The **R-TEC CI System** for ventilated rain screen constructions is an engineered solution to enable today’s design professional to meet the ASHRAE 90.1 definition for continuous insulation.

Additionally, the **R-TEC CI Bracket** is designed to facilitate the use of all types of exterior cladding whether that be metal panels, fiber cement façades or terra cotta tiles.

The versatility of the patented **R-TEC CI Bracket** affords the flexibility to specify a wide range of exterior insulating materials from mineral wool and lower density foam up to the higher density foams.

The **R-TEC CI System** and **R-TEC CI Bracket** give the architect the solution for meeting the new performance standards while at the same time controlling costs.
Vertical Systems

**High Density Foam Insulation**

1. Vertical R-TEC Bracket with alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
2. Horizontal screws (2)
3. Diagonal screw (1)
4. “L” Bracket attached with 2 screws provided
5. Screws for attaching profiles
6. Aluminum “L” or “T” profile
7. For open joint cladding systems: Black self-adhered UV-resistant membrane

**Mineral wool or low density insulation**

1. Vertical R-TEC Bracket with alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
2. Horizontal screws (2)
3. Diagonal screw (1)
4. “L” Bracket attached with 2 screws provided
5. Screws for attaching profiles
6. Aluminum “L” or “T” profile
Horizontal System 1

**High Density Foam Insulation**

1. Horizontal R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. Aluminum "L" profile (horizontal system)
5. Screws for attaching profiles
6. Alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
7. For open joint cladding systems: Black self-adhered UV-resistant membrane

Horizontal System 1

**Mineral wool or low density insulation**

1. Horizontal R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. Aluminum "L" profile (horizontal system)
5. Screws for attaching profiles
6. Alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
Horizontal System 2

High Density Foam Insulation

1. Horizontal R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. Aluminum “L” profile (horizontal system)
5. Screws for attaching profiles
6. Alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
7. For open joint cladding systems: Black self-adhered UV-resistant membrane
8. Aluminum “Hat” or “Z” profile

Horizontal System 2

Mineral wool or low density insulation

1. Horizontal R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. Aluminum “L” profile (horizontal system)
5. Screws for attaching profiles
6. Alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud
7. Aluminum “Hat” or “Z” profile
**Installation Procedure**

1. Locate studs behind the exterior insulation.
2. Per the wall layout drawing provided, fasten the R-TEC Bracket (No. 1) at the specified spacing, both horizontally and vertically. Be careful to ensure the brackets are plumb.
3. Fasten the two horizontal screws (No. 2). Top screw first, then the bottom screw.
4. Locate the correct alignment hole for the insulation thickness specified and drill a pilot hole through the insulation into the wall stud.
5. Install the diagonal screw (No. 3).
6. For vertical systems, attach the "L" bracket (No. 4 on Vertical System illustrations) with two short screws provided.
7. For vertical or horizontal system, attach the remaining specified profiles with the screws/rivets provided. Ensure the profiles are square and plumb. This is easily accomplished utilizing the vertical and horizontal adjustments built into the system design.
8. Attach exterior cladding to the aluminum profiles per the manufacturer’s installation instructions.

**Typical Cross-section**

**Horizontal System 2**

*With 2" High Density Foam Insulation*

1. Horizontal R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. Screws to attach horizontal profile
5. Rivet/screw to attach vertical profile
6. Alignment holes corresponding to insulation thickness for drilling pilot hole in metal stud (Alignment holes accommodate insulation of various thicknesses)
7. Exterior insulation

**Vertical System**

*With 2" High Density Foam Insulation*

1. Vertical R-TEC Bracket
2. Horizontal screws (2)
3. Diagonal screw (1)
4. "L" Bracket attached with 2 screws provided
5. Screws to attach vertical profile
6. Alignment holes corresponding to insulation thickness to drill pilot hole in metal stud (Alignment holes accommodate insulation of various thicknesses)
7. Exterior insulation
Patented Attachment Device

### Features and Benefits

- Meets the literal definition for ASHRAE 90.1 continuous insulation
  - Only fasteners penetrate the insulation for minimal thermal bridging
- Accommodates all types of exterior insulation, i.e. mineral wool, low density foam or high density foam
  - Insulation thicknesses can range from 1" to 6."
- Accommodates all types of façades
  - Metal – Phenolic – Fiber Cement – Terracotta – Brick
- Aluminum Attachment System for maximum corrosion resistance
- The three design systems provide maximum versatility to control the cost of the building envelope
- Price competitive with all other comparable systems

- The R-TEC™ System includes all of the following elements:
  - Engineered design for each job
  - Static calculations
  - Wall layout drawings for bracket locations and details
  - Brackets
  - Aluminum profiles
  - Screws and rivets
- Easily plumbed and leveled due to the alignment features incorporated into the bracket designs
- On-site job assistance is available
- Allows for façades to be either face fastened, glued or back fastened
- CSI 3-PART architectural specs on ARCAT can be downloaded and customized to each project

### Limited Warranty

American Fiber Cement Corporation (AFCC) warrants that its products are manufactured in accordance with its applicable material specifications and are free from defects in materials and workmanship using AFCC’s specifications as a standard. Only products which are installed and used in accordance with applicable AFCC instructions and specifications are in any way warranted by AFCC. This warranty is applicable only to claims made in writing and received by AFCC within thirty (30) days after the defect was discovered and within ten (10) years after the date of the shipment of the product by AFCC. All other claims are waived. If a claim is made, you must allow reasonable investigation of the product you claim is defective and you must supply samples that adequately demonstrate the problem you claim for testing by AFCC.

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Distributed exclusively by:

American Fiber Cement Corporation

6901 South Pierce Street, Suite 260
Littleton, CO 80128 U.S.A.

Phone: 303-978-1199
800-688-8677

Fax: 303-978-0308

www.americanfibercement.com