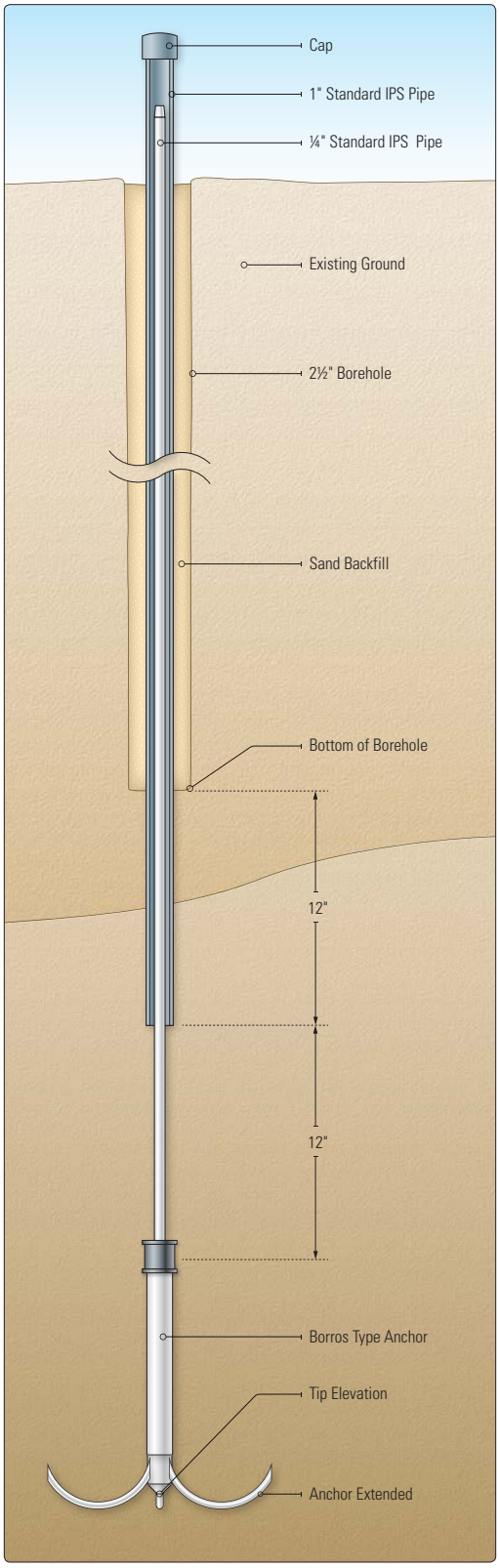
Settlement Points (Borros Type)

Applications

The Borros Type Settlement Points are designed to measure the settlement of…

- **Fills and embankments**
- **Foundations**
- **Roadways**
- **Surcharges**

Model 1950 Settlement Point with Borros Type Anchor.



Typical Heave/Settlement Point Installation.

Operating Principle

The purpose of the heave/settlement points is to measure vertical movements in foundation soils during and subsequent to construction.

The heave/settlement point consists of a three-prong anchor, a ¼" standard inner pipe, and a 1" standard outer pipe. The pipes are assembled in sections and fastened together with standard couplings to the required anchor depths.

The following procedure can be followed for installation of the heave/settlement points:

A cased borehole should be extended to three feet above the anchor tip elevation. Casing may not be required if the borehole can be advanced without caving in. The inside of the casing or borehole should be cleaned to the bottom to remove all loose material.

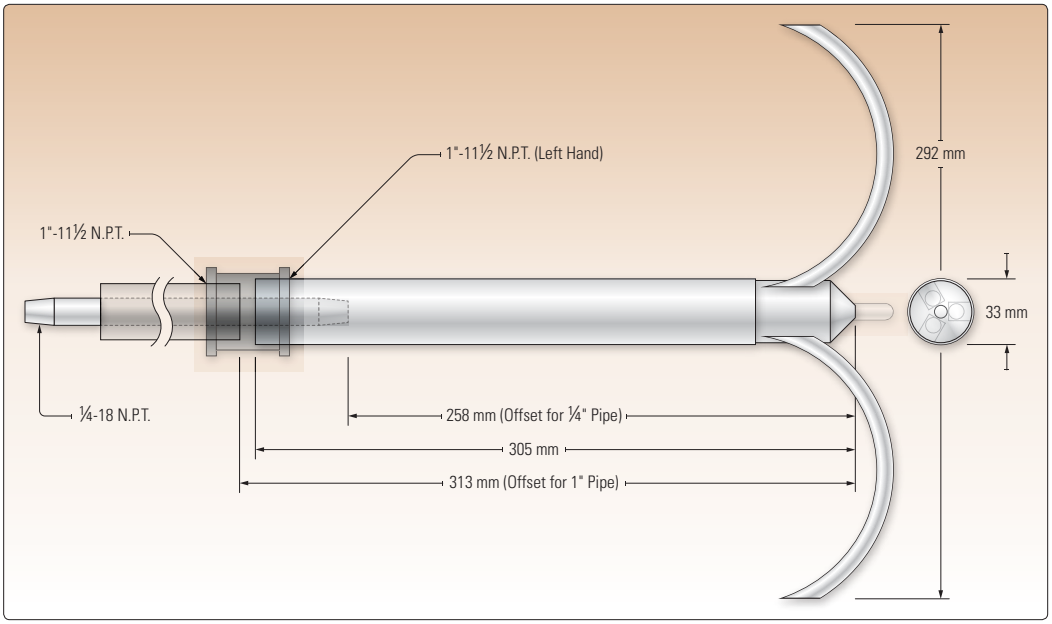
Next, securely attach the ¼" pipe to the anchor and tighten the 1" pipe to the greased left-hand thread of the anchor. Additional pipe sections are added as the complete assembly is lowered into the borehole. The anchor is then driven or pushed with the 1" pipe to the elevation desired.

The 1" pipe is then secured in position. With the 1" pipe clamped, the ¼" pipe can be advanced hydraulically by the drilling machine or driven by hand for approximately 7 inches relative to the 1" pipe. This operation will extend the anchor prongs and secure it in the soil.

Detach the 1" pipe from the anchor by turning the pipe in a clockwise direction for at least 15 complete revolutions.

The 1" pipe can then be raised high enough to clear the ¼" inner pipe, to its final position, and capped.

Withdraw casing from the borehole and backfill the annular space around the 1" pipe with clean sand.



Model 1950-1 dimensions.

Advantages and Limitations

For settlement point installations, as the fill continues to rise, sections of 1" and ¼" pipe are added to maintain the top of the pipe between 1' and 5' above the surface of the fill.

The materials surrounding the 1" pipe must be hand placed to avoid damaging the installation. The 1" pipe should be capped at all times except when readings or extensions are being accomplished.

Ordering information

Model 1950-2 | ¼" × 3 feet long[1] SCH40 Galvanized Steel Pipe, male threaded both ends.

Model 1950-3 | 1" × 3 feet long[1] SCH40 Galvanized Steel Pipe, male threaded both ends.

*[1]Custom pipe lengths are available on request: please contact **GEOKON** for details.*

GEOKON | TRUSTED MEASUREMENTS™

GEOKON
48 Spencer Street
Lebanon, NH 03766 • USA

www.geokon.com
e: info@geokon.com
p: +1·603·448·1562

GEOKON is an
ISO 9001:2015
registered company