



# Systems PORTFOLIO

Continuous Insulation & Building Enclosures

# **Engineering Support**

# Leading the way in building solutions with superior design and innovation

At Advanced Architectural Products (A2P), we pride ourselves on setting the bar high in the construction industry with our unmatched engineering expertise and innovative approach to building solutions. Our commitment to excellence is rooted in a deep understanding of both the technical and practical aspects of building design and construction. Our solutions are the result of extensive research, development, and testing conducted at our state-of-the-art facilities, where our dedicated team of engineers and designers work tirelessly to push the boundaries of what is possible.



### **Engineering support to deliver quality solutions**

Our in-house engineering team is composed of experienced construction professionals who provide tailored, high-quality structural support at no additional cost. Utilizing the latest technology and design techniques, we ensure projects meet all safety standards and regulations while considering local environments and future changes. Through rigorous in-house testing with third-party verification, we work closely with clients to address questions, eliminate potential failures, and deliver durable and safe structures that are built to last. See specifically how A2P provides support to architects and contractors:





### **Engineering Support for Designers**

### Proper building envelope design

A2P helps designers create safe, efficient building envelopes with expert guidance and specialized tools, ensuring optimal performance and reduced liability. Product selection
Details and specifications
Spacing & orientation for loading
Custom applications
Design for service temperature
Finite element analysis (FEA)



### **Engineering Support for Contractors**

### Successful project completion

A2P provides contractors with engineering services like load verification, code compliance, and product optimization, ensuring projects are completed on time and within budget.

Verify loading

Submittals

Optimize application

Custom applications

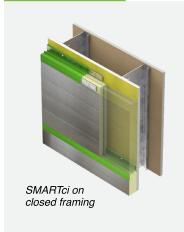
Assist with as-built conditions

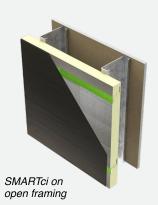
# **SMARTci®**

# **Building enclosure system**

SMARTci is an air- and water-tight building enclosure system comprised of GreenGirt CMH<sup>™</sup> sub-framing, integrated custom-profiled insulation panels, and necessary accessories. The SMARTci system installs in a single pass and is 92–99% thermally efficient, eliminates thermal bypass, and provides the highest R-value available—up to 50% higher than competitive systems.

### **WALL** Solution





### **SMARTci®**

Building enclosure system

SMARTci can be installed over traditional closed framing with sheathing and a water-resistive barrier for water tightness to 1.57 PSF and air tightness to 6 PSF. Alternatively, SMARTci can be installed over open framing to save time and reduce labor and materials costs, as follows: (1) install a water-resistive barrier (provided by others) over SMARTci to eliminate sheathing, or (2) add caulk and tape to eliminate both sheathing and a WRB; increases air- and water-tightness to 20 PSF.

### How it works:

- · Provides an air- and water-tight building enclosure
- · Forms a smooth drainage plane
- · Includes custom-profiled, pre-cut rigid insulation
- · Eliminates thermal bridging and thermal bypass
- Includes ThermaLock for insulation retention and 360-degree air- and water-tightness
- · Eliminates all gaps and cracks
- Installs 4X faster with true stack-and-go installation process
- · Highest true R-value per inch of wall system

### System includes:

· GreenGirt CMH Z-girts

Guaranteed to eliminate

thermal

bypass!

- Custom-profiled polyiso insulation
- Pressure seals
- WRB accessories (if appl.)
- Engineering support

### **Accessories**

Discover the key to enhanced building efficiency with a range of continuous insulation and building enclosure accessories, designed for superior performance and durability.



### **Angle trim**

Non-structural composite flat trim framing for walls, roofs, and window/door openings.



### Flat trim

Non-structural composite flat trim framing for walls, roofs, and window/door openings.



### **Pressure seals**

Universal composite for butt joint attachment integrated with rigid insulation to provide air- and water-tight seal.



# GreenGirt CMH™ double Z-girt

An ultra-high strength hat section built from an aluminum insert and two GreenGirt CMH Z-girts; ideal for extreme spacing or heavy cladding.



### GreenGirt CMH™ dead load clip

A vertical composite metal hybrid support for reducing stress and deflection.

# **GreenGirt CMH™**

# Continuous insulation systems

A family of continuous insulation systems that combines structural composite metal hybrid sub-framing and compatible accessories with expert engineering support. GreenGirt CMH systems can be used with mineral wool, spray foam, or your preferred insulation material to eliminate thermal bridging and achieve 92–99% thermal efficiency while meeting NFPA 285 and ASTM E84 standards.

### **WALL** Solution



### GreenGirt Max CMH™

Continuous insulation system

GreenGirt Max CMH is a maximized continuous insulation system, offering the highest structural integrity and thermal efficiency with composite metal hybrid Z-girt sub-framing, 0.20" steel reinforced flanges, and expert engineering support.

### **WALL** Solution



### GreenGirt Optima CMH™

Continuous insulation system

GreenGirt Optima CMH is an optimized continuous insulation system, offering structural integrity, thermal, and costefficiency with composite metal hybrid Z-girt sub-framing, 0.17" steel reinforced flanges, and expert engineering support.

### **WALL** Solution



### GreenGirt CMH Clips™

Continuous insulation clip system

GreenGirt CMH Clips offer secure, thermally efficient attachment for exterior wall cladding. This vertical system, installed with a hat channel and mineral wool or spray foam insulation, ensures optimal performance and zero thermal bridging.

### **WALL** Solution



### GreenGirt CMH Delta™

Adjustable continuous insulation system

The GreenGirt CMH Delta adjustable system provides a fast, continuous insulation solution, installing 4–6X quicker than others. Its flexible, strong CMH sub-framing allows precise adjustments for various wall conditions, ensuring a uniform insulation layer even on out-of-plumb walls.

### **WINDOW** Solution



### **GreenGirt CMH XO™**

Continuous insulation system for windows

The GreenGirt CMH XO system offers advanced window insulation, reducing thermal loss by eliminating conductive components and aligning thermal planes. Its CMH sub-framing enhances thermal efficiency and structural integrity, integrating seamlessly into the façade.

### **ROOF** Solution



### GreenGirt CMH Roof™

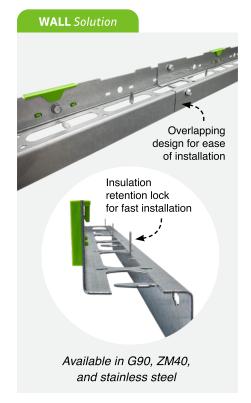
Continuous insulation roof system

The GreenGirt CMH Roof system integrates continuous insulation within its innovative CMH sub-framing, enhancing thermal performance and energy efficiency. Treating the roof as the 'fifth wall,' it provides a seamless, energy-efficient barrier against the elements.

# GreenGirt Steel™

# Continuous insulation system

A continuous insulation system designed to provide improved energy efficiency of buildings and best-in-class structural capacity — 20–50% stronger than other perforated thermal metal Z-girts. Comprised of engineered steel Z-girt sub-framing with thermal brackets, compatible accessories, and expert engineering support, the system works with any type of insulation and provides an entry-level alternative to achieve code compliant energy efficiency.



### GreenGirt Steel™

Continuous insulation system

Designed for fans of steel construction, the new GreenGirt Steel system's overlapping design is optimized to make installation a breeze. The integrated insulation retention locks eliminate the need for stick pins/fasteners to hold insulation—eliminating the thousands of thermal bridges common in systems. GreenGirt Steel's design and integrated thermal brackets reduce energy transfer, helping buildings achieve their energy efficiency goals.

NEW

### How it works:

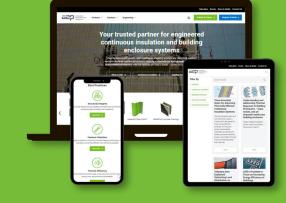
- 20-50% stronger than other perforated thermal metal Z-girts
- Installs up to 2X faster than other systems
- · Highest R-value for a steel-based system
- · Thermal expansion and contraction at connections
- · Insulation retention lock holds insulation in place

Various steel hat channels available with GreenGirt Steel.

Details, specifications, engineering support, technical and ordering information are available at:

# **GreenGirt.com**

# **NEW!** Specifications Update



A2P is excited to announce the launch of the new, comprehensive guide specifications and updated BIM files for GreenGirt CMH, GreenGirt Steel, and SMARTci systems! Designed to simplify your design and construction processes, these resources are now available on our website at GreenGirt.com, as well as leading platforms *Acelab*, *UpCodes*, *BIMObject*, *MasterSpec*, and *SpecLink*. Explore these resources to streamline your project planning with confidence and precision.

# **Educational Opportunities**

### **AIA-Approved Courses**

Selecting Continuous Insulation Z-Girts to Meet Today's Building Codes

In-person or virtual | 60 minutes | 1.0 AIA/CES LUIHSW Credit

Features & Benefits of Continuous Insulation Systems with Adjustable Composite Metal Hybrid Sub-Framing

In-person or virtual | 60 minutes | 1.0 AIA/CES LUIHSW Credit

Best Practice Series for Composite Sub-Framing I Part 1: Introduction & Fastener Performance

In-person or virtual | 60 minutes | 1.0 AIA/CES LUIHSW Credit

**Stop Throwing Building Performance Out the Window** 

In-person or virtual | 60 minutes | 1.0 AIA/CES LUIHSW Credit

NEW!

A2P proudly offers a comprehensive suite of courses that are AIA-approved, catering to the diverse needs of architects and professionals in the industry. Our extensive selection includes both in-depth learning experiences and flexible e-learning installation training courses, all readily accessible on our website.

Designed to enhance your skills and knowledge, these courses provide valuable insights and practical applications. Don't miss out on the opportunity to elevate your expertise.

Schedule a presentation today to explore how our courses can benefit you and your team.

# **Environmental Impact**

All A2P systems help designers and builders create energy-efficient buildings, promoting sustainability in the built environment.











# Request a Quote

Interested in learning more or receiving a custom quote? Advanced Architectural Products has refined its quotation process to ensure that you receive your quotes quickly and effortlessly, helping you maintain your timeline.

Visit **GreenGirt.com** or call **(269) 355-1818**.

### About Advanced Architectural Products

Located in Allegan, Michigan, USA, with manufacturing facilities in Hamilton, Michigan, and a distribution center in Seattle/Sumner, Washington, Advanced Architectural Products is at the forefront of developing innovative systems for modern building challenges.

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