

# Controlling Random Cracking in Concrete Early Entry Method Fact Sheet

## Background

Since the recognition of the early-entry dry-cutting method by ACI in 1996, the method has gained acceptance as the leading solution for controlling random cracking in concrete slabs and pavement. The Institute, in its Guide for Concrete Floor and Slab Construction (ACI 302-96), states the effectiveness of early-entry dry-cut sawing. "The timing of the early-entry process, allows joints to be in place prior to the development of significant tensile stresses in the concrete." This recognition is based on the technology and application developed by the originator of the early-entry method, Soff-Cut International.

## Not All Early Entry Systems Are Equal

With the acceptance of the early-entry method for controlling random cracking in concrete, other manufacturers have entered the market with "early-entry" or "green" concrete saws. Since the timing of the cut is the major factor in controlling random cracking, these products are not equal in performance to the SOFF-CUT system because they are unable to cut as early.

## How The SOFF-CUT Method Is Different

***The Ultra Early Entry™ control joint cutting method is part of the placing and finishing process.*** The SOFF-CUT technology is based on the combination of the SOFF-CUT blade and Skid Plate. The up-cutting rotation of the blade combines with the Skid Plate, which applies pressure to the surface to prevent chipping or spalling. Because the Skid Plate and blade combination are proprietary, no other system is equal in performance.

## The Ultra Early Entry™ Method

In order to differentiate the SOFF-CUT system from manufacturers who claim to produce "early-entry" saws, specify the Ultra Early Entry™ dry-cutting system by using the specification below. Only the SOFF-CUT Ultra Early Entry™ method allows control joints to be cut within one to two hours after the finishing process, and before final set.

Three Part Specification <i>CSI Format</i>	SOFF-CUT System Specification SECTION 03300 CAST-IN-PLACE CONCRETE
<p><b>PART 1- GENERAL</b> SUMMARY Section includes saw cut control joints</p> <p><b>PART 2 - PRODUCTS</b> Equipment Control joint saw: "SOFF-CUT System," early-entry dry-cut saw with Skid Plate, by Soff-Cut International, Inc. 1112 Olympic Drive Corona, CA 92881 909-272-2330</p>	<p><b>PART 3 – EXECUTION</b> CONTROL JOINT SAW CUT Comply with the Soff-Cut International, Inc. instruction for the SOFF-CUT System</p> <ol style="list-style-type: none"> <li>1) Hand-troweled, burnished finish</li> <li>a) Install cuts 0 to 2 hours after final finish at each joint location.</li> <li>2) Broom, burlap finish             <ol style="list-style-type: none"> <li>a) Install cuts at each control joint location as soon as concrete will support weight of saw and operator without disturbing final finish.</li> </ol> </li> <li>3) Cut depth not less than 10 percent of slab thickness with a 1-inch minimum.</li> <li>4) Remove debris in path of cut and under Skid Plate before cutting. Skid Plate must remain flat on surface.</li> <li>5) Use SOFF-CUT blades and Skid Plates, using a new Skid Plate with each new blade.</li> <li>6) Install SOFF-CUT joint protector at saw-cut intersection prior to cross-cut.</li> <li>7) Remove dry powder without disturbing finish.</li> <li>8) Avoid traffic across saw cut until sufficient strength is gained to protect joint edges.</li> </ol>

For more information on the SOFF-CUT Ultra Early Entry™ system, contact Soff-Cut International, Inc. at 909.272.2330 or visit their website at [www.soffcut.com](http://www.soffcut.com).