



INSTALLATION SPECIFICATIONS

VACUUM INSERTED SEWER CLEAN-OUT: VAC-A-TEE®

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1. **Intent**

It is the intent of this specification to provide a cost effective installation of a sewer lateral clean out without conventional excavation.

2. **General**

The VAC-A-TEE® product and process consists of locating a sewer lateral pipe by the most effective means available to the installer. The most common method utilized and associated with the VAC-A-TEE® process consists of inserting a video camera with an internal sonde into the lateral service line from the mainline pipe. Locating the lateral pipe is accomplished using a locating receiver. The located lateral pipe shall be marked by driving a steel pin in the soil when possible, and marking the surface with marking paint and a marking flag.

Next, a borehole approximately twenty-inches (20") in diameter is created by vacuum excavation. A saddle is affixed to one end of a PVC riser pipe utilizing a solvent weld. A mastic adhesive/sealant is applied to the underside of the saddle. The pipe and saddle are inserted down into the hole with the saddle end first, to snap fit onto the exterior of the lateral pipe. The saddle is pressed down onto the lateral pipe whereby the saddle expands under the downward force until the bottom-most portion of the saddle has surrounded more than fifty percent (50%) of the pipe diameter.

Once the saddle has surrounded more than half of the pipe and passes the spring line of the pipe, the saddle retracts thus pulling downward until the saddle has snapped as it encompasses a majority of the pipe. Next, the annular space between the borehole and the riser pipe is filled with sand or pea-gravel to within six-inches (6") of the surface grade and an approved cleanout cap is installed. A hydrostatic water test is performed and the crown of the lateral pipe is cut open. The surface is then restored to its original condition. The process shall be VAC-A-TEE® by LMK Enterprises, Inc. or equal.

3. **Material**

The material shall be a one-piece, molded PVC saddle and shall be compatible with the riser pipe. Solvent welding the riser pipe into the saddle boss. The saddle shall conform to the lateral pipe by a snap fit where the lateral pipe is either four (4") or six (6") in diameter. The riser pipe shall be SDR 35 or SDR 26 PVC. The resin will be a one-part marine grade adhesive/sealant designed for the specific application of a VAC-A-TEE saddle adhered to the lateral pipe by a chemical bond.

4. **Installation Procedure**

4.1 In grass areas, the sod shall be neatly cut and removed. In pavement areas, the pavement shall be straight-line marked, cut and removed.

- 4.2 The vacuum excavated borehole shall be approximately twenty-inches (20") in diameter and all spoils shall be deposited in a vacuum truck.
- 4.3 A riser pipe of an appropriate length is solvent welded to the saddle.
- 4.4 The adhesive/sealant shall be applied to the underside of the saddle at no less than a ¼" thick layer.
- 4.5 The saddle and riser pipe shall be carefully inserted into the bore hole, setting the saddle onto the pipe, applying a downward force causing the saddle to expand and snap onto the lateral pipe.
- 4.6 Immediately after the saddle has been affixed to the lateral pipe, the riser pipe should be secured by backfilling the bore hole with sand or pea-gravel to within 6-inches of the original grade.

5. Testing & Cutting

- 5.1 An exfiltration test shall be performed by filling the riser pipe with a 6-foot column of water. The test shall be performed no less than 12-hours from the time of affixing the saddle to the pipe. The column of water shall be held for five minutes. The water level shall be measured from the top of the riser pipe. Zero leakage is allowed.
- 5.2 A diamond core saw shall be introduced into the riser pipe, the crown of the pipe is cut and the coupon is removed.
- 5.3 An approved cap or cover is installed at ground level or below ground level.

6. Deviations

Should soil conditions reveal running sand or similar conditions that would prohibit the installation, the installation shall be terminated and the borehole filled with flowable grout. The surface area shall be restored to its original condition.

7. Clean-Up

The site will always be left clean and the property restored to conditions equal to site conditions prior to the VAC-A-TEE® installation.

8. Final Acceptance

Upon completion, the installer will deliver a videotape of the completed work to the owner. The owners will review the documentation and the site to determine that the scope of work is complete and the work is satisfactory.

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