

# Direct Push Analytical Corp.

## Prepacked Screen Monitoring Wells

Prepacked screens consist of a standard, slotted PVC well screen pipe surrounded by a stainless steel mesh. Sand is packed between the slotted PVC and the stainless steel mesh. Since the sand is packed around the slotted PVC before the well screen is installed, using prepacks guarantees that sand will be located directly around the well screen. This makes well installation quicker and more efficient than traditional methods.

Prepack well screens are available in two outside diameters... 1.4 inches OD (0.5 in. or 0.75 in. ID) and 2.5 inches OD (1.0 in. or 1.5 in. ID). To install a monitoring well with these prepacks, probe rods are first driven to depth with a direct push probing machine. The well assembly is then lowered into the probe rod string with threaded PVC riser pipe. The small diameter prepack well screen assembly uses 0.5-inch Schedule 80 PVC riser pipe and is installed with 2.125-inch OD probe rods. The larger diameter prepack well assembly uses 1.0-inch Schedule 40 PVC riser pipe and is installed with 3.25-inch OD probe rods.

Once the well assembly is lowered to the bottom of the probe rod string, the probe rods are retracted to a point above the screen. A sand barrier, installed directly above the well screen, prevents grout from entering the screens. This barrier can be created either by natural formation collapse (occurring during the initial probe rod retraction) or by gravity installation of fine-grade sand through the rod annulus. With the barrier in place, granular bentonite or bentonite slurry is then installed in the annulus to form a well seal.

### **Geoprobe® Small Diameter Monitoring Well Benefits include:**

- Quick and simple installation.
- Prepacked Screen designed with 20/40 grade environmental sand.
- No cuttings generated during installation.
- Meets all requirements of a RCRA well with exception of the smaller diameter.
- Permanent monitoring well installation with a Geoprobe® Machine.
- Well seal and grouting meet EPA and ASTM D-5092 method requirements.
- Minimal disturbance of natural formation conditions.
- Can be developed, purged, and sampled using inexpensive tubing check valve system.
- Minimal development and purge water generated for sampling reducing time requirements and disposal costs.
- Uses standard above-ground or flush-mount well protectors.

### **Regulatory Compliance**

Many state regulatory agencies have approved the use of prepacked screen wells installed by direct push methods, and more states are joining this movement on an almost daily basis. Likewise, many federal agencies have specified the installation of direct push prepacked screen wells for their permanent groundwater monitoring needs.

The U.S. Environmental Protection Agency has recommended the use of prepacked screens in their guidance document, "Expedited Site Assessment Tools for Underground Storage Tank Site," (EPA, 1997). Geoprobe® brand prepacks meet the requirements of ASTM Standards for the installation of prepacked screen monitoring wells (ASTM D6725-01).



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