

SPECIFICATIONS



HIGH EFFICIENCY FILTRATION SYSTEM

Model: **RV1-12**

Capacity: **20 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, 1/2 HP, 120 volt (1φ)/230 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 Valve Stroke Through PLC
12 TUBING & HARDWARE	✓	Brass, Copper, Stainless Steel, Zinc, GRADE 8 (Where Applicable)
13 COATED STEEL SKID*	✓	34" (Width) x 34" (Depth) Skid (Plate/Beam)
14 MEDIA SOAK & RINSE SANITIZING	✓	Manual Feed, 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**	Optional Skid Mounted Omni-Directional (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	20 GPM	
22 FILTER CAPACITY (Excluding Backwash Cycles)	20 GPM (0 GPM During Backwashes)	
23 BACKWASH FLOW RATE	10 GPM	
24 BACKWASH DURATION	4-8 MINUTES	
25 FILTER INLET/OUTLET SIZE	1 INCHES	
26 CITY WATER INLET SIZE	1 INCHES (70 PSIG MAX)	
27 BACKWASH WATER DRAIN SIZE	1 INCHES	
28 MAX. OPERATING TEMPERATURE	200 DEGREES FAHRENHEIT	
29 APPROXIMATE WEIGHT	600 LBS. (Gross)	
30 VESSEL DIMENSIONS	12" (Diameter) x 32.5" (Height)	
31 OVERALL DIMENSIONS (clearance)***	34" (L) x 34" (D) x 65" (H)	

\* 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

# RV1-12-A-S

HIGH EFFICIENCY FILTRATION SYSTEM  
 15-20 GPM FLOW RATE  
 200° F MAX OPERATING TEMPERATURE  
 125 PSI MAX OPERATING PRESSURE

### ELECTRICAL RATING

120 VAC	230 VAC	460 VAC
1 Ø POWER	3 Ø POWER	N/A
1/2 HP PUMP	1/2 HP PUMP	N/A
MCA: 125 A	MCA: 6.75 A	N/A
MCCP: 12.75 A	MCCP: 7.00 A	N/A

### MATERIAL INFORMATION

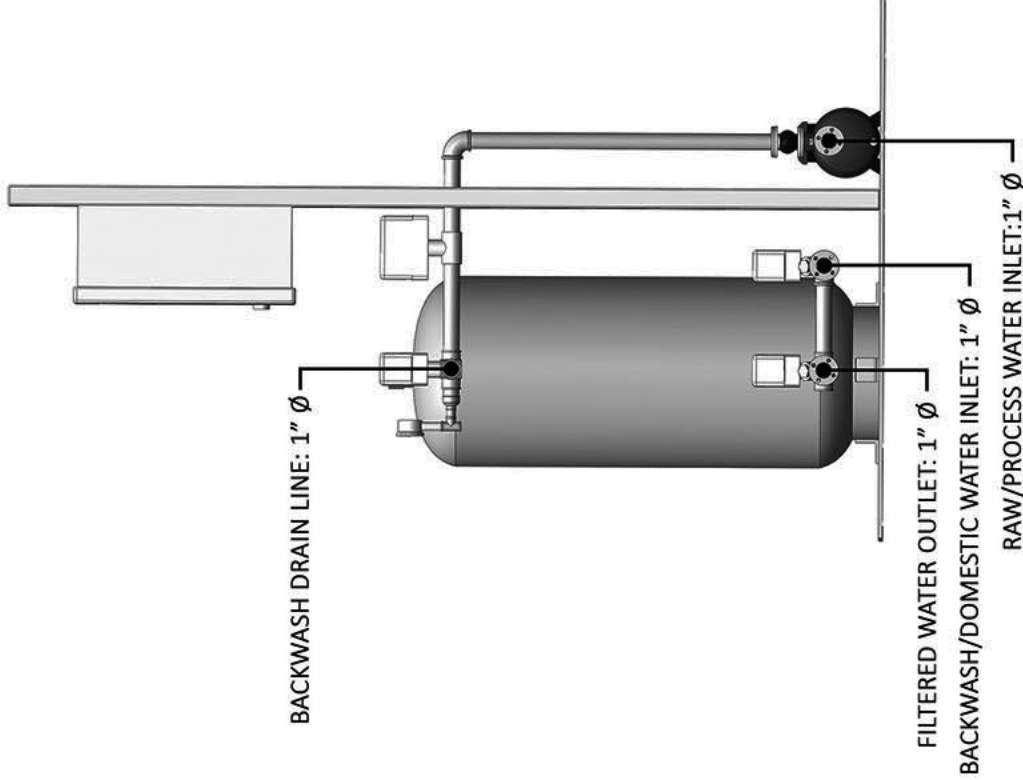
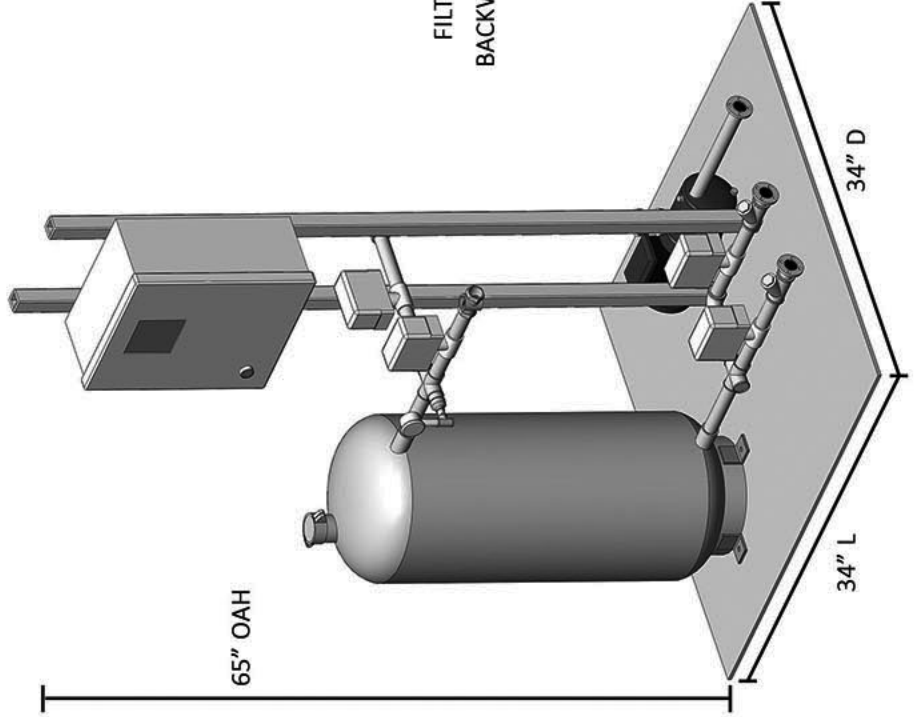
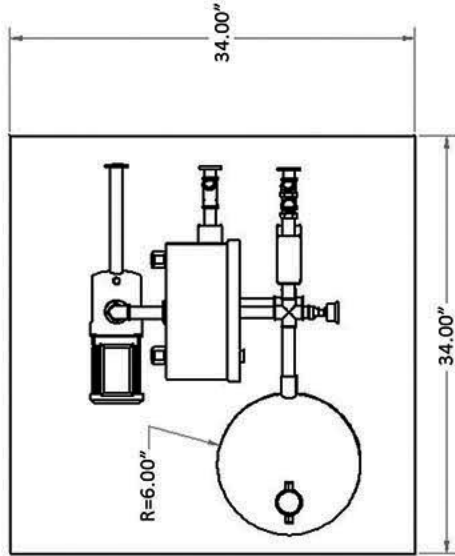
**FILTER VESSEL(S):** DIAMETER: 12 INCHES  
 VOLUME: 11 GALLONS  
**DIMENSIONS:** 34" L X 34" D X 65" OAH  
**FILTER MEDIA:** SAND GRAVEL MIXTURE  
**WEIGHT:** 600 LBS (GROSS EST)

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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## RV 1-12

### Electrical Component List

Part #	Part Name	Peak Power	Voltage	Current
1	1/2 HP Pump	60 (Hz)	115/230 (V)	9.2/4.6 (A)
2	Actuator WE350	50/60 (Hz)	110/220 (VAC) 24 (VDC)	0.12/.06 (A) 0.25 (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 (115VAC):  $12.5 \text{ A} = (125\% \times 9.2 \text{ A}) + (4 \times 0.25 \text{ A})$

MCA (230VAC):  $6.75 \text{ A} = (125\%) \times (4.6 \text{ A}) + (4 \times 0.25 \text{ A})$

MOCP (115VAC):  $12.75 \text{ A} = (125\% \times 9.2 \text{ A}) + (125\%)(4 \times 0.25 \text{ A})$

MOCP (230VAC):  $7.00 \text{ A} = (125\%) \times (4.6 \text{ A}) + (125\%)(4 \times 0.25 \text{ A})$



## Pump Specifications

Item	Centrifugal Pump	Impeller Type	Closed
HP	1/2	Bearing Type	BALL
Phase	1	Port Rotation	9
Voltage	115/230	Drain Plug	Yes
Amps	9.2/ 4.6	Manufacturers Warranty Length	1 yr.
Hz	60	Best Efficiency GPM @ Head	27 gpm @ 48 ft.
Duty	Continuous	Impeller Dia.	4-7/16"
Inlet	1-1/4" NPT	Max. GPM @ Head	37 gpm @ 40 ft.
Outlet	1" NPT	Max. Head	75 ft.
Motor Enclosure	TEFC	Max. Liquid Temp.	212 Degrees F
NEMA/IEC Frame	56J	Max. Pressure	125 psi
Wetted Materials	AISI 316 Stainless Steel	Min. GPM @ Head	10 gpm @ 50 ft.
Impeller Material	316 Stainless Steel	RPM	3500
Housing Material	316 Stainless Steel	Shaft Size	5/8"
Volute Material	316 Stainless Steel	Height	8-5/8"
Shaft Material	AISI 316 Stainless Steel	Length	15-3/8"
Screw Material	316 Stainless Steel	Width	8-1/8"
Seal Type	Type 21 Mechanical	GPM of Water @ 40 Ft. of Head	37
Seal Material	Silicon Carbide, Viton And Stainless Steel	GPM of Water @ 50 Ft. of Head	32
Seal Application	Water	GPM of Water @ 60 Ft. of Head	25
Max. Specific Gravity	1.0	GPM of Water @ 70 Ft. of Head	10
Max. Fluid Viscosity	1.0		

\*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 15 Amp Circuit be provided for electrical supply to the RV1-12 System (115V or 230V systems).

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