



SCALEO Façade System

SCALEO TECHNICAL AND INSTALLATION GUIDE

USA/CAN EDITION – MARCH 2024



For you to create

EXTERIOR



Fundermax

Success Lies in the Right System

With the Scaleo Rainscreen Cladding systems, FunderMax offers panels, mounting system and all the necessary accessories from a single source. Thus, you not only efficiently save time with your purchase and installation, you can also be confident that you will receive impact resistant, attractive, durable and UV resistant panels and accessories with proven FunderMax quality.



Design Meets Tradition!

SCALEO lap siding system components can be mounted onto wood or aluminum substructures. The unique system design, combined with the durable and attractive décor offerings, allows you to provide cost effective façades with “character” that will withstand the rigors of time and climate. The Scaleo System offers a variety of solutions for inside and outside corners as well.

MAX EXTERIOR FACADE PANELS

Sensational décor designs with an enormous spectrum of styles, including rough urban, vibrant solid colours and the wild beauty of a broad range of natural materials.

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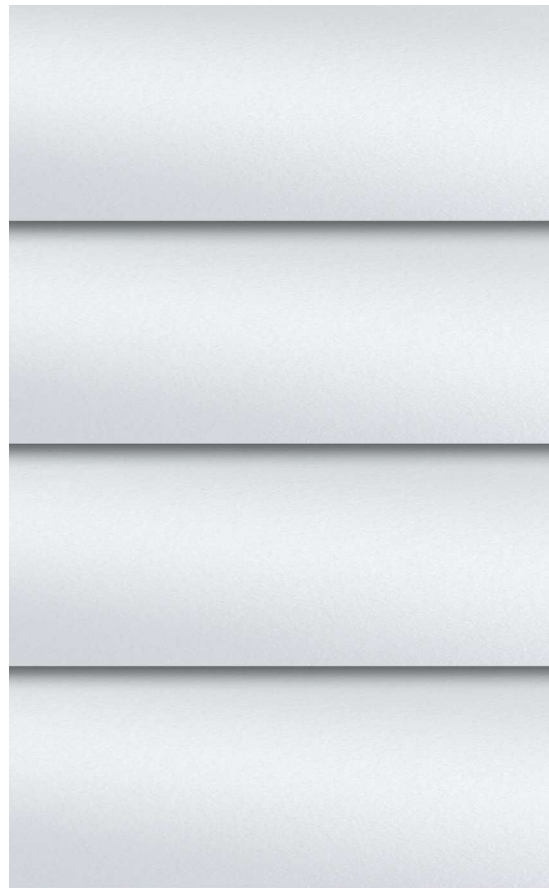
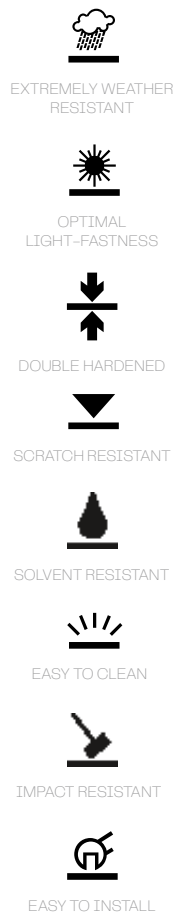
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What Max Compact Exterior Can Do

Scaleo is offered as cost effective “system solutions” that incorporate mounting clips, trims and panels, that are pre-fabricated to facilitate aesthetics and ease of installation. Fundermax Exterior Panels are the perfect choice for these two unique façade systems! The panels are duomer high-pressure laminates (HPL) designed for exterior applications. They are produced in accordance with EN436-6 Type EDF under high pressure and temperature. The front and back panel surfaces are protected with a double-hardened, acrylic polyurethane resin saturation process. This provides protection to weathering and superior UV resistance, even in the harshest of climates, making it the perfect solution for durable and aesthetically appealing façade cladding that will pass the test of time.



PROPERTIES*:

- Weather resistant to EN ISO 4892-2
- Lightfast acc. to EN ISO 4892-3
- Double hardened
- Scratch resistant
- Solvent resistant
- Hail resistant
- Easy to clean (non porous)
- Impact resistant EN ISO 178
- Suitable for all exterior applications
- Decorative
- Self-supporting
- Bending resistant EN ISO 178
- Frost resistant -80°C to 180°C
- Heat resistant -80°C to 180°C
- Easy to machine and install

* STANDARD- AND ACTUAL-VALUES YOU WILL FIND ON OUR WEBSITE WWW.FUNDERMAX.COM

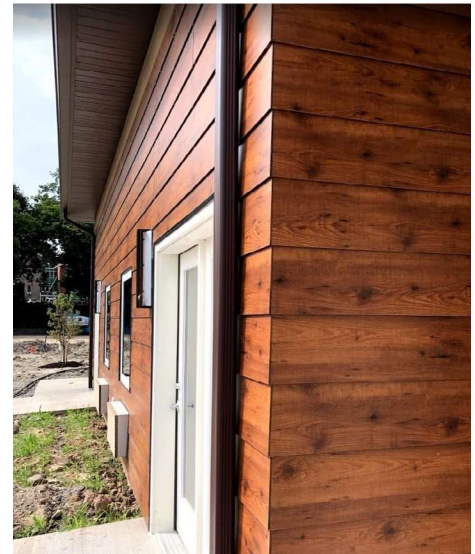
Scaleo: A Robust Façade System with a Perfect Look

FUNDERMAX MAKES TRADITION EVEN BETTER

Pre-fabricated Max Exterior Panels for Scaleo Lap Siding make it easy to design and install robust and modern facades. With the engineered and easy to install mounting system, a façade of durable, UV resistant, and maintenance free Scaleo Lap Siding creates a beautiful and functional building exterior. The product characteristics make Scaleo Lap Siding a façade material with comprehensive protection. The double-hardened acrylic curing process provides a non-porous surface with tremendous abrasion resistance and UV stability. Scaleo Lap Siding is easy to clean and able to withstand the harshest of environmental conditions.

BENEFITS

- Easy to mount (on wooden or aluminum substructure)
- Easy to clean
- Stock program for fast delivery
- Wide selection of Decors
- Lightfast and UV-resistant
- Weather resistant
- Hail resistant
- Scratch resistant
- Pre-fabricated panels
- Double hardened surface



DESIGN: SERAU ARCHITECTURE

**TECHNICAL PROPERTIES DATASHEET
FUNDERMAX COMPACT EXTERIOR, F QUALITY, NT SURFACE 6MM SCALEO, ROUTED EDGE LAP SIDING SYSTEM**

PROPERTIES	TEST METHOD	STANDARD VALUE	
MECHANICAL PROPERTIES			
Panel Core		Standard Dark Brown Core, Finish on both sides	
Porosity		Non Porous surface and edges	
Antimicrobial Characteristics		FunderMax panels do not support microorganic growth	
Modulus of Elasticity	property tested according to ES 438.2	≥ 9000 N/mm ²	≥ 1,305,340 psi
Tensile Strength	property tested according to ES 438.2	≥ 80 N/mm ²	≥ 11,603 psi
Flexural Strength	property tested according to ES 438.2	≥ 90 N/mm ²	≥ 13,053 psi
Density	Per EN ISO 1183-1	1.35 g/cm ³	1 N/mm ² = 1MPa
Surface Impact Resistance	Falling ball test per EN 438-2:21, (standard value ≥ 10mm)	≤ 10mm	
Scratch Resistance	Per EN 438-2:25	4-6 N	4 N = .9 lbf
Abrasion Resistance	1 U = 1 cycle of rotation, property as tested per ES 438.2	≥ 450 U	
Color Stability -Artificial Weathering / Lightfastness	Per EN ISO 4892-2, industry standard ≥ 3	Greyscale value 4-5	

PROPERTIES	TEST METHOD	STANDARD VALUE	
FIRE BEHAVIOR			
Burning Classification	As tested per ASTM E84	Class A rating	
FSI (Flame Spread Index)	As tested per ASTM E84	10	
SDI (Smoke Develop Index)	As tested per ASTM E84	95	

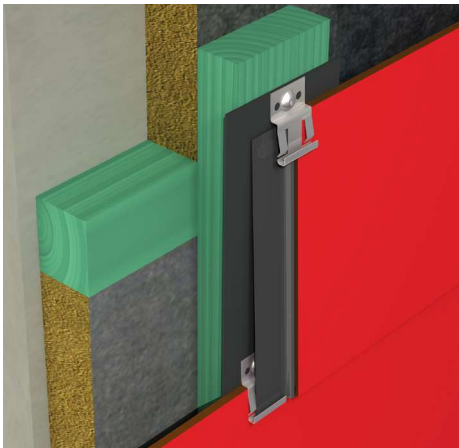
PROPERTIES	TEST METHOD	STANDARD VALUE	
Maximum Design Pressure with vertical battens (panel attachments) at 16" centers		188 psf	
Maximum Design Pressure with vertical battens (panel attachments) at 24" centers		73 psf	

PROPERTIES	TEST METHOD	STANDARD VALUE	
MECHANICAL PROPERTIES			
Thermal Conductivity		0.3 W/mK	
Water Vapor Diffusion Resistance		ca. 17.200 μ	
Dimensional Changes during climatic	Dimensional Stability per EN 438-2:17	I %	0.1
Changes, measured at elevated temperatures		Q %	0.25
Dimensional Tolerance of Nominal Sizes		(+ 10 mm / - 0 mm)	
Dimensional Tolerance of Thicknesses		≤ 12 mm	+/- .5 mm
Resistance to Chemicals	Fundermax panels are highly resistant to many chemicals, complete list available on request		
Ease of maintenance/Cleaning	Fundermax panels resist dirt, easily cleaned with common agents, complete list available		

For IBC construction type I-IV buildings the Fundermax 6 mm lap siding system is for installed heights below 40' only. For Canadian applications, please contact your local sales representative or visit www.fundermax.us

NOTE
VALUES ARE AVERAGE VALUES.

System Scaleo



Scaleo provides an attractive system with prefabricated Max Exterior panels for lap siding. Our system is easy to design and use, and provides a robust and modern façade. Scaleo offers an ideal combination of ease of installation with the proven characteristics of Max Exterior façade panels.

Note: Information about building regulation permits can be found at our website www.fundermax.com

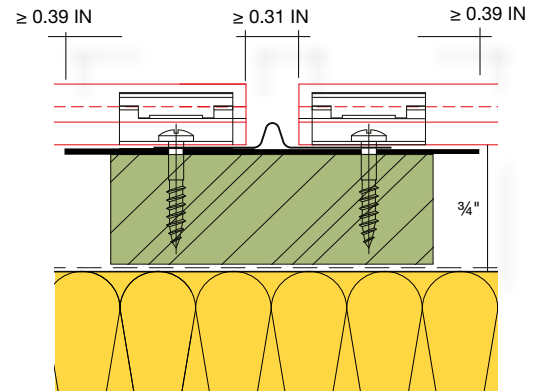
ACCESSORIES AVAILABLE

- Mounting clips and instructions
- Vertical backing profile
- Inside and outside corner profiles

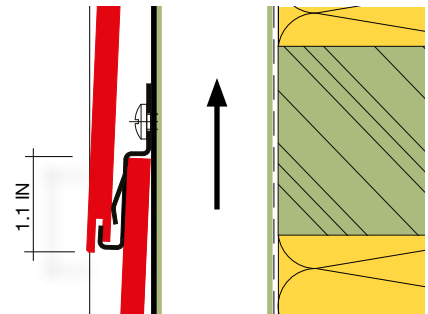
ADVANTAGES OF SCALEO LAP SIDING

- Proven quality
- Abrasion resistant
- Impact and hail resistant
- Double-sided, balanced panels
- Weather resistant
- UV stable
- Ease of machining
- Ease of installation
- Minimal maintenance
- Ease of cleaning (non porous)
- Wide range of decors
- Quick ship program

NOTE
STANDARD PANEL SIZE FOR EASE OF INSTALLATION: 110" x 9.84"
CUSTOM HEIGHTS BETWEEN 6" AND 12"
AVAILABLE UPON REQUEST



VERTICAL BACKING PROFILE



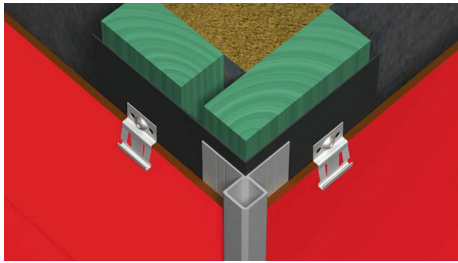
OVERLAP DIMENSION LAP-SIDING ELEMENTS

INFORMATION SCALEO PANEL

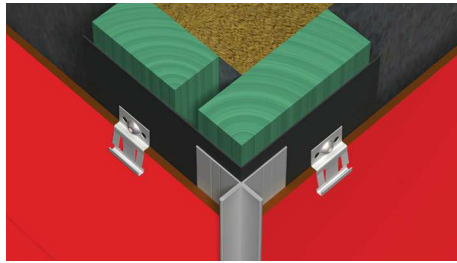
Format	110.24 x 9.84 in
Surface coverage	8.74 in
Minimum order quantity = 1 package = 5 panels (or a multiple)	37.67 sf
Panel thickness	0.24 in
Surface coverage / package	33.37 sf
Surface coverage / panel	6.67 sf

SCALEO ACCESSORIES

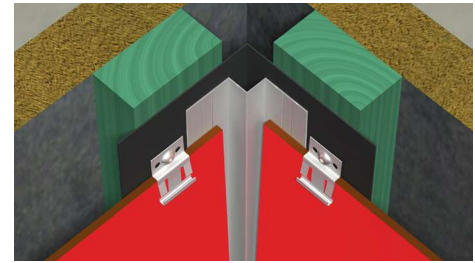
Mounting clips (approx. 10-12 clips/10 sf)	100 clips/unit
Vertical backing profile length = 9.69 in	10 pcs/unit
Vertical backing profile length = 98.43 in	20 pcs/unit



EXTERNAL CORNER WITH SQUARE PROFILE



EXTERNAL CORNER WITH CROSS PROFILE



INTERNAL CORNER PROFILE

Mounting Instructions



1. PREPARING THE SUBSTRUCTURE

Max Exterior Scaleo elements are installed using mounting clips fixed to a substructure of vertical wooden battens, which are shaped and pre-dried (wood moisture $15\% \pm 3$). Each batten must be at least 1.97 inch wide for a single mounting clip, or 2.95 inch wide where two panels join to allow enough space for two mounting clips side-by-side. Pay attention to constructive or chemical treated wood preservation! The gap between each batten should not exceed 24 inches. The Scaleo panels are installed starting from the bottom. First of all, use a piece of 6 mm Compact Exterior as a shim. Now fit the first row of mounting clips so they rest on the bar. Make sure you fit 2 mounting clips at each vertical joint between panels. Alternatively you can use an aluminum substructure. Length of the aluminum profile is maximum 110.24 inch. Width of the profile with one mounting clip 1.57 inch and in case of joints (2 clips) minimum 3.15 inch. For fixing against shifting we recommend one self-tapping screw with fillister head per panel (screwed in the middle).



2. INSTALLING THE FIRST ROW OF PANELS

Place the groove along the lower edge of the Max Exterior Scaleo elements (the notch points downwards) onto the mounting clips. Secure the panels in place by fixing mounting clips along the top edge of each panel. The panel above overlaps the first row of panels by approx. 1.1 inch. Fit a screw next to the top middle mounting clip on each panel. This is designed to stop the panel shifting sideways.



3. VERTICAL JOINT

A batten for fixing the mounting clips must be located at each vertical joint. Two mounting clips, one either side of the joint, are needed to provide the necessary hold. Please use Max Exterior backing strips to seal the vertical joint between cladding panels. If siding elements are arranged so the vertical joints are offset then it is sufficient to install the panel plus joint profile using a single mounting clip. If vertical joints are in a line then two mounting clips need to be used. There must be a gap of at least 0.31 inch between the panels at the joint.



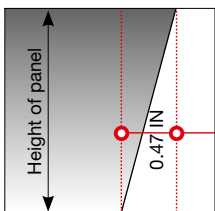
4. OUTSIDE CORNERS/INSIDE CORNERS WITH MITRE

Max Exterior Scaleo elements can be mitred for both outside and inside corners.

Outside corners: The top edge of the panel must be 0.47 inch shorter than the lower edge of the panel (regardless of the panel width).

Inside corners: The lower edge of the Scaleo panel must be 0.47 inch shorter than the top edge of the panel (regardless of the panel width). The mitred edges must have a chamfer. The substructure needs to be protected with an EPDM protective tape (min. thickness 0.05 inch) to prevent water entering.

Corner profiles: Elements can be installed on both outside and inside corners using a variety of shapes of corner profiles. In this case the panels are cut without a mitre. Make sure there is a gap of at least 0.2 inch between each panel and the corner profile.



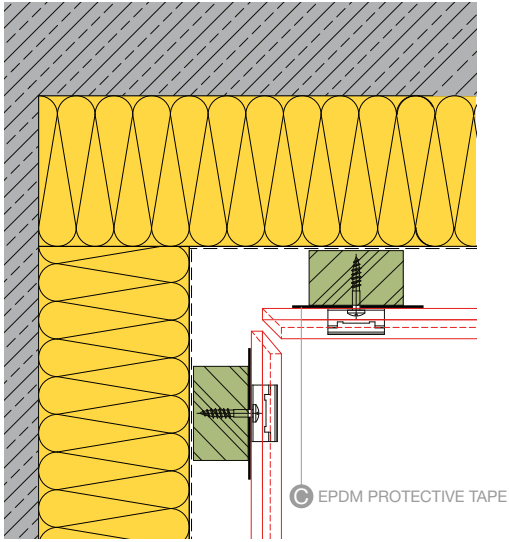
5. INSTALLING THE TOP ROW OF PANELS

Secure the top row of panels by fitting screws along the top edge of each panel. Use screws with painted heads to match the colour of the panels, as used for the installation of full-sized Max Exterior cladding boards.

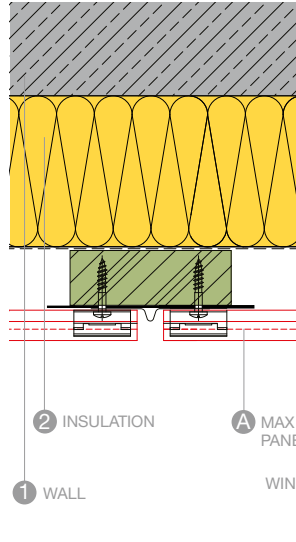


Construction-details horizontal sections

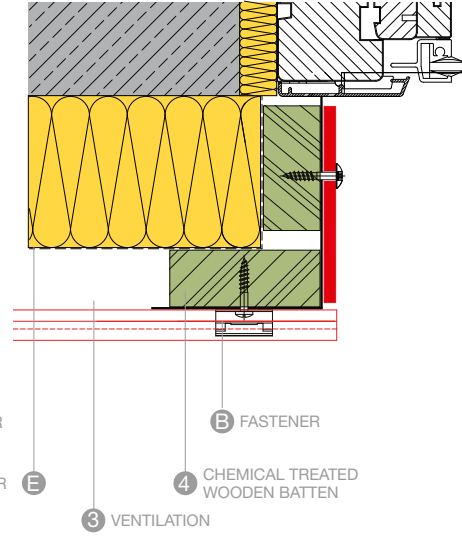
Scaleo Façade System on wooden substructure



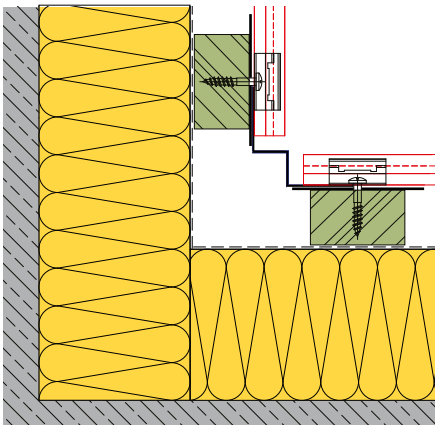
INTERNAL CORNER A106



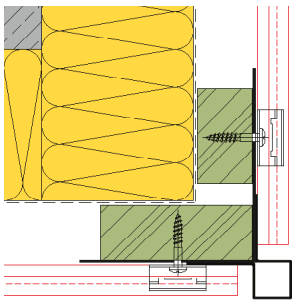
VERTICAL JOINT A107



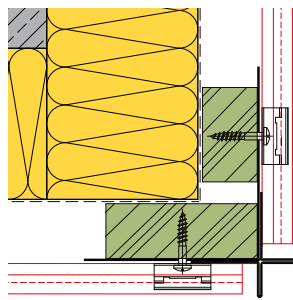
WINDOW REVEAL A104



INTERNAL CORNER A106 WITH PROFILE



EXTERNAL CORNER A105 WITH SQUARE PROFILE



EXTERNAL CORNER A105 WITH CROSS PROFILE

NOTE
MINIMUM 1.2 MM THICK EPDM TAPE IS RECOMMENDED ON ALL WOOD SUBSTRUCTURE, RETURNING BACK 3/8" ON BOTH SIDES.

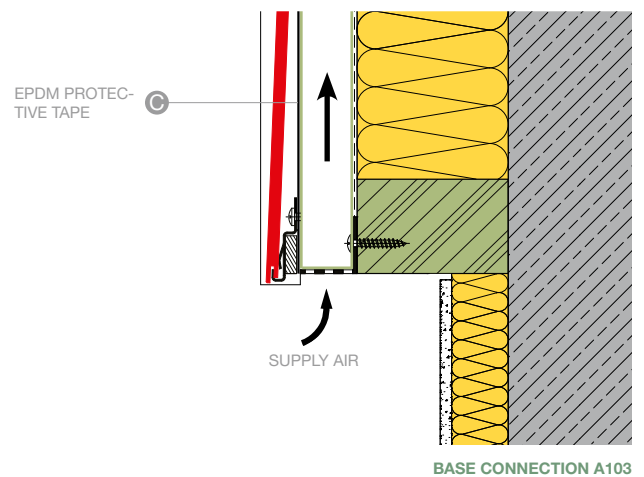
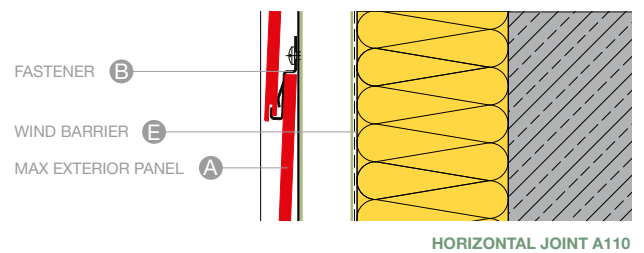
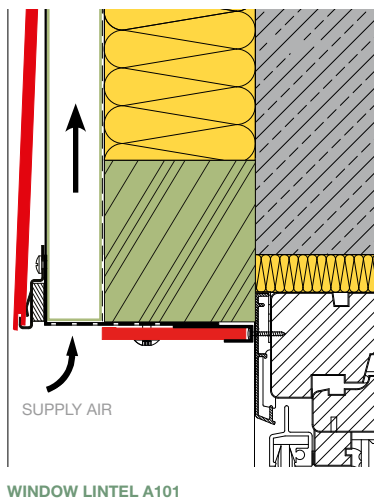
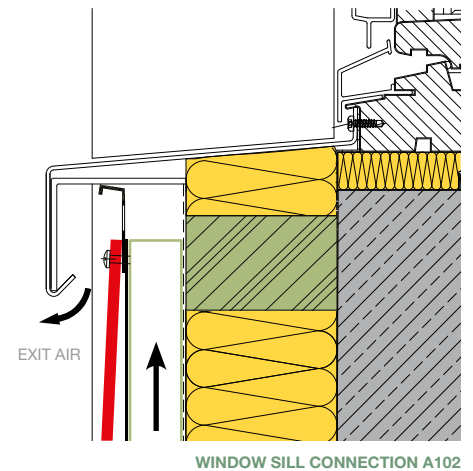
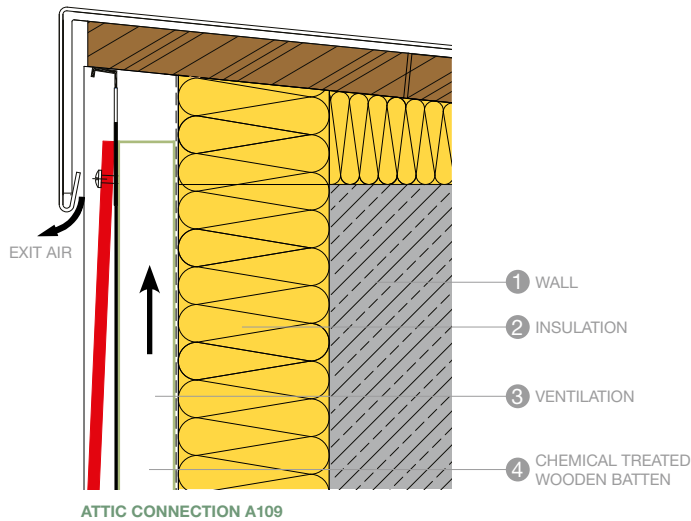
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ALL DRAWINGS IN THIS BROCHURE ARE NOT TRUE TO SCALE.

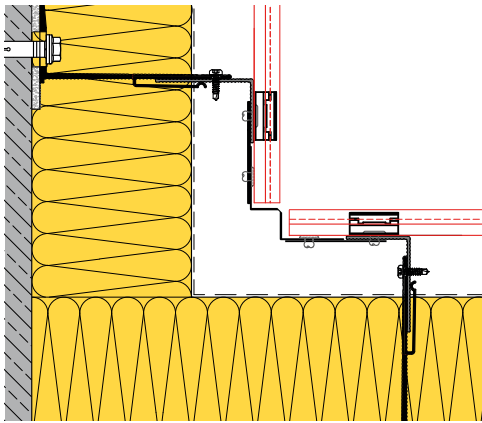
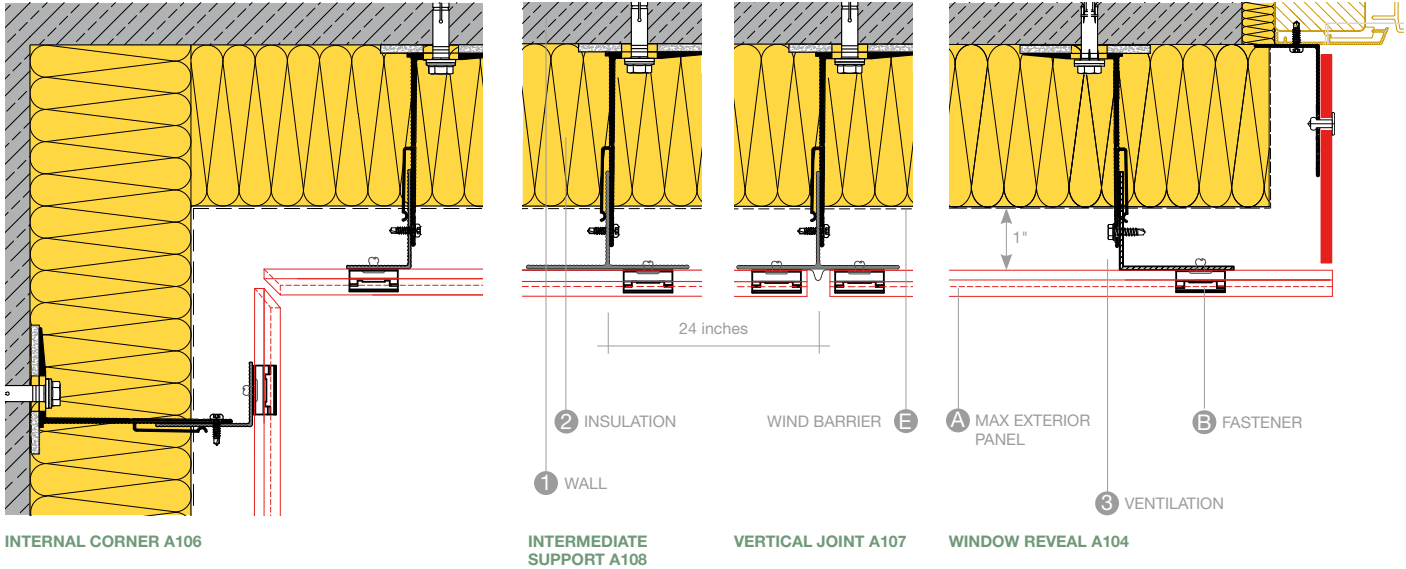
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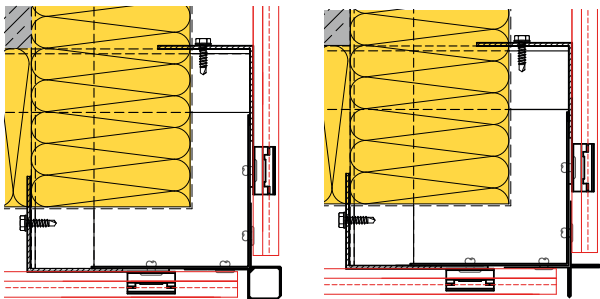
Construction-details vertical sections Scaleo Façade System on wooden substructure



Construction-details horizontal sections Scaleo Façade System on aluminum substructure



INTERNAL CORNER A106 WITH PROFILE



EXTERNAL CORNER A105 WITH SQUARE PROFILE

EXTERNAL CORNER A105 WITH CROSS PROFILE

NOTE

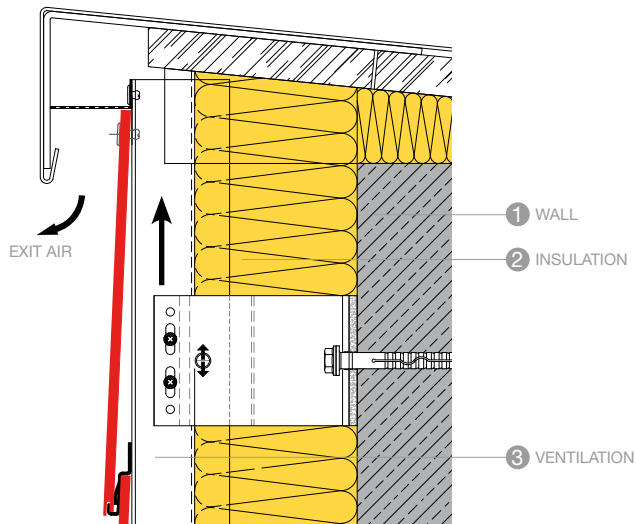
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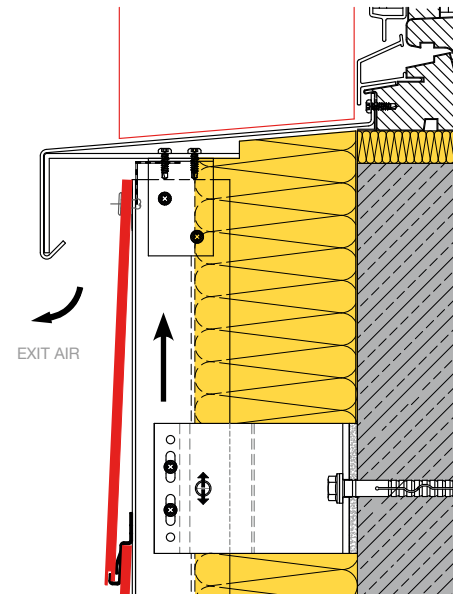
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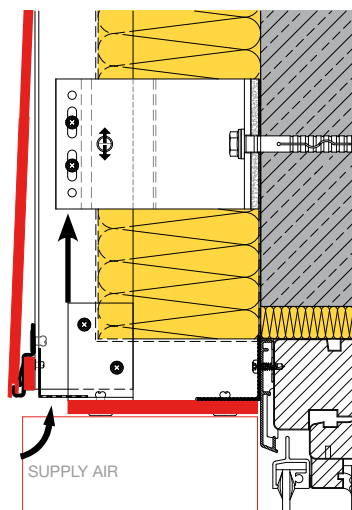
Construction-details vertical sections Scaleo Façade System on aluminum substructure



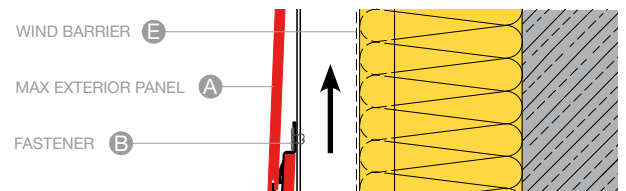
ATTIC CONNECTION A109 / HORIZONTAL JOINT A110



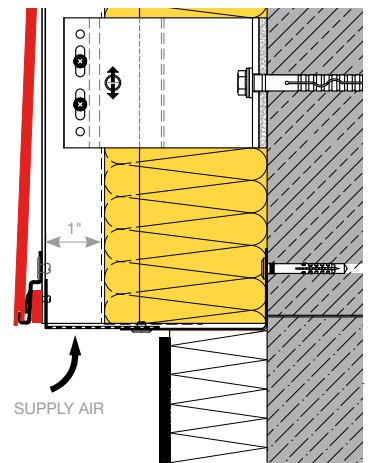
WINDOW SILL CONNECTION A102



WINDOW LINTEL A101



HORIZONTAL JOINT A110



BASE CONNECTION A103

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