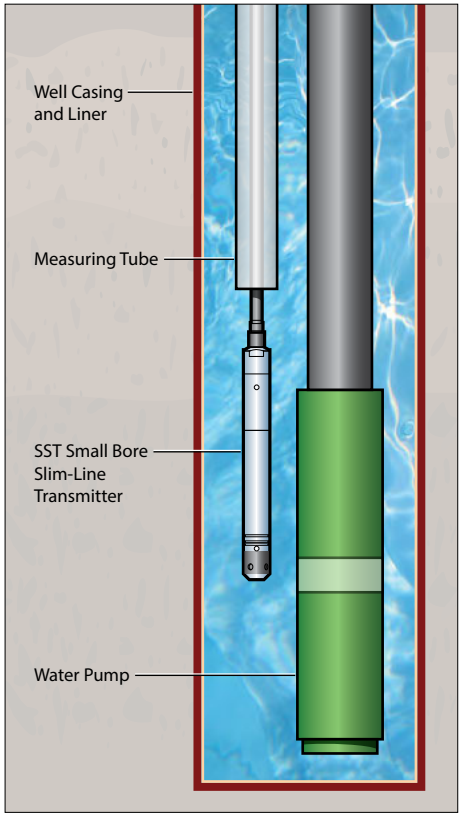
Level Measurement in Narrow Wells

Small bore wells like those in residential or small commercial settings present unique challenges for measuring and monitoring ground water levels. Their limited space and method of construction can introduce problems not found in wells with larger bores, and the source of those problems can usually be traced to three issues.



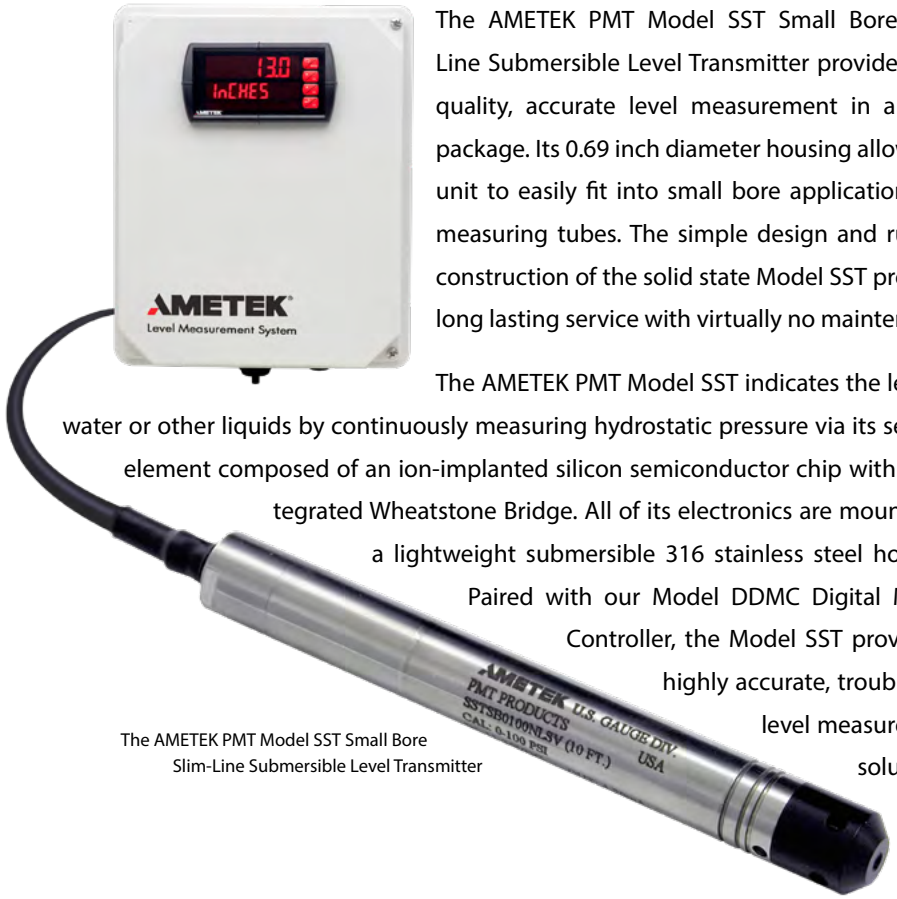
Liners: Well liners are usually installed to help prevent leaks that may form in the casing. If a well liner is present, the sensor must be inserted inside the liner, otherwise the sensor may return a false reading.

Obstructions: Small bore wells present a variety of opportunities for a sensor to become blocked or stuck in the well. Wiring, pumps, even rough joints in the casing and liner may cause the sensor to hang up.

Cascading Water: Water can sometimes enter the well above the static water level, and then drip or cascade down the borehole, causing the sensor to give a false reading.

To counteract these problems, a measuring tube is installed in the well. The measuring tube is typically a length of slotted ¾" PVC pipe, inserted through an access port in the well cap and running down through the casing and liner. Traditionally, because of the small inner diameter of the measuring tube, measuring devices have been limited to either a coaxial level meter (little more than a thin, round wire) or to a flat tape level meter (as the name implies, a flat, ¾" wide tape) both of which transmit a signal to a buzzer or alarm when they make contact with the surface of the water. While these solutions are functional, neither is capable of offering a high degree of level measurement.

An Accurate, High-Tech Alternative



The AMETEK PMT Model SST Small Bore Slim-Line Submersible Level Transmitter

The AMETEK PMT Model SST Small Bore Slim-Line Submersible Level Transmitter provides high quality, accurate level measurement in a small package. Its 0.69 inch diameter housing allows the unit to easily fit into small bore applications like measuring tubes. The simple design and rugged construction of the solid state Model SST provides long lasting service with virtually no maintenance.

The AMETEK PMT Model SST indicates the level of water or other liquids by continuously measuring hydrostatic pressure via its sensing element composed of an ion-implanted silicon semiconductor chip with an integrated Wheatstone Bridge. All of its electronics are mounted in a lightweight submersible 316 stainless steel housing. Paired with our Model DDMC Digital Meter/Controller, the Model SST provides a highly accurate, trouble-free level measurement solution.