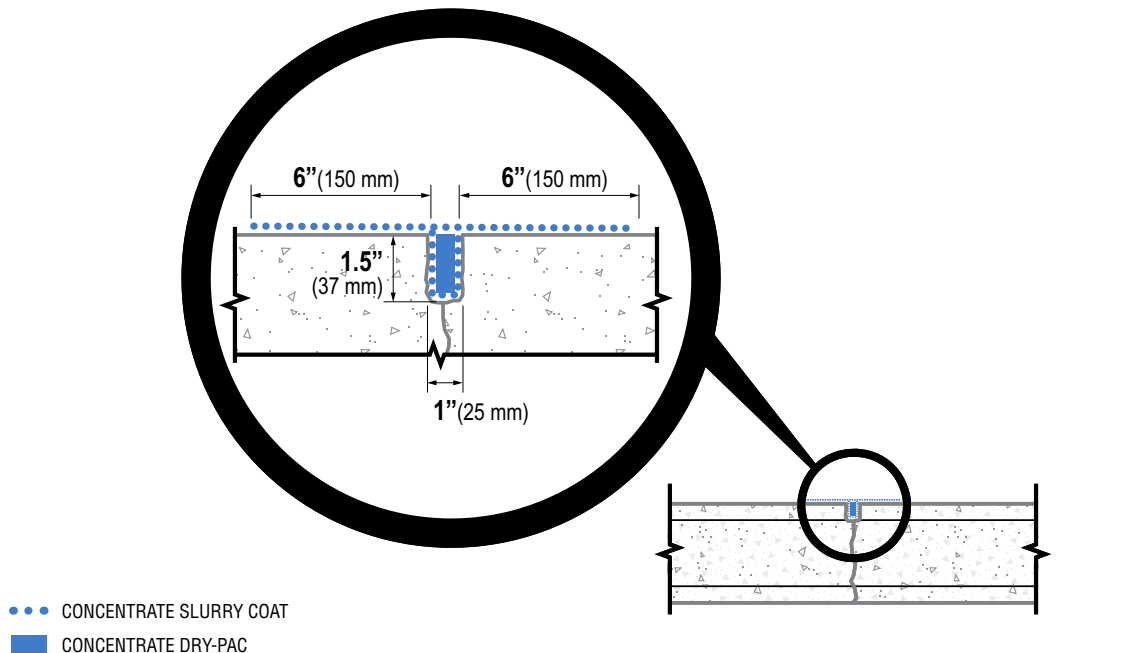


## REPAIR OF CRACKS AND FAULTY CONSTRUCTION JOINTS

### No Water Flow

2020-03



#### HYDROSTATIC PRESSURE – NO ACTIVE LEAKING WATER

**STEP 1:** Chip out the crack/joint in a “U” shaped slot as per the drawing shown above. The slot is to be 1” (25 mm) wide and at least 1.5” (37 mm) deep. A “V” shaped slot is not acceptable. The slot may be saw cut instead of chipped but ensure that the slot is dovetailed or otherwise shaped such that there will be mechanical interlock of materials placed into the slot at a later stage.

**STEP 2:** Remove all loose material within the slot and to 6” (150 mm) on either side of slot. Clean, profile (ICRI CSP-3) and saturate this area with water. Allow water to soak into concrete and then remove all surface water.

**STEP 3:** Apply one slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) to the slot and to 6” (150 mm) on either side of the slot. Application may be performed by brush or gloved hand.

**STEP 4:** While slurry coat is still tacky, fill the slot to the surface with Xypex Concentrate Dry-Pac mixed in the following proportions: one part clean water to six parts Concentrate by volume. Blend Dry-Pac by trowel for 10 - 15 seconds only (lumps should be present in the mixture). Apply Dry-Pac by gloved hand, then compress it tightly using a pneumatic packing device or a hammer and block.

**STEP 5:** Wet Dry-Pac surface lightly with water, then apply a slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) over the repaired area and to 6” (150 mm) on either side of the slot.

**STEP 6:** Cure by keeping moist by fog spraying periodically with water for two to three days. Open to water contact per Xypex Coatings guidelines.

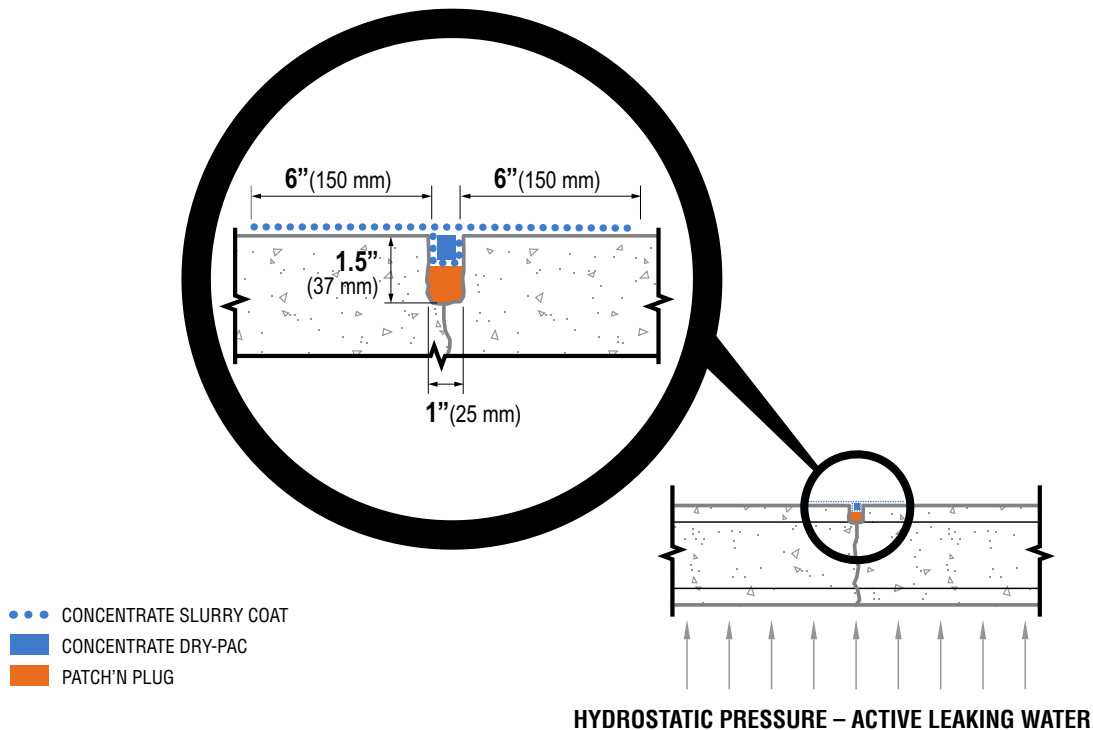
**Note:**

When early exposure to water is required:

1. In Step 3 – apply slurry to the inside of the void only
2. In Step 4 – replace the top ¼” - ½” (6 - 12 mm) of Xypex Concentrate Dry-Pac with Xypex Patch’n Plug.
3. Step 5 and Step 6 – eliminate.
4. Allow materials to gain sufficient strength for exposure to liquids.

## REPAIR OF CRACKS AND FAULTY CONSTRUCTION JOINTS

### Against a Flow of Water



**STEP 1:** Chip out crack/joint in a “U” shaped slot as per the drawing shown above. The slot is to be 1” (25 mm) wide and at least 1.5” (37 mm) deep. A “V” shaped slot is not acceptable. The slot may be saw cut instead of chipped but ensure that the slot is dovetailed or otherwise shaped such that there will be mechanical interlock of materials placed into the slot at a later stage. Areas with the most water flow should be identified and chipped slightly deeper.

**STEP 2:** Remove all loose material within the slot and to 6” (150 mm) on either side of slot. Clean, profile (ICRI CSP-3) and saturate this area with water. Allow water to soak in and then remove all surface water.

**STEP 3:** To stop active water flow apply Xypex Patch'n Plug to half the depth of slot. Patch'n Plug is mixed by adding one part clean water to 3.5 parts Patch'n Plug powder by volume. Patch'n Plug should be applied to full length of crack/joint area.

**STEP 4:** Apply a slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) in the slot over the Patch'n Plug and to 6” (150 mm) on either side of the slot. Application may be performed by brush or gloved hand.

**STEP 5:** While the slurry coat is still tacky, fill the slot to the surface with Xypex Concentrate Dry-Pac. Dry-Pac is mixed by adding one part clean water to six parts Xypex Concentrate powder by volume. Blend Dry-Pac by trowel for 10 - 15 seconds only (lumps should be present in mixture). Apply the Dry-Pac by gloved hand, then compress it tightly by using a pneumatic packing tool or a hammer and block.

**STEP 6:** Wet the Dry-Pac surface lightly with water, then apply a slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) over the repaired area and to 6” (150 mm) on either side of slot.

**STEP 7:** Cure by keeping moist by fog spraying periodically with water for two to three days. Open to water contact per Xypex Coatings guidelines.

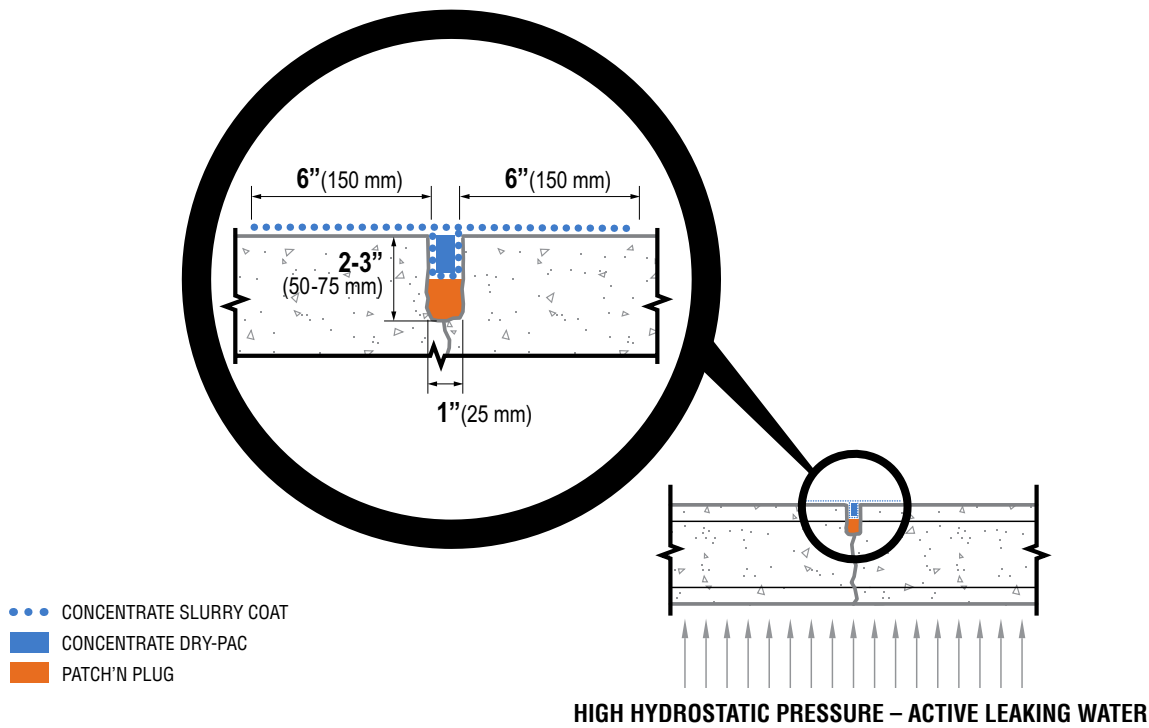
**Note:**

When early exposure to water is required:

1. In Step 4 – apply slurry to the inside of the void only
2. In Step 5 – replace the top ¼” - ½” (6 - 12 mm) of Xypex Concentrate Dry-Pac with Xypex Patch'n Plug.
3. Step 6 and Step 7 – eliminate.
4. Allow materials to gain sufficient strength for exposure to liquids.

## REPAIR OF CRACKS AND FAULTY CONSTRUCTION JOINTS

### Against High Pressure Flow of Water



**STEP 1:** Chip out crack/joint in a “U” shaped slot as per the drawing shown above. The slot is to be 1” (25 mm) wide and 2” - 3” (50 - 75 mm) deep. A “V” shaped slot is not acceptable. The slot may be saw cut instead of chipped but ensure that the slot is dovetailed or otherwise shaped such that there will be mechanical interlock of materials placed into the slot at a later stage.

**STEP 2:** In the area of greatest water flow, drill a hole or cavity 0.5” (13 mm) deeper into slot to accommodate a bleeder hose. A bleeder hose is a minimum 1.5 foot (0.5 m) length of smooth surfaced, fairly rigid tubing. Its purpose is to relieve the water pressure while the crack/joint is being repaired.

**STEP 3:** Remove all loose material within the slot and to 6” (150 mm) on either side of slot. Clean, profile (ICRI CSP-3) and saturate this area with water. Allow water to soak in and then remove all surface water.

**STEP 4:** Place one end of bleeder hose into the hole or cavity and, while holding hose steady, apply Xypex Patch'n Plug to the slot around the hose. Multiple applications of Patch'n Plug may be necessary to secure the hose in place.

**STEP 5:** To stop active water flow apply Xypex Patch'n Plug to half the depth of the remaining slot area. Patch'n Plug is mixed by adding one part clean water to 3.5 parts Patch'n Plug powder by volume. Remove the bleeder hose and pack the hole with Xypex Patch'n Plug to stop all active water flow.

**STEP 6:** Apply a slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) in the slot over the Patch'n Plug and to 6” (150 mm) on either side of the slot. Application may be performed by gloved hand or by brush.

**STEP 7:** While slurry coat is still tacky, fill the slot to the surface with Xypex Concentrate in Dry-Pac consistency. Dry-Pac is mixed by adding one part clean water to six parts Xypex Concentrate powder by volume. Blend by trowel for 10 - 15 seconds only (lumps should be present in mixture). Apply the Dry-Pac by gloved hand, then compress it tightly by using a pneumatic packing tool or a hammer and block.

**STEP 8:** Wet Dry-Pac surface lightly with water, then apply a slurry coat of Xypex Concentrate at a coverage of 1.5 lb./sq.yd. (0.8 kg/m<sup>2</sup>) over the repaired area and to 6” (150 mm) on either side of slot.

**STEP 9:** Cure by keeping moist by fog spraying periodically with water for two to three days. Open to water contact per Xypex Coatings guidelines.

**Note:**

When early exposure to water is required:

1. In Step 6 – apply slurry to the inside of the void only
2. In Step 7 – replace the top ¼” - ½” (6 - 12 mm) of Xypex Concentrate Dry-Pac with Xypex Patch'n Plug.
3. Step 8 and Step 9 – eliminate.
4. Allow materials to gain sufficient strength for exposure to liquids.