

## Hyperpure Double Pass Reverse Osmosis System

Hyperpure double pass reverse osmosis system is a truly industrial grade water purification system built for the most demanding industries such as the microelectronics, the biotechnology and the pharmaceutical manufacturing.

When system downtime is costly to you, when production can not be interrupted due to a water treatment system failure, go for the most reliable water system.

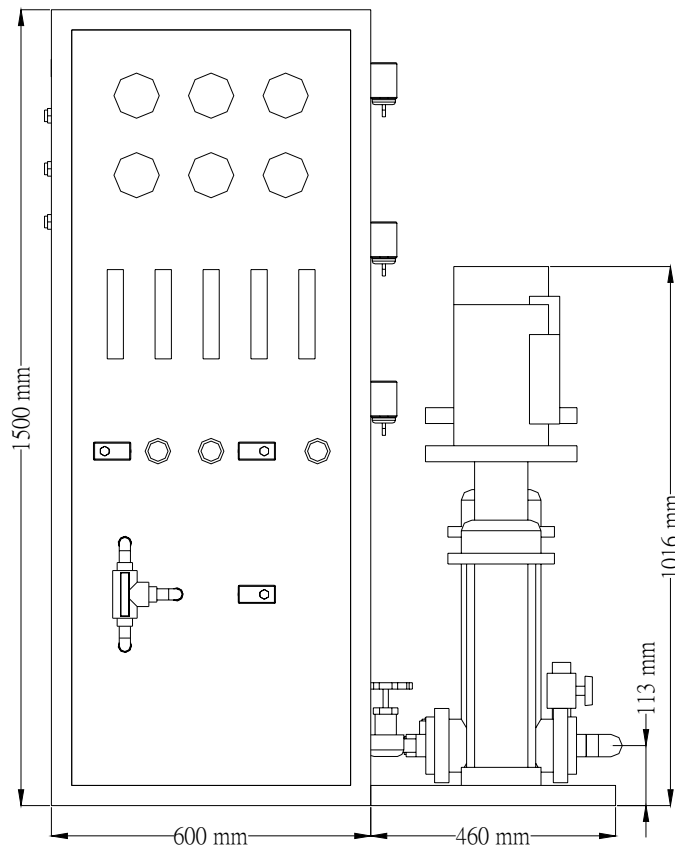
Puritron combined many years of industrial RO system design and field experience with state-of-the-art technologies to build a unique RO system for those who care about their pure water requirements.



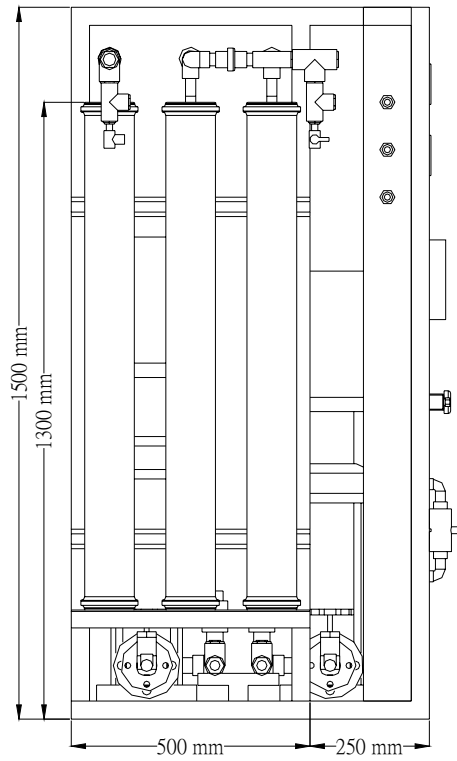
**Double Pass Reverse Osmosis – DP RO-500**

## Standard Features

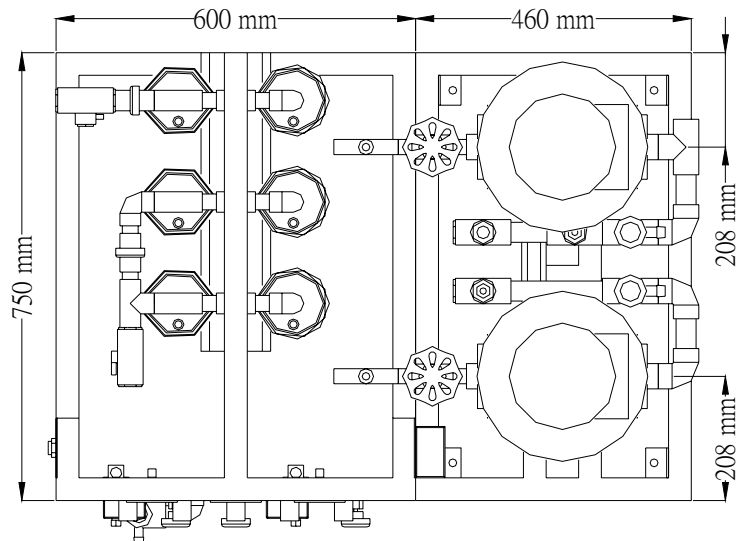
- Feed water shut off valve for automatic control of feed water supply to the RO system.
- Low feed water pressure shut down for the first pass RO pump.
- Low feed water pressure shut down for the second pass RO pump.
- High permeate pressure shut down for the first pass RO.
- SS 316 glycerin filled pressure gauges for both feed and reject pressure.
- First and second pass RO reject recycle for conservation of feed water.
- Rotameters for first pass RO permeate, reject and recycle flow rate.
- Rotameters for second pass RO permeate, and recycle flow rate.
- Auto flush upon high level, at fixed interval and at time of system standby.
- Auto rinse of second pass RO membranes upon start-up.
- Diversion of sub-standard second pass RO permeate to first pass RO feed or to drain.
- IP 54 control enclosure for electrical components.
- Programmable Logic Controller for maximum flexibility.
- Interface for raw water booster pump and RO permeate tank level control.
- Conductivity monitor for first and second pass RO permeate.
- Cleaning ports for both first and second pass RO membranes.



**Front View**



**SIDE VIEW**



**PLAN VIEW**

## Specifications

<b>Model</b>		<b>DP RO -500</b>			
<b>Operating Data</b>					
First Pass RO Flow Rate:		Raw Water	1,181 l/h		
		First Pass RO Recycle	227 l/h		
		Second Pass RO Recycle	500 l/h		
		Feed	1,908 l/h		
		Permeate	1,000 l/h		
		Reject	681 l/h		
First Pass RO Array:		1:1:1:1			
First Pass RO Salt Rejection (Projected):		>96% (Initial)			
<b>Operating Data</b>					
Second Pass RO Flow Rate:		First Pass RO Permeate	1,000 l/h		
		Feed	1,000 l/h		
		Permeate	500 l/h		
		Second Pass RO Recycle	500 l/h		
Second Pass RO Array:		1:1			
Second Pass RO Salt Rejection (Projected):		>99.9% (Initial)			
Overall Recovery:		42%			
<b>Feed Water Requirements</b>					
<b>Feed Pressure</b>	<b>Flow Rate</b>	<b>Free Chlorine</b>	<b>SDI (15)</b>	<b>LSI</b>	<b>Temperature</b>
1-4 bar	2,000 l/h	<0.1 ppm	<5	Negative	<45

<b>Electrical Requirements</b>				
	<b>Model</b>	<b>Motor</b>	<b>Full Load Amps</b>	
<b>First Pass RO Pump</b>	CRN 1-36	2.2 kW	4.75	380 VAC/3PH/50Hz
<b>Second Pass RO Pump</b>	CRN 1-23	1.1 kW	2.65	380 VAC/3PH/50Hz

<b>Key RO Components</b>					
	<b>Model</b>	<b>Materials</b>	<b>Dimensions</b>	<b>Pressure Rating</b>	<b>Qty</b>
<b>RO Pressure Vessel</b>	4040	SS 304	4" x 40"	20 bar	6
<b>RO Membrane Elements</b>	4040	TFC Polyamide	4" x 40"	25 bar	6
<b>Dimensions</b>					
Width, mm			1,060		
Depth, mm			750		
Height, mm			1,500		
Weight, kg			230		

**NOTES:**

1. Consult Puritron before placing order if feed water pressure is less than 1 bar or over 3 bar.
2. For high turbidity water with NTU more than 1 or Silt Density Index (SDI<sub>15</sub>) over 5, consider adding sand filter ahead of pre-filter.
3. If RO reject Langeliar Saturation Index (LSI) is positive, soften the feed water or install chemical dosing pump for anti-scalant addition into the feed water.
4. For high Total Dissolved Solids (TDS) water over 1,000 ppm, consult Puritron for special RO membranes.
5. Other voltages available on request.