

# WESTEC RETROFIT

## INSTALLATION GUIDE

### CONVENTIONAL METHOD:

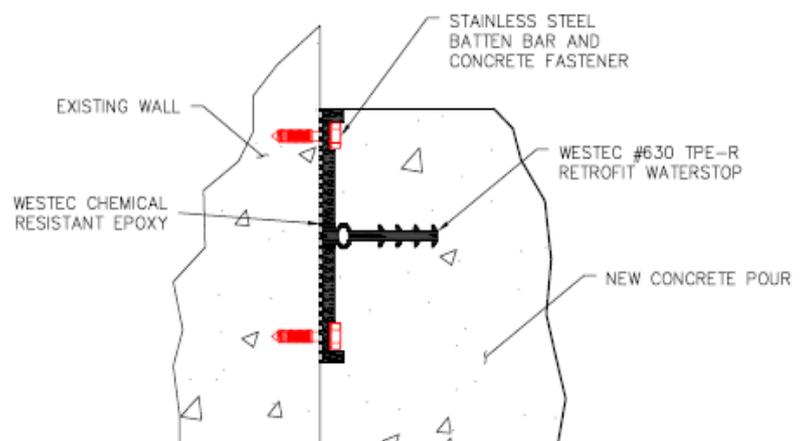
The sawcut method requires the existing structure to be sawcut to a width and depth sufficient enough to allow half a waterstop to be inserted and grouted into the concrete slab or wall. The sawcut method is time consuming and sometimes impractical because of existing construction barriers, rebar depth and working conditions. Even in ideal conditions, grouting the waterstop in creates a new cold joint between the grout and sawcut concrete. Ideally this joint should also receive a waterstop.

### WESTEC RETROFIT WATERSTOP METHOD

The Westec bolt-on retrofits were designed to eliminate the labor intensive and structurally intrusive sawcut method. Westec has a number of profiles, but all function essentially the same way. First the existing concrete is cleaned, but undisturbed (no saw cutting), an epoxy gel is applied to the concrete to create a gasket material, then the retrofit profile is pressed into the epoxy to seal tightly and finally the profile is secured to the concrete with stainless steel batten bars and concrete fasteners.

### TYPICAL COMPONENTS FOR A RETROFIT SYSTEM

- TPER / PE Waterstop Profile (#629,630,694,697,691,031,041,087)
- Westec #151 High Chemical Resistant Epoxy Gel (two-part Novolac Epoxy)
- 11ga Stainless Steel Batten Bar (1/2" or 1-1/4" wide) pre-punched with 1/4" holes 6" oc
- SS Concrete Fasteners (typically 1-1/4" x 1/4" Tapcon Fasteners)



### CONCRETE PREPARATION

Prepare existing concrete surface by sandblasting or grinding until slight texture is evident to assure solid clean surface for epoxy to bond to. Blow off excess dust and contaminants. Surface should be free of water, oils and chemicals.

### PREFABRICATION AND MATERIAL PREPARATION

- Prefabricate (heat weld) waterstop sections, intersections, and direction changes. Prefabricating early will save time once the epoxy is mixed and reacting. (Epoxy working time is 45min-1hour at 70°F)
- See Westec Installation Guide and TPER/PE Splicing Guide for Welding information.



- Check heat welded waterstop for proper location, orientation and fit. (Note: welding a joint will remove approximately 1/8" of waterstop. Be sure to account for this material when fitting around corners (particularly, small piers or columns).
- Using the SS batten bar as a guide, drill pilot holes in waterstop and concrete for the tapcon fasteners. Mark starting point for batten bar above the epoxy line.
- **NOTE:** Some Westec retrofit profiles are pre-punched with oval holes on 4" centers. These holes allow the epoxy to interlock with the waterstop and do not necessarily line up with the holes in the batten bars. Pilot holes for the fasteners should be drilled separately.
- Remove concrete dust and drilling debris from concrete and waterstop. You are now ready to mix the epoxy and place your waterstop.

## INSTALLATION:

- Mix an appropriate amount of epoxy per mixing instructions. (Epoxy is pre-measured into 1 gallon kits) Only mix as much epoxy as you can use in the potlife for the temperature and jobsite conditions.
- Place epoxy bed 1/8" thick and as wide as the waterstop to be installed. (For example, #629 –1/8 x 3-1/4", #630 1/8" x 5", #687 1/8" x 2", etc...)
- Press waterstop profile into the uncured epoxy layer.
- Place stainless steel batten bar(s) against profile (most profiles will have a groove or notch to accept the batten bars)
- Apply tapcon fasteners through 1/4" holes and secure as required. Tapcons should be placed 6" on center for each batten bar.
- For added corrosion protection, extra epoxy can be tooled over the SS batten bars.
- Allow epoxy to cure for at least 24 hours before placing concrete against the retrofit.

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