

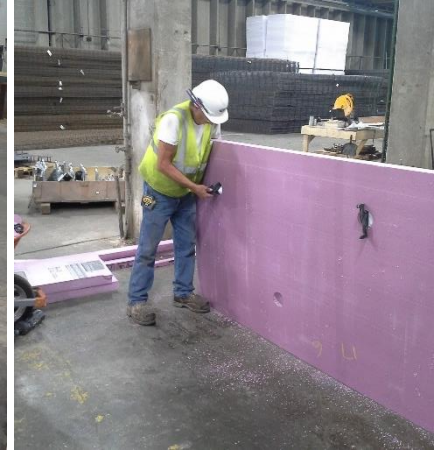
Organization is the key to success, and this document is designed to help streamline the installation process. We recommend completing all preparations at least a day before the pour.

Precut Foam Insulation

- Cut foam to size
- Cut blockouts
- Cut the holes or slots for each Icon connector

Insert Icons in the correct orientation

- Pay close attention to the engineering drawings to determine the correct orientation of the foam AND the Icons.



Clearly label each insulation sheet

- Mark each sheet with the piece mark and panel number.
- Some foam sheets may have an orientation (i.e. if the foam is upside down it will make the pattern wrong). To avoid this, mark the foam in the same location, such as the top right corner like in the photo below on the left, so the pattern remains consistent.
- In the photo below on the right is a sheet that was cut on a CNC. The blockouts, the slots for the Icons, and the piece mark were all cut using the CNC.



Stack the foam sheets

- Stack the sheets by panel with the sheets that will be placed first at the top.
- You can stack the sheets with or without the Icons already inserted, but make sure to insert the Icons BEFORE the concrete arrives so the insulation can be placed as soon as possible while the concrete remains in a plastic state.
- Bundle the sheets with strapping or other methods to secure in windy conditions. Bundled stacks can also be easily moved by two workers or by forklift. See Uline strapping, one of our recommended strapping products, on our Tools page at iconxusa.com/tools.
- Place bundles as close as possible to the panel to streamline the installation.



- Insulation can be placed immediately after concrete is poured and vibrated. In the photo on the right, you can see the insulation team following right behind the vibration team.



NOTE: DO NOT pair two “female” halves. Icons must be paired with one “female” half (center hub is an innie) and one “male” half (center hub is an outie).

Orientation:

The orientation of the connectors is very important.

- The majority of projects have IconX Connectors oriented vertically in the panel. Some projects have connectors in 2 directions. Make sure to highlight these differently oriented connectors on drawings and double-check them during QC before the concrete sets.
- IconX Connectors lose 90% of strength when oriented incorrectly.
- Always follow engineering drawings to determine connector orientation. If drawings are unclear, contact your engineer and/or IconX prior to pouring.



Fully Open:

Make sure the Icons are fully open and the ‘heels’ are touching the foam. If the foam is already installed and the Icons are not fully open, step on top of the Icon or spread the legs apart by hand until the heels touch the insulation.



Moving Icons:

Icons can be moved as much as 6-12 inches if needed.

- If there is an insert or blockout in the way, drill a new hole for the Icon and fill the old hole with the foam plug from the new hole.
- **Move the Icon horizontally** (towards or away from the side of the panel). If possible, don't move the Icon vertically.
- **Insert Icons in foam when the foam is NOT in the concrete.** If an Icon needs to be moved, lift the insulation sheet out of the concrete before installing the Icon in the new hole.
- If there is interference with the reinforcement, small adjustments without drilling a new hole for the Icon should be sufficient.

Tolerances Allowed:

- Icons should be oriented within 5° of what the drawings show
- Connectors should be vertical and not leaning or tilting
- Holes should be drilled within 3 inches of foam drawings (except in cases of interference as detailed above).

Walk in the Insulation:

While the concrete is still fresh, walk on top of the foam to set the Icons into the first layer of concrete.

- Not recommended for white foam 2" thick or less, which will crack and break underfoot.
- For stiffer concrete mixes or concrete that is beginning to set, light vibration on the connector may be required for good consolidation.



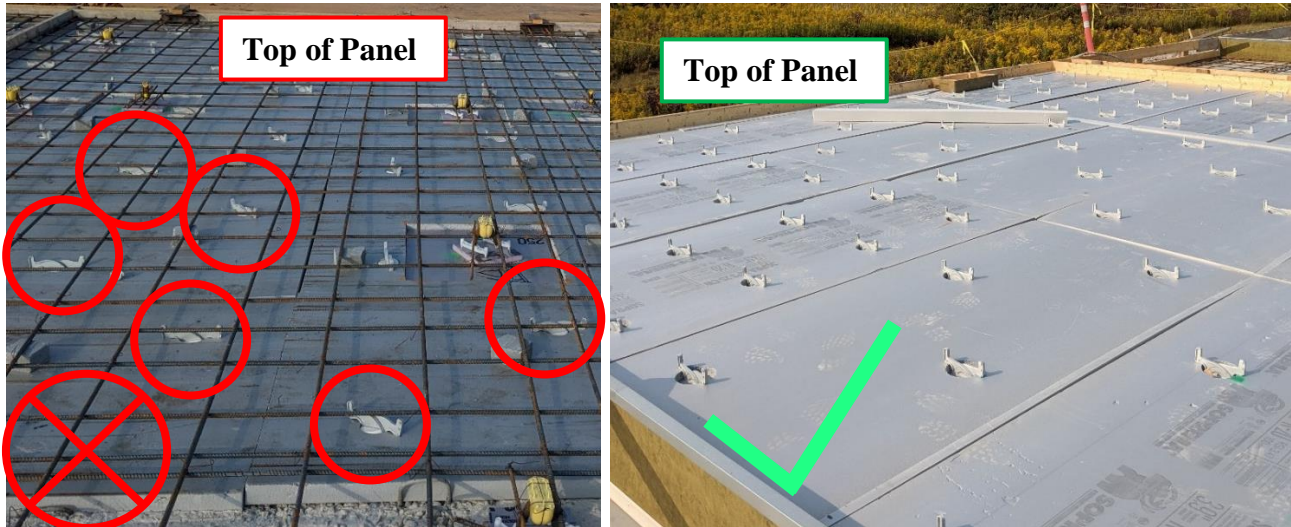
Get off the insulation.

- After installation and QC is complete, get off and allow concrete to set with as little disruption as possible.

QC steps should take place during and immediately after insulation placement.

Orientation:

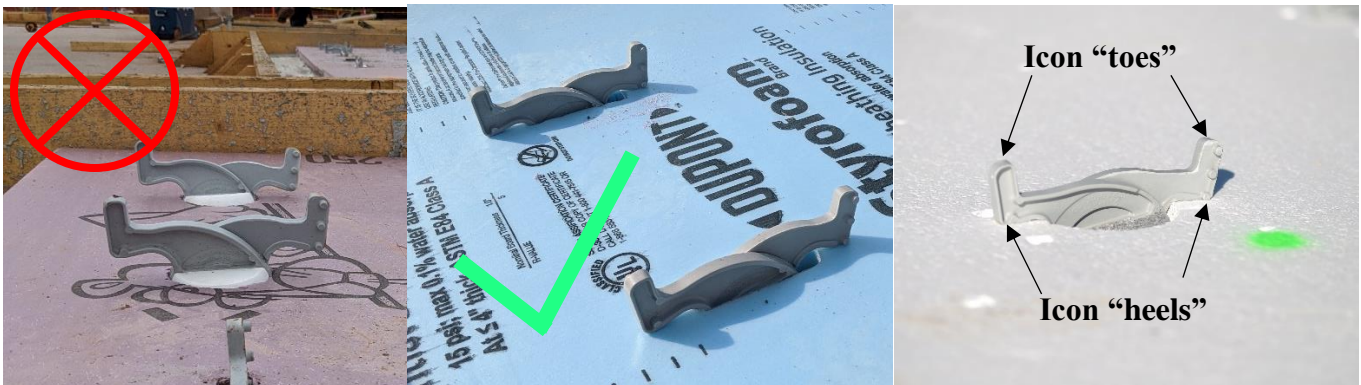
Match orientation of IconX connectors to Foam Layout Drawing



- Connectors must be parallel either to the length of the panel or the width, in accordance with the drawings.
- **In almost all cases, IconX connectors will be oriented parallel to the length of the panel.**
- In panels with horizontal Icons, only select rows will be horizontal and the rest will be vertically oriented. The panel on the left was designed to have all icons oriented vertically, but several are oriented incorrectly and need to be fixed during the QC check **before** moving on to the next panel.

Open and Locked:

Ensure all IconX Connectors are fully open with 'heels' touching foam insulation.



On the left, Icons are not fully opened. Center, Icons are fully opened and the 'heels' are touching the foam.

- **Icon 'toes' must be facing up and 'heels' must be touching the foam.**
- If the Icon is not fully opened and the foam is already installed in the concrete, you can simply step on top of the Icon to lock it in and fully open it.
- Icons are designed to be vertical in projection out of the foam (not tilted).

If you have any questions, please contact Joel Foderberg at 913-208-4274 or Davis Foderberg at 913-302-5598



Spacing and Moving Icons:

Latitudinal spacing (top to bottom) is most important. Icons should be spaced no more than 2 feet apart along the length of the panel.

- In general, there is a 1"-2" tolerance for the location of the connectors in any direction.

In the case of interference with blockouts or inserts such as face lifting handles or large plates, Icons can be moved horizontally (towards or away from the panel edge) as much as 6-12 inches.

- Insert Icons when the foam is NOT in the concrete. If an Icon needs to be moved, lift the foam out of the concrete before making a new hole and inserting the Icon. Then, insert the foam plug into the old hole.

In the case of reinforcement interference, small adjustments to the IconX connector without drilling a new hole are usually sufficient.

- For a typical panel with a 4" minimum face (rebar in center of face, 1 3/4" chair height), Icons should have minimal, if any, interference with reinforcing. For 3" faces, some interference may occur.

Walk the Insulation In:

After making any necessary adjustments, walk in the foam to ensure IconX connectors are fully seated in the first layer of concrete.



Photo on the left: walking in foam. Photo on the right: walking in foam and vibrating IconX connectors.

- For fresh, plastic concrete, walking on top of foam sheets is sufficient for consolidation around connector feet. We do not recommend walking on 2" or thinner white foam due to its tendency to crack and break underfoot.
- For stiffer concrete mixes or concrete beginning to set, light vibration on the connector using a stinger or pencil vibrator may be required for adequate consolidation.
- Do not continue to walk on the insulation after the QC is complete. The concrete should remain undisturbed until the initial set of the concrete. Usually 12 hours.

After the concrete has set, any panel that does not pass QC should be clearly documented. A photo of the full panel, with the orientation of the panel and the connectors clearly indicated, should be sent to your engineer of record for approval.

Note: Please check with your local municipality and/or engineer for special inspection requirements.

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