

How to Prepare Outside Panels for Greater Flexibility in Smaller Radius Walls

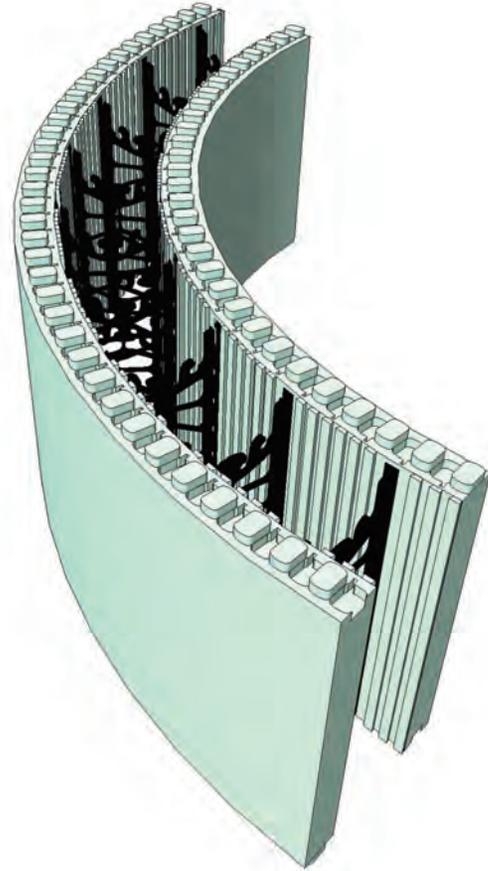
This Technical Bulletin is prepared as a companion piece to NUDURA's Technical Bulletin on Radius Wall Estimating and Installation.

NUDURA insulation panels are sufficiently flexible that radius walls as small as 8 feet (2.44 m) in radius dimension can be formed with little difficulty in bending them to meet the required curvature. However, on the occasions where radii are smaller than this, it will be necessary to prepare the outer panels prior to installation to enable greater flexibility for being able to be installed to the desired radius.

Preparing the outside panel to bend to the required radius is very simple. Starting with the unassembled 8' (2.44m) NUDURA panel, place it on a flat surface with the cut lines facing up. Then, use NUDURA's 1" (25mm) fiber tape, cut 4 lengths of tape - each being 8 feet (2.44m) long. Apply the strips of tape linearly across the panel length, spaced 3" to 4" apart, and press each strip firmly onto the face of the panel. The fiber tape will provide excellent support during bending of the form and, subsequently, during placement of concrete into the assembled form.

Greater flexibility of the panel is achieved by cutting grooves into the interior "dovetailed" surface of the panel at regular intervals. NOTE: Avoid making these cuts using a hot knife as melting the foam in this manner can change its molecular structure at the knife contact area - making it more brittle and substantially lowering the flexural strength of the foam panel between webs.

You will also need a cordless circular saw with a 5 1/4" (133 mm) non-carbide tip blade for this operation. Before mounting the blade into the saw, the blade must be prepared for making a wider than normal cut by using pliers to incrementally bend every other tooth of the blade outward off axis in opposite directions such that the width between the tips of each tooth is laterally measured at about 3/16" (5mm).



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1 First set the base plate of the saw to ensure that the blade will cut to a depth of 1 ½" (38 mm).

2 Lay the outside panel smooth face (taped surface down) on a level work surface at a comfortable table height. Begin cutting by placing the LEFT side of the saw base plate against the connection lugs and completing the cut from one edge of the panel to the other.

3 Next, repeat the same procedure as described above, but this time- guide the cut by placing the saw base plate against the connection lugs on the RIGHT side of the saw as shown (above right). This will place a score line near the CENTER of the panel segment width.

4 Finally, flip the panel around 180 degrees and repeat the first cut (i.e. running the saw with the base plate being placed against the connection lugs on the left side of the insulation segment). This will complete the scoring of the panel segment with 3 scores. (2 near the connection lugs – 1 at the center)

5 Repeat Steps 1 through 5 for each space between the connection lugs for a total of 35 cuts per panel. The panel is now ready for assembly with the interior segments. (Note detail view of panel cuts below)

