



## DELIVER EXTREMELY CLEAN WATER TO YOUR ULTRASONIC HUMIDIFICATION EQUIPMENT

Ultra Pure Systems Reverse Osmosis and Deionization (RODI) use a five-stage process to remove harmful substances such as heavy metal ions and total dissolved solids from standard city water. This process will convert city water to a stable 0-2 PPM suitable for Ultrasonic Humidification.

Neatly packed in a 1/2" welded HDPE (high density polyethelene) plastic, light weight and corrosion resistant cabinet with single point user connection for any RODI application. At a glance, you can be assured with our bright LED display, quality DI water is protecting your investment. If a problem occurs, display turns RED, accompanied by an audible alarm.

Optimize your system's performance with our unique Query Code System. Simple, friendly no cost mobile application for customers to manage routine filter maintenance.

### Benefits:

- Eliminate system shut down due to consumed filters
- Automatically generate emails when filters are expired
- Live factory support and tutorials
- Predictable data budgeting filter costs
- No contracts or licensing fees

Submittal 2019rev9.23

## System Summary - UPS 150

5 Stage Reverse Osmosis Deionization process. The final purity of the water leaving the RO/DI System is between 0-2 PPM.

This Systems flow is rated at **150 gpd** +/- 15% based on 77 degree water, 100 psi applied pressure. 500 ppm NaCl softened filtered water.

Feed Pressure	Operating Temperature	Electrical / FLA	Amp Max	Dry Weight	Total Weight
<b>35-125 psi</b>	<b>34 - 110° F</b>	<b>120 VAC/60Hz 2.9</b>	<b>MFS 15</b>	<b>92lbs</b>	<b>127lbs</b>

## Stage 1 : Sediment Filter

Engineered to expanded volume and higher flow rates for commercial applications such as equipment protection and water polishing. Each filter is pretested for maximum pressure and temperature.

<b>Quantity Per Unit</b>	<b>1</b>
<b>Model Number</b>	<b>UPS SED-5M</b>
<b>Filter Dimensions</b>	<b>3.125" OD x 2.875" ID x 10" L</b>
<b>Rating</b>	<b>5 Micron</b>
<b>Max Operating Pressure</b>	<b>125 PSI</b>
<b>Operating Temperature</b>	<b>40 - 100F</b>

### Features and Benefits:



- Protect equipment from hard water
- Large 3.5" W x 10" or 15" lengths
- Capacities of up to 20,000 gallons
- Hefty flow rates up to 2 gal/min
- Two piece bayonet style replacement
- Best cost to performance ratio in the industry

**Test Information:** Housings and fittings have been tested for performance to NSF Standard 42. Tests included Hyrdo Static Testing at 300 psig and Cycle Testing of 100,000 repetitions from 0 to 150 psig. Filters have been tested and listed under Standard 42 for odor, and chlorine reduction; or particulate reduction; or have been materials certified. All filters should be installed on cold water lines. **Note:** Activated carbon filters are not intended to be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit.

**Warranty Information:** Filters are warrantied to be free from any defects in workmanship or materials. Further, the warranty provided applies, only when used with the product specifications and service life, from the date of install or 5 years from the date of manufacture whichever occurs first, beyond which time or use Ultra Pure Systems is absolved of any and all liability for any use of the product.

## Stage 2 : Carbon Filters

Engineered to expanded volume and higher flow rates for commercial applications such as equipment protection and water polishing. Each filter is pretested for maximum pressure and temperature.

<b>Quantity Per Unit</b>	<b>2</b>
<b>Model Number</b>	<b>UPS CH-10M</b>
<b>Filter Dimensions</b>	<b>3.125" OD x 2.875" ID x 10" L</b>
<b>Rating</b>	<b>10 Micron</b>
<b>Max Operating Pressure</b>	<b>125 PSI</b>
<b>Operating Temperature</b>	<b>40 - 100F</b>

### Features and Benefits:



- Protect equipment from hard water
- Large 3.5" W x 10" or 15" lengths
- Capacities of up to 20,000 gallons
- Hefty flow rates up to 2 gal/min
- Two piece bayonet style replacement
- Best cost to performance ratio in the industry

**Test Information:** Housings and fittings have been tested for performance to NSF Standard 42. Tests included Hyrdo Static Testing at 300 psig and Cycle Testing of 100,000 repetitions from 0 to 150 psig. Filters have been tested and listed under Standard 42 for odor, and chlorine reduction; or particulate reduction; or have been materials certified. All filters should be installed on cold water lines. **Note:** Activated carbon filters are not intended to be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit.

**Warranty Information:** Filters are warranted to be free from any defects in workmanship or materials. Further, the warranty provided applies, only when used with the product specifications and service life, from the date of install or 5 years from the date of manufacture whichever occurs first, beyond which time or use Ultra Pure Systems is absolved of any and all liability for any use of the product.

## Stage 3 : Membrane Filter

TLC Membrane Elements. Thin layer composite membranes use an industry leading state-of-the-art TLC Membrane providing high quality water for a broad range of water chemistries. Each Membrane is required to meet a strict performance requirement prior to shipment.

<b>Quantity Per Unit</b>	<b>2</b>
<b>Model Number</b>	<b>UPSGR075</b>
<b>Filter Dimensions</b>	<b>2.5" OD x 15.14" L</b>
<b>pH Range</b>	<b>4 - 11</b>
<b>Max Operating Pressure</b>	<b>125 PSI</b>
<b>Operating Temperature</b>	<b>40 - 120F</b>

### Features and Benefits:



- Thin layer composite membrane
- High rejection stability at high TDS input
- Double the recovery over standard RO elements
- 100% dry membrane maximizing shelf life
- Eligible for NSF data transfer
- Industry best 1 to 1 rejection rate

**Test Information:** The thin layer composite membrane filters have been tested for performance to NSF Standard 42. Filters and membrane elements are not to be installed on microbiologically unsafe water supplies. TLC Membranes are not certified to sanitize water, remove cysts, bacteria or viruses. Filters and membrane element performance can be affected by flucuations in warter quality.

## Stage 4 : Deionization Filtration

Mixed bed high capacity Type 1 Deionization resin is a mixture of hydroxide form Type One strong base gel anion exchange resin and hydrogen form strong acid sulfonated gelular polystyrene cation exchange resin.

<b>Capacity</b>	<b>.33 CuFt</b>
<b>Model Number</b>	<b>UPS-DI75GPD</b>
<b>Filter Dimensions</b>	<b>8.5" OD x 21" T</b>
<b>Inlet / Outlet Size</b>	<b>3/8"</b>
<b>Max Operating Pressure</b>	<b>150 PSI</b>
<b>Operating Temperature</b>	<b>40 - 150F</b>

### Features and Benefits:



- Reinforced composite tank
- Low Amine Oder (fishy order)
- High operating capacity
- Ease of changing out tanks

**Capacity Example:** Water at 100 ppm equals approximately 5.85 grains per gallon (GPG). At this level 1 cubic foot of DI resin will produce approximately 2,735 gallons of permeate water.

Typical tap water in the state of Arizona is between 300-750 ppm depending on variables such as location and time of year. Water at a level of 300 ppm equals 8.77 GPG which will allow .5 cubic feet of DI resin to produce approximately 456 gallons of permeate water. When water is passed through a prefilter reverse osmosis system the typical ppm output for Arizona water is approximately 20-50 ppm. At a level of 20 ppm .5 cubic feet of DI resin will produce approximately 6837.5 gallons of permeate water

## Stage 5 : Ultra Violet Light Sterilization

Ultra violet sterilization systems are a reliable, economical and chemical-free way to safeguard against microbiological contaminants in any water treatment application.

<b>Disinfection Flow Rate</b>	<b>1 GPM</b>
<b>Model Number</b>	<b>UPS-UWT1</b>
<b>Filter Dimensions</b>	<b>2.5" OD x 12.5" T</b>
<b>Connection Size</b>	<b>3/8"-1/2" Combo NPT</b>
<b>Weight</b>	<b>4lbs</b>
<b>Max. Current</b>	<b>.28A Max</b>
<b>Max Operating Pressure</b>	<b>125 PSI</b>

### Features and Benefits:



- Stainless steel reactors
- Exceeds NSF standards
- Visual "Power On" indicator
- Low cost maintenance
- Quartz bulb sleeve

To ensure ongoing disinfection of your water, UV lamps need to be replaced annually with VIQUA factory-supplied replacements. VIQUA lamps are the result of extensive development resulting in a highly efficient disinfection platform with extremely stable UV output over the entire 9000 hour lifetime.



## Additional System Components

### Product Water Storage Tank

RODI permeate water storage tank, made of superior materials and meeting the stringent standards of NSF 58. s. At the heart of the tank is a 100% butyl rubber diaphragm that has been post cured to eliminate any unwanted odors. Combined with a polypropylene liner it keeps system water contained in a sealed water chamber. A double gasketed stainless steel connection assures the integrity of the water treatment system.

<b>Total Volume</b>	<b>14 Gallons</b>
<b>Total Capacity</b>	<b>10 Gallons</b>
<b>Dimensions</b>	<b>15.2" OD x 22.5" T</b>
<b>Connection Size</b>	<b>1/4" Stainless Steel MPT</b>
<b>Weight</b>	<b>24lbs</b>
<b>Max Operating Pressure</b>	<b>125 PSI</b>

#### Features and Benefits:

- Steel construction
- Exceeds NSF and ANSI standards
- Polypropylene Liner
- Enhanced bottom dome
- Rugged Poly Base
- 100% Butyl Diaphragm



### Dual Display PPM Controller

The dual display PPM controller allows for continuous and simultaneous monitoring and controls of the PPM levels on two different water lines for high output commercial systems. The dual display controller also has a large, bright LED display as well as internal alarm that will sound if PPM level rises above the user-set level for both lines.

<b>Range</b>	<b>0 - 999 ppm</b>
<b>Accuracy</b>	<b>+/- 2%</b>
<b>Dimensions</b>	<b>3.7" x 3.7" x 4.9"</b>
<b>Power Supply</b>	<b>AC 110V</b>
<b>Weight</b>	<b>2lbs 1.1oz</b>
<b>Conversion Factor</b>	<b>NaCl (avg 0.5)</b>

#### Features and Benefits:

- Simultaneous monitoring and control
- Exceeds NSF standards
- Large, bright LED display
- Internal audible alarm based on user set points
- Dry contacts for equipment relay control (24VDC Required)



## John Guest LLDPE Tubing

The John Guest PE range of plastic tubing is produced in Linear Low Density Polyethylene for cold and intermittent hot water applications. The tubing provides the benefits of a wide range of temperature and pressure suitability, broad chemical compatibility and is made from non-contaminating materials. LLDPE is more robust than traditional low or medium density polyethylene and is recommended for use with cold and intermittent hot water. The tubing is made from FDA compliant materials and is NSF International certified.

<b>Tube Tolerances</b>	<b>1/4" - 1/2" : +0.001/-0.004</b>
<b>Max Temperature</b>	<b>150°F</b>
<b>Tube Dimensions</b>	<b>1/4" OD - .170" ID</b>
<b>Tube Dimensions</b>	<b>5/16" OD - .187ID</b>
<b>Weight</b>	<b>2lbs 1.1oz</b>
<b>Conversion Factor</b>	<b>NaCl (avg 0.5)</b>

Internal Tubing Color Key			
<b>Black</b>	<b>Reject</b>	<b>Red</b>	<b>Deionized</b>
<b>Blue</b>	<b>Reverse Osmosis</b>	<b>Yellow</b>	<b>Incoming City</b>

### Features and Benefits:



- FDA compliant materials
- Broad chemical compatibility
- Made from all non-contaminating materials
- Stronger than standard polyethylene tubing
- NSF International certified.

## John Guest "push-fit" Fittings

John Guest fittings are manufactured in grey and black acetal copolymer with RED safety clips attached to each fitting.

<b>Standard Sizes</b>	<b>5/32" 3/16" 1/4" 5/16" 3/8" 1/2"</b>
<b>Max Pressure 3/16" - 5/16"</b>	<b>232psi</b>
<b>Max Pressure 3/8" - 1/2"</b>	<b>145psi</b>
<b>Max Temperatures</b>	<b>-2° - 149° F</b>

### Features and Benefits:



- Push-fit technology
- Suitable for soft metal or plastic tubes
- Suitable for air or inert gases
- Superior flow characteristics
- Quick disconnection without the need for tools

## Diaphragm Pump Integral of Cabinet

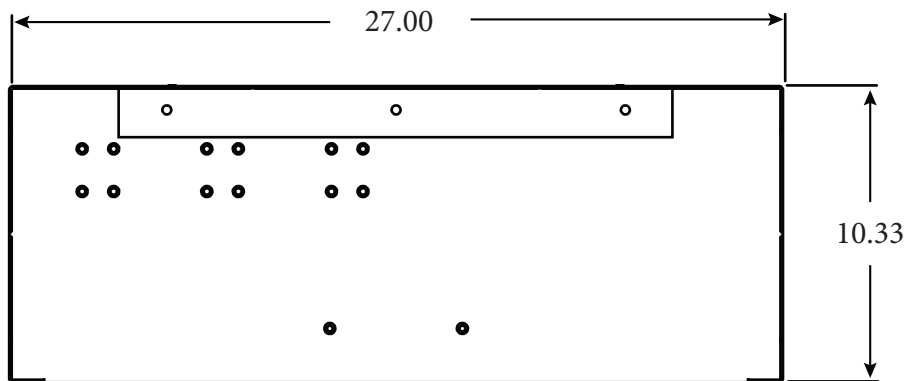
<b>Weight</b>	<b>6 lbs</b>
<b>Dimensions</b>	<b>7.28" x 3.68" x 3.50"</b>
<b>Max Inlet Pressure</b>	<b>60psi</b>
<b>Max Water Temperature</b>	<b>170° F</b>

### Features and Benefits:

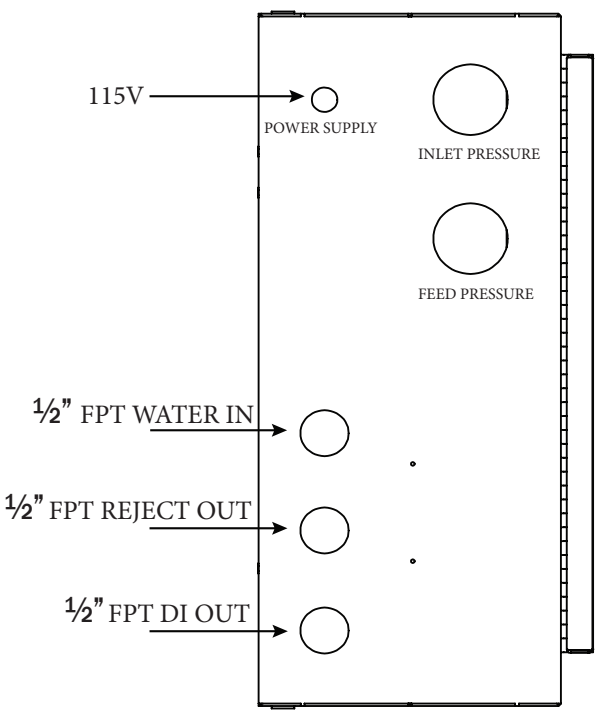


- Compatible Push-fit technology
- 3 Chamber Diaphragm Pump
- Self Priming
- NSF Standard 58
- Increased Membrane Efficiency
- Increase Pressure approx +/- 20psi

**TOP**



**SIDE**



**FRONT**

