

ICF-CONNECT Ltd.

The ICF-CONNECT™



The ICF-CONNECTOR™

The ICF-CONNECTOR™ is primarily used for hanging floor joists. However, it can also be used for exterior deck installations and fastening interior/exterior framed partition walls to ICF walls. The ICF-CONNECTOR™ works by using a combination of stamped flat sheet insert plates with an adjustable stamped bearing bracket.

CONSISTS OF:

- 2 stamped flat sheet plates, which can be roughly installed within the form.
- An adjustable stamped bearing bracket which is accurately fixed after the concrete pour by simply screwing six #10 self-tapping/self-drilling screws (1.5" in length (38mm) or equivalent to the joist width) into the joists as specified.

NOTE: It is important to establish a proper truss or floor joist layout prior to installing the alignment system. This ensures the bracing system does not interfere with the hanger system.



ICF-CONNECTOR™

JOIST HANGER : INSTALLATION

1. Determine the lowest elevation at which the frame members are to be set in the wall.
2. Apply a chalk line 1" above this lowest elevation line.
3. Vertical cuts are made on either side of the joist or truss unit location, either from the top of the course down, or cutting directly through the form to suit the height of the panel being installed.
4. Do not extend the cut below the chalk line in order to provide intermediate support of the hanger brackets.
5. Insert each of the 2 insert plates by either sliding them downward from the top of the form or inserting them horizontally through the form cuts, so that the large hold perforations of the brackets are sitting INSIDE the form cavity.
6. Exact placement of the insert plates will not be crucial as long as the cuts in the foam are made at 90 degrees to the foam face to ensure the bracket faces will always be in plane and in line with the face of the joist or truss frame.
7. After the concrete has been placed and cured enough for hanging a floor or truss member, chalk a second line at either the top or bottom elevation of the joist to be installed. This should be done with a transit or a laser level.
8. Fit the framing member stamped bearing bracket at the bottom end of the joist or truss as shown.
9. Slide the joist or truss member and stamped bearing bracket down between form insert plates ready for anchorage at the desired height.
10. Once positioned so that the joist is in line with the final chalk line, fasten through both the plate and bracket perforations in an offset triangle fashion to ensure solid anchorage of the stamped bearing bracket into position.



ROOF / HURRICANE : INSTALLATION

1. Ensure you have a proper truss layout.
2. Take special care to note any double truss or girder requirements.
3. A cut in the insert plate may be required for clearance around rebar.
4. Mount insert plates on either side of a small piece of 2x4 (approximately 12" in length).
5. Determine final elevation. This may require cutting a notch in the form.
6. Immediately after concrete has been poured, embed insert plates with 2x4 attached as per truss layout.
7. After concrete has set, remove 2x4 pieces. Now insert plates are ready for trusses to be inserted.
8. In most cases, screwing into the gang nailer or wood member should be adequate. (Check with local building codes).
9. In hurricane prone areas, stamped bearing bracket may need to be installed over the truss member and fastened to the insert plate.
10. Wind bracing will still be required as per engineered truss design.

MONOTRUSS : INSTALLATION

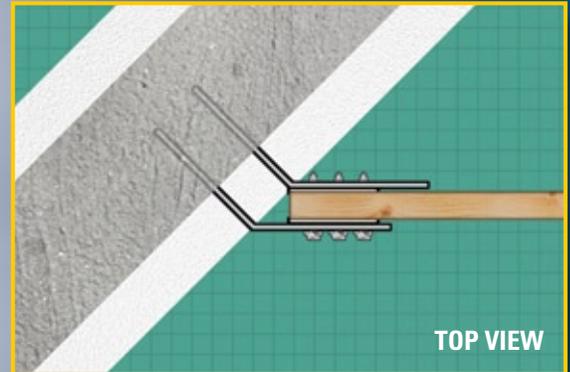
1. Determine the lowest elevation at which the bottom chord of the truss is to be set against the wall.
2. Apply a chalk line 1" above this lowest elevation line.
3. Apply a second chalk line to allow positioning of the upper insert plate plum with the bottom plate, and in line with the gang nail plate at the intersecting top chord of the truss.
4. Insert each of the 2 insert plates for both the top and bottom bracket locations, by either sliding them downward from the top of the form or inserting them horizontally through the form cuts, so that the large hole perforations of the brackets are sitting INSIDE the form cavity.
5. Exact placement of the insert plates will not be crucial as long as the cuts in the foam are made at 90 degrees to the foam face to ensure the bracket faces will always be in plane and in line with the face of the joist or truss frame.
6. After the concrete has been placed and cured long enough for hanging a truss member, chalk a second line at either the top or bottom elevation of the truss to be installed. This should be done with a transit or a laser level.
7. Fit the framing member stamped bearing bracket at the end of the truss as shown.
8. Install a temporary rim joist at the underside of the lowest elevation of the truss by screwing it into the form webs. This will provide a seat for the truss to sit on until fastened.
9. Slide the truss member and stamped bearing bracket down between form inserts plates ready for anchorage at the desired height.
10. Once the truss is seated on the rim joist, using the designated #10 self-tapping screws, fasten through both the insert plate and stamped bearing bracket perforations of the bottom bracket, as well as fastening through the insert plate, stamped bearing bracket perforations and gang nail plate at the top bracket location.



ICF-CONNECTOR™ 45° INSERT PLATE :

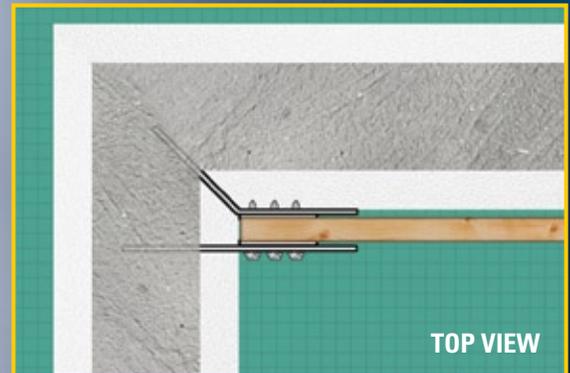
BASIC INSTALLATION

1. Ensure you have a proper truss layout before starting.
2. Prior to pouring the form, mark and cut your joist locations and insert the 45 degree plates.
3. Pour the form and when concrete has set, insert the joist member with the bearing bracket between the plates
4. From one side, fasten the beam through both insert plates using three 4" #14 screws



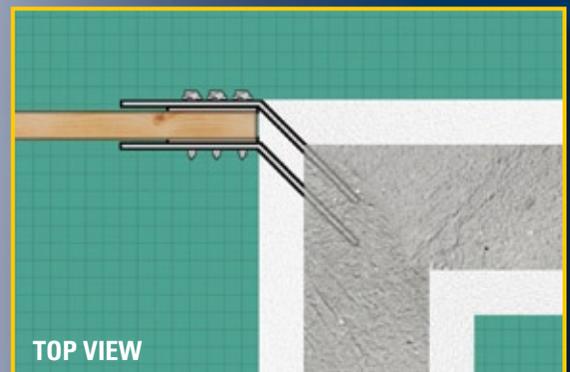
INSIDE CORNER INSTALLATION

1. Mark and cut and insert a 45 degree plate into the corner of the form.
2. Insert a normal flat plate just outside the corner, allowing for the width of the joist member.
3. Pour the form and when concrete has set, insert the joist member with the bearing bracket between the plates
4. From one side, fasten the beam through both insert plates using three 4" #14 screws



OUTSIDE CORNER INSTALLATION

1. Mark, cut and insert a 45 degree plate into the corner of the form.
2. Insert a normal flat plate just outside the corner, allowing for the width of the joist member.
3. Pour the form and when concrete has set, insert the joist member with the bearing bracket between the plates
4. From one side, fasten the beam through both insert plates using three 4" #14 screws



BRACKET APPLICATION:

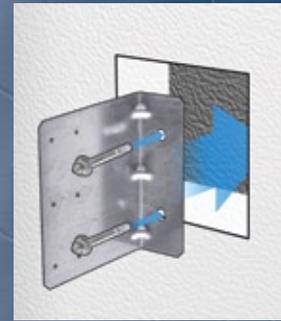
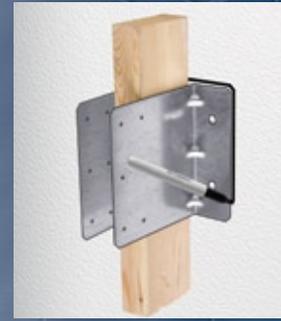
1. Apply the bracket to the bottom of the joist and secure with nails or screws.
2. Hammer down each side of the bracket and form around the end of the joist/truss member.
3. If the beam requires it, fill the space behind the bracket with a scrap piece of plywood.

**LAYOUT:**

4. Determine the lowest elevation for the framing members and snap a chalk line on the form. Apply another chalk line 1" above this elevation (this marks the lowest position for the insert plates).
5. Cut 2 sets of insertion points, one above the other, for each joist location in the form and insert the plates.
6. Pour the form.
7. After the concrete has set, slide the joist (fitted with bearing bracket) down between the insert plates.
8. Align the bottom of the joist with your first chalk line and fasten the beam through the insert plates on both sides using three 4" #14 screws.
9. Insert and fasten a spacer block between the joists



1. Determine location where bracket is to be mounted (i.e. elevation and spacing).
2. Cut away and remove foam in the insertion area.
3. Fasten the first piece of the retrofit bracket directly onto the concrete using 3/8" x 4-5" wedge anchor.
4. Fasten second piece of the retrofit bracket onto the concrete making sure to leave proper spacing for the joist or truss member to be attached.
5. Chalk a second line at either the top or bottom elevation of the truss / joist to be installed. This should be done with a transit or a laser level.
6. Fit the framing member stamped bearing bracket at the bottom end of the joist or truss as shown.
7. Slide the joist or truss member and stamped bearing bracket down between the foam retrofit brackets ready for anchorage at the desired height.
8. Once positioned so that the joist is in line with the final chalk line, fasten through both the retrofit bracket and the stamped bearing bracket perforations in an offset triangle fashion, using a #12 self tapping/self drilling screw to ensure solid anchorage of the stamped bearing bracket into position.
9. Reinstall the displaced foam or fill the cavity with spray foam to complete installation.



(Patent Pending)

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