

Rocking Piston Compressors



Installation and Service Manual for SRC25, SRC252, SRC50, SRC502

Thank you for purchasing the Stratus SRC series rocking piston 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.easypondproducts.com.

PRODUCT USE CRITERIA AND PURPOSE

- Pump only clean, dry air
- 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
- This pump is oil-less and requires NO lubrication

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. 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.

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

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 external intake will provide adequate filtration in most applications. Check filters periodically and replace when necessary. 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.

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

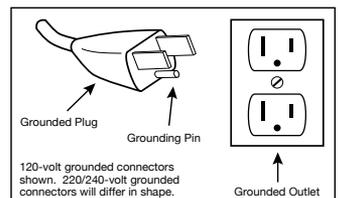
ELECTRICAL:



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 grounded 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.

Extension Cords: Use only a 3-wire extension cord that has a 3-blade grounding plug. Connect extension cord plug to a matching 3-slot receptacle. Do not use an adapter. Make sure your extension cord is in good condition. Check that the gage wire of the extension cord is the correct size wire to carry the current this compressor will draw.

Do not exceed 100' with minimum 12 gage wire (only up to 10 amps) for extension cords.

An undersized cord is a potential fire hazard and will cause a drop in line voltage resulting in loss of power, causing compressor to overheat. If in doubt, use the next heavier gage cord. The smaller the gage number, the heavier the wire gage.

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. Wear hearing 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.

START UP: If motor fails to start or slows down significantly under load, shut off and disconnect from power supply. Check that the supply voltage is correct and verify motor is turning in the proper direction. Check plug, cord and switch for damage. If the thermal protection switch has tripped, the motor can restart after cooling.

MAINTENANCE:



WARNING! Electrical Shock Hazard. Disconnect electrical power supply before performing maintenance. 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 hearing protection. Failure to follow these instructions can result in burns, eye injury, or other serious injury.

It is your responsibility to:

- Regularly inspect and make necessary repairs to compressor in order to maintain proper operation
- Make sure that pressure is released from compressor before starting maintenance

Check intake and exhaust filters after first 500 hours of operation. Clean filters and determine how frequently filters should be checked during future operation. This one procedure will help to assure the product's performance and service life.

- 1 Disconnect electrical power supply to unit
- 2 Vent all air lines
- 3 Remove filter cover
- 4 Check filter felt. Replace felt if it is covered with contamination or shows signs of increasing differential pressure
- 5 Reinstall felt and filter cover

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

SHUTDOWN PROCEDURES:

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

Proper shutdown procedures must be followed to prevent pump damage. Failure to do so may result in premature pump failure. Compressors are constructed of ferrous metals or aluminum which are subject to rust and corrosion when pumping considerable vapors such as water. Follow the steps below to assure correct storage and shutdown between operating periods.

- 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

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 gasket and filter parts.

- 1 Disconnect electrical power to pump
- 2 Disconnect air supply and vent all air lines to release pressure or vacuum
- 3 Mark the orientation of the ports so cover will be reinstalled correctly
- 4 Remove screws from the head of pump, remove the head
- 5 Mark the orientation of valve plate(s), remove valve plates
- 6 Remove and discard old cup(s), retainer screws, cylinder O-ring(s), head O-ring(s), valves and valve retainers

(continued on next page)

- 7 Install new cup(s) on rod(s) facing up
- 8 Reinstall retainer plates
- 9 Apply a thread locking compound (Loctite® 222) to retainer screws, torque screws to 50 inch-pounds
- 10 Carefully install cylinder(s) over cup(s) at an angle to avoid damaging cup(s)
- 11 Clean valve plates with water based solvent, take care not to scratch valve seats
- 12 Install valves and valve retainers, check that the orientation with the ports is correct
- 13 Apply a thread locking compound (Loctite® 222) to retainer screws, torque screws to 10-13 inch-pounds
- 14 Install cylinder O-ring(s) in the bottom of valve plate(s)
- 15 Check that the orientation of valve plate(s) with the ports is correct
- 16 Install the head O-rings in the O-ring grooves on top of valve plate
- 17 Reinstall head over valve plate(s) checking that orientation with ports is correct
- 18 Torque screws to 50 inch-pounds

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

TROUBLESHOOTING:

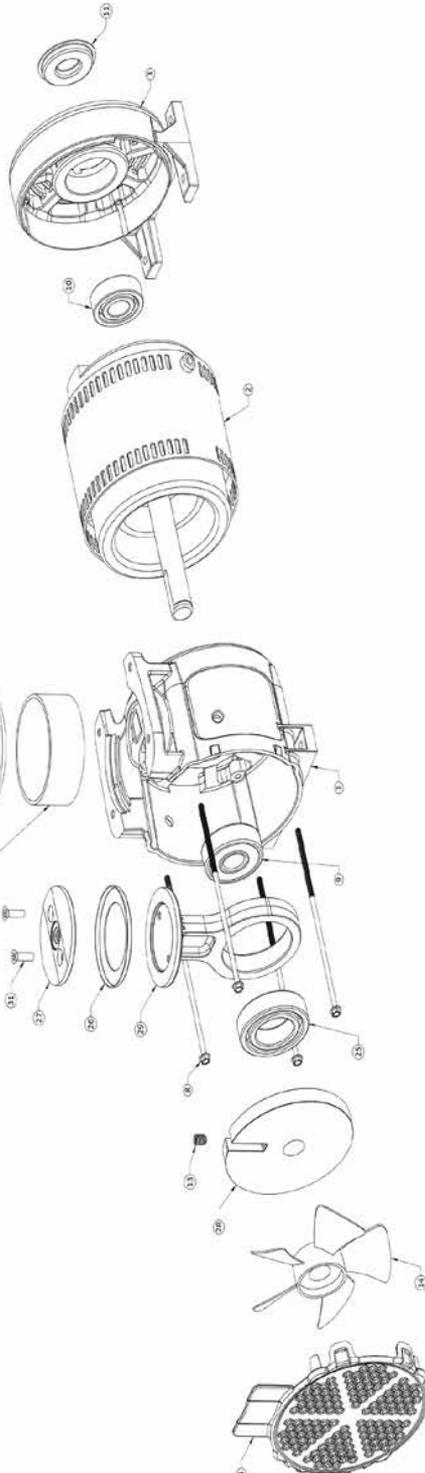
<i>Low Pressure</i>	<i>High Pressure</i>	<i>Excess Noise</i>	<i>Over Heating</i>	<i>Won't Start</i>	<i>Possible cause and solution</i>
x					Filter dirty Clean or replace
					Dirty muffler Clean or replace
x					Dirty valves Clean or replace
x					Bent/damaged valves Replace
x		x			Damaged/worn cup Replace
x		x			Leaky hose Fix or replace
x				x	Leaky check valve Fix or replace
	x		x	x	Plugged vacuum or pressure line Fix or replace
			x	x	Low voltage Inspect power supply*
x					Leaky relief valve Fix or replace
			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.

EXPLODED VIEWS & PARTS

SRC25 & SRC 252:

- # Description
- 1 Body***
- 2 Motor***
- 3 End Belt***
- 4 Fan Cover***
- 5 Head Screws
- 6 Head
- 7 O-ring†
- 8 Motor Bolt***
- 9 Bearing***
- 10 Bearing***
- 11 End Belt Cap
- 12 Head O-ring†



- 13 Screw
- 14 Fan Clockwise
- 15 Pipe Plug
- 16 Filter
- 18 Valve Plate
- 19 Leaf Valve†
- 20 Valve Limiter
- 21 Valve Screw
- 22 Valve Screw
- 23 Valve Retainer†
- 25 Bearing***
- 26 Cup†
- 27 Retainer Plate***
- 28 Eccentric***
- 29 Rod***
- 30 Cylinder†
- 31 Cup Screw†

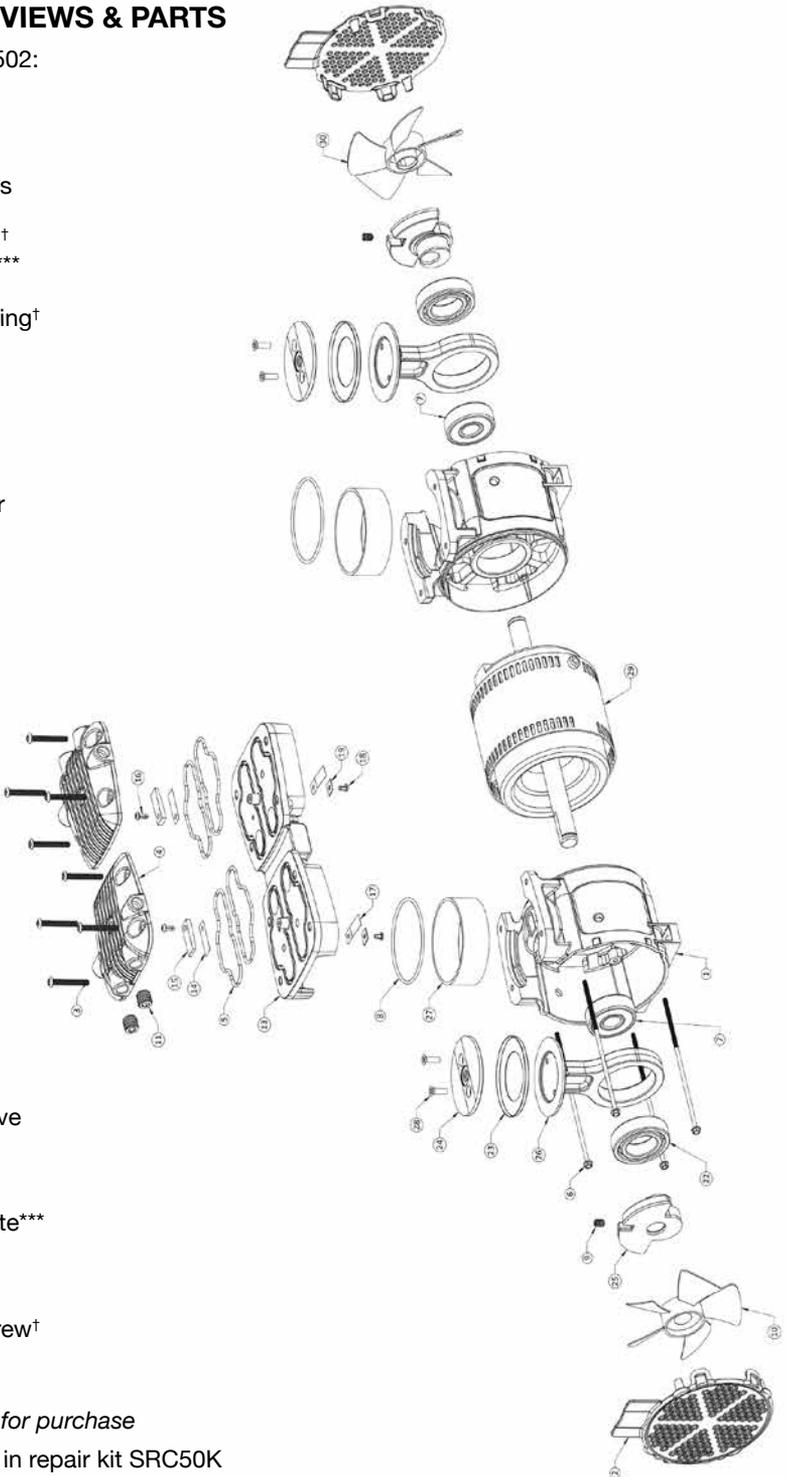
***Not available for purchase

†Items included in repair kit SRC25K

EXPLODED VIEWS & PARTS

SRC50 & SRC 502:

- # Description
- 1 Body***
- 2 Fan Cover
- 3 Head Screws
- 4 Head
- 5 Head O-ring†
- 6 Motor Bolts***
- 7 Bearing***
- 8 Cylinder O-ring†
- 9 Set Screw
- 10 Fan
- 11 Pipe Plug
- 13 Valve Plate
- 14 Leaf Valve†
- 15 Valve Limiter
- 16 Valve Screw



- 17 Leaf Valve†
- 18 Valve Screw
- 19 Retainer Valve
- 20 Plug
- 22 Bearing***
- 23 Cup†
- 24 Retainer Plate***
- 25 Eccentric
- 26 Rod
- 27 Cylinder†
- 28 Retainer Screw†
- 29 Motor***
- 30 Fan

***Not available for purchase

†Items included in repair kit SRC50K

LIMITED WARRANTY:

- This product is warranted against any mechanical or material defects for a period of two years from the date of purchase.
- This limited warranty does not cover accidental damage to the product due to abuse, negligence or improper installation.
- This limited warranty does not cover rebuild kit parts: piston cup(s), piston ring(s), leaf valves, head gaskets or o-ring gaskets. These are wear items that require replacing every 12 months - 24 months depending on operating conditions.
- An RMA number must be obtained by calling EasyPro Pond Products at 800-448-3873 and be included on package before returning for warranty issues.

Return warranty items to:

EasyPro Pond Products, 4385 East 110th, Grant, MI 49327

Be sure to include RMA number, original receipt, name, return address and phone number in package.

- In the event of a warranty claim, please return the product postage prepaid with the original receipt for repair or exchange. No warranty claims will be honored without the original receipt.
- The manufacturer or supplier shall not be held liable for any damages caused by defective components or materials of this pump; 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.
- The manufacturer or supplier 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.

Return
warranty
pumps to:

EasyPro
Pond Products
4385 East 110th
Grant, MI 49327

Be sure to include
RMA number, original
receipt, return
address and phone
number in package!

Please keep a copy for your records

Model # _____

Serial # _____

10 digit number by barcode
on compressor unit



800-448-3873 • Grant, Michigan
www.easypropondproducts.com • info@easypropondproducts.com