



DELIVER EXTREMELY CLEAN WATER TO YOUR ULTRASONIC HUMIDIFICATION EQUIPMENT

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

Neatly packed in a 100% aluminum, 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. A simple, friendly, powerful, no cost mobile application for customers to manage routine filter maintenance from anywhere on-site or remotely.

Benefits:

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

System Summary - UPS 400

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 400 gpd +/- 15% based on 77 degree water, 100 psi applied pressure.

Feed Pressure	Operating Temperature	Electrical Rating	Amp Max	Dry Weight	Total Weight
35-125 psi	34 - 110° F	120 VAC/60Hz	MFS 20	280 lbs	315 lbs

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.

Quantity Per Unit	1
Model Number	UPS SED-XL 5M
Filter Dimensions	3.125" OD x 2.875" ID x 17.5" L
Rating	5 Micron
Max Operating Pressure	125 PSI
Operating Temperature	40 - 100F

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.

Quantity Per Unit	2
Model Number	UPS CH-XL 10M
Filter Dimensions	3.125" OD x 2.875" ID x 17.5" L
Rating	10 Micron
Max Operating Pressure	125 PSI
Operating Temperature	40 - 100F

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

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Stage 3 : Membrane Filter

Polyamide thin-film composite membranes are one of the industry's most reliable and highest performing reverse osmosis elements. The high flow membranes are available in all standard commercial sizes and feature a protective ABS shell. Advanced membrane technology and manufacturing processes ensure high quality and performance.

Quantity Per Unit	1
Model Number	UPS HF4-2521
Filter Dimensions	2.4" OD x 21" L
pH Range	2 - 11
Max Operating Pressure	600 PSI
Operating Temperature	40 - 113F

Features and Benefits:



- Polyamide thin-film composite membrane
- Available in all standard commercial sizes
- Protective ABS hard shell
- Stainless steel housing
- Meets and exceeds NSF standards
- Half the operating pressure of standard high rejection membranes

Test Information: 550 TDS Filtered (5 Micron), De-chlorinated, Municipal Feed Water, 77°F, 15% Permeate Recovery, 6.5 - 7.0 pH range, at the specified operating pressure. Data taken after 30 minutes of operation. Maximum pressure drop for each element is 15 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.

Stage 4 : Deionization Filtration

Mixed bed high capacity Type 2 Deionization resin is a mixture of hydroxide form strong base gel anion exchange resin and hydrogen form strong acid sulfonated gelular polystyrene cation exchange resin.

Capacity	.66 CuFt
Model Number	UPS-DI400GPD
Filter Dimensions	8.5" OD x 36" T
Inlet / Outlet Size	3/8"
Max Operating Pressure	150 PSI
Operating Temperature	40 - 150F

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.

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

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 OEM factory-supplied replacements. OEM 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.

Model Number	UPS-ROM40
Total Capacity	40.3 Gallons
Dimensions	16" OD x 56.75" T
Connection Size	1" Male NPT
Weight	30lbs
Max Operating Pressure	125 PSI

Larger capacity (60, 80 Gallon) water storage tanks available for this model upon request.

Features and Benefits:

- Discharges in any position
- Exceeds NSF and ANSI standards
- Polypropylene Liner
- Fiberglass-wound and epoxy resin sealed outer shell
- Environmentally safe, 100% lead-free
- 100% seamless composite construction



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 the PPM level rises above the user-set level for both lines.

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

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.

Tube Tolerances	1/4"- 1/2" : +0.001/-0.004		
Max Temperature	150°F		
Tube Dimensions	1/4" OD - .170" ID		
Tube Dimensions	5/16" OD - .187ID		
Weight	2lbs 1.1oz		
Conversion Factor	NaCl (avg 0.5)		
Internal Tubing Color Key			
Yellow	Blue	Black	Red
Incoming City	Reverse Osmosis	Reject	Deionized

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.

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

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

Advanced System Controller

Ultra Pure Systems Advanced System Controller provides high-end RO control in a compact aluminum electrical cabinet (UL listed option available). System automatically operates to maintain pressure in storage tank between 40-60psi. If water is detected within cabinet, controller shuts inlet water valve and annunciates an alarm. Atmospheric tank available if required. Displays current water temperature, City & RO PPM, rejection rates and run time.

Inlet pressure switch	Normally-Open
Pretreat lockout	Normally-Open
Dimensions	10"W x 7"D x 12"L
Power Supply	120v 60Hz
Permeate Conductivity	0-1500* PPM, 0-3000 µs
Feed Conductivity	0-3000* PPM, 0-6000 µs
Amperage	MFS 20A - MCA 16A - SCCR 5KA

Features and Benefits:



- Smart interface with 4 line bright LCD
- Fused at international standards
- Stationary high current wiring
- UL Listed (upon request)

Motor and Rotary Vane Pump



The Ultra Pure 400 GPD system comes equipped with a split-phase induction motor used for hub-mounted pump applications. Stainless Steel AISI rotary vane pump directly-mounted to the motor via a stainless steel clamp. Auto thermal protection helps prevent pump damage from overheating. The direct-mounted volumetric pump is specifically designed for pumping water and aggressive liquids with low flow at high pressure. The pump housing and rotor are stainless steel while the pumping chamber and vanes are carbon graphite.

Motor Features and Benefits:

- Low amp draw design for 115V/60Hz operation
- UL recognized and CSA Certified
- High starting and breakdown torque
- Continuous duty at nameplate ratings

Pump Features and Benefits:

- AISI 303 Stainless steel housing and rotor
- Carbon graphite pumping chamber and vanes
- Direct-mounted motor connection via SS clamp

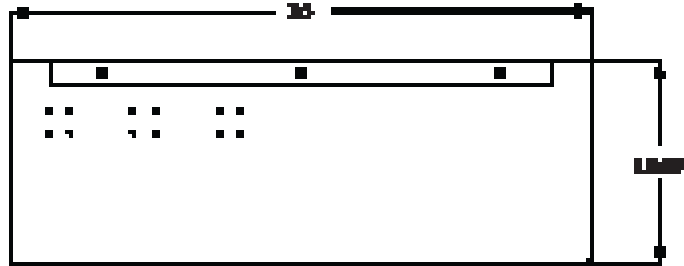
Motor Specifications	
Power Output	.75 HP
Voltage	120v
RPM Range	1701 -1800
Pump Specifications	
Max Operating Pressure	230 psi/up to 16 bar
Inlet/Outlet Port Size	3/8" NPT
Flow Rate	18 to 140 GPH at 1725 rpm



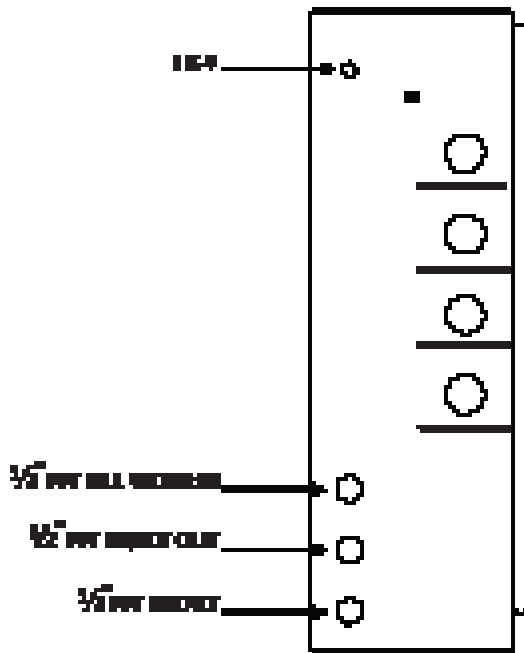
ultra pure
SYSTEMS

UPS 400

TOP



SIDE



FRONT

