



## DSF No. 7006

**Subject:** Concrete Consolidation in the Diamond Snap-Form ICF System

**Date:** February 2011

Concrete form applications that use rigid wood, steel or hard board require that concrete placed within the form be consolidated by vibration. The vibration requirement for these type of form materials is necessary to ensure that no voids or pockets are created in the concrete. Voids can be caused by the lack of flow around obstacles such as ties, rebar and blockouts within these rigid form types. Air also may be trapped during the pour.

DSF ICF does not require vibration when you follow DSF recommended application procedures. The Diamond Snap-Tie is designed to allow 4" - 6" slump concrete, with 3/4" or smaller aggregate to readily flow around and through the tie. The Diamond Snap-Tie design, along with the natural vibration that takes place in the form system during the concrete placement, eliminates the need for additional vibration. The natural vibration caused by the concrete placement eliminates voids and honey-combing in the DSF ICF System wall.

Diamond Snap-Form has evaluated in-place DSF ICF walls to prove that consolidation does occur. Block-outs have been removed and the Foam-Control EPS with Perform Guard® stripped from the projects. Each of these applications showed excellent consolidation of the concrete.

To further demonstrate that complete consolidation occurs around the Diamond Snap-Ties, a concrete saw was used to cut through a typical 8" DSF wall. The cut was made directly in line with a row of Snap-Ties. It was found that concrete had flowed through and completely around the Diamond Snap-Ties. Consolidation was so complete that the printing found on the web of the tie was embossed into the concrete and legible.

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