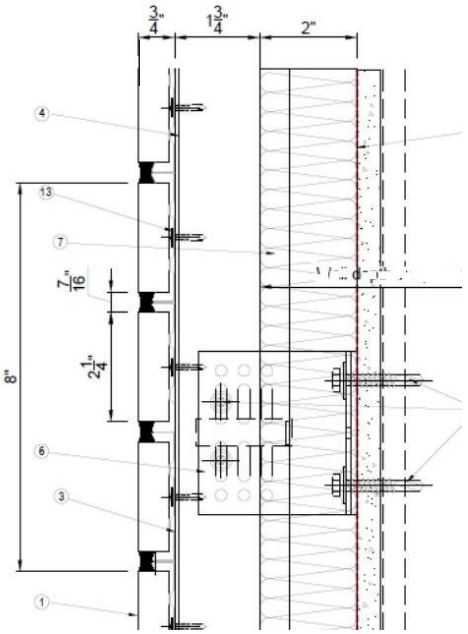
TECHNICAL BULLETIN DP-250

Desana PARTNERS
– ENGINEERED RAINSCREEN SYSTEMS –

Subject: Product Data Sheet for The DURUS System Pat. Pend.
Mechanically Attached Brick Rainscreen System

DESCRIPTION

The Durus system is a mechanically anchored brick rainscreen system. Full one-inch bricks, from Belden, Endicott or other supplier with bricks meeting the PCI specification are secured permanently into a series of stainless steel (or galvanized) trays which are fixed to a thermally efficient aluminum sub framing system. The assembly incorporates an open cavity for ventilation and drainage, continuous insulation, uninterrupted air/moisture barrier and provides multiple layers of protection from moisture entry. The system is designed to last the life of the building and is suitable for mid to high rise construction.



DESIGN

The DURUS system allows for multiple brick patterns and bonds including stacked, staggered, soldier, diagonal, and soffit installations. Brick colors, styles, and textures are nearly unlimited and existing colors can be matched. Bricks for the DURUS system are minimum 1" thick and up to 2" for corbelling.

THERMAL PERFORMANCE -- ASHRAE 90.1

The DURUS system from Desana is fully engineered, thermally broken and meets the principle of ASHRAE 90.1. and all local stretch codes. Brackets are thermally isolated from the substrate with 5-10mm PVC isolations pads providing the thermal break necessary to meet energy standards. Each system allows for continuous insulation up to 9" in thickness, uninterrupted air/barrier, and fully vented cavity. Sub framing for each system has been reviewed by Rockwool. Results of thermal performance are available from Desana upon request.

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BUILT-IN WATER MANAGEMENT

The full assembly of the DURUS system provides multiple lines of defense against moisture and water infiltration.

1. The external layer consists of the full brick assembly and mortar stopping 94% to 96% of the water.
2. Each tray securing the bricks is interlocked with one above and the one below providing a monolithic drainage plane behind the bricks
3. A 2" open cavity with ongoing convection air flow allows incidental moisture to drain out from the system and keeps the cavity dry with the ventilation.
4. An uninterrupted air/moisture barrier provides the final layer of protection protected by the insulation layer.

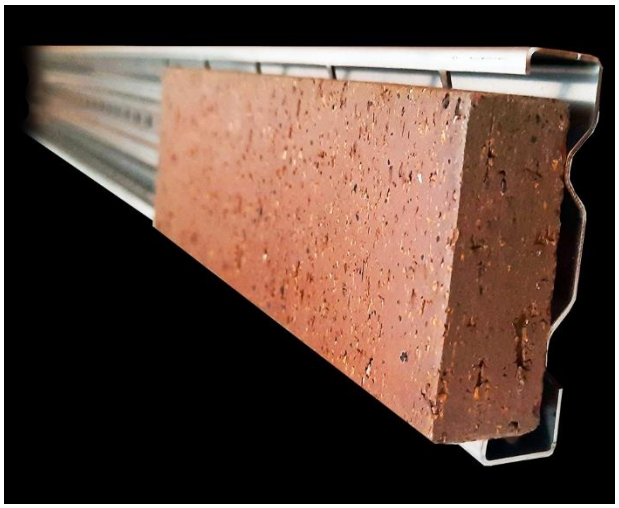
CONSTRUCTABILITY

The system provides benefits on the site for the client as well as the general contractors:

- Mechanically attached bricks are permanently secured with no reliance on adhesives
- Stud loaded system saves time and dollars by eliminating relieving angles, lintels, flashings, reinforced steel backup walls
- At less than 13 pounds per square foot system saves tons of weight on the superstructure
- Eliminates 75% of clay and mortar associated with traditional brick
- Improves safety and eliminates the staging area of water, mud, mortar mixers, slip areas, and general mess
- Installation time is reduced by 30%
- Can be installed in any weather eliminating the need for constant tenting

MARKETS SERVED

Brick is a nearly universal product and is used most everywhere. However, in the healthcare, college, university, institutional markets where the performance of a lightweight, stud loaded brick system will be most appreciated. It is these markets that look for higher performance, longer life spans, lower maintenance, and overall low cost of ownership. Additionally, the sub framing design is well suited for recladding of existing buildings and can be installed onto most any structurally sound substrate.



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SUMMARY OF BENEFITS

- ✓ Compatible with any substrate including steel or wood framing and CMU
- ✓ Lightweight at 13 pounds per square foot
- ✓ Sub framing creates vented drainage cavity and can be adjusted to fit elevation plans
- ✓ Eliminates the need for relieving angles, lintels, and additional foundations
- ✓ Allows for continuous blanket of insulation over the façade
- ✓ Allows for uninterrupted and protected air/moisture barrier
- ✓ Meets or exceeds thermal performance required with ASHRAE 90.01
- ✓ Can be installed in inclement weather with no tenting required

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