stressed pressure system:** With this system, lateral planar slips are prevented. In other words, rigid fixation is provided. Contrary to existing products that only have a Snap-on feature, Pi-Fix clips are superior, especially the curved part and the curve-compatible form of the inner part with nail locking. Due to the gap formed in the opened channel, it is encountered that the deck or wooden coating plays with time and makes a sound.
The curved pressure system, which is prestressed and allows easy installation, eliminates this situation. With this feature, which is not available in existing clip systems, it provides significant advantages and user comfort in suppressing sound and vibration caused by gaps that may occur as a result of grooving size misalignments during production and abrasions that may occur over time (when walking on it during use or due to external effects).
4. **Elimination of planar slip and pitch defects: this feature makes Pi-Fix clips superior**
5. **With adapter element there is no need for measurement with any measuring tool in installation:**
The adapter system, developed for completely original and three standard sizes, which these features not found in similar clip systems.
6. **Avoidance of measure leakage and contraction with clip specific-adapter in parallel carcasses:**
Installation will be more convenient with adapter system and it allows you to fix parallel sequential clip without the need for any measuring tool. With this advantage, it differs from its equivalent products.
7. **Does not required qualified personnel for installation, it elements applicator mistakes:** This feature, which is provided by the adapter system, offers more advanced and practical solutions as compare to equivalent products.
8. **%100 Recyclable:** The used plastic material is PA6 natural automotive rubber. As of today different materials are used in the equivalent clip systems. There are some types which can emit excessive smoke at high temperature and very dangerous toxic gases when ignited, and this is not the case with PA6 Plastic materials, they are environmentally friendly. The use of PA6 (nylon6), also called (100% recyclable automotive engineering plastic), which has seen as an important and innovative tool in the sector.
9. **Sliding on the detail Almunium or flat profiles to be installed on wooden carcass offers a dynamic installation and dynamic use**
10. **Extending the life of the wood with Drainage channels that allow water to flow away without accumulating:**
Drainage channels on the clips provide rapid discharge of water coming from the upper surface. In addition, it will be possible to dry the wetness between the carcass and the clip by Creating air circulation through the air channels.

11. **The original channel system that the clip will pass through:** As the channel dimensions and form structure of the clips are smaller and more unique, by keeping low dimensional sizes, the weakening lee of the wood has been tried to be minimized. This situation is considered as a technical and commercial advantage. Both the processing costs will be reduced and the structural strenght of the wood caused by the notch effect can be prevented. Clip channel size and shape are also different from other equivalent products.

Novathermowood® Installation with Almunium carcass of Pi-Fixal without underconstruction:

