



Custom Rainscreen Façade Systems



IntelligentEnvelopes™

Introduction

Linel is headquartered in Mooresville, Indiana and is part of the Mestek Architectural Group. In addition to Linel, Mestek's architectural activities include American Warming and Ventilating (AWV). The emphasis for these companies is in providing products and solutions that beautify and improve the performance of buildings through Intelligent Envelopes™.



There are increased concerns in the architectural community about entrapped moisture within exterior wall systems and the resultant problems with mold and corrosion. As a consequence, there has been a growing interest in and demand for rainscreen façade systems. Rainscreen façades deter the penetration of rainwater into the exterior wall system, while providing needed ventilation and drying within the wall system for any water that penetrates the building's exterior cladding.

A rainscreen design has two separate and distinct barriers on the building's exterior wall. Typically, the outer barrier sheds (but does not completely eliminate) the majority of the rainwater, while the inner barrier on the building's structural wall performs multiple functions – providing the final moisture barrier, air/vapor barrier and insulation. The outer barrier is supported by channels or rails attached to the inner structural wall. The air gap or cavity between the two barriers allows for circulation of air for drying of any water that penetrates the outer barrier.

Rainscreen façades can be constructed from many different materials including terra cotta, clay, porcelain, glass, thin stone or brick, composites and in a variety of metals including steel, stainless steel, aluminum, zinc, copper, etc.

There are two main types of rainscreen façade systems - drained/back-ventilated and pressure-equalized/compartmentalized systems. Drained/back-ventilated systems rely on the ventilation cavity to both drain and dry-out the residual water. Pressure-equalized/compartmentalized systems have an added feature of separated drainable compartments that limit water penetration into the cavity due to wind-induced pressure differentials.

WATER MANAGEMENT

Beyond aesthetic and structural considerations, the key issue in rainscreen façade system designs is water management. In most typical rainscreen façade designs, some water intrusion beyond the exterior building envelope is expected. Any penetrating water must be directed and dried through a continuous drainage and ventilation system in the rainscreen façade system design.

Linel has many years of experience dealing with water management issues through its expertise in metal-framed skylights. Linel uses this expertise in the design of rainscreen façade systems using sophisticated approaches to provide unsurpassed water intrusion resistance and water management performance.

CUSTOM VERSUS STANDARD RAINSCREENS

There are many manufacturers of standard rainscreen systems. Linel's focus is on the more unique, complex and larger panel custom rainscreen façade systems that require extensive engineering, precise manufacturing and installation coordination. This includes rainscreen façade systems with highly complicated and unusual geometry, architectural details and finishes.

Linel offers an extraordinary range of rainscreen façade systems with a variety of framing systems, materials and finishes.

LINEL'S OFFERING

- Exterior rainscreen systems in a variety of wall panel appearances and materials including steel, stainless steel, aluminum, zinc, copper, etc.
- A wide variety of wall panel finishes are available including smooth, textured, painted, anodized, perforated, etc.
- Drained/back-ventilated and pressure equalized/compartmentalized systems.
- Linel is a licensed applicator for Akzo Nobel, PPG and Valspar to meet AAMA painting (2603, 2604 & 2605) specifications for painted applications.
- All designs are completed using 3-D modeling engineering software fully integrating with CNC-controlled production equipment.
- Linel can provide certified structural calculations when requested to ensure structural integrity.



LINEL'S TRACK RECORD AND CAPABILITIES

Linel has more than 30 years of unsurpassed experience in the design and supply of custom rainscreen façade systems. Linel's portfolio includes some of the most unique and complex rainscreen façade systems.

Linel is dedicated to innovation and has comprehensive design capabilities. While this brochure provides a general overview of our capabilities, we welcome the opportunity to develop solutions to satisfy your unique requirements.

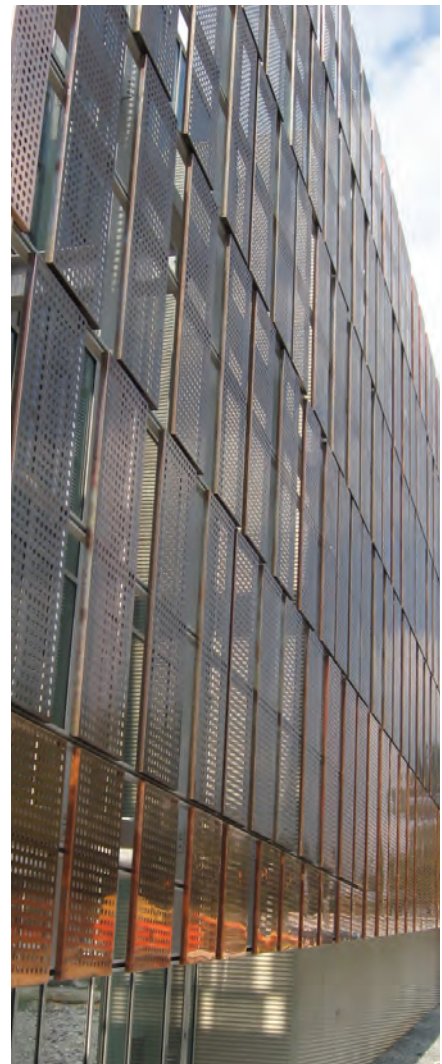
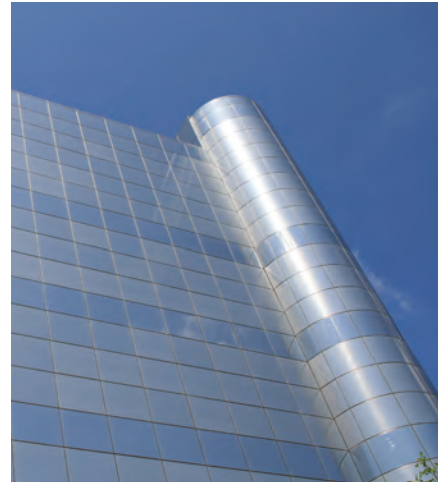
NEW OR RENOVATION

Linel not only provides rainscreens façade systems for new construction, but provides systems for recladding of existing buildings. A new rainscreen façade system can update the appearance and performance of many existing buildings.

MATERIAL ONLY OR TURNKEY INSTALLATIONS

Every Linel rainscreen façade system project is assigned a project manager who coordinates activities with the architect, general contractor and installer, as well as internally with engineering and manufacturing. Linel can provide the rainscreen façade system as a material only contract, or installed as a turnkey solution.

It is important to remember that there are several rainscreen façade system offerings to choose from, but the outcome largely depends on rigorous engineering, state-of-the-art manufacturing, attention to detail, experience and close coordination with everyone involved in the project. For the most demanding and complex rainscreen façade systems, you can depend on Linel's experience and expertise.

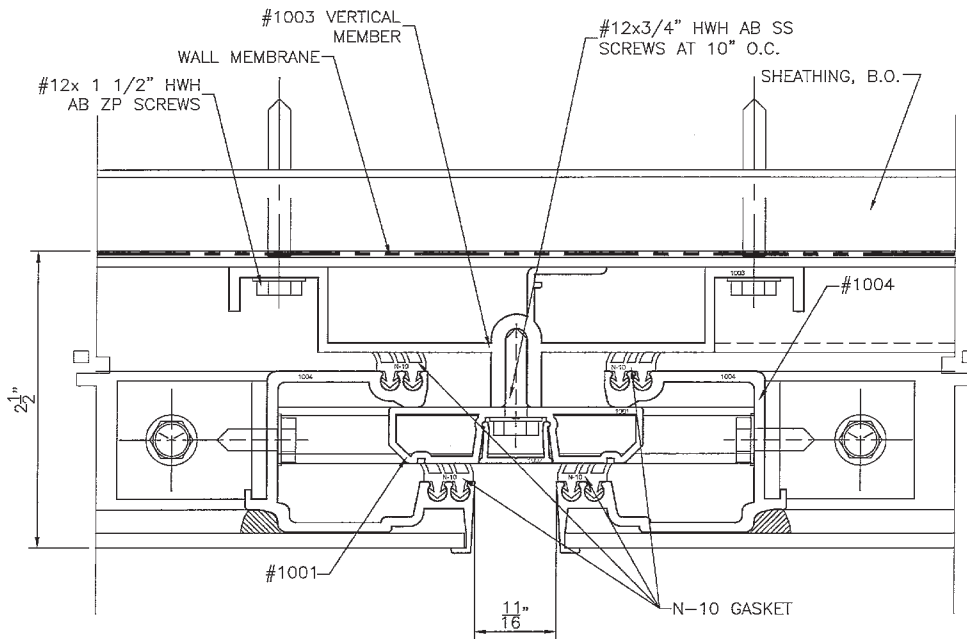


PI000 Series Rainscreen Façade Systems

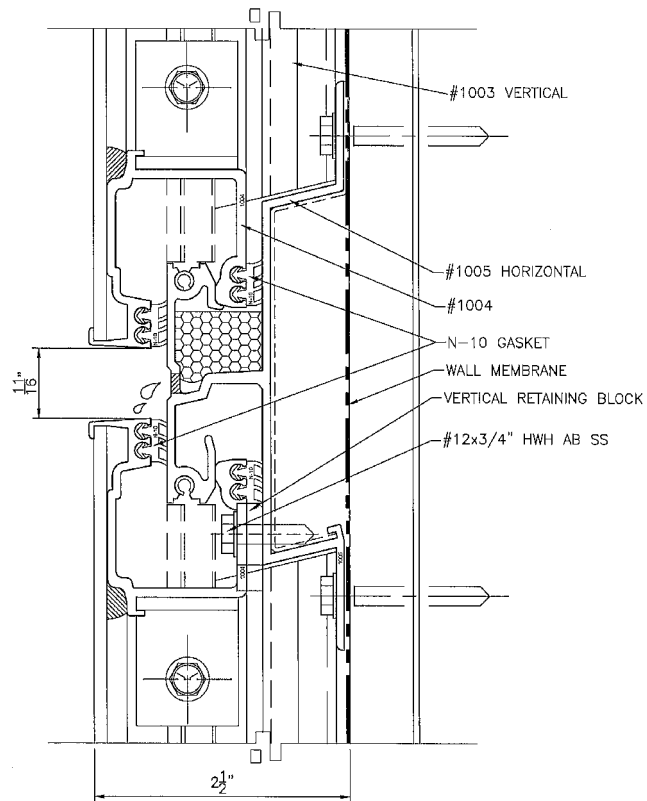
The P1000 series rainscreen façade system is a pressure-equalized/compartmentalized design with:

- Unsurpassed performance in resistance to water intrusion.
- Double sealed back-guttered water management system.
- The outer rainscreen wall panels are non-sequential and are individually removable without disturbing the other wall panels.
- Metal rainscreen wall panels offer impact and fire resistance.
- Contrasting reveal edge finish available for a dramatic modular appearance.
- Open or formed corners





PI 000 Series Typical Vertical Joint Detail



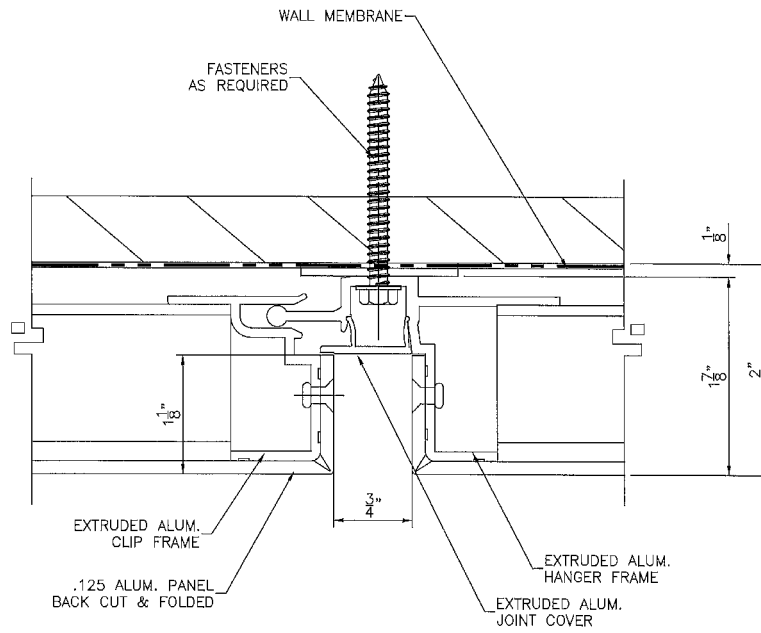
PI 000 Series Typical Horizontal Joint Detail

P3000 Series Rainscreen Façade Systems

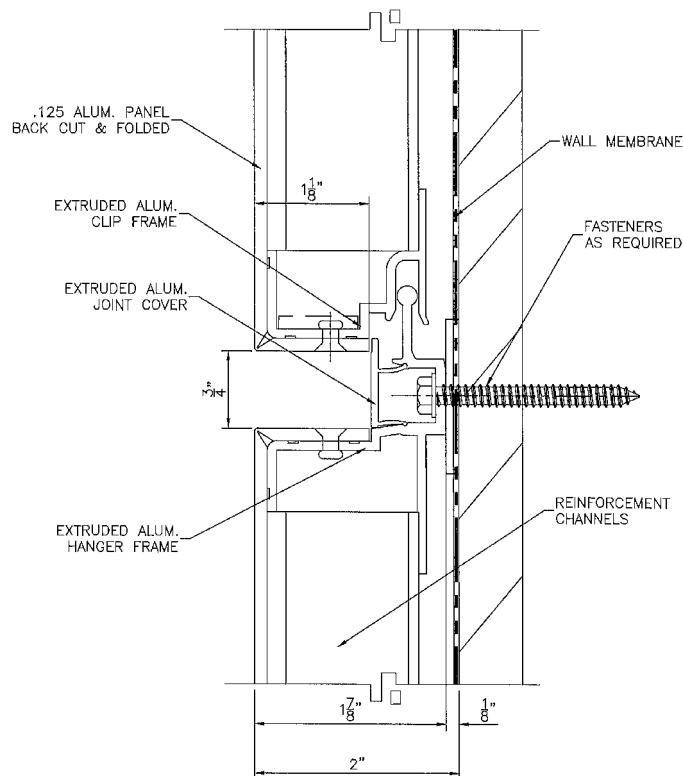
The P3000 rainscreen façade system is a drained/back-ventilated design with:

- Dry joint extruded tongue and groove, non-guttered design with removable snap covers minimizing installation costs.
- The outer rainscreen wall panels are non-sequential and are individually removable without disturbing the other wall panels.
- Metal rainscreen wall panels offer impact and fire resistance.
- Contrasting reveal edge finish available for a dramatic modular appearance.
- Open or formed corners





P3000 Series Typical Vertical Joint Detail



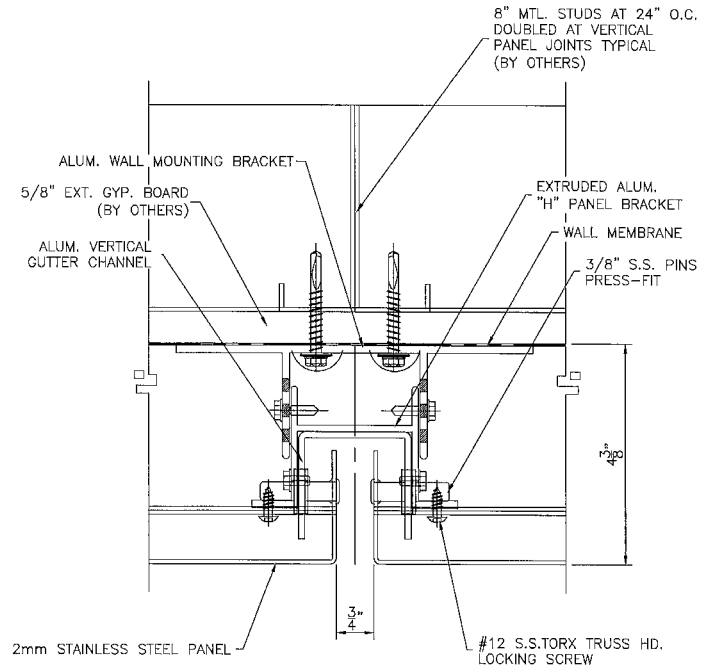
P3000 Series Typical Horizontal Joint Detail

P4000 Series Rainscreen Façade Systems

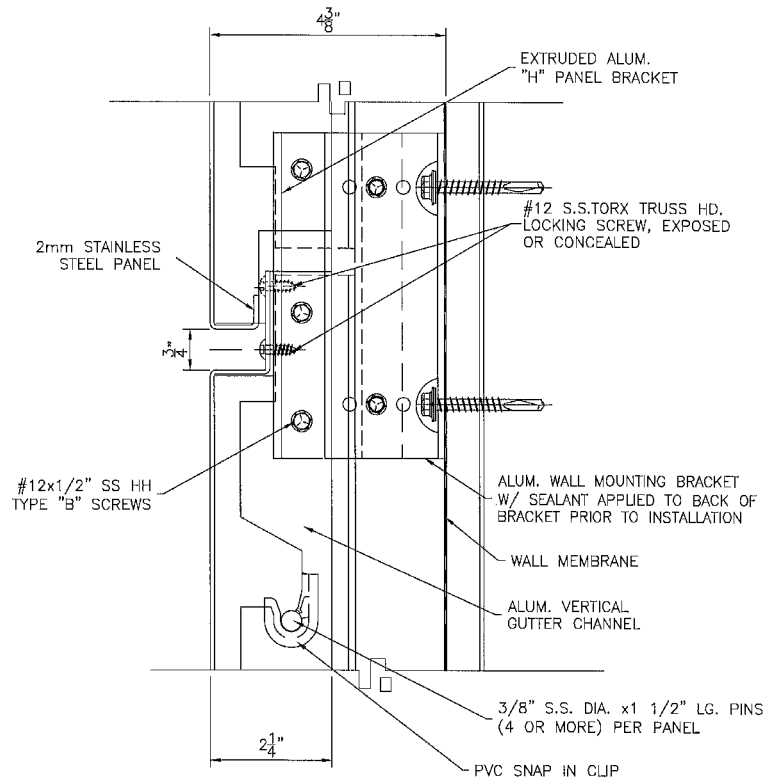
The P4000 rainscreen façade system design is a drained/back-ventilated design with:

- European “hook and pin” open joinery method in both concealed and exposed pin designs.
- Open joint back-guttered water management system.
- The outer rainscreen wall panels are non-sequential and are individually removable without disturbing the other wall panels.
- Metal rainscreen wall panels offer impact and fire resistance.
- Contrasting reveal edge finish available for a dramatic modular appearance.
- Open or formed corners





P4000 Series Typical Vertical Joint Detail



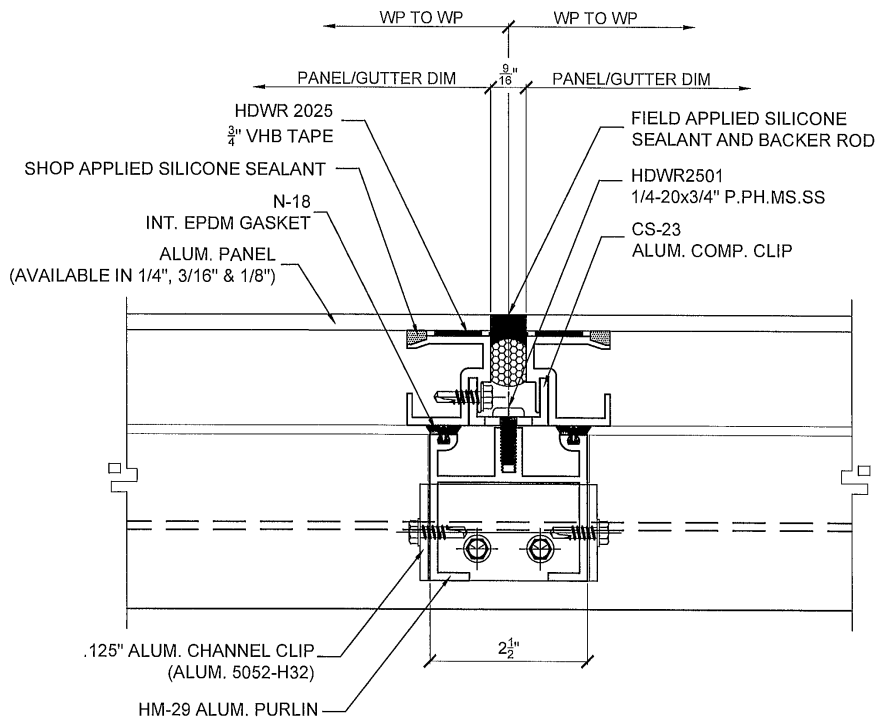
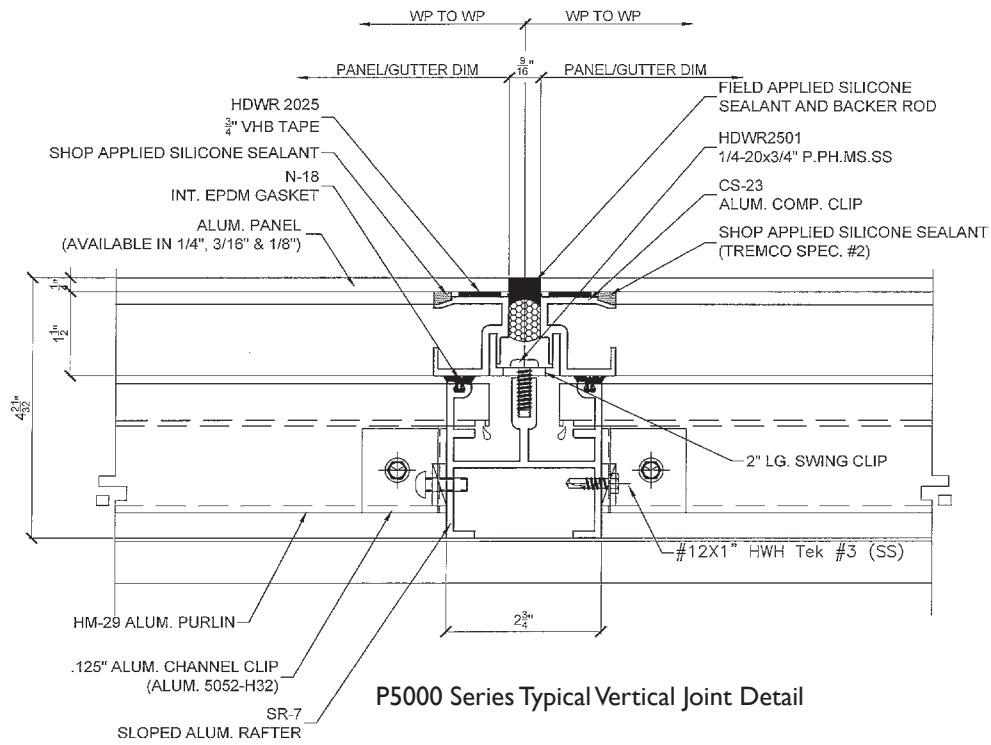
P4000 Series Typical Horizontal Joint Detail

P5000 Series Rainscreen Façade Systems

The P5000 rainscreen façade system design is a drained/back-ventilated design with:

- Face-sealed and back-guttered water management system.
- Ideal for flatter sloped installation orientations.
- The outer rainscreen wall panels are non-sequential and are individually removable without disturbing the other wall panels.
- Metal rainscreen wall panels offer impact and fire resistance.
- Contrasting reveal edge finish available for a dramatic modular appearance.
- Open or formed corners







MESTEK

ARCHITECTURAL

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