HD100, HD100EC, and PRO100 Spot Repair Options

Product Note

Repair options for corrugated thermoplastic pipes typically involve removing and replacing the damaged section with new pipe cut to length. Options for splicing the pipe ends involve the use of several different types of couplers.

- **Wrap-around style split couplers.** Thermoplastic coupler engaging two full corrugations on each side of the joint. Split couplers provide a soil-tight connection alone or a silt-tight connection when wrapped with a non-woven geotextile. An internal joint seal (by Trelleborg or Cretex) may be used on 24 to 60" pipes to provide joint performance comparable to an ASTM D3212 bell-and-spigot connection.
- **PolySeal Couplers by MarMac.** A rubberized mastic wrap reinforced by a woven polypropylene geotextile with a polyethylene backing and secured with compression bands. The PolySeal coupler provides joint performance comparable to an ASTM D3212 bell-and-spigot connection.
- **Seal-Tite™ Couplers by Springseal (24 to 48").** A bell-bell co-extruded coupler made from polypropylene and a thermoplastic elastomer, secured with tightening bands. The Seal-Tite™ coupler provides joint performance comparable to an ASTM D3212 bell-and-spigot connection.
- **Large Diameter Fernco couplers (or equal).** Manufactured to order, these large-diameter couplings can suit any outside pipe diameter. Typically a 10" wide, 1/2" thick rubber coupling with multiple sealing ribs and stainless-steel clamps capable of meeting watertight field test requirements when installed per manufacturer's recommendations.
- **PVC Bell-Bell Repair Sleeve by Harco Fittings (12 to 30").** The bell-bell fitting is designed to be used with a corrugation valley gasket on each end of the joint to provide joint performance capable of meeting most field test requirements when installed correctly.

Instances of damaged pipe that may not require a remove-replace-splice method but must be addressed in some fashion can be managed with either a concrete collar, the installation of a split coupler, or by simply wrapping the pipe section with a geotextile. All these options require the entire periphery of the pipe section to be exposed to provide sufficient space beneath the pipe (3 to 6"). Preparation for a concrete collar pour requires forming and measures to prevent concrete seepage into the pipe. Sealing is best accomplished with a Polyseal coupler, but a split coupler, a geotextile wrap, gasket material, or any combination of the three provide additional options.

Trenchless repair products and methods abound. Recommended products or methods are noted below:

- **Grouting Sleeve™ by LINK-PIPE® (linkpipe.com).** A stainless-steel expandable spot repair sleeve that is grouted in place providing levels of structural and water-tight performance (12 through 48" diameters).
- **Internal Pipe Joint Seal by Cretex (cretexseals.com).** A joint seal product that may be used to bridge the damaged section of the pipe with a flexible rubber seal that is compressed against the inside diameter of the pipe with expansion bands to form a watertight seal.
- **Chemical Injection Grouting (avantegrout.com).** Injection grouting is routinely used in the sewer industry to remotely seal leaky joints. A two-part chemical grout with a dialed-in set time is pumped through leaky joints (or breaches) and into the surrounding embedment with an inflatable grout packer until a given pressure resistance is realized.