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RODI 7500

DELIVER EXTREMELY CLEAN WATER TO CRITICAL PROCESS EQUIPMENT

UltraPure 7500GPD Reverse Osmosis Systems is contained in a sleek industrial grade cabinet with single point connections for ease of installation and placement virtually anywhere. Each unit has an integral 5-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 consistently higher purity level, suitable for multiple types of humidifiers and applications. (DI tank resides outside of cabinet)

Neatly packed in a sturdy 1/2" welded high density polyethylene plastic cabinet with a hinged door makes this single point connection system ideal for most RO/DI applications. With our advanced system controller you can monitor City, RO and DI PPM water quality at a glance via a highly visible aqua blue and red illumination on the front of the cabinet. Aqua Green indicating proper water quality and Red indicating an alarm condition, such as water quality no longer being within acceptable range. Serving AND protecting your process and equipment investment.

Maintain and optimize your system's performance with our unique Query Code System. As a standard part of every system, this simple, friendly, powerful, no cost mobile application enables customers to manage routine filter maintenance from anywhere, including 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

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System Summary - UPS 7500

5 Stage Reverse Osmosis Deionization process.

This Systems flow is rated at **7500 gpd** +/- 15% based on 77 degree water, 100 psi applied pressure. 500 ppm NaCI softened filtered water.

Feed Pressure	Operating Temperature	Electrical Rating	MFS/FLA	Dry Weight	Oper. Weight
60-125 psi	34 - 110° F	208- 230/1/60Hz	20 / 7.2	390 lbs	475 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	UPF_4283
Filter Dimensions	4.5” OD x 20” L
Rating	5 Micron
Max Operating Pressure	125 PSI
Operating Temperature	40 ° - 100 ° F

Features and Benefits:

- Protect equipment from hard water damage
- Hefty flow rates up to 7 gal/min
- Two piece spin off filter
- 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 micro-biologically 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 not liable of any and all liability for any use of the product.

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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	**UPF_4284**
Filter Dimensions	**4.5" OD x 20" L**
Rating	**10 Micron**
Max Operating Pressure	**125 PSI**
Operating Temperature	**40 ° - 100 ° F**

Features and Benefits:

- Protect equipment from hard water damage
- Hefty flow rates up to 7 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 micro-biologically 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 not liable of any and all liability for any use of the product.

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	**3**
Model Number	**UPF_5301**
Filter Dimensions	**4" OD x 40" L**
pH Range	**2 - 11**
Max Operating Pressure	**150 PSI**
Operating Temperature	**40 ° - 113 ° F**

Features and Benefits:

- Polyamide thin-film composite membrane
- Available in all standard commercial sizes
- Protective ABS hard shell
- 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%.

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Stage 4 : 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	**5.5 GPM**
Model Number	**UPV_7292**
Filter Dimensions	**2.5" OD x 17.5" T**
Connection Size	**1/2" NPT**
Weight	**6lbs**
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.

Stage 5 : 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.

*** *DI Resin Tank must set outside of aluminum cabinet.**

Capacity	**2.2 CuFt**
Model Number	**UPF_6294**
Tank Dimensions	**10" OD x 54"**
Inlet / Outlet Size	**3/4"**
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

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Additional System Components

Product Water Storage Tank

RO permeate water storage tank, made of superior materials and meeting the stringent standards of NSF 58. 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	**UPT_9294**
Total Capacity	**120 Gallons**
Dimensions	**26" OD x 61" T**
Connection Size	**1 1/4" Male NPT**
Weight	**154 lbs**
Max Operating Pressure	**125 PSI**

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

Larger capacity (120 Gallon Pressurized, 305 Gallon Atmospheric) water storage tanks available for this model upon request.

Dual Display PPM Controller

The dual display PPM controller allows for continuous and simultaneous monitoring and control of the PPM levels on two different water lines for high output commercial systems. The dual display controller also has a large LED display as well as audible alarm that will sound, drawing quick attention if the PPM level rises above the user defined level and will close dry contacts to the building management system for both lines. In addition to the controller alarms, the onboard "*Ultra Pure*" LED will also change illumination color from aqua blue to red if the unit rises above set point.

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

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John Guest LLDPE Tubing

The John Guest PE range of plastic tubing is produced in Linear Low Density Polyethylene (LLDPE)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 - 0.170" ID**
Tube Dimensions	**1/2" OD - 0.375ID**
Weight	**2lbs 1.1oz**
Conversion Factor	**NaCl (avg 0.5)**

Internal Tubing Color Key

Yellow	Blue	Black	Red
Incoming City	Reverse Osmosis	Reject	DI

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 gray and black acetal copolymer with RED safety clips attached to each fitting.

Standard Sizes	¼" ½" ¾"
Max Pressure 3/16" - 5/16"	**232psi**
Max Pressure 3/8" - ½"	**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

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Advanced System Controller

The onboard Ultra Pure Systems advanced system controller provides high-end RO control features in a compact, economical package. Outfitted with a dedicated high pressure switch input, alarm relay output and a large hinged UL certified (optional) enclosure to accommodate motor contactors, disconnects and fuse blocks the controller provides precise performance with less hassle. Developed with reliability and quality and reliability in mind the advanced system controller offers best in class controls sophistication not found in other entry level RO controllers.

Inlet pressure switch	Normally-Open
Pretreat lockout	Normally-Open
Dimensions	10”W x 7”D x 12”L
Power Supply	230v
Permeate Conductivity	0-1500* PPM, 0-3000 µs
Feed Conductivity	0-3000* PPM, 0-6000 µs
Amperage	MFS 20A - MCA 17.5A - SCCR

Features and Benefits:

- Common sense interface with 4 line bright LCD
- Fully fused at international standards
- Power supply operates on varying voltages
- Stationary high current wiring
- UL Listed

Motor and Booster Pump

Ultra Pure 7500 GPD system comes equipped with a NEMA 56J motor in open drip proof case attached to a high pressure multi stage Flint & Walling. Centrifugal pump design permits selection of flow within a range. Factory tested to 100psig. Field adjustments may be required due to unknown local city pressure.
230v/1ø operation required for motor operation.

Motor Specifications	
Power Output	2 HP
Voltage	230v 1ø/60Hz
RPM Range	1701 -1800
Pump Specifications	
Max Operating Pressure	230 psi/up to 16 bar
Inlet/Outlet Port Size	3/4” Inlet 3/4” Outlet
Flow Rate	18 GPH at 3450 rpm

Motor Features and Benefits:

- Low amp draw design for 230V/1ø/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-drive motor and pump integral of system

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Aux RODI Inlet Booster Water Pressure Pump

In the event that incoming domestic water supply pressure to the RODI cabinet is below 50 psi, UltraPure Systems supplemental booster pump is an available option and should be included as part of the overall system configuration. 60 psi is the published recommended minimal pressure that should be delivered to the RODI cabinet for ensuring continuous operation. 50 psi is the lowest acceptable pressure, below which the optional auxiliary pump should be applied. Without maintaining 50 psi minimum pressure to the inlet of the RODI cabinet can lead to a disruption in the ongoing operation and a loss of purified water supply to critical processes.

This variable speed pump is external to the RODI cabinet and is designed for simple plug-n-play installation. Standard 230v operation with receptacle plug included. (not to be confused with the RODI cabinet's own internal pump for properly pressurizing the RO membrane.) This pump sits right beside the cabinet for convenience and using the same duplex power outlet. Variable speed capability enables this pump to be adaptive for use across multiple RODI cabinet sizes as a facility's water purification capacities grow or fluctuate. Consult UltraPure Systems for more information and assistance in determining the need for and selecting this auxiliary pump option.

Motor Features and Benefits:

- Low amp draw design for 230V/1ø/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-drive motor and pump integral of system

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