

Technical Data Sheet

Low Rise Wall Installation Procedures for Concrete Faced Insulated (CFI) Wall Panels



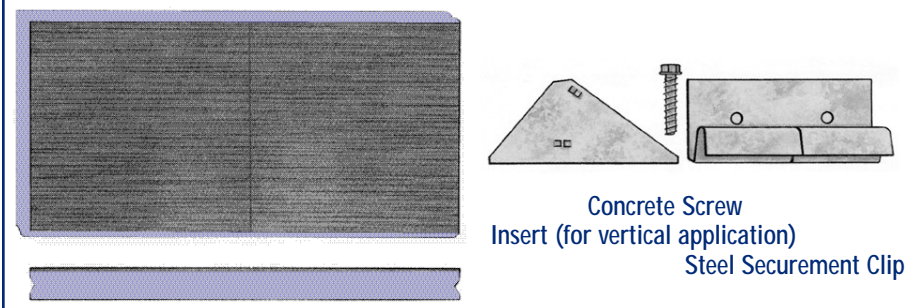
Concrete Faced Insulated Wall Panels are prefinished, “one-step” exterior insulating panels intended for use below and above grade in commercial, industrial and institutional new and retrofit applications. **CFI Wall Panels** consist of STYROFOAM®* Brand extruded polystyrene insulation with a factory-applied 5/16” (8 mm) thick latex-modified concrete facing. The finished panel surface is 24” x 48” (610 x 1220 mm) with a tongue and groove along the 48” (1200 mm) edge. A 1/8” (3mm) relief score line is cut into the concrete facing at 24” (610 mm) along the 48” (1220 mm) length. **CFI Wall Panels** are available in standard insulation thicknesses of 2” (50 mm, R-10) or 4” (100 mm, R-20), with 3” (75 mm, R-15) available as special order. **CFI Wall Panels** are installed using specially designed galvanized steel mounting clips.**

CFI Wall Panels provide superior insulation and a durable finish in one installation. They can be installed in any weather, without the need for highly skilled labour.

Design Considerations

Ensure building envelope meets code before installing panels. **CFI Wall Panels** should be installed horizontally in low rise wall applications. **CFI Wall Panels** are not suited for irregularly shaped buildings with many corners or

CFI WALL PANEL



A product of T. Clear Corp.



curved surfaces, or for masonry foundations with many surface irregularities. As with any cement based product, color variation, efflorescence, and/or hairline cracking of the cementitious facing may occur. These phenomenon will not affect the performance of the **CFI Wall Panels**. **If uniform or matching coloring is required, a quality latex masonry coating must be applied.**

Handling and Storage Recommendations

CFI Wall Panels are shipped in shrink-wrapped pallets of 38 panels for 2" and 4" (52 panels for 3"). Securement clips and fasteners are included in the following quantities :

- 2 galvanized steel securement clips per panel
- 2 1-1/4" (33 mm) concrete screws per clip
- 20 longer concrete screws for surface fasteners



A forklift truck is recommended to unload the pallets and to move them around the site. The shrink-wrapped pallet cover **should not** be considered adequate long-term weather protection. Pallets should be stored on flat ground. **Dry indoor storage** or weather tarping is necessary until the panels are installed.

Panels can be cut using a masonry saw. Whether panels are wet cut or dry cut, cuttings should be rinsed or blown with compressed air off the surface of the panels, and cut panels should be individually handled until dry or installed.

CFI Wall Panels are a durable product. However, the finished surface may be jeopardized if handled roughly. Delivery and installation scheduling are important factors to achieve quality results when using **CFI Wall Panels**.

Material Checklist

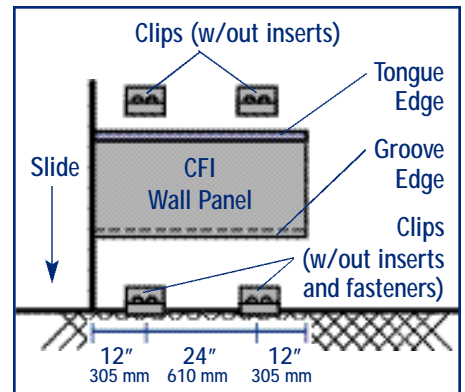
To install CFI Wall Panels, you will need the following:

- Scraper, to remove wall surface irregularities
- Measuring tape
- Transit or builders level
- 48" (1200 mm) level
- Chalk line
- Rotary hammer drill
- 11/64" (4 mm) masonry drill bit or 3/16" (5 mm) concrete drill bit
- Flashing, where required
- Masonry saw or circular saw with diamond blade
- Hacksaw with 1/16" (2 mm) blade
- Hand ratchet with 3/8" hex head nut driver
- Polystyrene-compatible caulking or sealant (optional)
- Backer rods (optional)

Horizontal Installation

1. Prepare Wall Surface

- a. Remove any masonry irregularities or jagged surfaces on the wall before installing any panels.
- b. Determine and mark the lowest



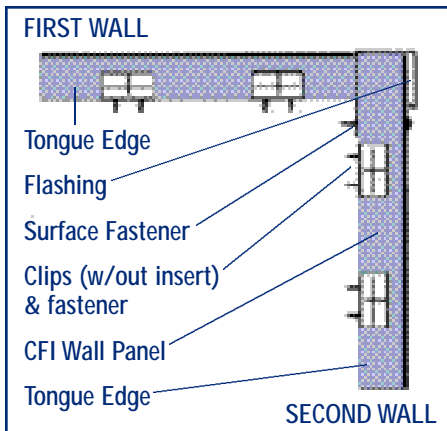
Horizontal Installation – First Row of CFI Wall Panels, Front View

installation point on the wall. A row of base clips should be installed to set the first row of panels.

2. Install First Horizontal Row of CFI Wall Panels

- a. Fasten the base clips without inserts on wall along the level line with first clip 12" (305 mm) from the corner and the remaining clips spaced 24" (610 mm) apart.
- b. Install first panel, grooved edge down, on two mounted clips. Ensure the panel is flush with the corner of the wall.
- c. Position two clips without inserts on the tongue edge of the panel and fasten to the wall.
- d. Repeat until the first row of panels is completed.
- e. Complete the row with the following recommended details on outside or inside corners.
- f. Additional rows of full or partial panels can be installed in a similar manner. Partial panels required at the top of the installation should be fastened with appropriately sized surface fasteners, a minimum of 2" – 3" (50 mm – 75 mm) down from the top edge of the panels.

Note: Minimum recommended board width is 6" (150 mm). Partial boards, if required, should be located at corners to avoid having to secure with surface fasteners.



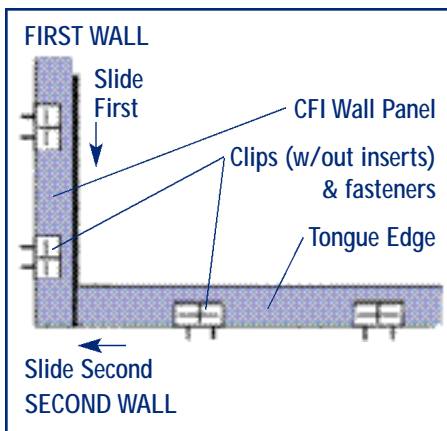
Horizontal Installation – Outside Corner Detail Top View

3. Horizontal Installation – Outside Corner Detail

- a. Install the panel on the next wall by repeating the procedures outlined in steps 1(a) and 1(b).

Note: Measure and cut to ensure the panel extends flush to the mortar surface on the panel mounted on the first wall.

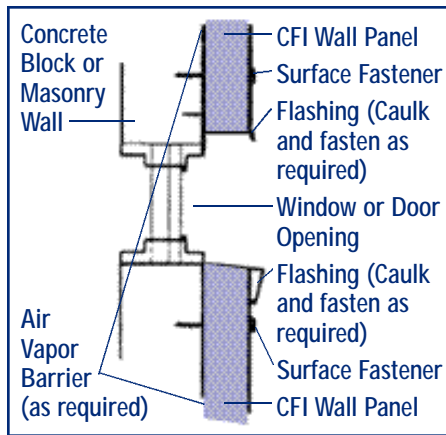
- b. Slide in flashing along the outside corner.
- c. Surface fasten through the panels and flashing into the masonry or concrete wall.



Horizontal Installation – Inside Corner Detail Top View

4. Horizontal Installation – Inside Corner Detail

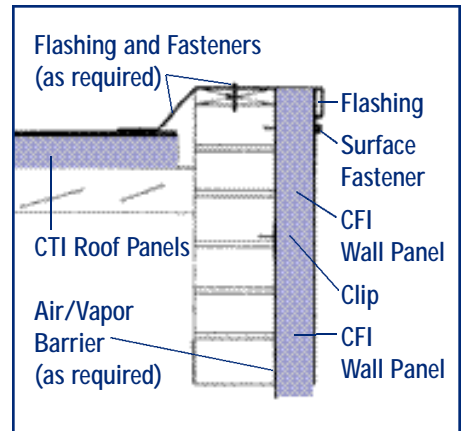
- a. Cut last panel (as needed) and slide into place.
- b. Position clips (as needed) on the tongue edge of the panels and fasten to the wall.
- c. Fasten all the base clips without inserts to the next wall. Position first clip 12” (305 mm) out from the inside corner panel and the remaining clips 24” (610 mm) apart.
- d. Install first panel, grooved edge down, on two mounted clips. Ensure the panel is tight to the panel on the inside corner.
- e. Position two clips without inserts on the tongue edge of the panel and fasten to the wall.
- f. Repeat until the first row of panels is completed.



Side View – Window/Door Opening
Note: Retrofits may require block outs at openings. Flashing details will be job specific.

5. Windows/Doors

- a. Cut **CFI Wall Panels** to fit around window and door frames. Maintain drainage slope away from openings.
- b. Flash around the window or door opening and out over the **CFI Wall Panels**.
- c. Caulk at the frame and seams to seal.



Top of Wall Detail – Side View, Parapet

6. Top of Wall Detail

- a. Partial panels may be needed to end flush with the top of the wall. Surface fasten top panels (as needed) 2” – 3” (50 mm – 75 mm) minimum down from the top edge of the panels.
- b. Flash as required. *For CTI Roof Panel edge securement, see CTI Roof Panel Installation.*

Replacing Damaged Boards

If a **CFI Wall Panel** is damaged, the following steps are required to replace it:

- a. Cut along the 48” (1220 mm) edge to remove panel tongue.
- b. Pry the panel out.
- c. Remove the tongue from the replacement panel.
- d. Slide the new panel into place and surface fasten with the appropriately sized fasteners.

Note: In most cases of impact damage, a latex modified patching repair compound can be used to refinish the mortar surface without having to replace the panel. Most effective if the panels are coated with an acrylic latex coating and the color can be matched to hide the repair. Smaller impact cracks can be repaired with a suitable latex caulk.



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