

**MOVING WATER FORWARD, SINCE 1968** 



# Teich-Aire KM SERIES COMPRESSOR

Operation & Maintenance Manual





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### PRODUCT OVERVIEW

Thank you for purchasing this Teich-Aire rocking piston oil-less compressor. It is manufactured to the highest standards using quality materials. Please follow all recommended maintenance, operational, and safety instructions, and you will receive years of trouble-free service.

IMPORTANT: PLEASE READ THIS MANUAL AND SAVE FOR FUTURE REFERENCE.

Rocking Piston Compressor				
Model		Serial No.		
Air Flow	cfm	Max pressure	psi	
Voltage	V	Hz	Amp	
Phase	Single	Kw	RPM	

To facilitate future technical assistance and/or parts orders, please copy the details from the compressor nameplate onto this page and save for future reference.

#### **Important Product Use Information**

To avoid accidents, use only as described in this manual.

- Pump only clean, dry air.
- Operate at 32 °F 104 °F (0 °C to 40 °C).
- Protect the unit from dirt and moisture.
- Do not pump flammable or explosive gases or use in an environment that contains such gases.
- Protect all surrounding items from exhaust air. Exhaust air can become very hot.
- Corrosive gases and particulate material will damage the unit. Keep free of any water vapor, oil-based contaminants, or other liquids.
- This pump is oil-less and requires no lubrication.

### **Installation Requirements**

Correct installation is your responsibility. Ensure proper installation conditions and installation clearances for sufficient airflow.

- Install the compressor in a clean, dry location.
- Ensure the compressor is protected from dirt, moisture, and harmful elements of the outdoor environment.
- Ambient air temperature (readings taken 4" away from any surface of the compressor) must not exceed 104 °F (40 °C).
- Ensure that adequate ventilation and cooling air (flowing across the compressor) is available to keep the compressor from overheating, which can cause premature damage.
- Mount the compressor to a stable, rigid operating surface. Using the provided shock mounts will reduce noise and vibration.
- A simple, durable bracket accessory that will allow you to easily mount the compressor to a wall, floor, or bench.

### **A** 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 protected from harmful weather.

Electrically ground this product.

Failure to follow these instructions can result in fire, electrical shock, or death.



## **INSTALLATION**

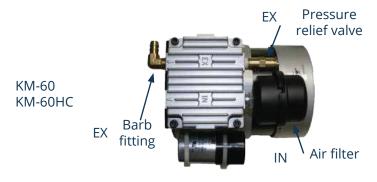
#### **Plumbing**

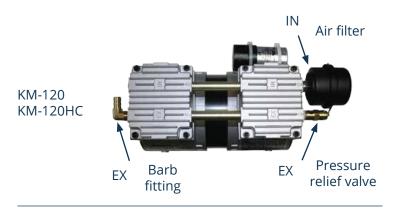
Remove plugs as necessary from the IN and OUT ports. Connect with pipe and fittings that are the same size or larger than the product's threaded ports. Be sure to connect the intake and exhaust plumbing to the correct inlet and outlet ports. Ports will not support plumbing.

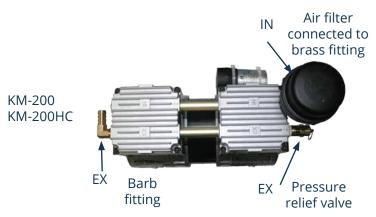
Install the air filter in one inlet port. A recommends installing a pressure relief valve in an outlet port to bleed off excess pressure in case of a blocked line. Check valves may be required to prevent back-flow through the compressor.



Compressors ship with fittings installed on some ports. Remove any red plastic inserts (no tools required). Make sure the threaded insert is installed on the IN port not in use. You may need to move it based on the plumbing shown below. Use an Allen wrench to remove the threaded insert and move it to the appropriate unused IN port.









### **ELECTRICAL**

Make sure that the power supply voltage agrees with that listed on the product nameplate. All cords with plugs must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Hardwired installations must be connected to a grounded, metallic, permanent wiring system or an equipment grounding terminal or lead on the product.

It is your responsibility to contact a qualified electrician and assure that the electrical installation conforms with all national and local codes and ordinances. The metal capacitor located on the side of the compressor must be grounded.

### **A** 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. The wire with insulation that is green or green with yellow stripes is the grounding wire.

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 fire, electrical shock, or death.



### **OPERATION**

It is your responsibility to operate this compressor at recommended pressures and permissible ambient temperatures. Do not start against a vacuum or pressure load.

If the motor fails to start or slows down significantly under load, shut off and disconnect from the power supply. Check that the supply voltage is correct and verify that the motor is turning in the proper direction. Check the plug, cord, and switch for damage.

WARNING: Thermal protection switch may have tripped; the motor can restart automatically after cooling.

### **A 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.

Allow product surfaces to cool before handling. Product surfaces become very hot during operation.

Wear proper eye protection. Air stream from the product may contain solid or liquid material that can result in eye or skin damage.

Wear hearing protection. Sound level from motor may exceed 70 dBA.

Failure to follow these instructions can result in burns, eye injury, or other serious injury.



### **MAINTENANCE**

### **A** WARNING





#### **Electrical Shock Hazard**

Disconnect electrical power supply cord before performing maintenance on this product.

If this product is hardwired into the system, disconnect electrical power at the circuit breaker or fuse box before performing maintenance.

Failure to follow these instructions can result in fire, electrical shock, or death.

### **A** WARNING

#### **Injury Hazard**

Allow product surfaces to cool before handling. Product surfaces become very hot during operation.

Wear proper eye protection. Air stream from product may contain solid or liquid material that can result in eye or skin damage.

Clean this product in a well-ventilated area.

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 the compressor in order to maintain proper operations.
- Make sure that pressure is released from product before performing maintenance.

This compressor is oil-less and requires NO lubrication.

Check the intake filter after first 500 hours of operation.

Clean the filter and determine how frequently filters should be checked during future operation, being aware that environmental changes during different seasons can affect operation (heavy pollen in spring or increased dust particulate in a dry summer). Clean or

replace filter elements as necessary. This one procedure will help ensure the product's performance and service life. Failure to maintain clean air filter elements will lead to clogging, which will cause excessive heat and premature failure of the compressor.

#### Filter maintenance:

- Disconnect electrical power supply to unit.
- · Vent all air lines.
- Remove filter cover.
- Remove and replace filter element as necessary.
- · Replacement filter elements are readily available.

#### 200 Models

Reinstall filter element and cover.



# **TROUBLESHOOTING**

Low pressure	High pressure	Pump overheat	Will not start	Excess noise	Reason and solution for problem
· 🗸	•	✓	✓		Filter is dirty. Clean or replace.
✓	✓	✓	✓		Muffler is dirty. Clean or replace.
✓					Valves are dirty or valves are bent. Clean or replace.
	✓	✓	✓		Relief valve is set too high. Inspect and adjust.
✓					Relief valve is set too low. Inspect and adjust.
✓	✓	✓	✓		Plugged pressure line. Inspect and repair.
		✓	✓		Low voltage, will not start. Check power supply.
		✓	✓	✓	Incorrect voltage. Check power supply.
✓				✓	Worn cup/piston hitting cylinder. Replace.
		✓		✓	Cylinder misadjustment. Realign.
✓			✓		Leaky hose or check valve. Replace.
✓		✓	✓	<b>√</b>	Dirt or liquid on top of piston. Inspect and clean.
✓		✓	✓	<b>✓</b>	Motor not wired correctly. Check wiring diagram/line voltage.
✓				✓	Blown head gasket. Replace.



#### Warranty Period:

- Motor: 3 years
- Piston cups and cylinders: 2 years

warrants this Teich-Aire compressor to be free from defects in material or workman - ship under normal use and service. The obligation under this warranty is limited to replacing or repairing free of charge any defective part within the warranty period. The customer shall pay shipping charges for returning the unit.

#### Warranty is void if:

- The compressor is not maintained properly according to the maintenance recommendations supplied in this manual.
- The system is damaged by unauthorized tampering.



Please attach a repair form with the shipment. The repair form must include a name, physical address (for return delivery of the repaired unit), daytime phone number, and an e-mail address for correspondence regarding the warranty claim.

Any expedited shipping method for the return of the unit is at the customer's expense. Company will return units repaired under warranty at our expense via ground freight within the continental United States.



# **REPAIR CONTACT FORM**

- Company requires that all equipment sent for repairMUST be accompanied by this form and marked to Repairs attention.
- Unit should be cleaned before shipping.
- NOT responsible for shipping damage accrued in return shipment.
- It is the responsibility of the customer to ship and pay freight

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Note: Contact information should be that of the person or company to contact for repair information.

Company name					
	First name		Last name		
Contact name					
Address	Street				
	City				
	State				
	ZIP code				
Dhana an anna han	Primary		Alternate		
Phone number					
Email address					
Preferred method of contact (circle one)	Phone	Email			
Purchase order number					
Additional product information	Serial Number		Cord Length		
Information for Repair Technician					
Was this unit used in a chemical treatment or wastewater application? (circle one)			Yes	No	
Additional notes					





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