

# Tank Distribution System

# K-A-UPT-XXX

## SPECIALTY WATER TECHNOLOGIES

### Ultra-Pure Technologies

**Function:** The 250 gallon LPE (Linear Polyethylene) tank and control system communicates with a Reverse Osmosis system to fill, store and deliver purified water through a tank and loop piping system.

**Materials:** 250 gallon LPE tank with Calibration Scale, Durable Tank Pedestal, Schedule 80 PVC Piping, The distribution components are mounted on a sturdy HDPE stand with a NEMA rated Control Enclosure. This includes a Color Touchscreen, Electronic Controls and a 2 or 3 Horse Power VFD Pump, Mounted on the tank are Non-intrusive level sensors, Loop Return Spray Ball, Permeate Sprayer, Flow Regulator, Visual Flow Meter and Disinfectant Injection Assembly with Static Mixer.

**Mechanics:** Requires 208-230 volt, single phase 20 AMP dedicated circuit with twist-lock receptacle.

With the use of non-intrusive level sensors installed on the tank, signals are communicated to the Reverse Osmosis machine to operate and produce purified water according to the water levels in the tank. A Variable Frequency Drive control is used to operate a 2 or 3 HP VFD Pump that delivers the purified water through the piping system at a controlled rate. The SWT Loop Pump VFD Controller utilizes a Variable Frequency Drive motor controller which quickly tunes to a set point and then maintains the loop velocity through the entire loop system.

Flow rates are easily verified and visualized through the GPM flowmeter attached to the loop return assembly. An injection port and static mixer are included for ease in the disinfection process. A 360 degree spray ball installed on the loop return aids in disinfection and prevents microbial proliferation in the tank. The vent filter assembly provides an adequate pressure stabilization to prevent tank implosion and prevents microbial and viral proliferation in the tank.

**User Quality Checks:** Routine inspection of the system is recommended. Follow all facility policies and protocols regarding this piece of equipment. Allow only adequately trained and qualified personnel to service this equipment.

*The tank and loop must be routinely disinfected according to facility and regulatory protocol. Ensure there are no patients dialyzing before disinfection is begun.*

Quarterly system should be inspected as follows:  
 Unplug from wall outlet and inspect plug for signs of electrical burn. Inspect plug for frayed wires. Repair and replace as needed. Inspect and clean fan vents on left side and bottom of control box. Ensure adequate ventilation. Wipe exterior and inspect pump for dust and debris accumulation on top of fan shroud. Keep fan shroud clean. Inspect and clean glass on flowmeter for visual clarity.

### Factors Effecting Operation:

Verify there is adequate water in storage tank.

Electrical Failure, pump should auto restart when electricity is restored.

Verify all valves in system are positioned correctly to prevent flow restriction



Specialty Water Technologies, Inc. (SWT) provides high quality, innovative water purification systems, components and supplies primarily in the medical/dialysis market. A FDA 510k company SWT is dedicated to high quality equipment manufacturing with exemplary customer service and satisfaction. The owners and employees of SWT have a diverse background of medical, dialysis, manufacturing and business management expertise.