

Contec Wall Panel Installation Guide

Before Installation of Contec Wall Panels

1. Check foundation

Foundation must be designed according to Local Building Codes.

Verify the level of slab foundation.

2. Check structure

- Check plumb and alignment of columns.
- Complete visual inspection of entire supporting structure for panels (bracing, etc.).

3. Clear the unloading and provisional storage area

- Flat surfaces are required for unloading pallets, preferably close to final position.
- Place pallets over wood blocks (panels must not be in contact with ground).

4. Check material and installation logistics

- Verify dimensions, positions and quantity of the panels according to construction drawings.
- Define sequence of panel installation.
- Define type of installation equipment (crane or similar).
- Evaluate quantity of personnel required (see Table 2: Average efficiency for Contec Wall Panel Installation).

5. Check for metal accessories

- Contec connectors for wall panel installation.
- If type “A” (A-15 or A-20) connector will be used, fix connection steel angles to the structure (steel or concrete), spaced as indicated in construction drawings.
- Steel frames required for span over doors, windows and vents.

Item	Average Efficiency (panels/shift)	Personnel Required	Notes
Horizontal Wall Panel	75	4 men installing and 2 assistants for lifting gear	When installation of steel structure allows for continuous installation of Contec wall panels
	50		When installation of structure does not allow for continuous installation of Contec wall panels
Vertical Wall Panel	25	1 welder and assistant	When bottom anchorage is with continuous steel angle
	65	1 coordinator and assistant for lifting gear	When bottom anchorage is with steel channel or double steel angle
	60	1 assistant with connector placement	When bottom anchorage is with connector Type B

Table 2: Average efficiency for Contec Wall Panel installation.

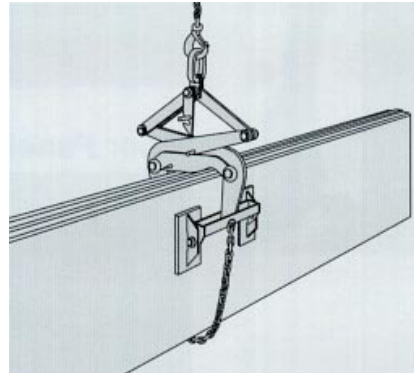


Fig. 5: Lifting gear (Contec horizontal wall panels).

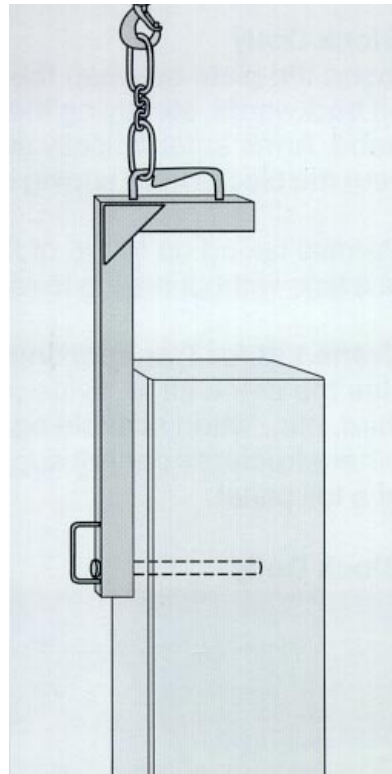


Fig. 6: Lifting hook (Contec vertical wall panels).

Contec Wall Panel Installation

1. Installation of Contec Horizontal Wall Panels

- a) Mark center of panels on the tongue side.
 - b) Unpack panels using scissors or hammer ax.
 - c) Identify the panel that will be laid according to previous logistics.
 - d) Chase tongue areas where connectors will be placed.
 - e) Place lifting gear at center of panel over tongue side and proceed to install.
 - f) Place cement sand mortar bed (1:4) for leveling only the first row of panels. If required, use wedges while setting mortar bed.
 - g) Set the panel with the tongue side up.
 - h) When placing first row of panels, use provisional clamps to fix panel to structure while connector is placed.
 - i) If type "A" connector is used, set steel plate in its final position, place the hook and nail to panel (see Fig. 9).
If type "C" connector is used, just place it in its final position and nail to panel.
- The type of connector to be used should be specified in construction drawings.
- j) This procedure is followed for next panels (see Fig. 10).
 - k) Seal vertical joints between boards using backer rod and caulking.
 - l) Seal horizontal joints between panels with caulking.

Cautions:

- Handle panels with care to avoid damage.
- Panels must be in contact with the support structure before nailing.
- Clean the groove side of panels.
- Make chases needed prior to installation.



Fig. 7: Unpacking panels.



Fig. 8: Placing lifting gear at center of the panel.



Fig. 9: Nail the connector to the panel (type A connector).



Fig. 10: Installing second panel.

2. Installation of Contec Vertical Wall Panels

- a) Unpack panels using scissors or hammer ax.
- b) Identify the panel that will be laid according to previous logistics.
- c) Chase tongue areas where connectors will be placed.
- d) If needed, place cement sand mortar bed (1:4) for leveling only the first row of panels. Wedges can be used to adjust panels while setting mortar bed.
- e) Turn down the panel over wood blocks and place the lifting hook into lateral hole (all Contec Vertical Wall Panels are manufactured with a lateral hole) (see Fig. 11).
- f) Lift the panel and place it on its final position (see Fig. 12).
- g) Check alignment and plumb using a mason's level.
- h) Place bottom connector (type "B") over tongue side, nail to the panel using galvanized 7" nails and fix to the foundation using a powder-actuated fastening tool and pins for concrete (see Application requirements).
- i) Place the upper connector (middle connector if two or more rows will be installed) (see Fig. 14). The type of connector to be used should be specified in construction drawings.
- j) This procedure is followed for next panels.
- k) Once the first row of panels is installed, proceed with installation of second row of panels, as required, using middle and upper connectors (see Fig. 15 and Fig. 16).
- l) Seal joints between panels with caulking.
- m) Seal joints at corners using backer rod and caulking.

Cautions:

- Handle panels with care to avoid damage.
- Panels must be in contact with the support structure before nailing.



Fig. 11: Place the lifting hook into the hole and lift the panel.



Fig. 12: Once the panel in its position, check alignment.



Fig. 13: Fix the lower connector (type "B" connector).



Fig. 14: Typical upper connection (type "C" connector).

- Clean the groove side of the panels.
- Make chases needed prior to installation.

3. Cutting panels

According to construction drawings, identify Contec Wall Panels prepared to be cut. Contec Wall Panels can be cut to length to fit openings or frame heights.

Permissible cutting lengths are a function of the project dimensions. Along its length, Contec Wall Panels can be cut 1/3 the width.

Cutting procedures:

- a) Prepare a flat surface for cutting site.
- b) Check dimensions of cuts to be made.
- c) For transversal cuts, wood pieces must be placed along the sides of the cut and at the edges of the panel.
- d) For longitudinal cuts, wood pieces must be placed at every 9 ft. minimum for 6 to 12 in. thick panels and at every 6 ft. for panels 4 and 5 in. thick panels.
- e) Check for full contact between wood pieces and panel. Wedge if necessary.
- f) Trace the cut dimensions and place a rule as guide.
- g) Proceed with panel cutting, verifying that cutting dimensions comply with specifications.
 Transversal cuts must be performed with panel in vertical position using groove edge as support. Longitudinal cuts must be made with panel in horizontal position; if full thickness is to be cut, perform cut from both sides.
- h) Apply anticorrosive paint at reinforced bar tips.

4. Openings

Steel frames are required in openings for doors, windows, vents, etc. (see Fig. 18). Openings locations and steel profiles must be specified in construction drawings.

5. Surface patching

Use Contec Repair Mortar to patch chips, breaks and other imperfections on surfaces of Contec Wall Panels.

Contec Repair Mortar is prepared in a plastic bucket,



Fig. 15: Plumbing the panel in second course.



Fig. 16: Second course of Contec Vertical Wall Panels.



Fig. 17: Cutting panel.

adding water and mortar from the bag (see instructions on the bag) and mixed with a stirrer using a power drill or by manual means (depending on quantity to be used). It is applied using a spatula.

6. Renders and Finishes

Contec Wall Panel can be finished with Contec Stucco, acrylic texture coat, elastomeric finishes, cement based finishes, etc. Joints between panels should be visible. For plane surfaces without visible joints, call Contec for technical assistance.

7. Application Requirements:

Tools

- Hammer ax
- Rubber mallet
- Sanding float
- Mason's level
- Brush
- Chasing tool
- Plastic bucket
- Stirrer for power drill
- Spatula
- Scissors for unpacking
- Clamps

Equipment:

- Circular saw with 8 1/4" or 9" metal or diamond blade
- Vertical wall panel lifting hook
- Horizontal wall panel lifting gear
- Powder-actuated fastening tool (HILTI DX36M or similar)
- Crane
- 1/2" Power drill
- Safety gear (goggles, dust mask, gloves, hard hat)

Additional material needed, available through Texas Contec, Inc.:

- Contec Repair Mortar
- Connectors and nails

Additional material needed, not available through Texas Contec, Inc.:

- Backer rod
- Caulking

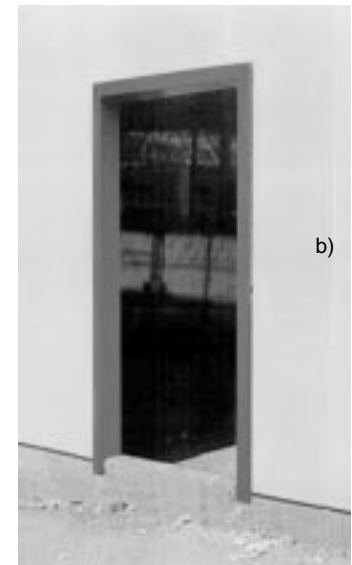


Fig. 18: Openings using steel frames: a) Windows, b) Doors.

- Cement-sand mortar
- Panel wedges
- 4X4 in. wood blocks, 2 ft. long
- Anticorrosive paint

Note: Technical support is available for builders and architects, contact your local Texas Contec Inc. sales office for more information.



Caution: Use safety gear: Hard hat, gloves, dust mask and goggles to avoid excessive inhalation of dust and protection of the eyes when handling Contec Wall Panels.