

Stainless Steel Drive-Point Piezometers

Model 615

The Model 615 Drive-Point Piezometer is designed as an affordable method to monitor shallow groundwater and soil vapor in suitable conditions.

The Drive-Points attach to inexpensive 3/4" (20 mm) NPT stainless steel drive pipe. The Drive-Points are designed for single use installations, and not for removal and reuse. Solinst Drive-Point Piezometers are most often installed as permanent well points. They can also be used for temporary, short term monitoring applications.

Higher quality samples can be obtained when polyethylene or PTFE-lined tubing is attached to the stainless steel drive-point. Groundwater sampling and hydraulic head measurements can be taken within the tubing using small diameter equipment, as described overleaf.

Solinst Drive-Point Piezometers can be driven into the ground with any direct push or drilling technology, including the Manual Slide Hammer shown at right. To avoid clogging or smearing of the screen during installation, a shielded version is also available.



Installing Piezometers with a Manual Slide Hammer



Model 615 Drive-Point and Shielded Drive-Point Piezometer

Applications

- Groundwater sampling, including VOCs
- Water level monitoring
- Base flow monitoring in stream beds
- Contaminant plume delineations
- Soil gas sampling
- UST monitoring
- Low cost and minimal disturbance site assessment
- Sparge points

High Quality Samples

Model 615 Drive-Point Piezometers have a stainless steel, 50 mesh cylindrical filter-screen, within a 3/4" (20 mm) stainless steel drive-point body, screen support and an optional fitting for attachment of sample tubing.

The 615 N or 615 SN, designed without a tubing barb, is to be used for water level measurements. This saves money and provides better access for Water Level Meters.



615 N

The 615 or 615 S has an inner barbed fitting for 5/8" OD x 1/2" ID (16 mm x 12 mm) LDPE or PTFE-lined sample tubing. This prevents sample water from contacting the extension rods, and maintains high sample integrity, even when inexpensive galvanized steel extensions are used.



615

The 615 C is ideal for soil vapor sampling. Where an air-tight connection is most desirable, the compression fitting option allows users to attach 1/4" (6 mm) sample tubing directly to the top of the screened portion of the drive-point.



615 C

The 615 S and 615 SN shielded drive-points have a single use, 1-1/2" (38 mm) dia. shield to avoid smearing and plugging of the screen during installation. The strengthened connector at the top of the drive-point acts as an annular seal, which avoids contamination from higher levels in the hole.



Sampling Within Narrow Diameters

Direct push sampling has quickly become a popular way to obtain groundwater samples. However, sampling within drive-points requires a narrow diameter sampler. Solinst offers several options for this specific sampling application.

Peristaltic Pump, Model 410

The Peristaltic Pump uses the suction lift principle. Suitable for 1/4" (6 mm) ID or larger diameters. The Peristaltic Pump provides a regulated and steady flow. It will lift water up to 32 ft. (10 m) at sea level.

Mini Inertial Pump, Model 404

The Mini Inertial Pump consists of a check valve and tubing that is rapidly raised and lowered to lift a sample. The Mini Inertial Pump suits wells as narrow as 3/8" (9.5 mm) ID and works to depths of 100 ft. (30 m).

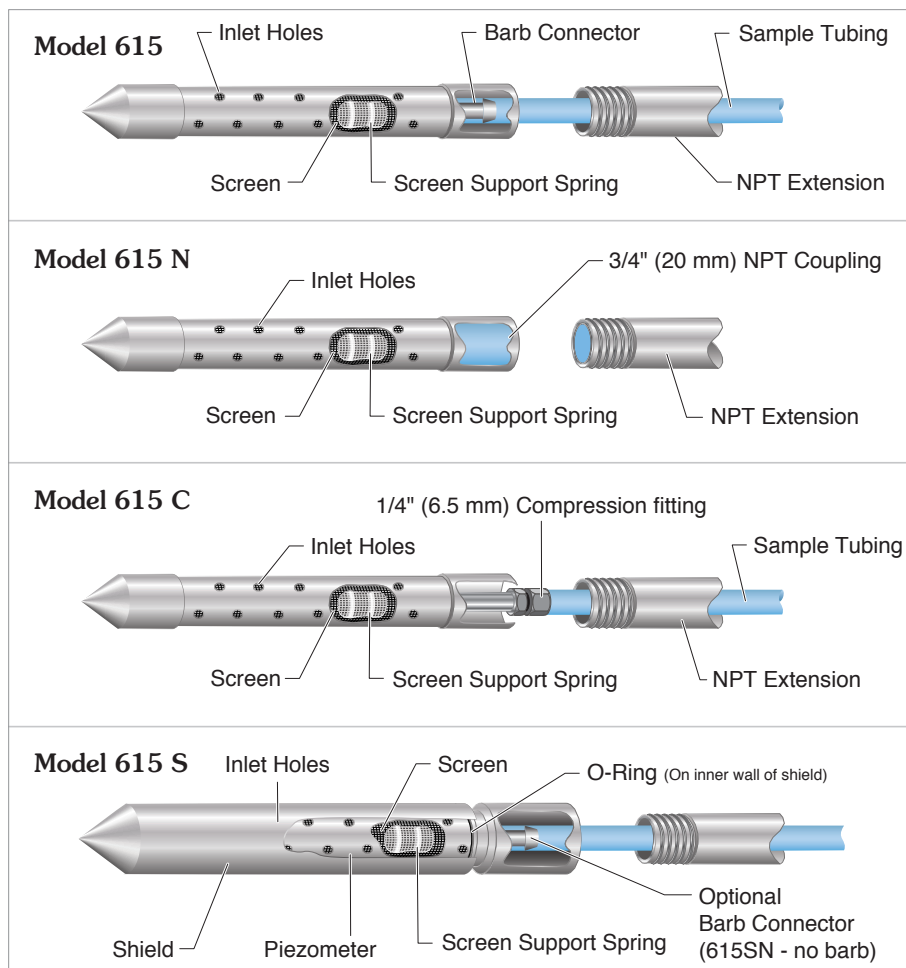
Miniature Point Source Bailer, Model 429

The 1/2" (12 mm) dia. stainless steel bailer works very well in the 615 N or 615 SN. The bottom emptying device permits a regulated, steady flow.

Hydraulic Head

Water levels can be measured in most of the Drive-Points described, using a Solinst 101 Water Level Meter, or 102 or 102M Mini Laser Marked Coaxial Cable Water Level Meter. 1" to 3/4" reducer couplings are available for installing a Levellogger in a section of 1" extension pipe (NPT and BSPT options).

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Solinst Drive-Point Piezometers are available in five different configurations; the 615 with a barbed fitting, the 615 N with no barbed fitting, the 615 C with a compression fitting, the 615 S with a barbed fitting and shield, and the 615 SN with a shield and no barbed fitting.

Manual Slide Hammer

To install Solinst Drive-Point Piezometers inexpensively, the Manual Slide Hammer can be used. The 21 lb (9.5 kg) slide hammer and all other equipment can easily be transported in a car or truck to most sites.

A heavy duty drive head is used, on which the slide hammer impacts, and a tubing by-pass ensures that the tubing does not get damaged during installation.

Accessories

Solinst supplies 3/4" (20 mm) NPT Delrin caps, and stainless steel couplings and extensions. These accessories can also be locally sourced at plumbing and hardware stores.

Depth Limitations

Drive-point Piezometers are not suitable for all sites. The depth limitations vary with soil conditions and the drive method used.