

SPECIFICATIONS



HIGH EFFICIENCY FILTRATION SYSTEM

Model: **RV2-30**

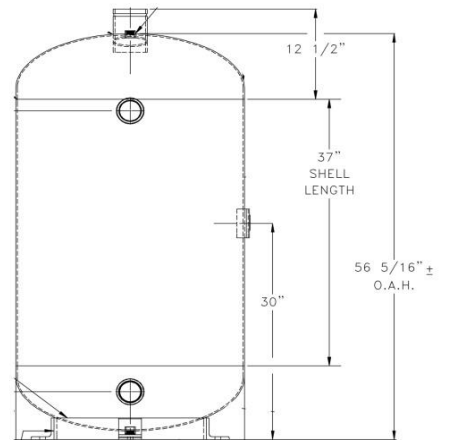
Capacity: **180 - 200 GPM**

Rating: **200°F - 125 PSI**

STANDARD FEATURES	INCLUDED	SPECIFICATIONS/DETAILS
1 VESSEL	✓	SS 304; ASME Code, Sec. VIII, Div.1 (125 PSI Rated Operating Pressure)
2 VESSEL DRAIN PLUG	✓	Non-Corrosive Stainless Steel
3 CONTROL PANEL	✓	Nema 4, UL, Color Touch Screen PLC, BMS Points for Monitoring
4 FACE PIPING	✓	Galvanized - Schedule 40
5 DIFFERENTIAL PRESSURE SWITCH	✓	Brass Fittings, Factory Set
6 FILTER PUMP	✓	Centrifugal (Stainless Steel Wet Area Components)
7 PUMP MOTOR	✓	TEFC, 5 HP, 230/460 volt (3φ)
8 VALVES	✓	NEMA 4, Electric, Full Port Stainless Steel
9 BALL VALVES	✓	Brass, Full Port
10 CHECK VALVES	✓	Brass
11 AUTOMATIC PRIMING SYSTEM	✓	Auto Fill, Auto Valve Stroke Through PLC
12 TUBING & HARDWARE	✓	Brass, Copper, Stainless Steel, Zinc, GRADE 8 (Where Applicable)
13 COATED STEEL SKID*	✓	96" (Width) x 48" (Depth) Skid (Plate/Beam)
14 MEDIA SOAK & RINSE SANITIZING	✓	Manual Feed, Automatic Rinse Through PLC

OPTIONAL FEATURES	Optional Features May Be Added Upon Request	
15 BACTERIA CONTROL SYSTEM MEDIA	Optional	Anti-Microbial Media (Nominal Removal Below 0.5 Microns)
16 THREAD SEALER & FLANGE GASKETS	Optional	NSF 61 Compliant
17 CASTERS**	N/A	12", 16" & 20" Single Vessel Systems Only
18 CHEMICAL FEED SYSTEM	Optional	TDS, PH, Pump Timer, Blow Down Solenoid Through PLC
19 CHLORINE INJECTION	Optional	Frequency & Duration Adjusted Through PLC
20 BACKWASH RECLAMATION SYSTEM	Optional	Secondary Tank, Diverting Valve, Reclaim Valve, Drain Valve Through PLC

SYSTEM INFORMATION	DETAILS	Vessel Dimensions
21 FILTRATION SYSTEM RATING	180 - 200 GPM	
22 FILTER CAPACITY (Excluding Backwash Cycles)	200 GPM (0 GPM During Backwashes)	
23 BACKWASH FLOW RATE	50 GPM (50 GPM per Vessel)	
24 BACKWASH DURATION	4-8 MINUTES (Each Vessel)	
25 FILTER INLET/OUTLET SIZE	3 INCHES	
26 CITY WATER INLET SIZE	2 INCHES (100 PSIG MAX)	
27 BACKWASH WATER DRAIN SIZE	1.5 INCHES	
28 MAX. OPERATING TEMPERATURE	200 DEGREES FAHRENHEIT	
29 APPROXIMATE WEIGHT	5,000 LBS. (Gross)	
30 VESSEL DIMENSIONS	30" (Diameter) x 56.5" (Height)	
31 OVERALL DIMENSIONS (clearance)***	96" (L) x 48" (D) x 72" (H)	



30" DIAMETER

* Actual sizing TBD based on final assembly & connection types.
 ** Portable option includes quick disconnect fittings.
 *** Dimensions are approximate. Final Installation Dimensions To Be Verified.

Notes:

- Installation Clearance Space: Three Feet (each) Front and Sides
- Standard Pressure and Temperature Ratings Unless Noted Otherwise
- System Designed for Non-Potable Applications
- Vibration Isolation/Flex for Pump Outlet
- All GWT systems are made in the USA





ADVANCED WATER TREATMENT SYSTEMS

RV2-30-A-S

HIGH EFFICIENCY FILTRATION SYSTEM

180-200 GPM FLOW RATE
 200°F MAX OPERATING TEMPERATURE
 125 PSI MAX OPERATING PRESSURE

ELECTRICAL RATING

115 VAC	230 VAC	460 VAC
N/A	3 Ø POWER	3 Ø POWER
N/A	5 HP PUMP	5 HP PUMP
N/A	MCA: 21.00 A	MCA: 12.50 A
N/A	MCCP: 22.00 A	MCCP: 13.50 A

MATERIAL INFORMATION

FILTER VESSEL(S): DIAMETER: 30 INCHES
 VOLUME: 146 GALLONS
 DIMENSIONS: 96 L X 48" D X 72" OAH
 FILTER MEDIA: SAND GRAVEL MIXTURE
 WEIGHT: 5,000 LBS (GROSS EST.)

NOT DRAWN FOR PERMIT. REFERENCE ONLY.
 NOT DRAWN TO EXACT SCALE OR DIMENSION.
 FOR SPECIFIC DETAILS AND DESIGN REQUESTS,
 CONSULT WITH YOUR GWT REPRESENTATIVE.

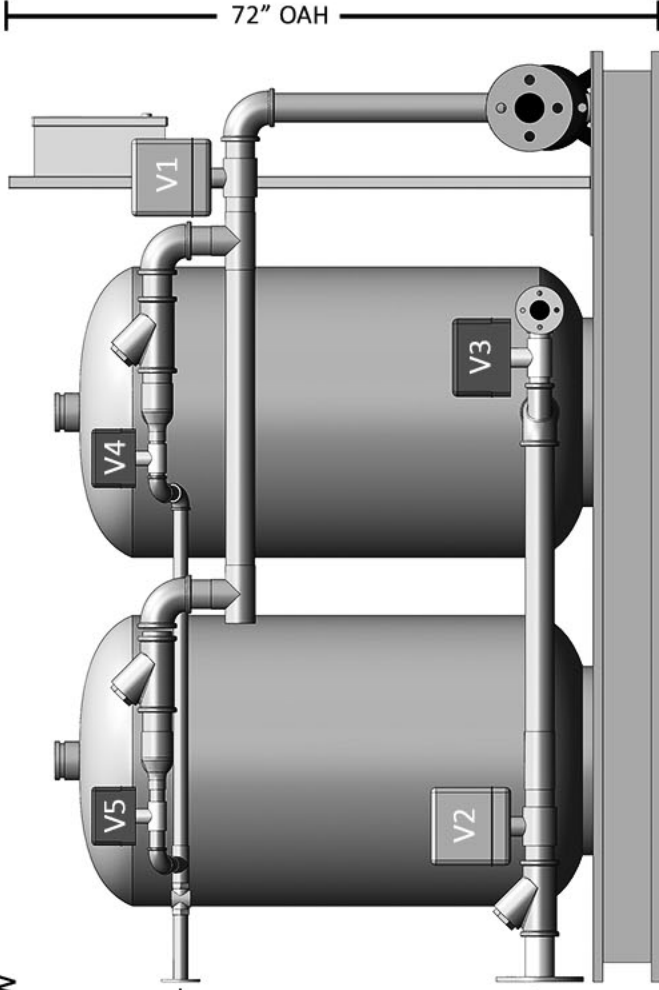
Date	Note
FEB. 1, 2017	REFERENCE



HIGH EFFICIENCY FILTRATION SYSTEMS

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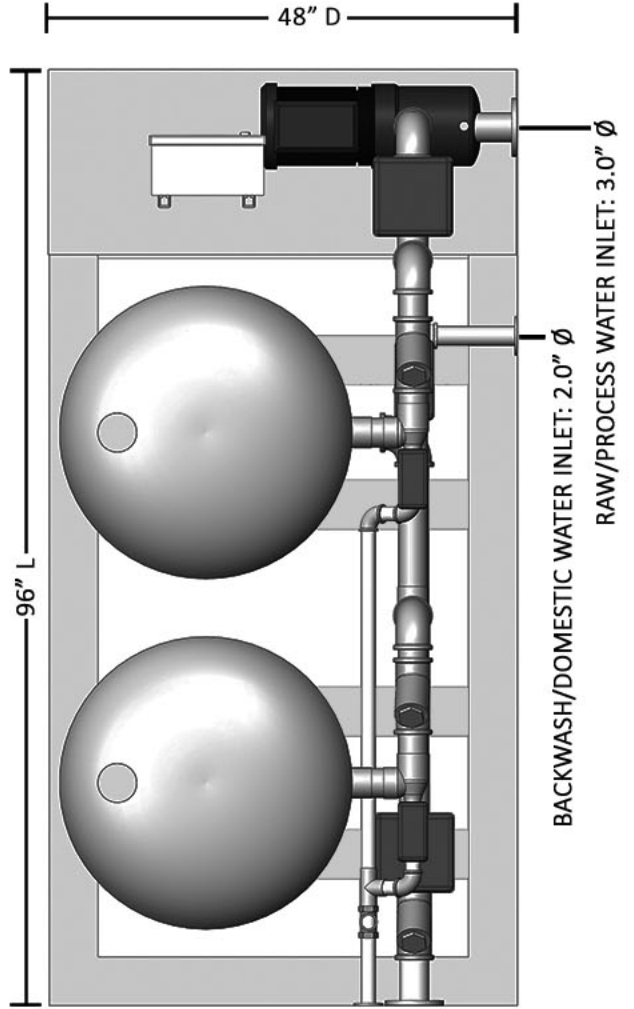
FRONT VIEW



BACKWASH DRAIN LINE: 1.5" Ø

FILTERED WATER OUTLET: 3.0" Ø

TOP VIEW



BACKWASH/DOMESTIC WATER INLET: 2.0" Ø

RAW/PROCESS WATER INLET: 3.0" Ø



RV 2-30

Electrical Component List

Part #	Part Name	Peak Power	Voltage	Current
1	5 HP Pump	60 (Hz)	208-230/460 (VAC)	14.8 - 13.6/6.8 (A)
2	Actuator WE500	50/60 (Hz)	110/220 (VAC) 24 (VDC)	0.5/0.2 (A) 0.8 (A)
3	Touch Screen	36 (W)		
4	PLC	10 (W)		
5	PLC Input Module	0.05 (W)	Peak (40 VDC)	Peak Input 5mA @ 28 VDC
6	PLC Output Module	0.132 (W)	Peak (50 VDC)	1.4 Amps per module
7	Disconnect Switch			20 A @ 600VAC
8	Transformer 100VA	50/60 (Hz)		
9	Transformer Fuse Kit		50-750 (V)	
10	Fuse		600 (VAC) Rated	0.5 (A)
11	DC Power Supply		24-28 (VDC)	4.2 (A)
12	9A 3P 120VAC Breaker		120 (VAC)	9 (A)
13	9-13A CLS Breaker			9-13 (A)
14	5A Circuit Breaker			5 (A)
15	12A Relay		24 (VDC)	12 (A)
16	8A Relay		24 (VDC)	8 (A)
17	TEMBLK-MTD		800 (V)	41 (A)
18	TEMBLK-MTD BU		800 (V)	41 (A)
19	TEMBLK-PE		800 (V)	41 (A)
20	7 Conductor 18 agw 600 VAC		600 (VAC)	
21	NEMA 4 Diff Press Switch		250 (VAC)	5 (A)

MCA (460VAC): $12.50 \text{ A} = (125\% \times 6.8 \text{ A}) + (5 \times .8 \text{ A})$

MCA (208-230VAC): $22.50 \text{ to } 21.00 \text{ A} = (125\%) \times (14.8 \text{ to } 13.6 \text{ A}) + (5 \times .8 \text{ A})$

MOCP (460VAC): $13.50 \text{ A} = (125\% \times 6.8 \text{ A}) + (125\%)(5 \times .8 \text{ A})$ MOCP (208-230VAC): $23.50 \text{ to } 22.00 \text{ A} = (125\%) \times (14.8 \text{ to } 13.6 \text{ A}) + (125\%)(5 \times .8 \text{ A})$



Pump Specifications

Item	Centrifugal Pump	Motor Type	JM
Close Couple	Yes	Service Factor	1.15
HP	5	Wetted Materials	Cast Iron, Bronze, Buna-N, Carbon, Ceramic, Stainless Steel
Phase	3	Volute Material	Cast Iron
Voltage	208-230/460VAC	Shaft Material	300 Stainless Steel
Amps	14.8-13.6/6.8	Max. Liquid Temp.	212 Degrees F with Standard Seal, 250 Degrees F with High Temperature Seal
Inlet	3" NPT	GPM of Water @ 30 Ft. of Head	240
Outlet	2-1/2" NPT	GPM of Water @ 40 Ft. of Head	215
Flange	No	GPM of Water @ 50 Ft. of Head	192
Motor Enclosure	TEFC	GPM of Water @ 60 Ft. of Head	162
Housing Material	Cast Iron	GPM of Water @ 70 Ft. of Head	120
Impeller Type	Closed	Best Efficiency Range GPM @ Head	100 to 200 gpm @ 75 to 38 ft.
Impeller Material	Bronze	Max. Specific Gravity	1.0
Max. GPM @ Head	210 @ 58 ft.	Max. Case Pressure	175 psi
Best Efficiency GPM @ Head	140 gpm @ 70 ft.	Max. Fluid Viscosity	40 SSU
Min. GPM @ Head	50 @ 75 ft.	Inlet Pressure	100 psi
Max. Head	75 ft.	Max. Pressure	175 psi
Seal Type	Type 21	Duty Cycle	Continuous
Seal Material	Buna N Elastomers, Carbon/Ceramic Face, 316 Stainless Steel Metal Parts	Max. Dia. Solids	5/16"
Length	20-1/2"	Number of Port Positions	4
Width	13"	Manufacturers Warranty Length	1 Year
Height	10-1/2"	Application	Booster Service, Spraying Systems, Irrigation Water Circulation, Liquid Transfer, General Purpose Pumping
Impeller Dia.	4-1/2"	Pump Length	2-1/2"
NEMA/IEC Frame	184JM	Pump Width	3"
Motor RPM	3500	Pump Height	7"
Hz	60		

*Pump Motor is equipped with Max Over Current Protection, and a 5A Breaker is provided within the HEF System Main Control Panel for all other parts.

**Recommended dedicated 25 Amp Circuit be provided for electrical supply to the RV2-30 System (230V or 460V systems).

***Local code is the final authority regarding the sizing of electrical safety devices. Consult with your local electrician or electrical engineer.