

# Wall research

Roy

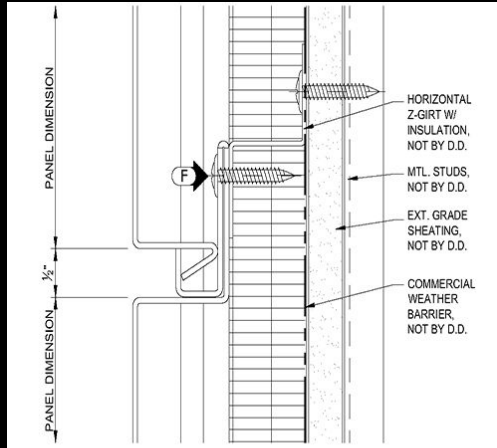
# Manufacturer 1

DRI-DESIGN Painted Aluminum Panels

# Structure



Ryerson University Canada



The panels are prefabricated and fasten to Z-GIRT, which is fasten to exterior sheathing.  
The panels does not act as structure for the building nor help with the load.  
The panels rely on the structure of the building in order for them to function as intended.



# Thermal



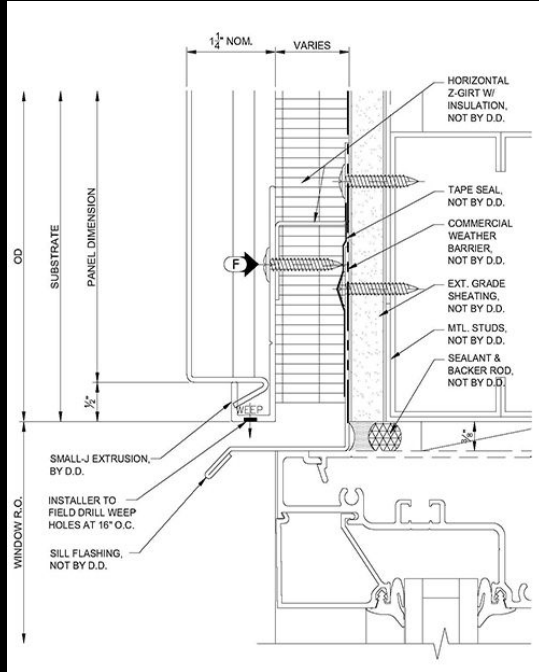
Just like the structure, the panels do not help with maintaining the heat.

Some of the panels even come with holes as decoration if requested. Although the addition of the foam helps with sealing the air, it is more for stabilizing the panels.

Here is where we see large thermal bridges occurring.

Building requires good insulation materials in order to prevent the leakage of energy.

# Waterproof



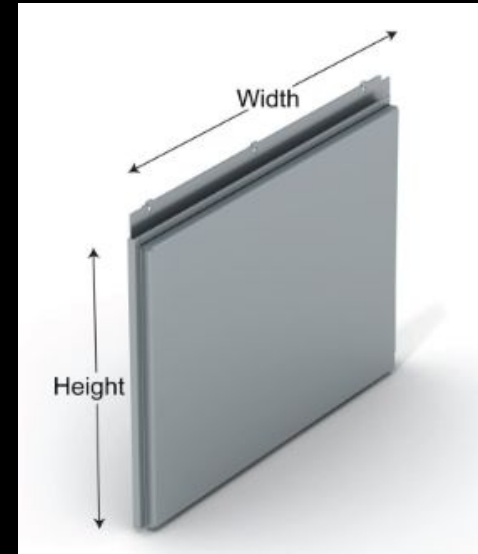
Since the panels are put up like a puzzle pieces, water can easily get through the seams.

Adequate water proofing materials should apply all over.

Flashing is also a big part of the assembly; we need to guide the water away from the wall system.

The panels only act as final finishing

[https://www.youtube.com/watch?time\\_continue=82&v=HQQPrdfbsXE&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=82&v=HQQPrdfbsXE&feature=emb_logo)



# Manufacturer 2

SENTECH Architectural System

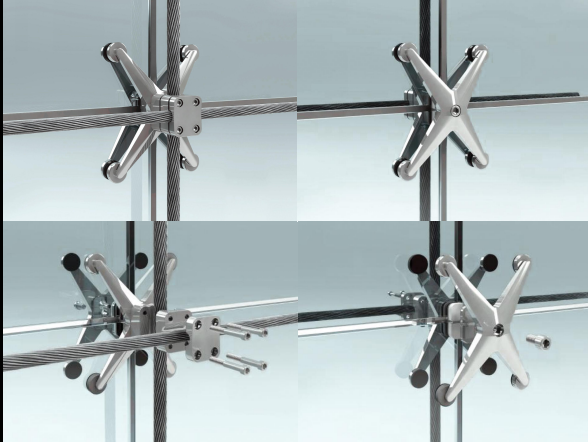
# Structure



Stainless steel tension cables or rods that are pre-tensioned from the structure act as support for the laminated glasses. VetraNet B-Series fittings (Spiders) are secure onto the tension cable trough series of screws and clamps as indicated on the images on the left.

This system is used for walls up to 100' tall in two-way cable configurations, and walls up to 60' tall in one-way cable arrangements.

Vertical loads are resisted through these spiders, which pass the forces into the vertical cables to the base of the structure.



VetraNet B-Series

# Thermal



The curtain wall act as greenhouse and warm up the leaving space. The sunlight heat up objects and they give off heat in a form of long-wavelength.

The position of the curtain wall need to be well thought off and ventilation system need to be suitable in order to avoid overheating.



# Waterproof



Plugs and seals at gaps between screw and mullion intersections must be continuously and perfectly seal to create air and water tight. But water can be force through the seams due to pressure difference.

Equalizing the pressure is the key to reduce the water penetration or else the water needed to be manually wipe down or dripped down along the glass.

# References

<https://www.dri-design.com/>

<https://www.dri-design.com/details-specs/access-details/>

[https://www.youtube.com/watch?time\\_continue=82&v=HQGPrdfbsXE&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=82&v=HQGPrdfbsXE&feature=emb_logo)

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