



## INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

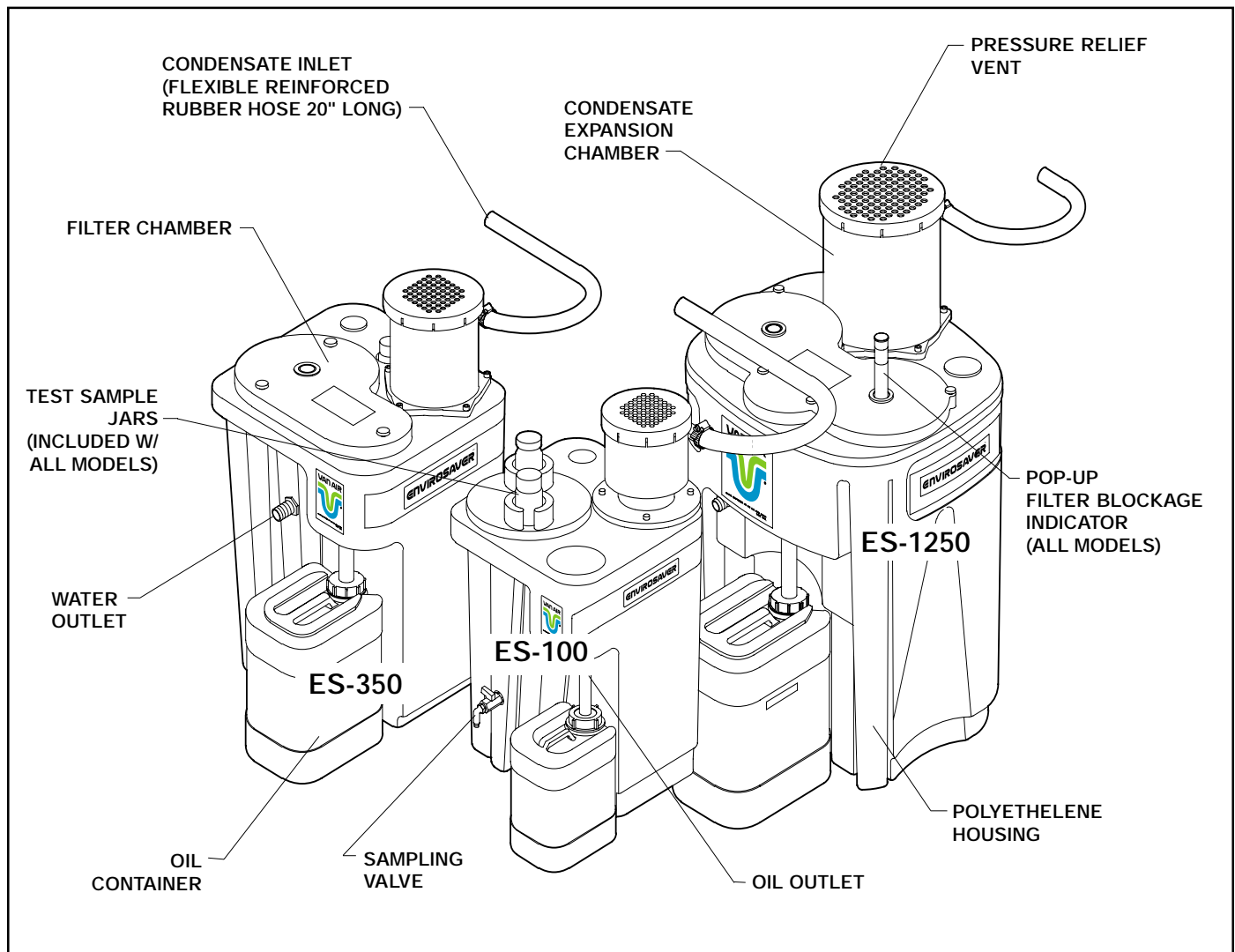
# ENVIROSAVER™

## OIL-WATER SEPARATORS

### Models ES-100, ES-350 & ES-1250

#### PRODUCT PURPOSE & FUNCTION:

Van Air's Oil/Water Separator Models ES-100, ES-350 and ES-1250 are designed to remove oil from condensate. The ENVIROSAVER employs gravity separation to separate unstable oil & water and provide water clean enough to dump into municipal waterways. The oil concentrate is collected in a plastic container which can be transported to local waste facilities for disposal. Note: The ENVIROSAVER is not designed for use with stable emulsions. If stable emulsions exist, a change in oil may be required. If this is not possible, then another separation means must be used. (See **Good bets, Bad bets** on page 5 for more details.)



### WARNINGS

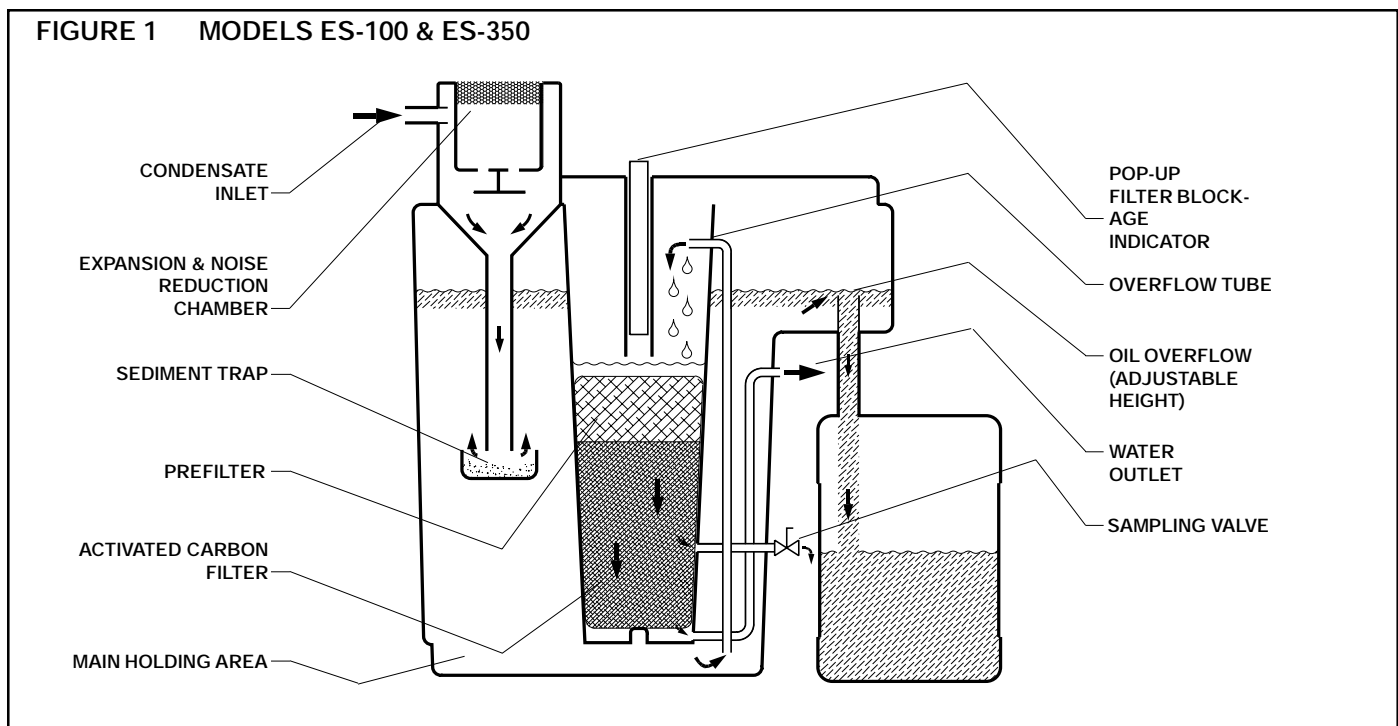
- READ INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR OPERATING THIS UNIT.
- WHEN INSTALLING AND OPERATING THIS UNIT, BE SURE TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO THE DISCHARGE OF EFFLUENT INTO A PUBLIC WATER SYSTEM.
- BE SURE TO COMPLY WITH ALL APPLICABLE REGULATIONS CONCERNING THE DISPOSAL OF OIL AND/OR USED FILTERS.
- IF INSTALLING INTO A POTENTIALLY COLD ENVIRONMENT, TAKE PRECAUTIONS TO PREVENT THE UNIT FROM FREEZING. THERMOSTATICALLY CONTROLLED HEATERS ARE AVAILABLE AS ACCESSORIES. SEE PAGE 18.

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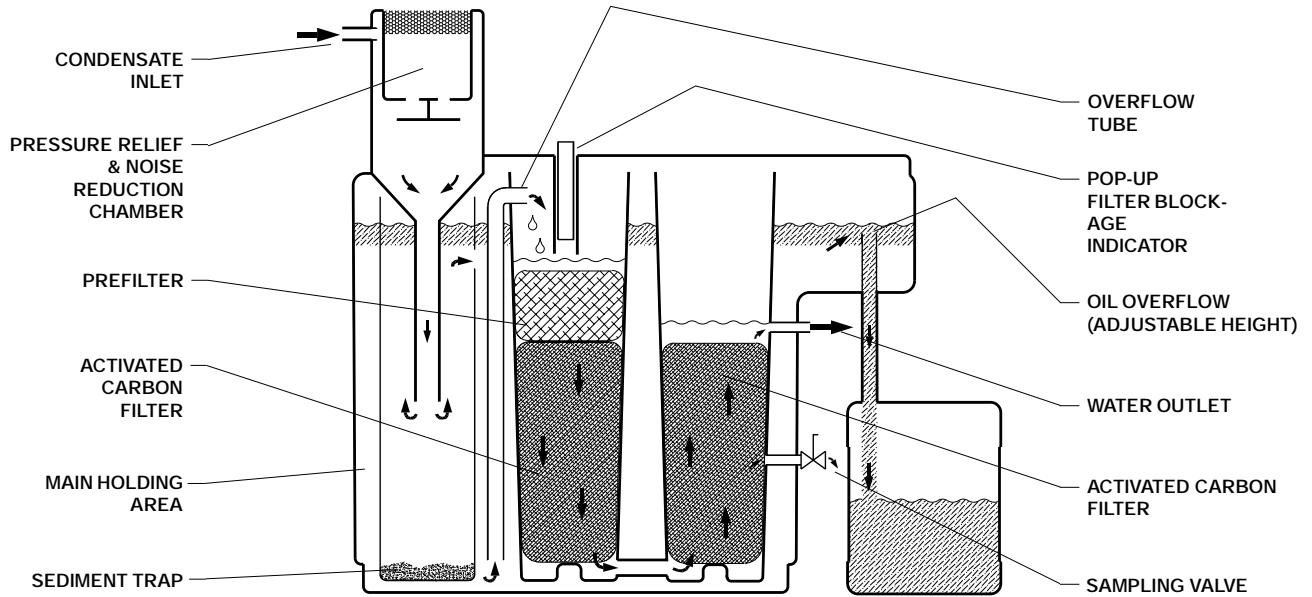
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### HOW THE ENVIROSAVER WORKS

Oil-contaminated condensate enters the inlet under pressure. Once inside the unit, the condensate is depressurized in a specially designed expansion chamber. Clean air is released to the atmosphere via a filtered opening while gravity draws the condensate downward. A sediment trap catches debris to minimize fouling of the unit. Once past the sediment trap, the condensate is dispersed into the main holding area of the separator. In the main holding area, gravity separation takes place with the oil slowly floating to the top. As the level inside the unit rises, oil is skimmed off the top and into the oil container. Meanwhile the semi-clean condensate from the bottom of the main holding area is directed up the overflow tube and into the filter chamber. As semi-clean condensate flows through the prefilter, residual oil is filtered out, extending the life of the activated carbon filter. A simple pop-up indicator warns the user if the filters become clogged. The condensate works through the activated carbon filter which removes all but the slightest traces of oil. Note: The ES-1250 includes (2) activated carbon filters for increased capacity. A sample valve is positioned 3/4 of the way along the activated carbon element. By sampling 3/4 of the way through the filter, as opposed to downstream of the carbon filter, allows the user to replace the filters before the water purity falls to unacceptable levels. Once through the activated carbon filter, the water is clean enough to be piped into a drain or waterway.

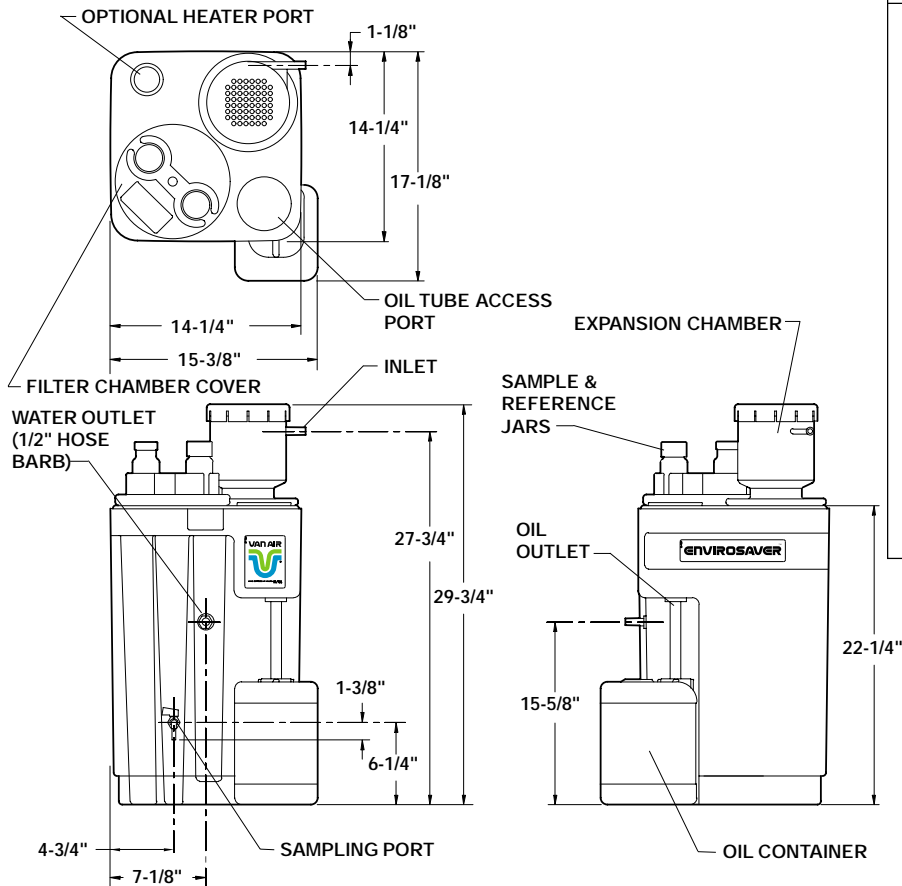


**FIGURE 2 MODEL ES-1250**



**DIMENSIONS & SPECIFICATIONS**

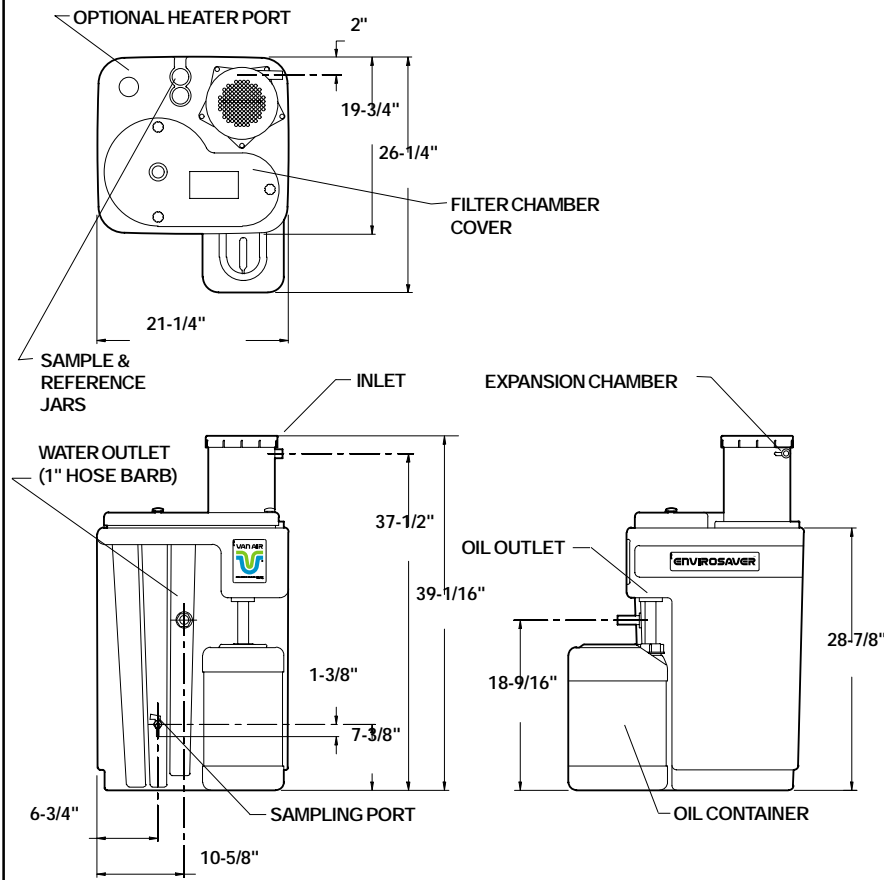
**FIGURE 3 MODEL ES-100**



**ES-100 SPECIFICATIONS**

<b>CAPACITIES (VOLUME):</b>	
HOUSING (MAX):	15 GAL
HOUSING (FILL) :	10 GAL
OIL CONTAINER:	1.3 GAL
PREFILTER:	0.5 GAL
CARBON FILTER:	0.8 GAL
SAMPLE JAR:	3.4 FL OZ
<b>WEIGHTS:</b>	
UNIT (EMPTY):	22 LBS
UNIT (MAX FULL):	150 LBS
OIL CONTAINER (FULL):	12 LBS
<b>CONDENSATE TEMPERATURE:</b>	
RANGE:	40°F-104°F
<b>MATERIALS:</b>	
EXPANSION CHAMBER:	POLYETHYLENE
HOUSING:	POLYETHYLENE
PREFILTER:	POLYPROPYLENE
CARBON FILTER:	ACTIVATED CARBON
OIL CONTAINER:	POLYETHYLENE
SEDIMENT TRAP:	POLYETHYLENE

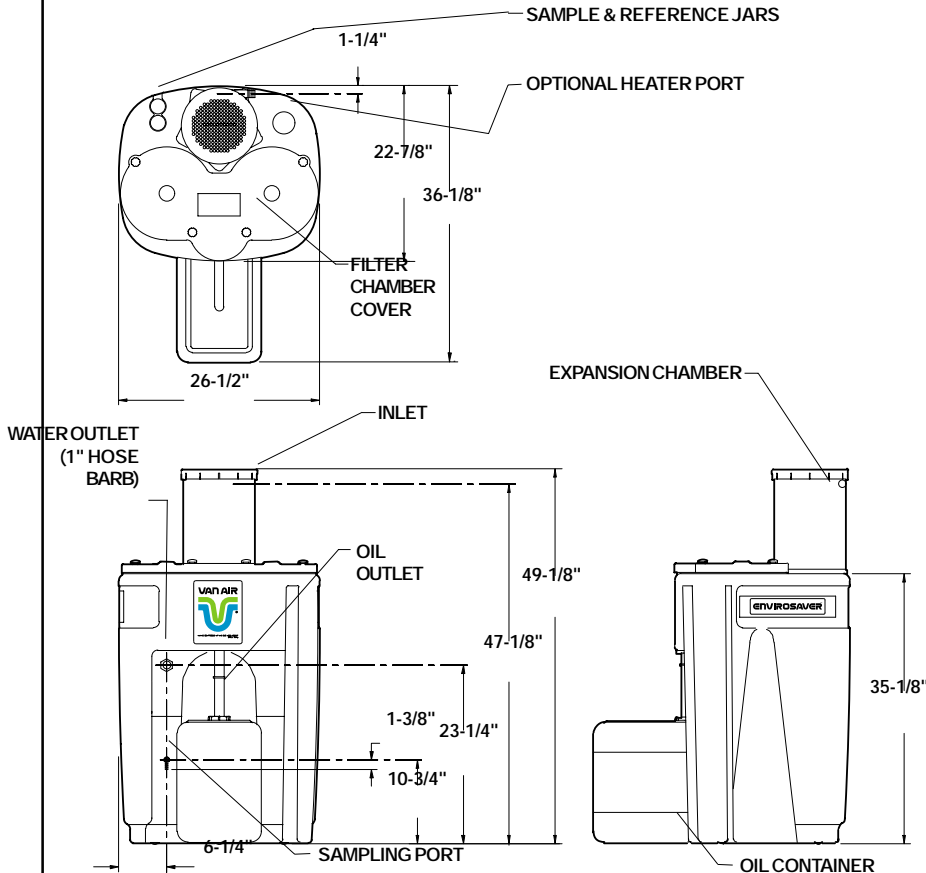
**FIGURE 4 MODEL ES-350**



**ES-350 SPECIFICATIONS**

<b>CAPACITIES (VOLUME):</b>	
HOUSING (MAX):	48 GAL
HOUSING (FILL) :	32 GAL
OIL CONTAINER:	5.3 GAL
PREFILTER:	1.2 GAL
CARBON FILTER:	2.1 GAL
SAMPLE JAR:	3.4 FL OZ
<b>WEIGHTS:</b>	
UNIT (EMPTY):	53 LBS
UNIT (MAX FULL):	455 LBS
OIL CONTAINER (FULL):	46 LBS
<b>CONDENSATE TEMPERATURE:</b>	
	40°F-104°F
<b>MATERIALS:</b>	
EXPANSION CHAMBER:	POLYETHYLENE
HOUSING:	POLYPROPYLENE
PREFILTER:	ACTIVATED CARBON
CARBON FILTER:	POLYETHYLENE
OIL CONTAINER:	POLYETHYLENE
SEDIMENT TRAP:	POLYETHYLENE

**FIGURE 5 MODEL ES-1250**



**ES-1250 SPECIFICATIONS**

<b>CAPACITIES (VOLUME):</b>	
HOUSING (MAX):	88 GAL
HOUSING (FILL) :	66 GAL
OIL CONTAINER:	7.9 GAL
PREFILTER:	2.4 GAL
CARBON FILTER:	(2) X 4.5 GAL
SAMPLE JAR:	3.4 FL OZ
<b>WEIGHTS:</b>	
UNIT (EMPTY):	88 LBS
UNIT (MAX FULL):	820 LBS
OIL CONTAINER (FULL):	69 LBS
<b>TEMPERATURE:</b>	
	40°F-104°F
<b>RANGE:</b>	
<b>MATERIALS:</b>	
EXPANSION CHAMBER:	POLYETHYLENE
HOUSING:	POLYETHYLENE
PREFILTER:	POLYPROPYLENE
CARBON FILTER:	ACTIVATED CARBON
OIL CONTAINER:	POLYETHYLENE
SEDIMENT TRAP:	POLYETHYLENE

**FLOW & PRESSURE CAPACITIES**

TABLE 1 UNIT FLOW CAPACITIES		COMPRESSOR OUTPUT IN SCFM/COMPRESSOR HORSEPOWER			
		TURBINE OIL	SCREW COMPRESSOR OIL	PISTON COMPRESSOR OIL	SYNTHETIC OIL
SCREW & ROTARY COMPRESSORS WITH OIL INJECTION COOLING	ES-100	100/21	85/18	95/20	100/21
	ES-350	350/74	300/63	335/71	350/74
	ES-1250	1250/263	990/208	1145/241	1250/263
PISTON COMPRESSOR 1 & 2 STAGE	ES-100	70/18	-----	65/16	70/18
	ES-350	220/55	-----	200/50	220/55
	ES-1250	885/221	-----	833/208	885/221
ROTARY COMPRESSOR WITH FRESH OIL DRIP-FEED LUBRICATION	Fresh oil lubricated rotary compressors and multi-stage piston compressors have a greater tendency toward emulsification. Condensate discharge containing stable emulsions will require the use of a more sophisticated type of separator that can effectively separate stable emulsions.				
PISTON COMPRESSOR 3, 4 AND 5 STAGE					

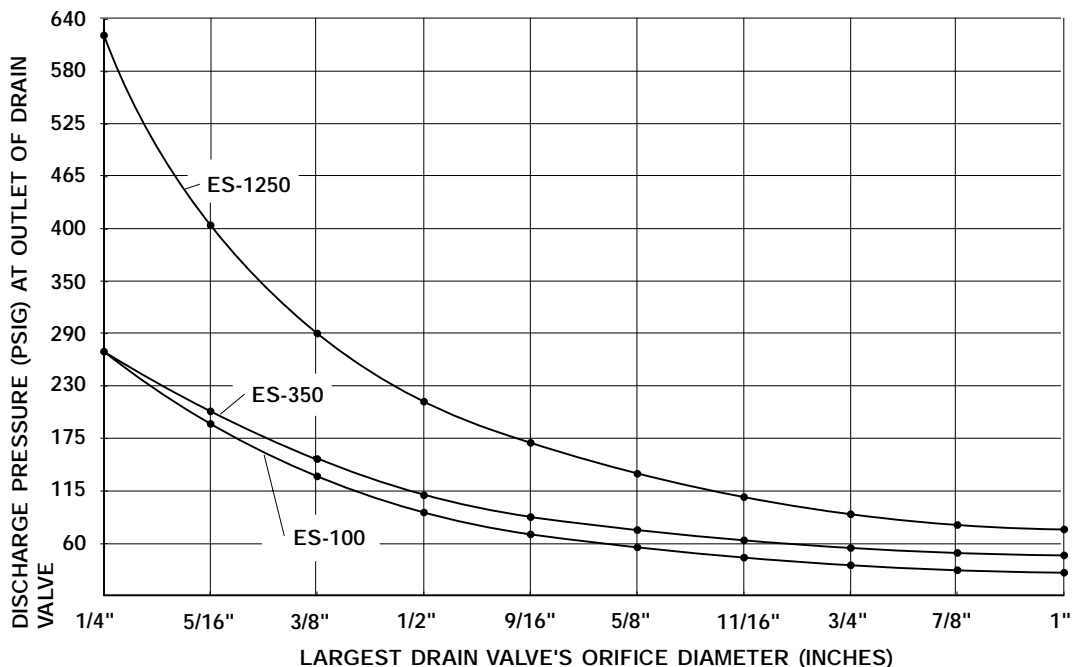
Note(s):

- The above values can be increased by 25% if a refrigerated dryer is not being used.
- The table above gives approximate values only. Due to the variety of oils, oil grades, temperatures and compressor types, actual performance can vary above or below the given values. The type of oil that is used is critical to the efficiency of the ENVIROSAVER oil/water separator.

**Bad Bets:** Oil types such as hydraulic, automatic transmission fluid, motor oil, or polyglycol based oils such as Ingersoll Rand Ultracoolant & Sullair Sullube have proven to be slow to separate. Rapid usage of carbon filters will result.

**Good Bets:** Aeon 2000, 4000 & 9000SP; Aveon 4K & 8K; Shell Corena H and Comptella 46, Talona 30, Rotella SX, Turbo T, V7000; ESSO Teresso; BP Energol RC & TAB; Mobil 400, 800, SHL & SHC, and DTE light to extra heavy; Anderol (Huls)400, 3000 & FGC. In general, diester based synthetic or turbine oils separate well.

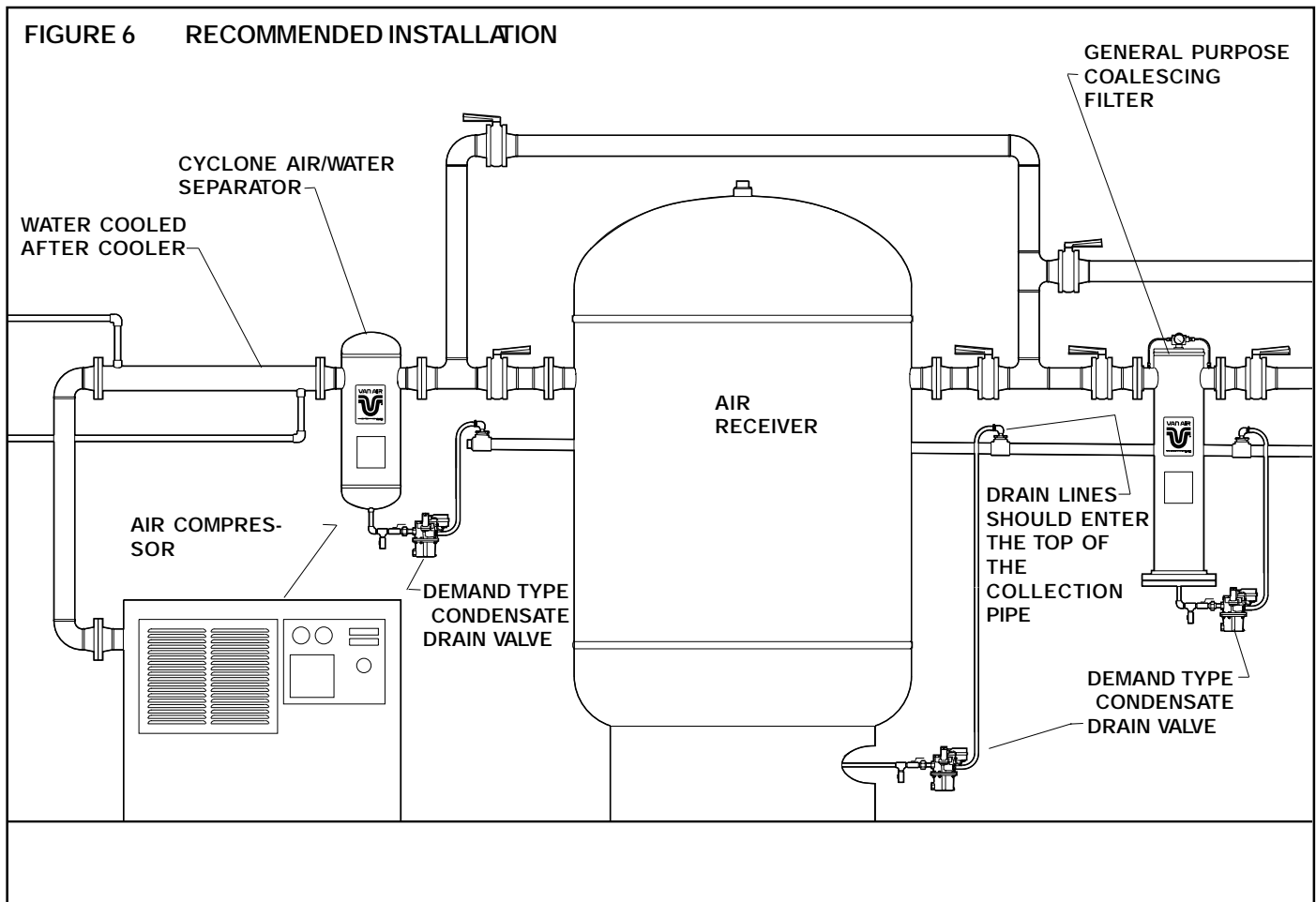
**CHART 1 INLET PRESSURE CAPACITIES**



The ability of the ENVIROSAVER to dissipate inlet pressure is solely dependent on the inlet flow. The easiest way to determine whether or not you are within safe boundaries, is to determine what the one maximum drain valve orifice diameter is and locate it along the bottom of the chart above. Work your way up the vertical line above your orifice diameter until you reach the curve for your model (ES-100, ES-350 or ES-1250). Follow the horizontal line to the left side of the chart and note the pressure rating. This is the maximum pressure under which the unit should operate.

NOTE: The above chart applies to units which are directly connected to drain valves. If a collection pipe is used, the inlet pressure to the ENVIROSAVER is greatly reduced. If a condensate manifold is used, the pressure relief valve will actuate at pressures above 20 PSIG.

**FIGURE 6 RECOMMENDED INSTALLATION**



**RECOMMENDED INSTALLATION**

1. Because the ENVIROSAVER is dependent on the fluid level inside its housing, it is critical that it be installed on a flat, level surface. **An excessive slope can adversely effect the performance of the unit.** The collection pipe should be attached firmly to a wall or stable object.
2. Attach a hose to the water outlet and direct it to a floor drain or waterway source. **The line should be directed downward into the drain so that water cannot be trapped anywhere along its length.**
3. Connect one of the two supplied oil containers to the oil outlet on the ENVIROSAVER. The oil outlet tube may need to be adjusted up or down to connect to the container. The tube fits snugly into a brass bushing, so firm pressure may need to be applied to move the plastic tube up or down within the bushing. **Ensure that the oil container is sitting on the same level as the ENVIROSAVER.**
4. Install the sample line fittings supplied with the unit into the oil sample hole below the water outlet on the side of the unit. (See Figure 7) Place the flat rubber seal over the male end of the 1/4" ball valve and thread into the brass bulkhead in the unit. Tighten securely using a 7/8" wrench. Thread the plastic elbow into the female end of the ball valve and tighten securely using a 9/16" wrench. Make sure that the valve is in the closed position.
5. Open the filter chamber by removing the filter chamber cover. On model ES-100, the cover should be rotated clockwise and lifted up. Models ES-350 and ES-1250 each have three knobs which retain the cover. Remove the overflow tube from the chamber. (The overflow tube is attached to the unit with a chain.) Lift out the filter pack(s) and remove the plastic wrapper(s).
6. Replace the filter set(s) into the unit.
7. Take care to reposition the overflow tube into its hole. **NOTE: On the ES-1250 the prefilter is separated from the carbon packs. Make sure that the prefilter is placed on top of the carbon pack in the right chamber. There should not be a prefilter in the left chamber, only a carbon pack.**
8. Replace the cover over the filter chamber.
9. Fill the unit with water through the heater port until the water begins to flow out of the water outlet.

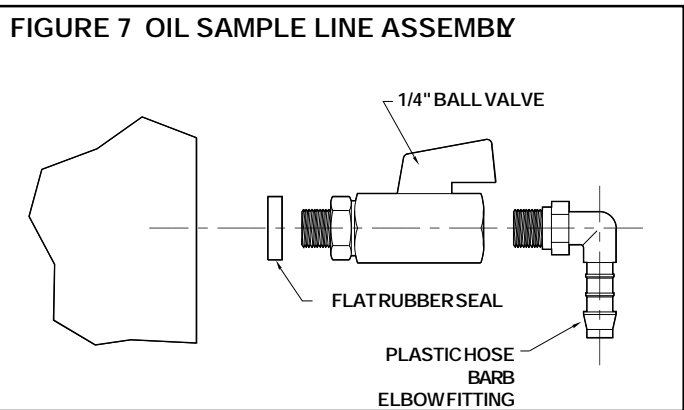
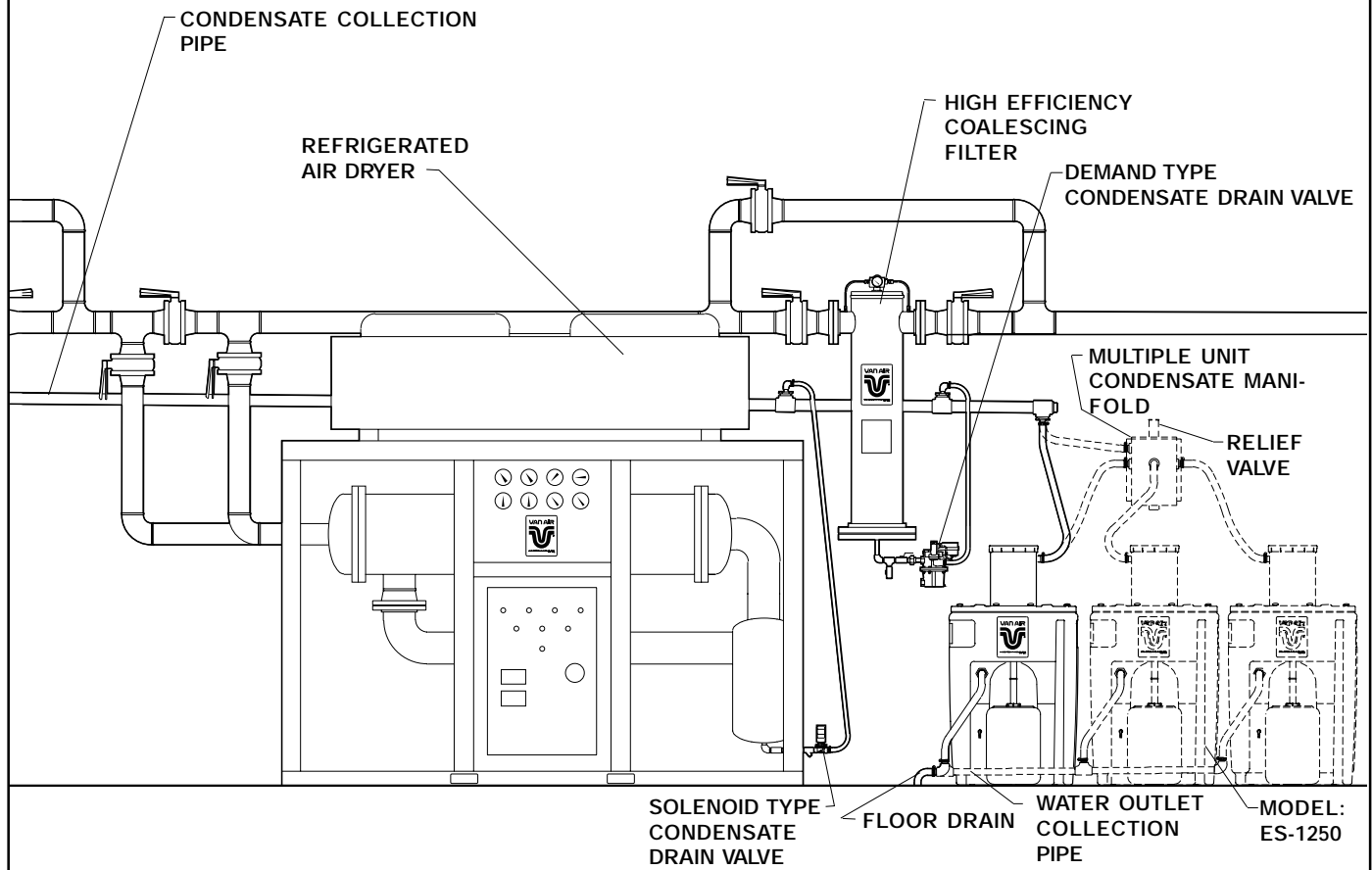


FIGURE 6 (CONTINUED)



**Allow the elements to soak for 24 hours.** This pre-soak period is necessary to allow the filters to become fully saturated. This will cause the water level to drop slightly. After the 24 hour pre-soak period, add more water until it flows out the water outlet.

• THE FILTER SET MUST BE PRE-SOAKED FOR 24 HOURS PRIOR TO OPERATING UNIT. THE UNIT WILL NOT FUNCTION PROPERLY IF THE FILTER SET IS NOT PRE-SOAKED.

10. Remove the oil tube access cap on the top front of the unit and locate the sliding level adjustment sleeve on the top of the oil tube. Raise or lower this sleeve until it rests 3/8" above the level of the water.
11. A collection pipe should be assembled and mounted at a level above the inlet to the ENVIROSAVER. The pipe should be installed with a slight downward slope toward the ENVIROSAVER. (Reference Figure 6) Any or all condensate drains should be piped into the top side of the collection pipe, in order to prevent condensate from draining back down the individual condensate drain lines. The collection pipe should be sized as large as possible: typically 1" pipe for a 100 scfm system or smaller, 2" pipe for 350 scfm systems and 3" for 1250 scfm systems. The length of the pipe can be adjusted to suit the number of inlets from the various drains.
12. Your ENVIROSAVER is ready for operation. Note: It may take 3 or more months before oil appears in the oil container. It takes time for a 3/8" thick layer of oil to build up on top of the water.

### CONDENSATE MANIFOLD (MULTIPLE UNIT) INSTALLATION

If more than one ENVIROSAVER will be installed in the system, a condensate manifold should be installed so each ENVIROSAVER unit is loaded equally. (Reference the dashed line area in Figure 6 above) The optional condensate manifold as supplied by Van Air (Reference Page 18) is a durable PVC container with attached mounting brackets, which can be mounted onto a wall. The condensate manifold has a pressure relief valve which is set at 20 psi. One inlet and (3) outlet ports are equipped with 1" hose barbs. A connection port in the bottom is used for the optional heater and/or for a means to clean out sediment which might build up over time. (Reference Page 18) . It is critical that the condensate manifold be installed above the ENVIROSAVER's inlet, but below the collection pipe's outlet. (Reference Figure 6).

## INSTALLATION/APPLICATION TIPS

- Turbulence in the condensate line should be avoided as much as possible. Standard automatic solenoid type drain valves can cause significant turbulence in the line, especially if they are set to cycle too frequently or open too long. Condensate discharge volume can fluctuate throughout the year and close attention needs to be taken to ensure that cycle and open times are kept within acceptable limits. **The ideal companion to the oil water separator is the demand drain.** The demand drain is designed to discharge only liquid condensate and therefore keeps condensate line turbulence to a minimum.
- The type of compressor oil used in the system is also an important factor in the efficient performance of the ENVIROSAVER. Generally, the ENVIROSAVER cannot be used on systems employing soluble oils. **The ENVIROSAVER is ineffective against stable oil/water emulsions.** To verify whether your condensate is suitable for use with the ENVIROSAVER, take a condensate sample in a clear glass jar and allow it to sit undisturbed overnight. If the oil separates from the water overnight, then the ENVIROSAVER should work well for your system. If the condensate does not separate, then the ENVIROSAVER'S performance cannot be guaranteed; therefore, a machine that can effectively separate stable emulsions may be needed. These more complex machines are also significantly more expensive; therefore it may be simpler and more economical to change the compressor lubricant to one which does not form stable emulsions.

## HEATER INSTALLATION

Thermostatically controlled heaters are available for applications where the ENVIROSAVER is exposed to cold temperatures. These immersion heaters are available for all three ENVIROSAVER models as well as for the optional condensate manifold. (Reference Page 18)

### FUNCTION:

When the water temperature in the unit drops below the value indicated on the thermostat dial, the heater switches on. An indicator lamp on models ES-350 & ES-1250 illuminates whenever the heater is on. An integral thermal shutoff ensures that the unit does not overheat. The thermostat is adjustable on models ES-350 & ES-1250 and fixed at 77°F on model ES-100 and the manifold heater.

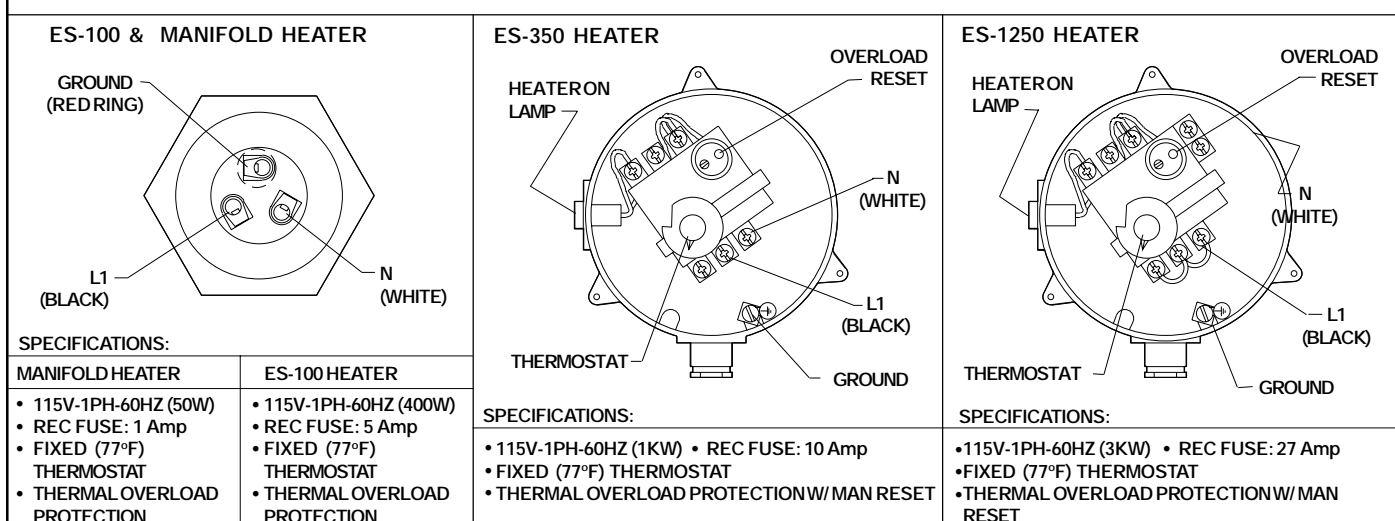
### INSTALLATION:

Insert heater into respective heater port in the ENVIROSAVER housing, (Reference Figures 9, 10 & 11 for specific location) An on/off switch should be installed within reach of the ENVIROSAVER'S housing. The input power line should include a fuse of the amperage listed in Figure 8. Connections can be made to terminals inside the heater housing. (Reference Figure 8 below for details) A weather-tight cord connector is provided in the housing. If conduit is used, the entire cord connector should be removed and replaced with a suitable conduit hub.

## WARNING

- **DO NOT OPERATE HEATER UNLESS IT IS SUBMERGED IN WATER. SERIOUS DAMAGE TO UNIT AND OR PERSONAL INJURY MAY OCCUR.**
- **WHEN INSTALLING ANY OF THE OPTIONAL HEATERS, BE SURE TO COMPLY WITH ALL APPLICABLE CODES SUCH AS THE NATIONAL ELECTRICAL CODE AND/OR LOCAL, STATE & FEDERAL CODES.**

**FIGURE 8 HEATER CONNECTIONS**





## FILTER SET CHANGEOUT

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1. Remove the new filter set from plastic bag
2. Pre-soak the new filter set in water for 24 hrs **(without effluent entering unit)**.
3. **Shut off inlet condensate flow.**
4. Remove the filter chamber cover. On model ES-100 rotate the cover to the right approximately 1/8 turn and lift up and away. On the ES-350 & ES-1250, unscrew the three plastic knobs.
5. Remove the black overflow tube.
- 6a. On the ES-100 & ES-350, lift the filter set out of the chamber and allow to drip over the chamber for approximately 2 minutes. Insert the filter set into a plastic bag and discard. Place the new pre-soaked filter set in the chamber.
- 6b. On the ES-1250, lift the prefilter and carbon filter out of the filter chamber and allow to drip for approximately 2 minutes. Discard the prefilter and carbon pack from the right chamber. Remove the carbon filter from the chamber with the oil sample valve and place in the other chamber. Place the new prefilter on top of the carbon filter in the chamber with the overflow tube. Place the new carbon pack in the left chamber.
7. Insert the overflow tube back into its hole.
8. Replace the filter chamber cover.
9. Open inlet condensate flow.
10. Order new replacement filter set.

IMPORTANT
<ul style="list-style-type: none"><li>• THE USED FILTER SETS ARE CONTAMINATED WITH OIL AND SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL WASTE DISPOSAL REGULATIONS.</li></ul>



## SEDIMENT TRAP CLEANING

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As dictated by the amount of sediment contained in your system's effluent, you may need to clean out the sediment trap. This should be done when the effluent flowing into the unit can be shut off. **(Reference Figures 9, 10 & 11)**

1. Shut off effluent flow and disconnect the inlet hose where it attaches to the expansion chamber.
2. Remove the expansion chamber by removing (5) expansion chamber retention screws.
3. Lift the expansion chamber until it is free from the unit.
- 4a. On the ES-100 & ES-350 the sediment trap is attached to the bottom of the expansion chamber.
- 4b. The ES-1250 has a separate sediment trap which can be lifted out of the unit. The dirt trap has a braided nylon strap attached to the top for ease of handling.
5. Clean out trap.
6. Reassemble the unit & reconnect the inlet hose.

## FILTER CHECK

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A filter check should be performed each week. The sample is taken 3/4 of the way through the carbon filter and compared to a 20 ppm reference bottle. By taking the sample at this point, it ensures the condensate discharged to the water outlet will be clean after passing through the rest of the carbon filter. This gives you ample warning that a filter change is necessary.

1. Fill the sample bottle (included w/unit) with water taken from the sampling valve. **(Reference Figures 3, 4 & 5)**
2. Compare effluent in sample bottle with the effluent in the 20 ppm reference bottle (red cap).
3. If sample is equal to or cloudier than the reference bottle, the filter sets should be replaced.
4. Record the results of your test in the spaces provided on pages 10-14 of these instructions.
5. Return the effluent in the sample bottle to separator by dumping through the holes in the top of the expansion chamber. Clean bottle.
- 6.

## POP-UP FILTER BLOCKAGE INDICATOR

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Each ENVIROSAVER includes a pop-up filter blockage indicator to warn when the unit is being overloaded. **(If the indicator rises up, then refer to the "Trouble Shooting" section on page 19)**



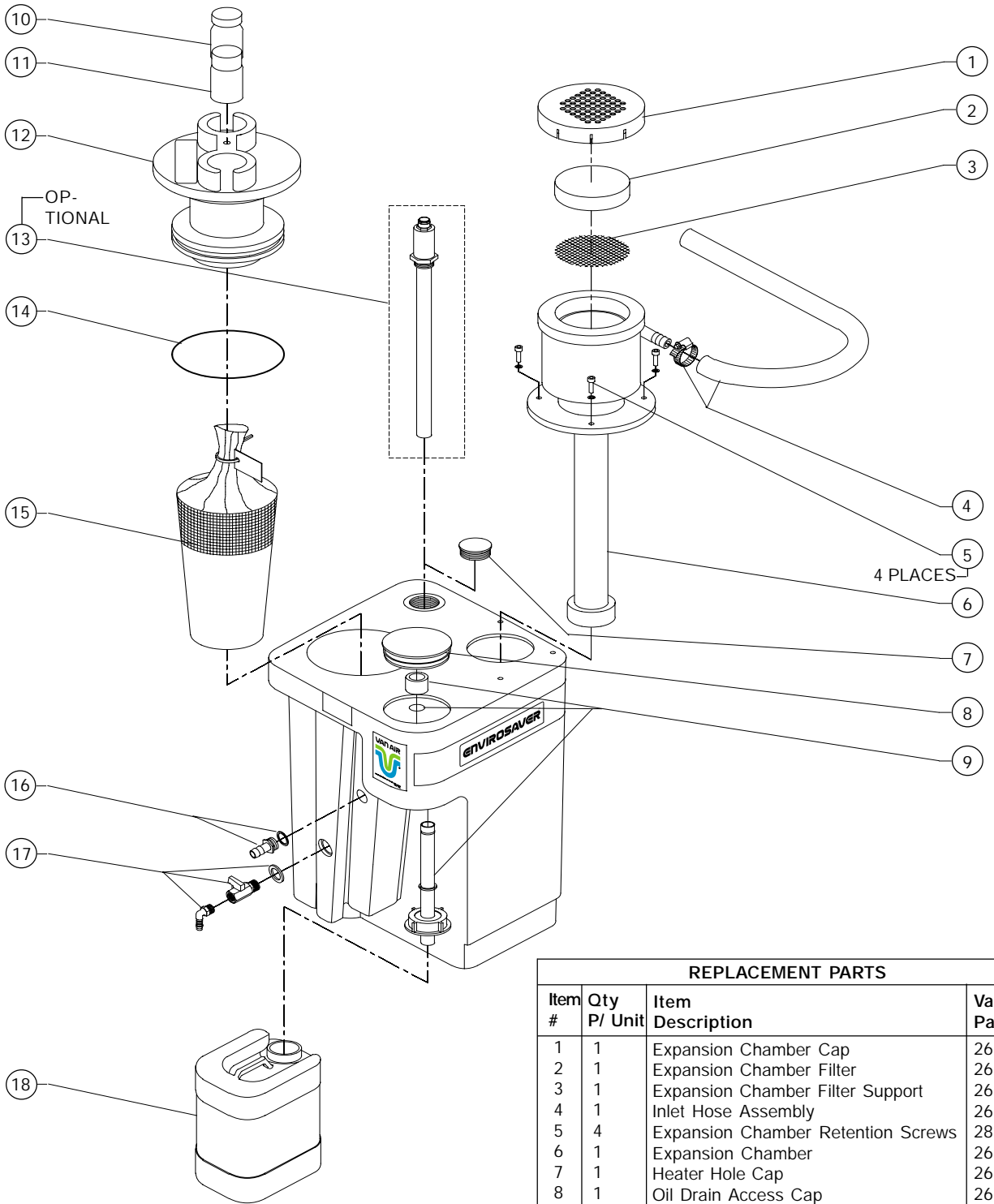






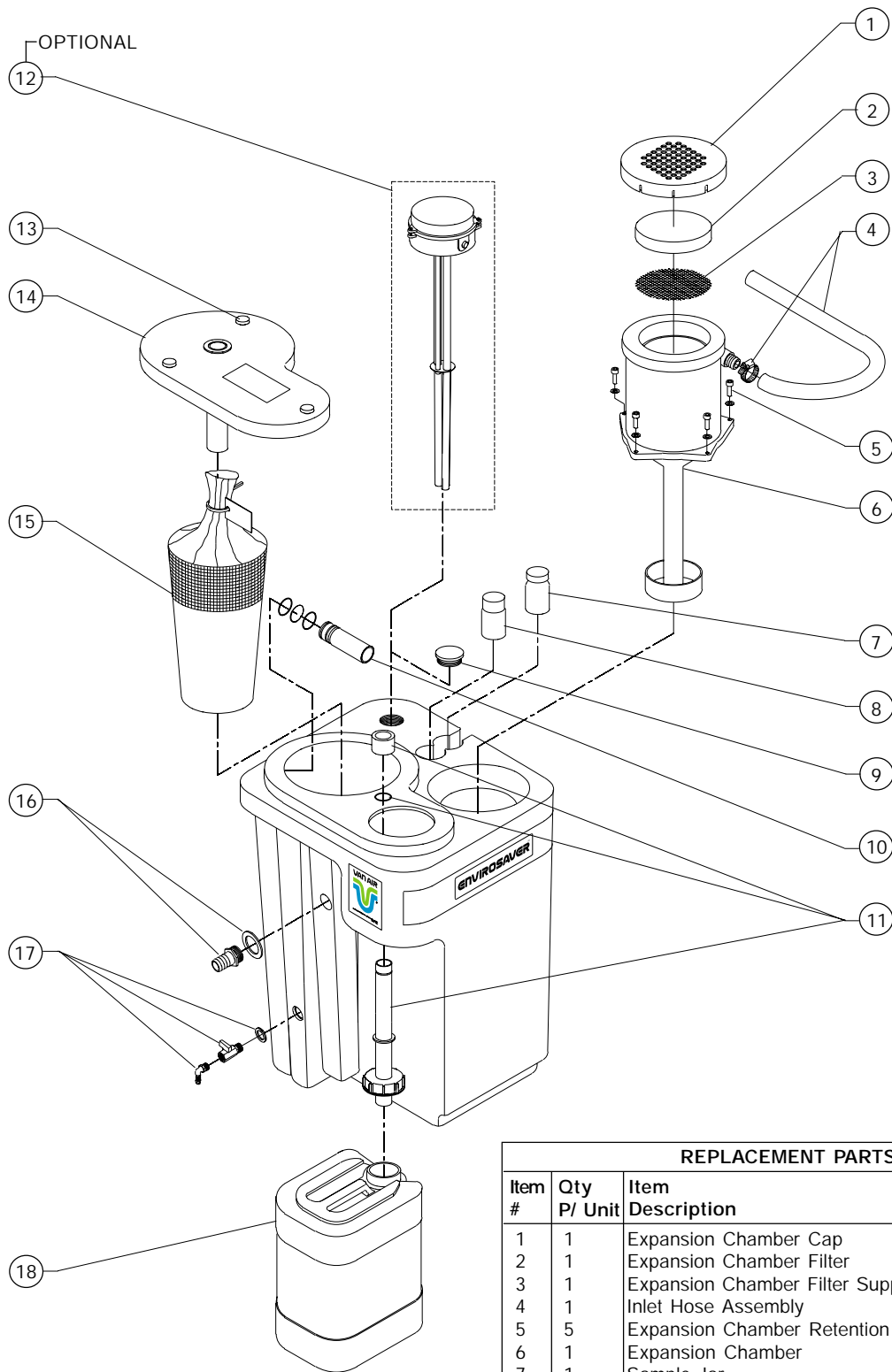


FIGURE 9 ENVIROSAVER MODEL ES-100 REPLACEMENT PARTS



REPLACEMENT PARTS			
Item #	Qty P/ Unit	Item Description	Van Air Part No.
1	1	Expansion Chamber Cap	26-10301
2	1	Expansion Chamber Filter	26-10304
3	1	Expansion Chamber Filter Support	26-10307
4	1	Inlet Hose Assembly	26-10310
5	4	Expansion Chamber Retention Screws	28-10006
6	1	Expansion Chamber	26-10298
7	1	Heater Hole Cap	26-10313
8	1	Oil Drain Access Cap	26-10322
9	1	Oil Tube Assembly	26-10323
10	1	Sample Jar	26-10290
11	1	Reference Jar	26-10289
12	1	Filter Chamber Cover	26-10315
13	1	Optional Heater	26-10336
14	1	Filter Chamber Cover Seal	26-10318
15	1	Filter Set	26-10331
16	1	Hose Barb Assembly	26-10320
17	1	Sample Line Assembly	26-10319
18	1	Oil Container	26-10286

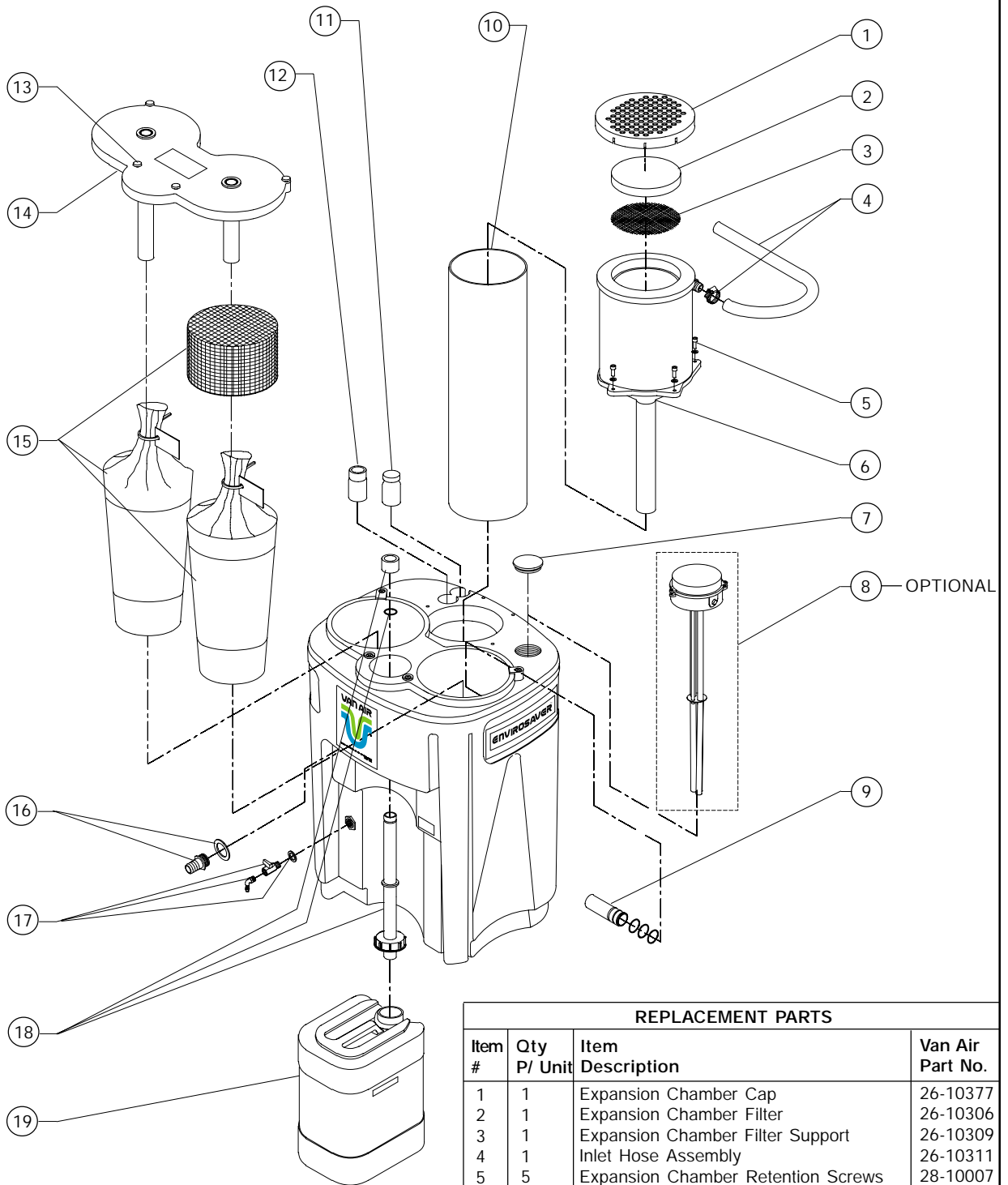
FIGURE 10 ENVIROSAVER MODEL ES-350 REPLACEMENT PARTS



REPLACEMENT PARTS			
Item #	Qty P/ Unit	Item Description	Van Air Part No.
1	1	Expansion Chamber Cap	26-10376
2	1	Expansion Chamber Filter	26-10305
3	1	Expansion Chamber Filter Support	26-10308
4	1	Inlet Hose Assembly	26-10311
5	5	Expansion Chamber Retention Screws	28-10007
6	1	Expansion Chamber	26-10378
7	1	Sample Jar	26-10290
8	1	Reference Jar	26-10289
9	1	Heater Hole Cap	26-10313
10	1	Centering Spigot Assembly	26-10328
11	1	Oil Tube Assembly	26-10324
12	1	Optional Heater	26-10337
13	3	Filter Chamber Cover Retention Screws	26-10326
14	1	Filter Chamber Cover	26-10316
15	1	Filter Set	26-10332
16	1	Hose Barb Assembly	26-10321
17	1	Sample Line Assembly	26-10319
18	1	Oil Container	26-10287



FIGURE 11 ENVIROSAVER MODEL ES-1250 REPLACEMENT PARTS



REPLACEMENT PARTS			
Item #	Qty P/ Unit	Item Description	Van Air Part No.
1	1	Expansion Chamber Cap	26-10377
2	1	Expansion Chamber Filter	26-10306
3	1	Expansion Chamber Filter Support	26-10309
4	1	Inlet Hose Assembly	26-10311
5	5	Expansion Chamber Retention Screws	28-10007
6	1	Expansion Chamber	26-10379
7	1	Heater Hole Cap	26-10314
8	1	Optional Heater	26-10338
9	1	Centering Spigot Assembly	26-10329
10	1	Dirt Trap	26-10312
11	1	Sample Jar	26-10290
12	1	Reference Jar	26-10289
13	4	Filter Chamber Cover Retention Screws	26-10326
14	1	Filter Chamber Cover	26-10380
15	1	Filter Set	26-10333
16	1	Hose Barb Assembly	26-10321
17	1	Sample Line Assembly	26-10319
18	1	Oil Tube Assembly	26-10325
19	1	Oil Container	26-10288

SERVICE PARTS & ACCESSORIES

<b>REPLACEMENT FILTER SETS</b>	<b>ES-100</b>	<b>ES-350</b>	<b>ES-1250</b>
	VAN AIR P/N: 26-10331	VAN AIR P/N: 26-10332	VAN AIR P/N: 26-10333

<b>HEATERS</b>	<b>ES-100</b>	<b>ES-350</b>	<b>ES-1250</b>	<b>MANIFOLD HEATER</b>
	<ul style="list-style-type: none"> <li>• 115V-1PH-60HZ (400W).</li> <li>• FIXED 77°F THERMOSTAT.</li> <li>• THERMAL OVERLOAD SHUTOFF.</li> </ul>	<ul style="list-style-type: none"> <li>• 115V-1PH-60HZ (1 KW).</li> <li>• ADJUSTABLE THERMOSTAT.</li> <li>• THERMAL OVERLOAD SHUTOFF.</li> <li>• HEATER-ON INDICATOR LAMP.</li> </ul>	<ul style="list-style-type: none"> <li>• 115V-1PH-60HZ (3 KW).</li> <li>• ADJUSTABLE THERMOSTAT.</li> <li>• THERMAL OVERLOAD SHUTOFF.</li> <li>• HEATER-ON INDICATOR LAMP.</li> </ul>	<ul style="list-style-type: none"> <li>• 115V-1PH-60HZ (50W)</li> <li>• FIXED THERMOSTAT.</li> <li>• THERMAL OVERLOAD SHUTOFF.</li> <li>• HEATER-ON INDICATOR LAMP.</li> </ul>
	VAN AIR P/N: 26-10336	VAN AIR P/N: 26-10337	VAN AIR P/N: 26-10338	VAN AIR P/N: 26-10339

<b>OIL CONTAINERS</b>	<b>ES-100</b>	<b>ES-350</b>	<b>ES-1250</b>
	• SET INCLUDES (2) CONTAINERS.	• SET INCLUDES (2) CONTAINERS.	• SET INCLUDES (2) CONTAINERS.
	VAN AIR P/N: 26-10286	VAN AIR P/N: 26-10287	VAN AIR P/N: 26-10288

<b>MISCELLANEOUS</b>	<b>MANIFOLD</b>	<b>REFERENCE TEST SET</b>	<b>SAMPLE JAR</b>	<b>REFERENCE JAR</b>
	<ul style="list-style-type: none"> <li>• FOR CONNECTING UP TO THREE UNITS TOGETHER.</li> </ul>	<ul style="list-style-type: none"> <li>• KIT INCLUDES:</li> <li>(1) PLASTIC CASE</li> <li>(1) SAMPLE BOTTLE</li> <li>(1) REFERENCE BOTTLE</li> </ul>	• 3.4 FLOZ.	• 3.4 FLOZ.
	VAN AIR P/N: 26-10341	VAN AIR P/N: 26-10340	VAN AIR P/N: 26-10290	VAN AIR P/N: 26-10289

## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
There is no oil in the oil container	<p>The oil container is not resting on the floor at the same level as the ENVIROSAVER housing.</p> <p>Oil tube or oil tube sliding ring is too high.</p> <p>The ENVIROSAVER has not had enough time to form a film of oil on top of the water.</p>	<p>Adjust oil container so that it sits flat on the floor with the ENVIROSAVER housing.</p> <p>Adjust oil tube down through the brass bushing until it is at the correct height.</p> <p>Allow ample time for an oil layer to form on top of the water. This can take 3 or more months.</p>
Oil container is filling with water	<p>Sliding ring at the top of the oil tube is set too low</p> <p>ENVIROSAVER is improperly sized for application.</p> <p>Filter element is blocked</p>	<p>Set the ring to a slightly higher position and check back later to see if the water has ceased to flow into the container.</p> <p>Check sizing chart on page 4 and select larger unit.</p> <p>Remove blockage and/or replace prefilter and carbon filter.</p>
Pop-up filter blockage indicator shows red	<p>Prefilter and/or carbon filter have become blocked.</p> <p>ENVIROSAVER overflows.</p>	<p>Replace prefilter and carbon filter.</p> <p>Reduce the amount of condensate entering the unit or install additional ENVIROSAVER unit.</p>
Water output is cloudy	<p>Filter life has expired.</p>	<p>Replace prefilter and carbon filter.</p>

# WARRANTY

## I. INSTALLATION.

Unless otherwise set forth in a quotation and/or acknowledgment, Seller shall not be responsible for installation. Cost of and all risks of damage to the equipment and/or components thereof caused by installation shall be the sole responsibility of Buyer. If supervision of installation and/or supervision of start up of the equipment is to be provided by Seller, Buyer shall assume all costs incurred by Seller in furnishing supervision. If supervision of installation and/or supervision of start up of the equipment is provided by Seller, Seller shall only be responsible for any loss or damage growing out of a direct negligent act or acts of Seller's supervisor.

SELLER SHALL NOT BE RESPONSIBLE FOR IMPROPER OPERATION OF THE EQUIPMENT DUE TO FAULTY ERECTION OR INSTALLATION.

## II. PERFORMANCE.

Seller shall have no responsibility for the performance of its Goods when installed under conditions varying materially from those under which the product is usually tested or operated under existing industry standards.

## III. WARRANTY

All oil/water separators manufactured by seller are guaranteed to be free from defective materials and workmanship for a period of **five (5) years** from the date of shipment. This warranty does not include elements, sample/test jars, or any accessories or expendable items.

The above warranties for all products described do not cover abuse, neglect, lack of normal maintenance, accidents or other exceptional circumstances.

Date of shipment will be defined as the date of departure from the factory or from distributor stock. A copy of the distributor invoice to the customer at time of shipment is required as verification of shipment from distributor stock. Equipment start up will be verified by receipt of the warranty registration card.

Seller's obligation under this warranty may, at its option, be discharged by furnishing or repairing, without charge, FOB its factory, a similar part to replace any part of its own manufacture which within the above specified periods, proves to have been defective, provided that within a reasonable time for inspection after delivery, Seller is notified of such defects and the equipment, material or part claimed to be defective is delivered pre-paid to Seller at Lake City, Pennsylvania with evidence that it has been properly maintained and used in accordance with instructions. If, in connection with such warranties, repairs are performed by the Buyer with the written authorization of Seller, then the expense in connection with such repairs shall not exceed the cost of material and direct labor. If such repairs are performed by Buyer without the written authorization of Seller, Seller will not assume any of the expenses in connection with such repairs and will immediately void any remaining warranty on the Goods.

THE REPAIR OR REPLACEMENT WARRANTY HEREIN SET FORTH IS THE EXCLUSIVE WARRANTY GIVEN BY SELLER FOR ITS GOODS. THIS WARRANTY IS GIVEN IN LIEU OF ANY OR ALL WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESSED OR IMPLIED. ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE HEREBY EXPRESSLY EXCLUDED BY SELLER. SELLER NEITHER ASSUMES, NOR DOES IT AUTHORIZE ANY OTHER PERSON TO ASSUME ON ITS BEHALF ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF ITS GOODS.

## IV. LIMITATIONS OF LIABILITIES AND INDEMNITIES.

IN NO CASE, WHETHER AS A RESULT OF BREACH OF CONTRACT, BREACH OF WARRANTY OR TORT (INCLUDING SELLER'S OR BUYER'S NEGLIGENCE OR STRICT LIABILITY) SHALL SELLER BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES INCURRED BY BUYER, INCLUDING, BUT NOT LIMITED TO, LOSS OF SALES PROFIT, REVENUE, OR GOOD WILL; LOSS OF USE OF GOODS OR ANY ASSOCIATED EQUIPMENT OR MATERIAL; COST OF CAPITAL; COST OF SUBSTITUTE PRODUCTS, FACILITIES OR SERVICES; DOWNTIME COSTS; ATTORNEY'S FEES; OR LOSSES OR CLAIMS OF CUSTOMERS OF BUYER FOR SUCH DAMAGES BUYER HEREBY AGREES TO INDEMNIFY AND HOLD HARMLESS SELLER FROM ANY AND ALL SUCH DAMAGES BUYER FURTHER AGREES TO DEFEND INDEMNIFY AND HOLD HARMLESS SELLER FROM ANY AND ALL CLAIMS, LIABILITY, DAMAGES OR EXPENSES (INCLUDING ATTORNEY'S FEES) DUE TO PERSONAL INJURIES OR DEATH, TO BUYER, ITS EMPLOYEES, AND THIRD PARTIES AND FROM PROPERTY DAMAGE RESULTING FROM THE NEGLIGENCE OR STRICT LIABILITY OF BUYER NOT WITHSTANDING THE PROVISIONS OF ANY WORKER COMPENSATION OR SIMILAR STATUTE

## V. SERVICE, OPERATING PROCEDURE, WARNINGS.

Should Buyer request start up supervision by Seller, a maximum number of days required for this supervision may be included and specified in the quotation and/or acknowledgment as a separate price item. The specified days are only approximate, since start up supervision is contingent upon equipment and work supplied by others and beyond the control of Seller, and Seller shall be paid for any days actually worked in addition to those specified on a pro-rata basis.

Start up supervision and warranty supervision and warranty service time will include all elapsed time during the standard working hours, as defined by Seller, or Seller's representative from the time Seller's representative leaves his operating base or another customer's plant.

Where the service to be performed is start up supervision, Seller should be notified approximately 30 days prior to start up Seller's representatives may be required to have standard time verification sheets approved by Buyer's authorized representative, and the name and title of this representative should be furnished to Seller with the notification.

Unless set forth in the quotation and/or acknowledgment, Seller shall not be obligated to provide special operating manuals or operating procedures for the operation of its equipment or supply special warning placards to be affixed to the equipment. If such manuals, procedures or placards are provided by Seller, Buyer shall be responsible for payment of cost of furnishing such items, for instructing any operator of the equipment as to the contents of such manuals and/or procedures; for requiring that such procedures be abided by; for insuring that warning placards remain affixed to the equipment and for requiring operators to abide by warning placards.

Any safety equipment required to be worn by any operator or maintenance person shall be provided by Buyer, and the failure to provide such equipment or the failure to require the use thereof shall be the Buyer's sole responsibility. Buyer shall indemnify and hold Seller harmless for any liability with respect thereto.

Seller shall not be responsible for providing safety devices and/or guarding of the equipment except as provided for in the quotation and/or acknowledgment, and Buyer specifically assumes all responsibility for supplying such safety devices and/or guarding necessary for the safe operation of the equipment. If safety devices and/or guarding are specified in the quotation and/or acknowledgment, Buyer shall be solely responsible for making certain that any operator of the equipment uses such safety devices and/or guarding and Buyer shall indemnify and hold Seller harmless with respect to any property damage and/or personal injury, including death, occasioned by any person by reason of such failure on the part of Buyer and/or its operator.

<b>PURCHASED FROM:</b>		
DATE: _____		
NAME: _____		
COMPANY: _____		
ADDRESS: _____		
CITY: _____	STATE: _____	ZIP: _____
PHONE: _____	FAX: _____	
<b>ATTACH BUSINESS CARD HERE</b>		

# VAN AIR SYSTEMS INC

MAKING COMPRESSED AIR AND GAS WORK BETTER SINCE 1944.

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