Ohio Energy Code (2012 IECC)
MANDATORY COMPLIANCE: JANUARY 1, 2017

Simple Saver System®
ENERGY CODE COMPLIANT

Thermal Design
Ohio Energy Code

The State of Ohio has updated the Ohio Building Code by adopting the 2012 IECC (International Energy Conservation Code®) with mandatory compliance as of January 1, 2017. The new energy code increases stringency requiring alternative installation and additional insulation levels for metal buildings roofs and walls. For decades, Thermal Design has been supplying insulation systems that achieve the high level of performance the State of Ohio is implementing today.

Metal Building Roofs

Conditioned buildings require more than the traditional single layer or double layer of fiberglass compressed over purlins and behind girts. Traditional methods leave conductive metal purlins and girts exposed to the conditioned space.

Simple Saver liner system features a grid work of tensioned steel straps and a continuous vapor retarder installed below and uninterrupted by purlins.

**FIRST LAYER (BOTTOM):** unfaced, uncompressed fiberglass rests on top of fabric vapor retarder and placed parallel, between the purlins.

**SECOND LAYER (TOP):** unfaced fiberglass installed perpendicular atop the purlins and is compressed when the roof panels are attached.

Simple Saver System meets the roof descriptions and performance outlined in the 2012 IECC Thru-Fastened Roof solutions available

<table>
<thead>
<tr>
<th>SIMPLE SAVER SYSTEM® ROOF PERFORMANCE</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>R-19 + R-11</td>
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<tr>
<td>R-25 + R-11</td>
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<tr>
<td>R-30 + R-11</td>
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</table>

Standing Seam Roofs with R-3 thermal spacer block. Purlins spaced 5’ oc.
Metal Building Walls

Metal building wall assemblies found in the 2012 IECC are limited and prescriptively feature a hybrid fiberglass insulation and rigid board insulation assembly. Continuous insulation is defined as insulation that is continuous across all structural members without thermal bridges other than fasteners and service openings. Compressed fiberglass insulation between girts do not meet the assembly description or minimum thermal performance.

It’s important to remember that there are other types of assemblies which are permitted using the U-factor alternative, however documented assembly performance needs to meet or exceed the code intent (U-factor).

Simple Saver liner system features unfaced, uncompressed fiberglass insulation between girts and impaled onto Fast-R™ insulation hangers. Similar to the roof, each piece of fabric spans the bay’s width and height from column to column. The fabric liner/vapor retarder is continuous and installed on the inside plane of the wall to isolate the insulation and conductive girts from the inside conditioned air.

**ADDITIONAL BENEFITS:**
- Continuous Air Barrier
- Instantly Finishes
- Brightens Interiors
- Increased Comfort
- Sound Absorption

**SIMPLE SAVER SYSTEM® IS THE SOLUTION**

The installed performance of the Simple Saver System meets and exceeds the minimum thermal envelope and air barrier requirements (ASTM E2178) in the 2012 International Energy Conservation Code. Thermal Design has conducted hot box testing in accordance to ASTM C1363 on a variety of typically installed Simple Saver roof and wall assemblies that validates installed performance to demonstrate energy code compliance and finite element thermal modeling. Additional high R-value Simple Saver roof and wall assembly solutions are available upon request.

**CONTACT US TODAY**

We will assist you with the products, technical support and compliance packages to meet and exceed the new energy code requirements in the 2012 IECC.

- Code Questions
- Technical Support
- COMcheck™ Assistance
- Compliance Documentation
- Modeling Assistance
- $1.80 sq ft Tax Deduction

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**Ohio Energy Code for Metal Buildings**

* 2012 IECC prescriptive requirements for climate zones 4 and climate zones 5
  - Table C402.1.2, Table C402.2
  - Ls: Liner System - A continuous membrane installed below the purlins and uninterrupted by framing members. Uncompressed, unfaced insulation rests on top of the membrane between the purlins.
  - ci: continuous insulation

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**SIMPLE SAVER SYSTEM® WALL PERFORMANCE**

<table>
<thead>
<tr>
<th>PRE-INSTALLED R-VALUE</th>
<th>WALL U-FACTOR</th>
<th>ASSEMBLY R-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R-25</td>
<td>U-0.059</td>
<td>R-16.9</td>
</tr>
<tr>
<td>*R-30</td>
<td>U-0.052</td>
<td>R-19.2</td>
</tr>
<tr>
<td>R-25 + R-10</td>
<td>U-0.047</td>
<td>R-21.3</td>
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<tr>
<td>R-30 + R-16</td>
<td>U-0.039</td>
<td>R-25.6</td>
</tr>
</tbody>
</table>

Wall performance values from ASHRAE Standard 90.1-2016, Table A3.2.3 Assembly U-factors for Metal Building Walls.

*Quik-Stop foam thermal break (3/16”) applied to girt flange is required.
The Simple Saver System® manufactured and marketed through Thermal Design, Inc. over the past 30 years has become the #1 specified high R-value insulation system for metal buildings. In addition to superior insulation performance, condensation control, aesthetics and acoustics compared to “traditional” designs, the Simple Saver System is a patented insulation system that provides OSHA compliant fall protection to the interior of the building during the installation and roofing process.