

Installing **GreenGirt™** Clips

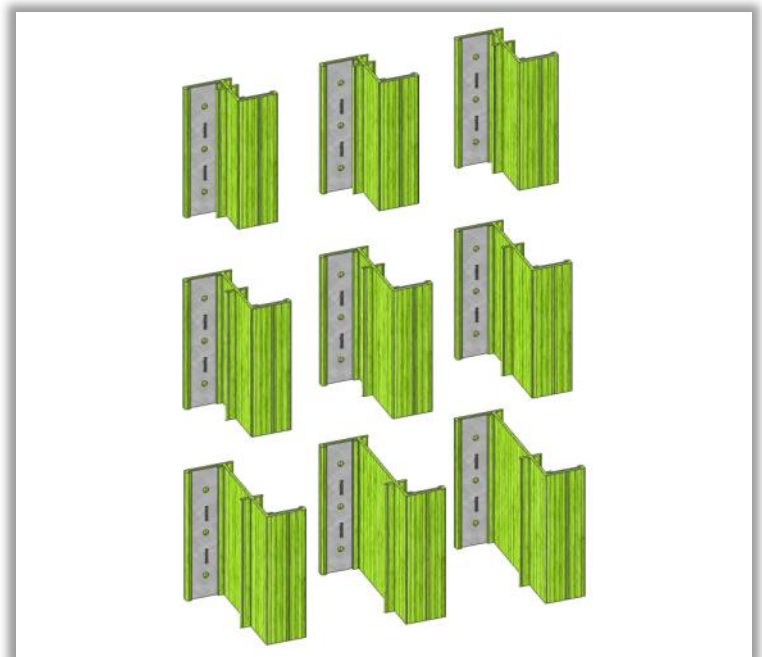
Advanced Architectural Products **GreenGirt™ Clips** are an economical, innovative construction component for building in the 21st century, providing a cavity for continuous insulation and a system to attach virtually any cladding. This versatile, fiberglass polymer thermal spacer is an alternative to our continuous **GreenGirt™ Simple-Z™** that retains all of the same cutting-edge features. The compact size allows for easy, fast installation. **GreenGirt™ Clips** are engineered to have superior thermal insulation performance—better than any other system on the market:

- **It has zero thermal short fasteners, and creates zero cold spots for condensation.**
- **It can attach to a variety of substrates, including light gauge / regular steel framing, wood framing and masonry / concrete walls.**
- **It has attained a Class 1 ASTM E84 fire rating.**

GreenGirt™ Clips are designed to be installed vertically, with horizontal metal sub-furring, over sheathed and/or masonry walls. Each clip has a maximum capacity of four square feet; exact spacing is determined by the type and size of insulation used and the material / scale of the final cladding.

GreenGirt™ Clips limit the deflection to a stricter level than what is specified in building codes, with a material stress safety factor under service loads much greater than 2.0. The minimum design safety factor for fastener pull-out or shear is 4.0.

Note! Impact fasteners or impact power tools **should not be used** to install **GreenGirt™ Clips**. Do not cut with reciprocating saws or plywood / toothed blades, as they are composed of metal, resin and glass fibers. Use only abrasive, diamond and / or carbide chop saw / circular saw blades. Shims may be used to achieve the maximum $\pm 1/4$ " deflection.



GreenGirt™ Clips are available in a standard length of 6", and depths of 2", 2.5", 3", 3.5", 4", 4.5", 5", 5.5" and 6". Colors include green, white, black and custom options.

The purpose of this guide with respect to design is to illustrate a general application of **GreenGirt™ Clips**. Specific project applications should be completed and reviewed by a structural engineer. Advanced Architectural Products is available to assist with this process. Failure to follow these guidelines and proper construction procedures, including applicable federal, state and local ordinances, may result in unintended consequences related to system performance. Advanced Architectural Products cannot be liable for improper storage, usage or installation of our products.

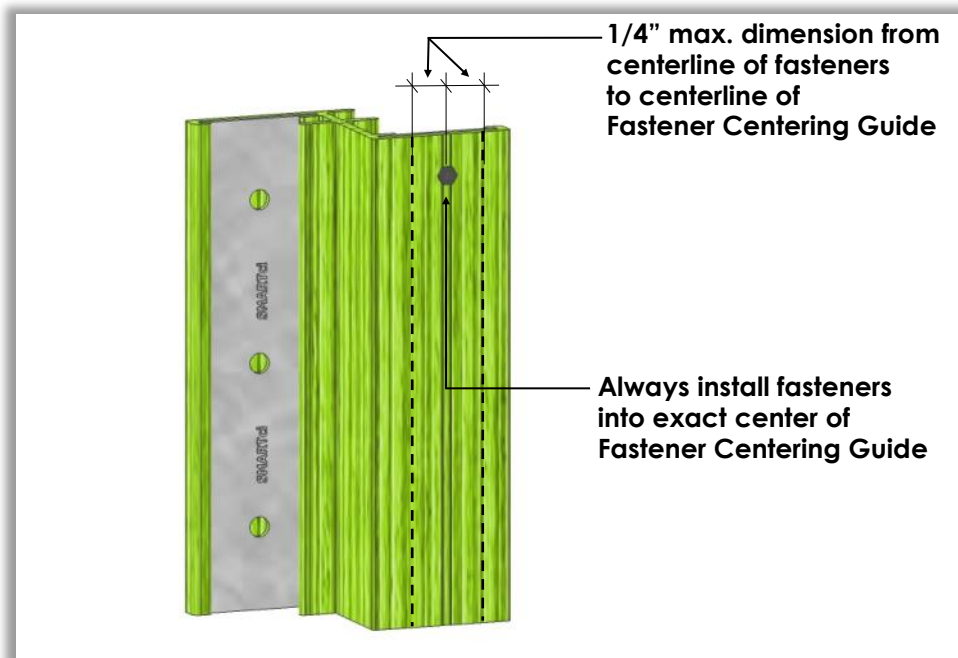
Contact Advanced Architectural Products to discuss custom solutions, design limitations and appropriate loads and building conditions with which to utilize the advanced **GreenGirt™ Clips** thermal spacer.

Installing GreenGirt™ Clips

Steel / Wood Preparation & Fastening Verify that the steel framing is flat, with no steps or voids greater than 1/4" in any area. Fasten **GreenGirt™ Clips** to steel framing with approved, low-profile #14 fasteners, of sufficient loading capacity for the application, utilizing **all three** pre-drilled holes in the metal retention plates.

Masonry Preparation & Fastening Remove high spots and fill in low spots prior to attaching **GreenGirt™ Clips** to masonry substrates. Remove any extra materials protruding from the surface of walls, such as chunks of mortar or concrete, and even wall surface to within 1/4" per every 20'. All high and low spots should be leveled to provide an even wall surface. Fasten **GreenGirt™ Clips** to a masonry substrate with approved, threaded and coated 1/4" masonry fasteners, of sufficient loading capacity for the application, utilizing **all three** pre-drilled holes in the metal retention plates.

Cladding Fastening When attaching fasteners to the cladding face of **GreenGirt™ Clips**, the best location in which to insert them is in the middle of the Fastener Centering Guide. If this is not possible, follow the guidelines illustrated below. Failure to maintain proper distance from the edge of the girt face may compromise the integrity of the member. Additionally, the seams of any sheathing applied to the cladding face **should not align** with the Fastener Centering Guide.



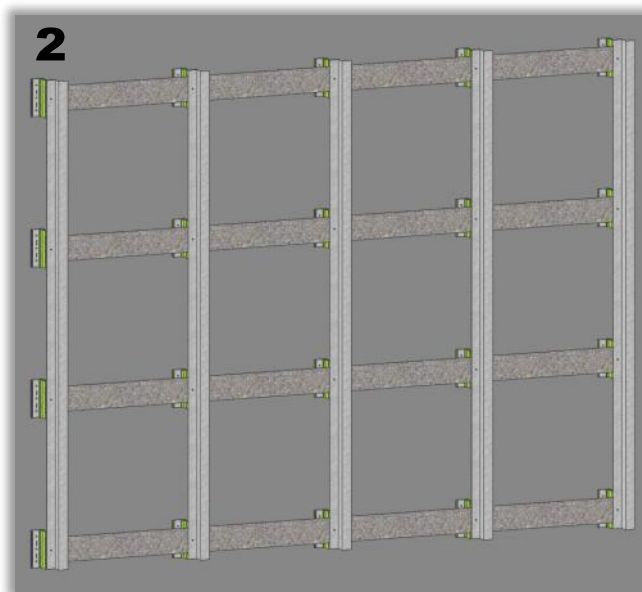
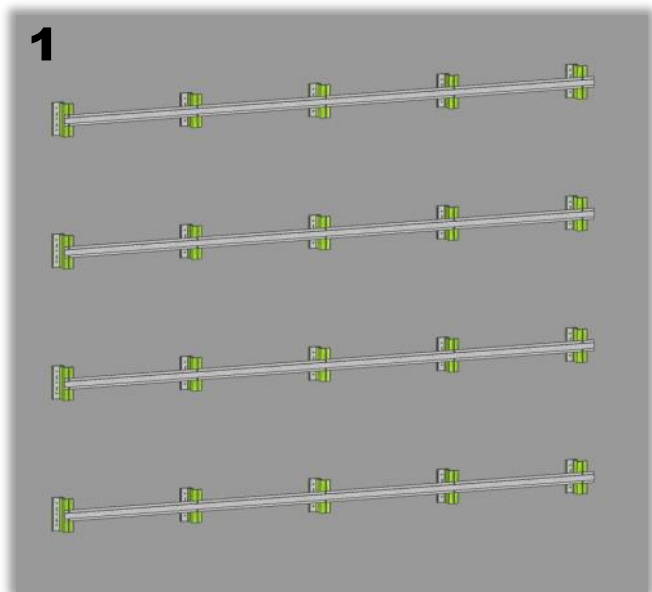
Installing GreenGirt™ Clips

Structural Sub-Frame Systems

It is required that continuous sub-frame members are used with **GreenGirt™ Clips** to deliver the following:

- The sub-frame members sandwich clips against the substrate, providing adequate structural strength, integrity and stability.
- The sub-frame members provide a backing for cladding.
- The sub-frame members help keep insulation continuous and in place.

It is structurally preferred that the sub-frame members are positioned horizontally, tying the clips together; however, as an alternative, the sub-frame members may be installed vertically **with horizontal strapping** (see below). The sub-frame members are attached to the clips using (2) #12 TEK screws, as a standard.



The above images illustrate standards for the sub-frame members of **GreenGirt™ Clips**:

1. A horizontal 16-gauge galvanized (or equivalent corrosion protected) steel hat channel, a minimum of 1/4" deep x 2" wide, fastened using (2) # 12 TEK screws.
2. A vertical 16-gauge Z-girt, 1.5"x1.5"x1.5", fastened to each clip with (2) #12 TEK screws; horizontal strapping is a 3.5", 16- gauge galvanized (or equivalent corrosion protection) steel.

Custom applications may be designed or approved by Advanced Architectural Products, on a project-by-project basis. Contact your A2P sales representative for further information.