

Rotary Vane Compressors



Installation and Service Manual for RV33, RV332, RV75, RV752, RV100, RV1002

Thank you for purchasing the Stratus RV series rotary vane compressor. This instruction manual explains the product operations and gives important precautions regarding its safe use. Please read and follow these instructions to experience years of trouble free service on these top of the line units.

To avoid accident, do not use the compressor in any way other than as described in this instruction manual especially when you see "WARNING". After reading this instruction manual, keep it nearby as a reference in case questions arise during use.

If this instruction manual should become lost or damaged, they are available on our website www.easypro.com.

PRODUCT USE CRITERIA AND PURPOSE

- Pump only clean, dry air
- Optimal operating range is 32°F - 104°F (0°C - 40°C)
- Protect unit from dirt and moisture
- Do not pump flammable or explosive gases or use in an atmosphere that contains such gases
- Protect all surrounding items from exhaust air, this exhaust air can become very hot
- Corrosive gases and particulate material will damage unit. Water vapor, oil-based contaminants or other liquids must be filtered out.
- Product performance changes when using at high altitudes
- Oil-Less rotary-vanes require NO lubrication
- Sealed bearings are grease packed
- Use of petroleum or hydrocarbon products will reduce carbon-vane service life
- Units have automatic thermal protectors which protect the motor by shutting the motor off if it overheats. The motor will automatically restart once the motor has cooled.

SAFETY:

Your safety and the safety of others is extremely important. We have provided many important safety messages in this manual and on your compressor. Always read and obey all safety messages.



This is the safety alert symbol. This symbol alerts you to hazards that can kill or hurt you and others. The safety alert symbol and the words "Danger" and "Warning" will precede all safety messages.

**Please read this manual completely before installing and using this compressor.
Save for future reference and keep in the vicinity of the compressor.**

These words mean:



Danger - You will be killed or seriously injured if you don't follow instructions.



Warning - You can be killed or seriously injured if you don't follow instructions.

All safety messages will identify the hazard, tell you how to reduce the chance of injury and tell you what can happen if the safety instructions are not followed.

INSTALLATION:



WARNING! Electrical Shock Hazard. Disconnect electrical power at the circuit breaker or fuse box before installing this product. Install this product where it will not come into contact with water or other liquids. Install this product where it will be weather protected. Electrically ground this product. Failure to follow these instructions can result in death, fire or electrical shock.

Correct installation is the responsibility of installer. Make sure of proper installation conditions and that clearances do not block air flow.



WARNING!

Blocking air flow over the product in any way can cause product to overheat.

MOUNTING:

Compressor may be installed in any orientation. Mounting the product to a stable, rigid operating surface and using shock mounts will reduce noise and vibration.

PLUMBING:

Remove plugs from the IN and OUT ports. Connect with pipe and fittings that are the same size or larger than threaded ports. Be sure to connect the intake and exhaust plumbing to the correct inlet and outlet ports. Ports will not support plumbing.

ACCESSORIES:

The compressor's intake and exhaust filters will provide adequate filtration in most applications. Check filters periodically and replace when necessary. Avoid excessively dusty locations. Install relief valves and gauges at inlet, outlet or both, to monitor performance. Check valves may be required to prevent back flow through pump.

MOTOR CONTROL:

It is your responsibility to contact a qualified electrician and assure that the electrical installation is adequate and in conformance with all national and local codes/ordinances. The metal capacitor must be grounded.

Determine the correct overload setting required to protect the motor (see motor starter manufacturer's recommendations). Select fuses, motor protective switches or thermal protective switches to provide protection. Fuses act as short circuit protection for the motor, not as protection against overload. Incoming line fuses help to withstand the motor's starting current. Motor starters with thermal magnetic overload or circuit breakers protect motor from overload or reduced voltage conditions.

The wiring diagram supplied with the compressor provides required electrical information. Check that power source is correct to properly operate the dual-voltage motors.

ELECTRICAL:



WARNING! Electrical Shock Hazard. This product must be properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. If repair or replacement of the cord or plug is necessary, do not connect the grounding wire to either flat blade terminal.

Check the condition of the power supply wiring. Do not permanently connect this product to wiring that is not in good condition or is inadequate for the requirements of this product. Failure to follow these instructions can result in death, fire or electrical shock.

Model with a power supply cord: This product must be grounded. For either 120 volt or 220/240 volt circuits connect power supply cord grounding plug to a matching grounded outlet. Do not use adapter. See diagram above.

In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This compressor may be equipped with a power supply cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if you are not sure whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Model that is permanently wired: This compressor must be connected to a grounded, metallic, permanent wiring system, or an equipment grounding terminal or lead on the compressor.

Power supply wiring must conform to all required safety codes and be installed by a qualified person. Check that all supply voltage agrees with that listed on compressor name plate.

Do not use extension cords on these units

OPERATION:

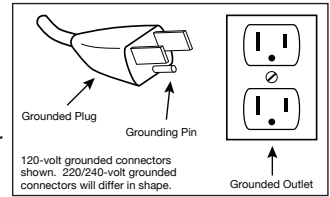


WARNING! Injury Hazard. Install proper safety guards as needed. Keep fingers and objects away from openings and rotating parts. When provided, motor terminal covers must be in place for safe operation. Product surfaces become very hot during operation, allow surfaces to cool before handling. Air stream from product may contain solid or liquid material that can result in eye or skin damage, wear proper eye protection. Failure to follow these instructions can result in burns, eye injury, or other serious injury.

It is your responsibility to operate this compressor at recommended pressures or vacuum duties and room ambient temperatures.

Units have automatic thermal protectors which protect the motor by shutting the motor off if it overheats. The motor will automatically restart once the motor has cooled.

START UP: If motor fails to start or slows down significantly under load, shut off and disconnect from power supply. Check that the voltage is correct for motor and that motor is turning in the proper direction. Vane life will be drastically reduced if motor is not operating properly. Vanes can break or be damaged if motor/pump runs in the wrong direction.



MAINTENANCE:



WARNING! Electrical Shock Hazard. Disconnect electrical power supply before performing maintenance. If unit is hardwired into system, disconnect electrical power at the circuit breaker or fuse box before performing any maintenance on product. Failure to follow these instructions can result in death, fire or electrical shock.



WARNING! Injury Hazard. Product surfaces become very hot during operation, allow surfaces to cool before handling. Air stream from product may contain solid or liquid material that can result in eye or skin damage, wear proper eye protection. Wear ear protection. Flush this product in a well ventilated area. Failure to follow these instructions can result in burns, eye injury or other serious injury.

SHUTDOWN PROCEDURES:

It is your responsibility to follow proper shutdown procedures to prevent compressor damage. **Never add oil to this oil-less compressor.**

- 1 Disconnect plumbing
- 2 Operate compressor for at least 5 minutes without plumbing
- 3 Run at maximum vacuum for 10 to 15 minutes
- 4 Repeat step 2
- 5 Disconnect power supply
- 6 Plug open ports to prevent dirt or other contaminants from entering compressor

RV REPAIR KIT INSTALLATION:



WARNING! Electrical Shock Hazard. Disconnect electrical power supply before installing repair kit. If product is hard wired into system, disconnect electrical power at the circuit breaker or fuse box before installing repair kit. Vent all air lines to release pressure or vacuum. Failure to follow these instructions can result in death, fire or electrical shock.

EasyPro will not guarantee field-rebuilt compressor performance. For performance guarantee, the compressor must be returned to EasyPro.

Repair kit contents may vary. Most contain vanes, gaskets and filter parts.

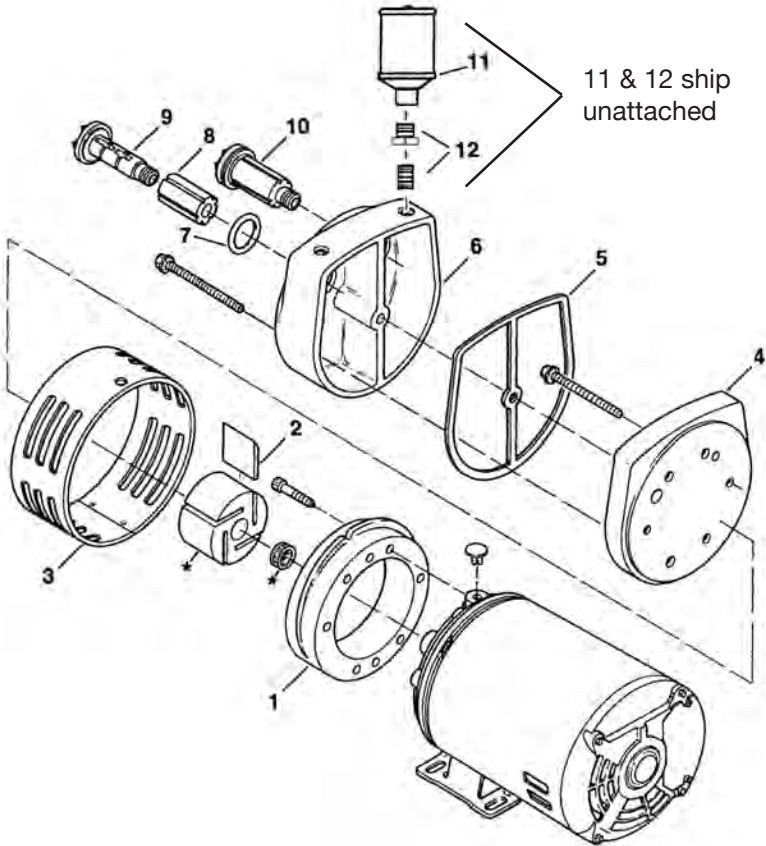
1. Remove filter/muffler parts from front of muffler box.
2. Remove the five muffler box bolts.
3. Use a small hammer to tap on box to remove. Do not use a screwdriver.
4. Remove the six end plate bolts.
5. Remove end plate. Check direction of bevel edges of vanes then remove vanes.
6. Clean body and rotor slots.
7. Check end plate, rotor and body for scoring. Severe scoring or worn bearings will require service at an EasyPro authorized facility.

DO NOT remove rotor or motor bolts.

8. Insert vanes, checking that the bevel edges are in the correct direction.
9. Replace end plate. Torque bolts to 90-120 in. lb.
10. Check gasket for damage.
11. Reinstall muffler box. Torque bolts to 90-120 in. lb.

Check that all external accessories such as relief valves and gauges are attached and are not damaged before re-operating product.

RV33 EXPLODED VIEWS & PARTS



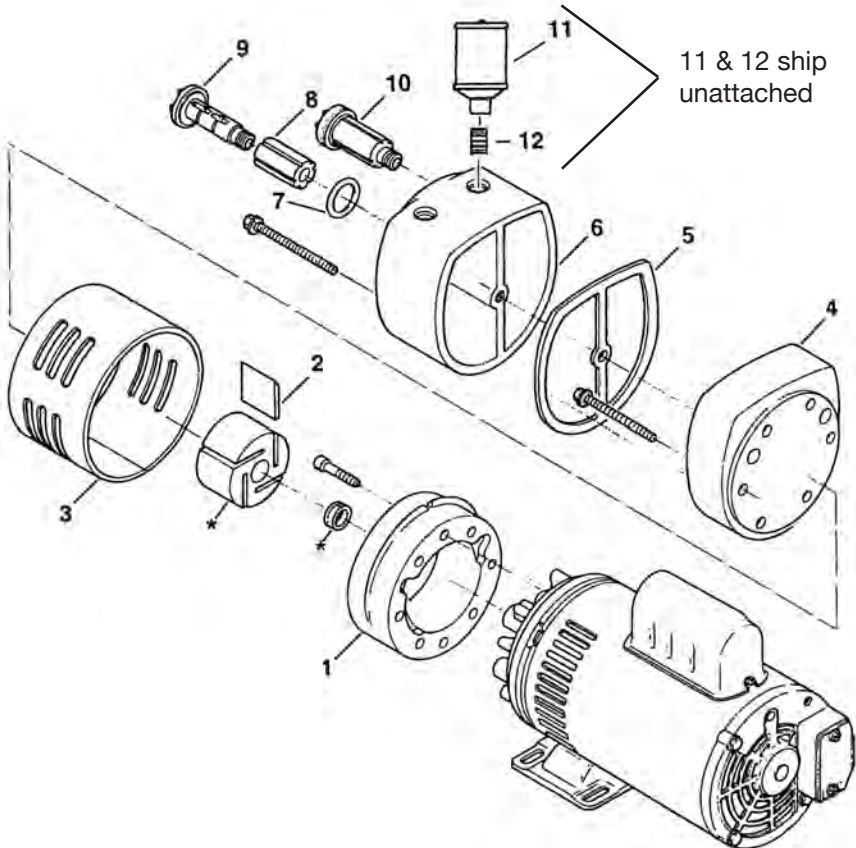
#	Description	Quantity	Model RV33
1	Body	1	
2	Vane**	4	
3	Shroud	1	
4	End Plate	1	
5	Gasket**	1	
6	Muffler Box	1	
7	O-Ring**	2	RVBO
8	Felt**	2	RVBF
9	End Cap	2	RVBP
10	End Cap Assembly	2	
11	Filter/Muffler	1	AC432
12	Nipple Assembly	1	
—	Repair Kit	1	RV33V

**Denotes parts included in the Repair Kit.

* Parts not available for purchase

When corresponding or ordering parts, please give complete model and serial numbers.

RV75 & RV100 EXPLODED VIEWS & PARTS



#	Description	Quantity	Model RV75	Model RV100
1	Body	1		
2	Vane**	4		
3	Shroud	1		
4	End Plate	1		
5	Gasket**	1		
6	Muffler Box	1		
7	O-Ring**	2	RVBO	RVBO
8	Felt**	2	RVBF	RVBF
9	End Cap	2	RVBP	RVBP
10	End Cap Assembly	2		
11	Filter/Muffler	1	AC432	AC432
12	Nipple	1		
—	Repair Kit	1	RV75V	RV100V

**Denotes parts included in the Repair Kit.

* Parts not available for purchase

When corresponding or ordering parts, please give complete model and serial numbers.

TROUBLESHOOTING - ALL UNITS:

Low Pressure	High Pressure	Over Heating	Won't Start	Possible cause and solution
x		x	x	Filter dirty — Clean or replace
x	At Unit	x	x	Muffler dirty — Clean or replace
	x	x	x	Relief valve set too high — Inspect and adjust/change to lower relief valve
x				Relief valve set too low — Inspect and adjust/change to higher relief valve
x	At Unit	x	x	Plugged vacuum/pressure line — Inspect & repair
x				Vanes sticking — Clean or replace
x				Vanes worn — Replace
x				Shaft seal worn — Have replaced
x		x	x	Dust or offset powder in pump — Inspect and clean
x		x	x	Motor not wired correctly — Check wiring diagram and line voltage*

* To troubleshoot low voltage, unit can be tried in an outlet closer to the breaker panel. Voltage drop in longer electrical runs can cause low voltage.

MAINTENANCE/NOTES

EasyPro Pond Products Limited Warranty

EasyPro Pond Products ("EasyPro") warrants to the purchaser that this product ("Product") will be free from any mechanical or material defects for a period of **one year** from the date of purchase. This limited warranty does not cover rebuild kit parts: vanes, filters, gaskets or o-ring gaskets. These are wear items that require replacing every 12 months - 24 months depending on operating conditions. This warranty only covers properly installed and maintained Products sold by authorized EasyPro Sellers who are subject to and follow EasyPro's quality control standards. Please note that because EasyPro is unable to control the quality of Products sold by unauthorized sellers, unless otherwise prohibited by law, this warranty does not cover Products purchased from unauthorized sellers.

This warranty does not cover normal wear and tear, nor any deterioration suffered through overloading, improper use, negligence, improper installation, acts of God or accident. Similarly, any modification made by the purchaser to the Product will cause the warranty to be null and void. This warranty does not cover any cost associated with the installation or removal of the Product subject to a warranty claim.

All returned items will be inspected to determine cause of failure before a warranty claim is approved. The exclusive remedies provided hereunder shall, upon EasyPro's inspection and option, be either repair or replacement of the Product or parts covered under this warranty.

Making a Claim: A Return Authorization ("RA") number must first be obtained by calling EasyPro at 800-448-3873 or via email at warranty@easypro.com. It is the purchaser's responsibility to pay the return shipping charges. Be sure to include the RA number, original receipt (in the form of an invoice or sales receipt), your name, your return address and your phone number inside of the package. No warranty claims will be honored without the original receipt that shows that your purchase was made from an Authorized EasyPro Seller. Ensure the product is properly packaged and insured for the replacement value. Damage due to improper packaging is the responsibility of the sender.

ALL OTHER EXPRESS OR IMPLIED WARRANTIES INCLUDING MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE ARE HEAREBY LIMITED IN DURATION TO THE DURATION OF THE WARRANTY AS DESCRIBED ABOVE. Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

EasyPro shall not be held liable for any damages caused by defective components or materials of this Product; or for loss incurred because of the interruption of service; or any consequential/incidental damages and expenses arising from the production, sale, use or misuse of this Product. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

EasyPro shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this Product. This warranty gives you specific legal rights, and you may also have other rights that vary from State to State.

Please keep a copy for your records

Model # _____

Serial # _____

10 digit number by barcode on compressor unit

