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**WATERITE TECHNOLOGIES, INC.  
PRODUCT SPECIFICATION SHEET  
RO-SYS-005**

**VECTAMAXX™ RSR COMMERCIAL  
REVERSE OSMOSIS SYSTEMS**

**A. GENERAL SPECIFICATIONS**

**TYPE:** Extra Low pressure RO, spiral wound membrane, recirculation loop

**VOLTAGE:** 120VAC/60hz

<b>SERVICE AMPS:</b>	<b>120VAC</b>
<b>RSR1200</b>	<b>15</b>
<b>RSR2400</b>	<b>15</b>

**FEED WATER PRESSURE:** 40 psi minimum, 65 psi maximum

**FEED WATER TEMP:** 40° C maximum

**B. MATERIAL SPECIFICATIONS:**

**FRAME COLOUR:** White powder coat

**FRAME MATERIAL:** Mild steel square tubular, c/w leveling feet

**FRAME DIMENSIONS:**

**Height**                    **RSR1200:** 34.5" (88 cm)

**RSR2400:** 52" (132cm)

**Width**                     19" (48 cm)

**Depth**                    19.5" (49.5 cm)

**OPERATING PRESSURE:** 130 psi (9.1 bar)



**SPEC RO-SYS-005 R2**

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<b>MEMBRANE:</b>	<b>RSR1200:</b> <u><b>BLACK MAX®</b></u> , spiral wound TFC, BME-4021SXL, 1200 USGPD permeate @ 500 mg/l NaCl, 100 psi, 25°C feed
	<b>RSR2400:</b> <u><b>BLACK MAX®</b></u> , spiral wound TFC, BME-4040SXL, 2400 USGPD permeate @ 500 mg/l NaCl, 100 psi, 25°C feed
<b>UNIT DRY WEIGHT:</b>	<b>RSR1200:</b> 94 lbs. (42.6 kg) <b>RSR2400:</b> 100 lbs. (45.3 kg)
<b>INLET SOLENOID:</b>	120VAC/60Hz, normally closed, 1/2" FNPT, 0 differential, SS
<b>LOW PRESSURE SWITCH:</b>	115VAC/60Hz, cut-out @ 15 psi
<b>DRIVE PUMP AND MOTOR:</b>	115VAC/60hz, ¾HP Horizontal multistage centrifugal pump, non self-priming, co-axial pump/motor design. All parts in contact with liquid are stainless steel.
	<b>RSR1200: 6.5 USGPM @ 80 psi</b> <b>RSR2400: 6.5 USGPM @ 80 psi</b> <i>(Based on 0 psi inlet pressure)</i>
<b>CONCENTRATE ORIFICE (DLFC):</b>	High-impact resin fitting insert, factory installed
<b>RECIRCULATION VALVE:</b>	SS needle valve, metal seated, o-ring packing
<b>SYSTEM FITTINGS:</b>	Stainless Steel
<b>LOW PRESSURE FITTINGS:</b>	Jaco standard pressure compression or DMT push-on
<b>LOW PRESSURE TUBING:</b>	Higher pressure 1/2" LDPE, clear
<b>PRE-FILTRATION HOUSING:</b>	Polypropylene, 4"x10", 100 psi rated, o-ring seated with threaded cap, pressure release, 1" inlet/outlet, full flow, 10 USGPM maximum
<b>FILTER CARTRIDGE:</b>	Melt-blown polypropylene, 5-micron



**MEMBRANE HOUSING:** 304 SS body, Noryl caps, band clamp closure, 3/4" FNPT concentrate ports, 1/2" permeate port, 250 psi rating

**PRESSURE GAUGES:** Glycerin filled, stainless body, 1 1/2". 0-150 psi feed water pressure, system pressure

**FLOW METERS:** King-style panel mounted, 0.2-2.0 USGPM

### **C. PERFORMANCE SPECIFICATIONS**

#### **PERMEATE PRODUCTION**

**RATE:** **RSR1200** 0.8 USGPM (3.0 LPM)  
**RSR2400** 1.6 USGPM (6.0 LPM)

*Calculated production rate @ feed water of 500 mg/l NaCl, 25°C, average system pressure @ 130psi, 60 % recovery, inlet pressure of 60 psi.*

#### **WASTE PRODUCTION RATE:**

*Recovery Rate @ 60%*

**Feed Water 1000 TDS** **RSR1200** 0.53 USGPM (2.0 LPM)  
**RSR2400** 1.06 USGPM (4.0 LPM)

**MEMBRANE CROSSFLOW:** **RSR1200:** (1) 6.5 USGPM (25 LPM)  
*Shows crossflow by element in series order. Pressure drop 15 psi per element.* **RSR2400:** (1) 6.5 USGPM (25 LPM)

### **D. RECOMMENDED FEED WATER PRETREATMENT SPECIFICATIONS:**

**TDS:** < 1500 TDS  
**HARDNESS:** < 6 gpg (103 mg/l)  
**TOTAL IRON:** < .05 ppm  
**TANNIN:** < .5 ppm  
**CHLORINE:** < 0.1 ppm  
**pH:** 5.5 – 9.5

**ORGANIC/MICROBIOLOGICAL ACTIVITY:** 0  
**MANGANESE:** <.05 ppm  
**HYDROGEN SULPHIDE:** 0  
**TURBIDITY:** SDI < 5.0



## **E. FEED WATER REQUIREMENTS:**

**RSR1200:** 2.2 USGPM minimum\*  
**RSR2400:** 4.4 USGPM minimum\*

*includes 10% safety factor  
on feed water exceeding 1000 TDS.  
\*at recommended feed pressure*

## **F. OPTIONAL EQUIPMENT**

Auto flush solenoid and timer  
Panel mount permeate/raw water TDS monitor  
Permeate Pressure Switch

**All materials and components used to fabricate RSR Series systems meet or exceed requirements specified by NSF Standard 61.**



**VECTAMAXX RSR1200**

