

SUGGESTED CONDENSED MANHOLE FRAME SEAL SPECIFICATION (New Construction w/X-85 External Seal)

PART 1 GENERAL

1.01 WORK REQUIRED

The Contractor shall install a frame seal on all new sanitary manholes included in this project. The frame seal shall span the entire grade adjustment area of the manhole by connecting to the bottom base flange of the manhole frame casting and to the top of the manhole cone.

1.02 SUBMITTALS

The Contractor shall make submittals of the Manufacturers literature, shop drawings installation instructions and other items in accordance with the provisions of the Standard Specifications.

PART 1 PRODUCTS

2.01 FRAME SEAL

The frame seal shall remain flexible throughout a 25 year design life, allowing for repeated vertical movement of the frame of not less than 2 inches and/or repeated horizontal movement of not less than 1/2 inch. The sleeve portion of the seal shall be corrugated with a minimum unexpanded vertical height of 10 inches and be capable of being mechanically locked to the base flange of the manhole frame casting. The sleeve and any extension shall have a minimum thickness of 0.085 inches and shall be made from a high quality rubber suitable for both above and below grade applications. The rubber shall conform to the material requirements of ASTM C-923 and have a hardness (durometer) of 45±5. The area of the seal that compresses against the base flange of the manhole frame casting and the chimney/cone shall have a series of sealing fins to facilitate a watertight seal.

The bands used to compress the sleeve against the manhole shall be integrally formed from 16 gauge stainless steel conforming to the material requirements of ASTM C-923, Type 304, with no welded attachments and shall have a minimum width of 1 inch. The top compression band shall have a shape and width sufficient to, when tightened, will mechanically lock the sleeve to the manhole frame's base flange. The lower compression band shall be a flat strip to allow placement into the lower band recess of the seal and or extension. Both the top and bottom compression bands shall have a take-up mechanism capable of developing a minimum of 400 lbs. of torque.

- A. Acceptable Manufacturers
 - 1. Cretex Specialty Products

PART 3 EXECUTION

3.01 SURFACE PREPARATION AND INSTALLATION

The surface preparation and installation of the frame seal shall be in accordance with the manufacturer's instructions.

PART 4 MEASUREMENT AND PAYMENT

4.01 FRAME SEAL AND EXTENSIONS

All costs for furnishing and installing an external frame seal shall be included in the unit price bid for sanitary manholes.

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