

Repair the failing joints using an internal joint seal. The internal joint seal will bridge the joint with a flexible rubber seal and compress the rubber against the inside diameter of the pipe on either side of the joint with expansion bands and locking assembly. Orient all protruding hardware to be as high on the wall of the pipe as possible to prevent damage caused by passing debris. Submit stamped shop drawings to the engineer prior to installing the internal joint seal.

Corrugated pipes only: Upon recommendation of the manufacturer, use a concrete material with a minimum compression strength of 4000 PSI to fill in and level the corrugations within the limits of the seal to provide a flat and smooth area for the seal to press against.

Provide the internal joint seals to meet the following requirements:

Rubber Seal:

- EPDM Rubber Material
- 20" minimum width (out to out, including bands)
- 1,400 PSI minimum tensile strength (ASMT D412)

Compression Banding:

- 304 or 316 stainless Steel
- 70,000 PSI minimum tensile strength

Clean and remove all dirt and debris, including existing joint bands labeled for removal, within the pipe prior to installing the joint seal for a minimum of four feet, centered on the failing joints. Fill voids and joint gaps with grout until the voids are filled and the gaps are flush from one section of the pipe to the other. Furnish grout that contains cement and water, and possibly one or more fly ash, lime, or admixtures. Secure the internal joint seal firmly against all edges of the concrete to prevent any soil or water infiltration or exfiltration. No pressure test is required and, as such, the seals may be supplied without test valves. If test valves are included in the seals, orient them at the top of the pipe so as to prevent damage from passing debris.

Supply any internal joint seal from WEKO-Seal, NPC Internal Seal, Hydratech Engineered products, or other approved equal.

Install the internal joint seal as noted and per the requirements of the manufacturer. The manufacturer may be used as a subcontractor to design and install the internal joint seals.