

ECO CERTUS MODULAR VENTILATED FACADE SYSTEM

OVERVIEW

The ECO CERTUS modular system is a building material and product package designed to clad external walls and exterior ceilings, giving buildings their final appearance and protecting them from exposure to environmental factors.

The ECO CERTUS modular system can be used to clad residential structures, public (shops, sports venues, etc.), industrial and other buildings.

ECO CERTUS can be mounted on all type of walls, with or without additional insulation. The system also ensures that specific cladding elements (column edges, parapet covers, caps, overhangs, etc) are formed in the same style as the rest of the cladding. Unlike commonly used façade claddings the ECO CERTUS is designed in such a manner that mounting hardware is concealed. This façade system can meet the most demanding technical requirements and innovative architectural challenges (*Figure 1*).

ECO CERTUS MODULAR FRAME SYSTEM

The modular frame is the basic component of the ECO CERTUS system (*Figure 2*). The main component of the modular frame is hat-profile. The hat-profile has hook-like cuts for pin-type fixing of the cladding panel. Before assembling, the pin and the hat-profile contact surface is sealed with the plastic silencer. The profile is attached to a building's load bearing partition wall or structures using special compatible brackets and adapters. Along with securing the profile, the adapters also precisely connect one profile to another. Frame components are available in aluminum, galvanized or stainless steel.

The available machinery equipment enables the production of the main supporting frames, brackets, etc. in custom sizes according to dimensions measured at the building site. It helps to reduce the waste of material. Also there is a possibility to powdercoat the modular frame in predefined color from RAL palette.

SMART FLEX support frame system is specifically designed to accommodate thermal or other moisture-inflicted cladding panel size deflections against the metal frame. When mounted support frame is being treated with special fluid which prevents from undesirable vibration and noise during the lifetime of the product.

ECO CERTUS DESIGN MODULARITY

The ECO CERTUS system consists of individual module elements, which together form the façade cladding. The modular façade design differs from classical cladding system. It has been designed in Engineering Department, but not built on the site. As it is firstly assembled in CAD software, it is digitally verified so that the construction can meet all technical and architectural requirements. An additional time is spent designing parts and components, but the main advantage is the rapid process of on site mounting and the best possible accuracy and quality of the final product.

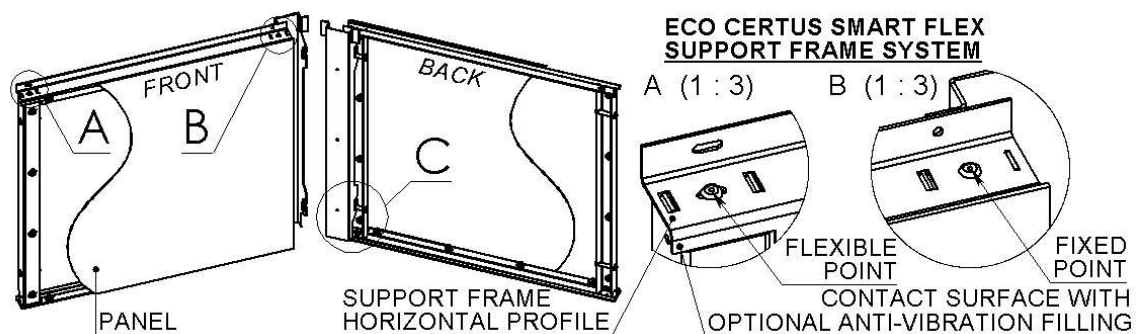


Figure 1. ECO CERTUS PANEL AND THE SMART FLEX SUPPORT FRAME SYSTEM OVERVIEW

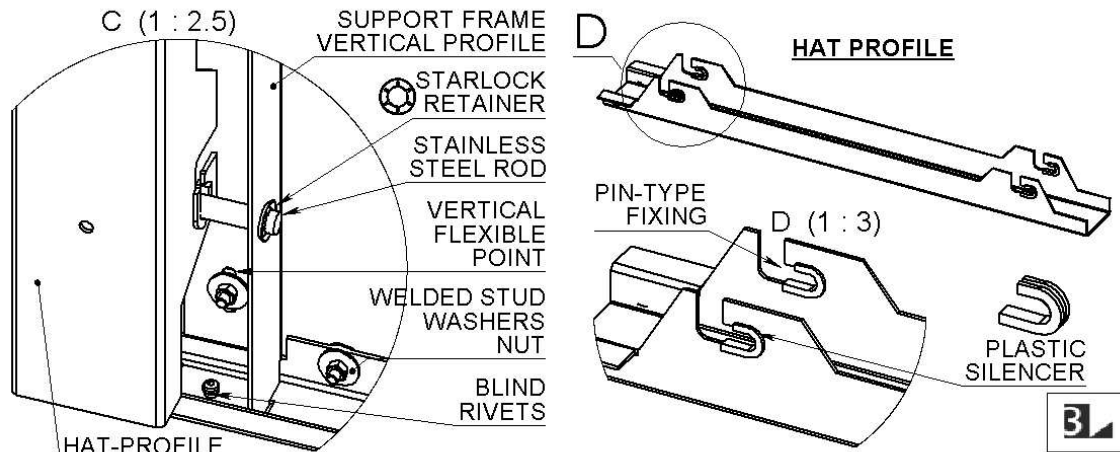


Figure 2. ECO CERTUS PANEL AND THE SMART FLEX SUPPORT FRAME SYSTEM IN DETAILS

DIFFERENT TYPES OF ECO CERTUS CLADDING PANEL MOUNTING SOLUTIONS

Depending on requirements to the cladding technical and visual specifications there are three commonly used material types for cladding panels:

- If HPL or FIBER CEMENT panels are proposed – ECO CERTUS HPL solution is used (Figure 3A). The solution essence is undercut anchor technology. In the manufacturing process stainless steel anchors are installed in the back side of the HPL or FIBER CEMENT panels which subsequently are attached to the SMART FLEX support frame. The anchor design configuration and geometrical layout is determined by strength calculation, which can perform our Engineering Department.
- Sheet metal (Figure 3B) or composite (Figure 3C) (aluminum, steel) cassettes;
- The RSM (Rock Solid Metal) system is used in cases when thick metal plate is proposed by the architect for the cladding of the wall (Figure 3D). Metal panels are attached to the SMART FLEX support frame by means of welded pins.

ECO CERTUS HPL AND FIBER CEMENT MOUNTING SOLUTION

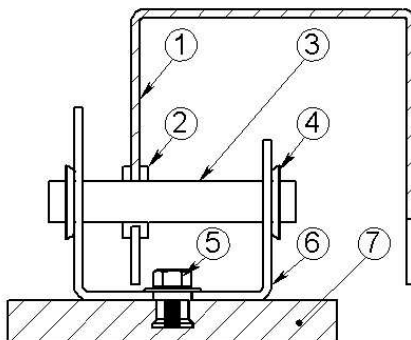


Figure 3A.

ECO CERTUS SOLID SHEET CASSETTE MOUNTING SOLUTION

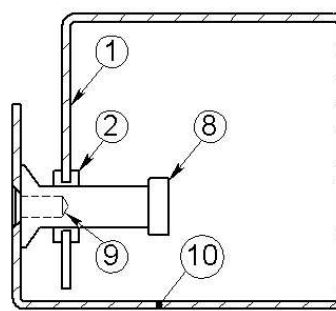


Figure 3B.

ECO CERTUS ACM COMPOSITE CASSETTE MOUNTING SOLUTION

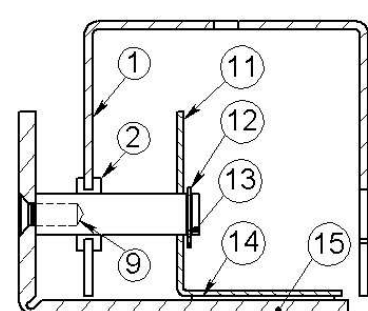


Figure 3C.

1. HAT PROFILE
2. PLASTIC SILENCER
3. STAINLESS STEEL ROD
4. STARLOCK RETAINER
5. STAINLESS STEEL ANCHOR
6. VERTICAL SUPPORT FRAME

7. HPL OR FIBER CEMENT
8. ROD WITH INTERNAL THREAD
9. COUNTERSUNK SCREW
10. SOLID STEEL
11. ADDITIONAL SUPPORT PROFILE
12. EXTERNAL RETAINING RING

13. ROD WITH INTERNAL THREAD
14. LAYER OF GLUE
15. ACM COMPOSITE METAL
16. WELDED STUD
17. NUT AND WASHERS
18. ANTI-VIBRATION FILLING

ECO CERTUS RSM MOUNTING SOLUTION

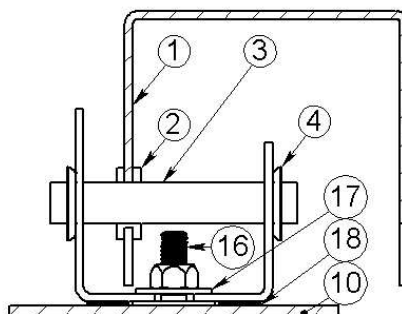


Figure 3D.

ECO CERTUS system fulfils the ultimate architect's requirements for the system precision, tolerances and exclusive looks.

All parts which are mounted during the assembly process are made of materials which are safe from corroding. Also individually fabricated steel parts are galvanized.

Depending of material type used, our company can guarantee that cladding will last up to 25 years.

OUR PROJECTS:

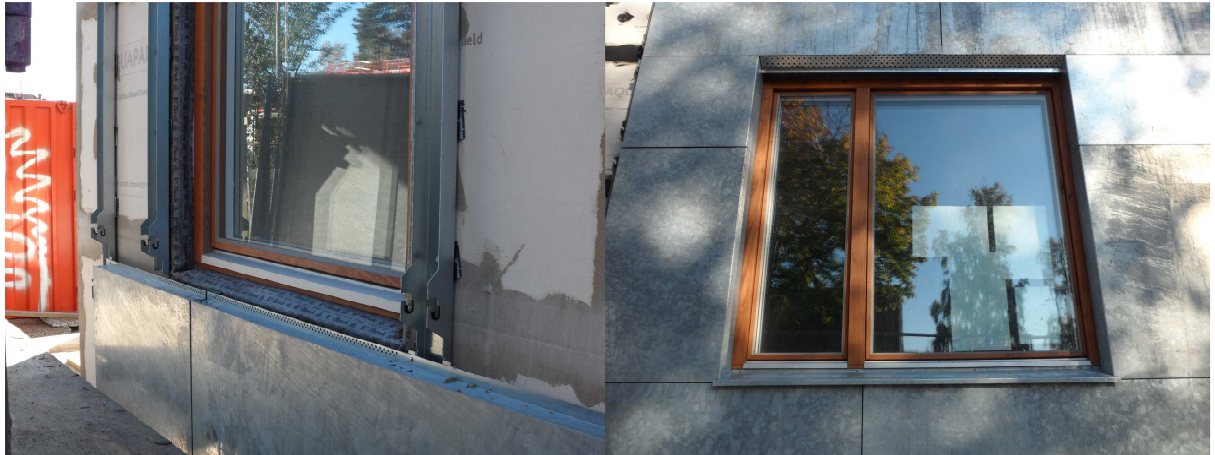


Figure 4.

4 residential buildings

Stockholm, Sweden – installation stage

ECO CERTUS RSM ULTRA - 3 mm hot –galvanized steel plates, 5-mm shadow joints between panels



Figure 5.

Psycho-Neurological Hospital

Darmstadt, Germany – installation stage

ECO CERTUS – 3 MM ALUMINUM CASSETTES



Figure 6.
Psycho-Neurological Hospital
Darmstadt, Germany
ECO CERTUS – 3 MM ALUMINUM CASSETES