Integrated Pump and Transducer for BESST ZIST Technology

Access water level in ZIST wells without a separate piezometer!

BESST’s integrated pump and transducer assembly installs a pressure transducer in-line with the Panacea Pump and the ZIST Receiver in order to measure aquifer pressure on a real-time basis. The pump and transducer are conjointly docked into the ZIST receiver, isolating the screened section from the well casing above while allowing the pump and transducer to communicate with the formation. Therefore, the ZIST transducer sees the changes in formation pressure on a continuous basis, as they are actually happening in the aquifer. The lag time between formational pressure changes and corresponding water level changes in monitoring wells is essentially eliminated.

System Advantages:

- Available for both Retro and Inline ZIST systems.
- Can be adapted to any ZIST diameter.
- Save on cost by not needing to install separate piezometer:
  - Lower drilling costs because borehole size is reduced
  - Well development costs are significantly reduced.
- Simplifies surface completion.

The BESST Panacea Pump and integrated pressure transducer are contained within the same housing that docks into the ZIST receiver, isolating the well screen. Water from the well screen can pass through the bottom of the housing, enabling the transducer to read the pressure within the screened section. The pump tubing and transducer cable exit the top of the housing through water-tight, sealed ports, maintaining the isolation of the well screen.

- Easily removed for servicing
- Adaptable to any ZIST receiver
- Compatible with any transducer

Figure 1 - Integrated transducer housing ready for deployment.

Figure 2- Schematic of the transducer housing docked in a ZIST receiver.