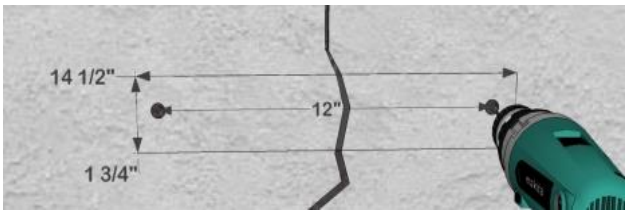
SlabStitch® *ST12* Mechanical Stitch

Installation Guide / Materials Specification for Comprehensive Crack Repair

Tools: 4” Masonry Saw, Chipping Hammer, Hammer Drill, 1/2” and 5/8” Masonry Drill Bit, 3/4” Socket Wrench, Shop Vacuum.

Materials (not included): Epoxy Concrete Repair Compound, Hydraulic Cement (see reverse side for materials specification).

***Step A*:** Chase crack with masonry saw and “V” cut to open crack approximately 3/4” wide. Locate stitch by tracing a rectangle (14 1/2” x 1 3/4”) and marking the holes 12” apart as shown.



Step B: Using 1/2” masonry bit drill both holes into concrete approximately 4” deep.

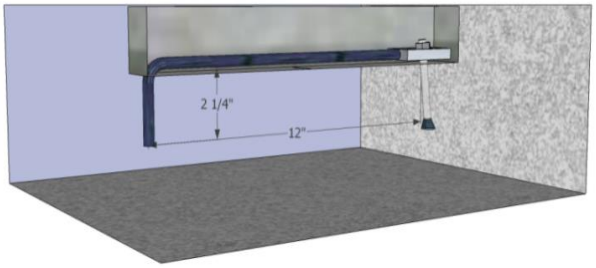
Step C: To create the box niche, cut and chip approximately 1-1/2" deep rectangular area with masonry saw and chipping hammer. To improve the chipping operation and make cleaner box cuts, the rectangular area can be sliced with the saw as shown prior to chipping. Remove all debris, clean out completely. Open one hole with 5/8” drill and verify holes are 2 1/4” deep below niche bottom. Do not overdrill hole depths.

Step D: Place the sleeve anchor through the bottom of the stitch and thread nut onto the topside of the shaft 3-4 turns. Insure that the end stamped XXX is at the bottom of the anchor. Insert sleeve anchor into 5/8” hole and hook into 1/2” hole and tap down the head of the nut until sleeve is fully inserted in the hole and the unit is flush in bottom of niche.

Step E: Using a ratchet and 3/4" socket, tighten the nut on the anchor approximately 3-4 turns up to 50 Ft-Lb torque. Locate each stitch carefully. Mechanical Stitch installation is designed for permanent placement. Once installed and tightened down, the anchor cannot be easily removed or relocated.

Step F: Repeat above procedure with stitches spaced at approx. 1-foot along the length of crack (10 Mechanical Stitches for 10-foot crack).

Step G: Apply epoxy compound along crack by filling material into 1/4" slot at base of “V”. Dab compound at hole at hook end of niche. Wait 30 minutes and fill the niche and “V” with water-stop non-shrink hydraulic cement. Finish pool with marble-based pool plaster or polymer modified cement for aquatic applications.



*Note: A minimum 5” slab is recommended for Mechanical Stitch installation. For shallower slab thicknesses, drill the anchor hole and install and tighten the nut. Once tightened the threaded shaft may extend upward and can be ground down flush with the top of the nut. Chip out niche bottom flat for optimal installation performance.

For guidance on difficult applications or for answers to simple questions, call your local ***SlabStitch*** Dealer or call ***SlabStitch*** direct to speak to a Specialist. Our Engineering Team is always available to provide support.

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SlabStitch® Materials Specification

PART 1 – MATERIALS

1) SlabStitch ST12-10 Mechanical Stitches
2) Two-Component, High-Solids Epoxy Concrete Repair Compound
3) Hydraulic Cement High Strength Repair Mortar for Stopping Leaks in Concrete

PART 2 – MATERIALS DESCRIPTION

1) SlabStitch ST12-10 Mechanical Stitches (10-stitch set); When installed properly can restore the tensile strength across the crack, reestablish compression, stabilize the structure, and transfer load away from the fracture. The stitches are fabricated with a machined face and slot, welded to A-706 rebar hook, hot dip galvanized, and installed in a niche below the concrete surface. The mechanical stitches function by tightening down the mechanical wedge to post-tension the rebar stitch, inhibiting the crack from expanding and getting larger. The anchoring mechanism consisting of a threaded stud with an outwardly flared cone-shaped end. Tightening of the nut pulls the cone-shaped stud end into the expander sleeve, wedging it outward and locking the anchor into the concrete base material.

2) Two-Component, High-Solids Epoxy Concrete Repair Compound; Two-component, high-solids epoxy that chemically bonds with the concrete to provide a structural repair and specially designed and formulated to repair cracks in pool shells and concrete slabs. Dispensed in side-by-side cartridges through a static mixing nozzle and dispensing tool, when properly installed, provides a repair that is both waterproof and high strength (structural).

3) Hydraulic Cement Rapid Setting, High Strength Repair Mortar for Stopping Leaks in Concrete; a rapid setting, high strength repair material designed to plug leaks instantly in concrete and masonry; designed to block running water or leaks in cracked pool shells and concrete slabs.

PART 3 – MATERIALS NEEDED TO REPAIR 10-FOOT CRACK QUANTITIES

1. SlabStitch ST12-10 Mechanical Stitches ---------- **10-Stitch Set**
   One stitch per foot of crack typical
2. Two-Component Epoxy Concrete Repair Compound ---------- **30 oz**
   3.0 oz (90 ml) fills 1/4” slot for one-foot of crack and “V” and drill location
   AquaBOND Concrete Repair Compound Epoxy for Pool Repair
   (Non-pool product alternative: Sika AnchorFix 1)
3. Hydraulic Cement ---------- **30 lbs**
   3.0 lbs fills one-niche and one-foot of crack
   SGM Pool Patch, or **Quickete Hydraulic Water-Stop**
   (or equivalent hydraulic cement)