ISO Clip: Thermal Isolation Clip
Thermal break for high performance building envelope

ADJUSTABLE
VERSATILE
ONE-CLIP
LOW-COST
INSTALLER-FRIENDLY

We take your renderings and make them a reality.

Project: University of British Columbia - District Energy Centre | Architect: Dialog
### Executive Summary

Increasingly stringent building codes coupled with rising energy costs has opened the market for new methods of effectively insulating buildings. The ISO Clip has been designed to meet these needs in an economical and user friendly design. The exterior appearance of the building facade is important but the effectiveness of the wall assembly is what will provide occupancy comfort and energy efficiency. Overuse of carbon heavy energy sources to maintain indoor temperatures are not only expensive but environmentally detrimental.

The ISO Clip is a thermal barrier separating the interior of the building from the exterior framing components. Unique design features reduce the thermal transfer from the interior to the exterior. Thermal performance of the clip has been verified by the industry leaders, Morrison Hershfield.

The ISO Clip is engineered to perform on all substrates; including concrete, concrete block, steel studs or wood. One ISO Clip can accommodate a variety of insulation thicknesses or wall depths, eliminating the need for shims or multiple clips sizes. The ISO Clip installed in the same orientation is suited to accept either vertical or horizontal sub-girts. Versatility and ease of use combined with the effective use of insulation makes the ISO Clip the product to specify.

The Northern Facades team is available to assist you with all stages of your building performance design. Full sets of system details, engineering load tables and calculations are available. Your engineers or ours, are able to design the most functional wall assembly for your chosen insulation and cladding.

### Clear Field Thermal Performance

**Exterior Insulated Steel Stud Assembly**

<table>
<thead>
<tr>
<th>System and Stud spacing</th>
<th>Exterior Insulation Level (in)</th>
<th>Exterior Insulation Nominal R-Value hr·ft²·°F/BTU (m²·K/W)</th>
<th>Assembly Effective R-Value hr·ft²·°F/BTU (m²·K/W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>36” Vertical Spacing</td>
</tr>
<tr>
<td>Horizontal System</td>
<td>4</td>
<td></td>
<td>R-16.4 (2.88)</td>
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<tr>
<td>16” Stud Spacing</td>
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<td>R-18.7 (3.3)</td>
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<td>5</td>
<td></td>
<td>R-20.9 (3.67)</td>
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<td></td>
<td>6</td>
<td></td>
<td>R-22.0 (3.87)</td>
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<tr>
<td>Horizontal System</td>
<td>4</td>
<td></td>
<td>R-17.1 (3.01)</td>
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<tr>
<td>24” Stud Spacing</td>
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<td>R-19.7 (3.47)</td>
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<td>5</td>
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<td>R-22.0 (3.87)</td>
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<td>6</td>
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<td>R-22.0 (3.87)</td>
</tr>
</tbody>
</table>
Summary from the Morrison Hershfield Report

The ISO Clip provides a thermally broken and intermittent structural attachment for cladding systems to exterior wall assemblies. The clip is fabricated from Z-275 galvanized steel, and overmolded with a plastic isolator. Both horizontal and vertical steel girts can be attached to the ISO Clip, as shown in Figures 1 & 2. The horizontal flange of the clip have a punched slot that allows the sub-girts to be adjusted and fastened to the clip. The plastic isolator between the metal clip and the wall provides a thermal break that reduces thermal bridging. For steel stud assemblies, the clips are fastened through the exterior sheathing directly to the steel studs using self-drilling screws.

"For exterior insulated steel stud assemblies, the ISO Clip System provides an effective means of reducing thermal bridging in exterior façade systems compared to traditional continuous girt systems. The ISO Clip System can be used to meet many of the demanding thermal requirements from current energy codes and standards in Canada. The U- and R-values provided by this summary can be used for compliance calculations for any of the compliance paths set forth in ASHRAE 90.1, NECB or SB-10."

Thermography provided by Morrison Hershfield
Report Number: 5140125.00
ISO Clip
Thermal Isolation Clip

System Details

Benefits
- 3D Thermal Analysis for SB10 and ASHRAE 90.1 compliance by Morrison Hershfield
- FEA Structural Analysis by JEI Engineering
- Evaluated for NFPA 285
- Accommodates +/- 1/4" adjustment for wall deviation
- Fully Engineered
- System support teams available to assist
- Acceptable for multiple substrates
- Cost-effective
- Allows for horizontal and vertical installations
- One clip accommodates varying wall depths
- Shims not required
- Canadian Made and stocked regionally
- Installer friendly with our “helping hand”
- Currently approved for 4", 5", 6" of insulation

Features
- Girts can be pre-assembled to the ISO Clip for faster field installation
- One source purchasing for your clips, girts and fasteners

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Technical Information
Division 7

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