

Vapor Pin®

Standard Operating Procedure

Installation of the Vapor Pin® Insert

Scope & Purpose

Scope

This standard operating procedure describes the installation of the Vapor Pin® Insert (Figure 1).

Purpose

The purpose of this procedure is to assure good quality control in field operations and uniformity between field personnel in the use of the Vapor Pin® Insert. The Vapor Pin® Insert is used to facilitate the collection of soil gas samples and pressure measurements beneath engineered vapor intrusion barriers (e.g., Geo-Seal®), or vapor mitigation coatings (e.g., Retro-Coat™).

Equipment Needed

- Vapor Pin® Insert
- Vapor Pin® Insert Cap
- Hacksaw (option)
- Power drill and small diameter bits (optional)
- Threaded rod (½" – 13 Thread Size)
- Dead blow hammer

Installation Procedure

1. Check for buried obstacles (pipes, electrical lines, etc.) prior to proceeding.
2. Prior to installation in an existing slab, a large diameter hole must be cored through the slab to either expose the barrier. Contact the vendor of the barrier or coating about the desired diameter of the hole, the procedures used to expose the seal, and the methods and materials used to marry the seal or coating to the Vapor Pin® Insert prior to proceeding.
3. Locate the desired position (horizontally and vertically) of the top of the Vapor Pin® Insert
4. Pierce the barrier with a threaded rod of sufficient length to extend slightly above the elevation of the finished floor and into the subgrade a sufficient depth to provide support for the Vapor Pin® Insert. Make sure the rod is perpendicular to the proposed floor surface. Avoid bending the rod, as it may inhibit its removal after the concrete has cured. Also avoid damaging the threads on the threaded rod.
5. Dry fit the Vapor Pin® Insert and trim or extend the length. Extend the length by sliding the Insert into a length of 1½ inch diameter schedule 40 PVC pipe. If a longer length is needed, make sure to be below the liner. The Vapor Pin® Insert and pipe can be joined using PVC cement or similar material. Allow sufficient time for the adhesive to cure prior to sampling. Vent holes may be added at the bottom of the extension, beneath the liner, to promote air flow.
6. Assemble the Vapor Pin® Insert and Cap by pressing the Vapor Pin® Insert Cap into the top of the Vapor Pin® Insert. Position the assembly on the threaded rod so that the top of the Vapor Pin® Insert Cap lies flush with the elevation of the finished floor. It is important that the position of the Vapor Pin® Insert be perpendicular to the slab so that the Vapor Pin® Sampling Device Secure Cover meets uniformly with the floor.
7. Marry the barrier to the Insert per the barrier manufacture's specification prior to pouring the concrete slab.
8. After the concrete has set, remove the threaded rod and the Vapor Pin® Insert Cap and install any of your preferred Vapor Pin® Sampling Devices in the Vapor Pin® Insert.

Standard Operating Procedure

Installation of the

