



Aztec Automated Well Pump Installations

Aztec Engineering Co., Ltd.



Installing Submersible Pump



Main Components:

- 3 phase submersible pump
- Flat electrical cable
- Column pipe
- Depth transducer
- Transducer tube
- Digital flow meter
- VSD inverter
- Control box
- Communication modules
- HMI display



Submersible Pump Installation



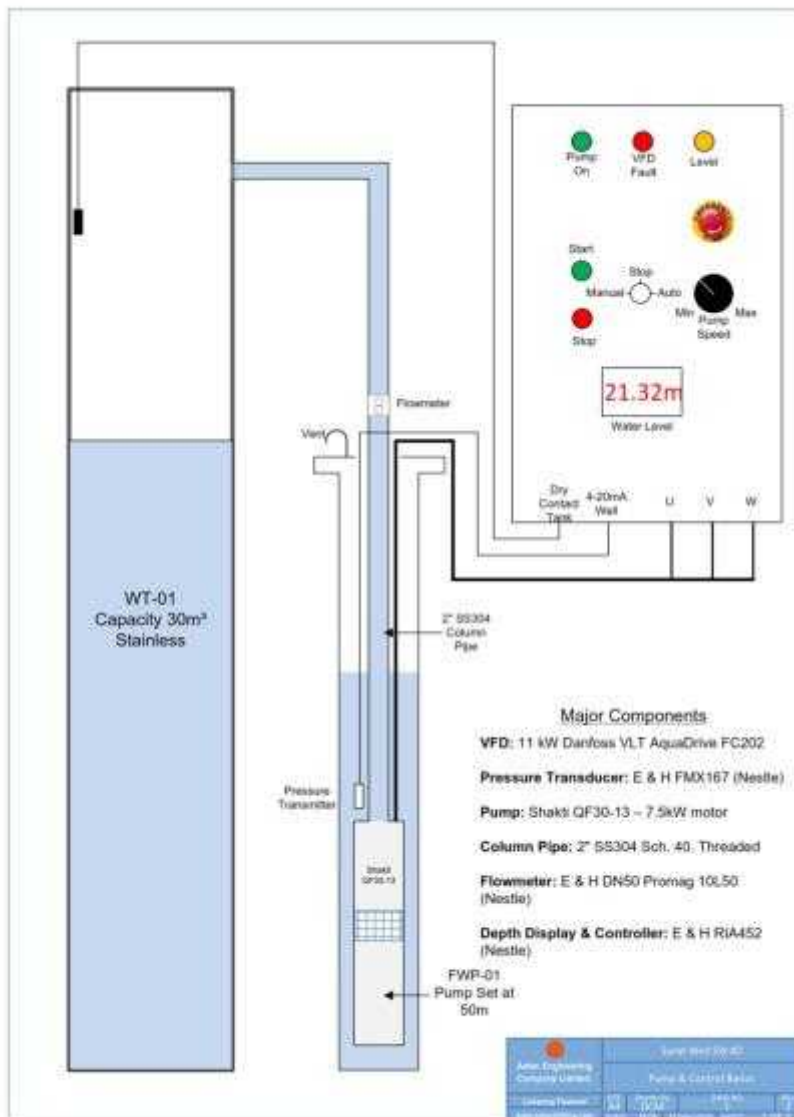
Column Pipe & Motor Cable



External flush pipe
with O-ring seals

Flat electric cable to reduce annular
space required





Typical factory installation showing control of pump from storage tank water level.



Typical local control cabinet with variable speed drive and water level readout



Submersible Pump Surface Controls

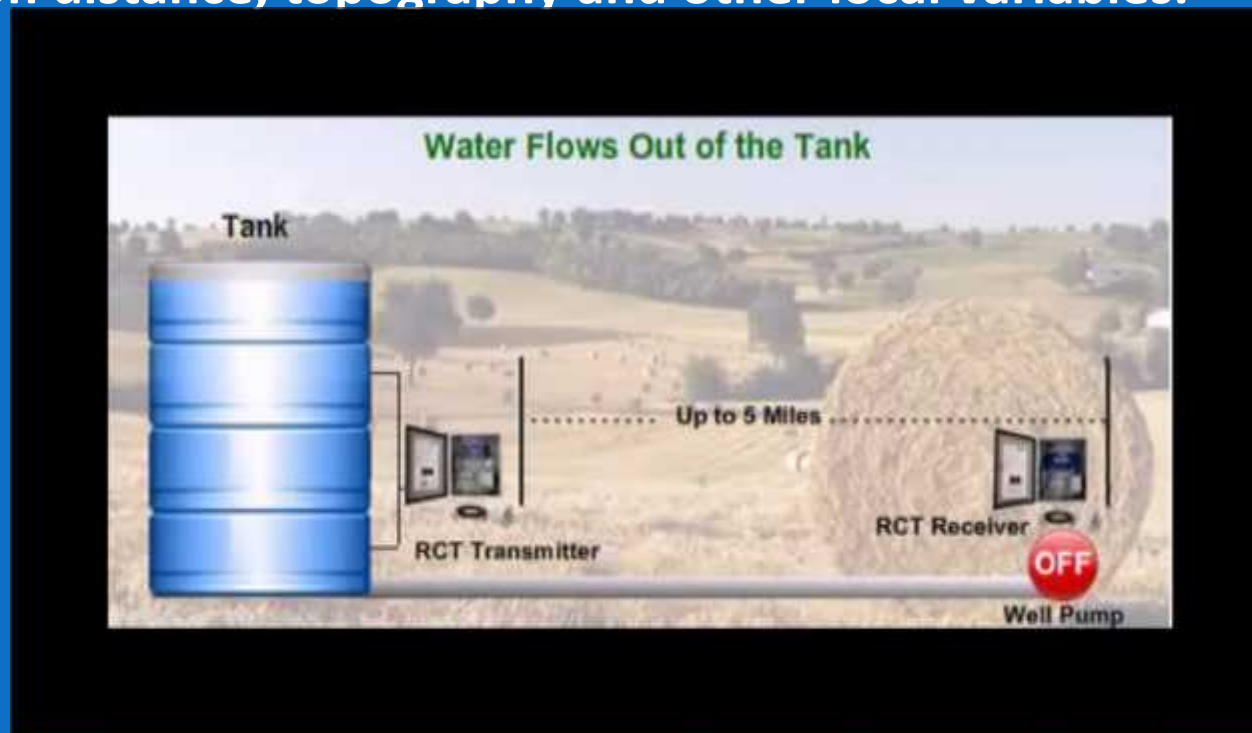


- Pumps can be controlled at central location, wellhead or both.
- Pumps are always soft start.
- Parameters that can be displayed are instantaneous flow rate, cumulative flow rate, well water levels, pressure or anything else where a transducer can be attached.
- Data can also be written to memory card.
- Recorded data can be interrogated via GSM if reliable network exists.
- Pump operation can be controlled according to flow rate, well water level, output pressure, time, storage levels or any other variables. These can be custom programmed into the system based on clients' application.
- Emergency shutdowns (and restarts) can be built into system for unexpected occurrences such as broken pipes, over pressure, excessive well drawdown etc.



Communication between well controls and central control room

Options can be radio, LAN cable, wifi or even bluetooth. Method will depend on distance, topography and other local variables.



Submersible Pumps & Motors



Shakti SS304 Pumps



Franklin High Temperature
or Shakti SS304 Motors



Pressure Transducer Installation



Thank You

Aztec Engineering Co., Ltd.

