

ElectricPAK

Owner's Manual

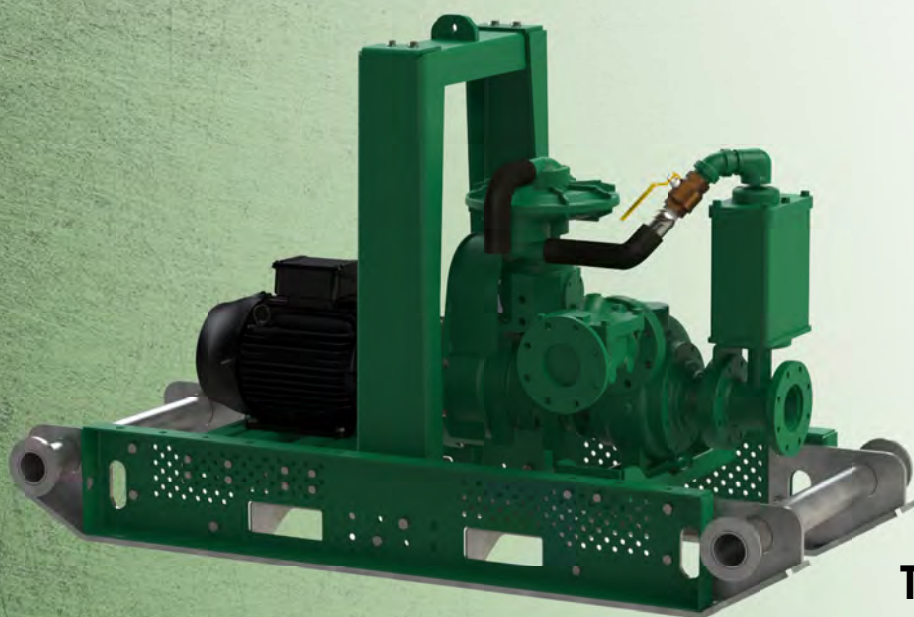


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SAFETY INSTRUCTIONS

This equipment should be installed and serviced by technically qualified personnel who are familiar with the correct selection and use of appropriate tools, equipment, and procedures. Failure to comply with national and local electrical and plumbing codes and within Pioneer Pump recommendations may result in electrical shock or fire hazard, unsatisfactory performance, or equipment failure.

Know the product's application, limitations, and potential hazards. Read and follow instructions carefully to avoid injury and property damage. Do not disassemble or repair unit unless described in this manual.

Failure to follow installation or operation procedures and all applicable codes may result in the following hazards:

DANGER



Risk of death, personal injury, or property damage due to explosion, fire, or electric shock.

- Do not use to pump flammable, combustible, or explosive fluids such as gasoline, fuel oil, kerosene, etc.
- Do not use in explosive atmospheres or hazardous locations as classified by the NEC, ANSI/NFPA70.
- Do not handle a pump, pump motor, or drive with wet hands or when standing on a wet or damp surface.

WARNING



Risk of severe injury or death.

- To reduce risk of electrical shock, disconnect power before working on or around the system. More than one disconnect switch may be required to de-energize the equipment before servicing.
- Check local electrical and building codes before installation. The installation must be in accordance with their regulations as well as the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).
- Wire pump system for correct voltage.
- Ensure that the system is properly grounded all the way to the service entrance panel.
- When lifting or moving heavy components, use suitable lifting equipment, in good condition, rated for at least 5 times the weight of the materials being moved.
- Capacitors inside the drive can still hold lethal voltage even after power has been disconnected. Allow adequate time for internal voltage to discharge before removing cover or working with internal components.
- This pump has not been investigated for use in swimming pool or marine areas.

CAUTION



Risk of bodily injury, electric shock, or equipment damage.

- This equipment must not be used by children or persons with reduced physical, sensory or mental abilities, or lacking in experience and expertise, unless supervised or instructed. Children may not use the equipment, nor may they play with the unit or in the immediate vicinity.
- Equipment can start automatically. Lockout-Tagout before servicing equipment.
- Pump system may become hot during operation. Allow pump system to cool before servicing.
- Operation of this equipment requires detailed installation and operation instructions provided in this manual for use with this product. Read entire manual before starting installation and operation. End User should receive and retain manual for future use.

NOTICE

Risk of damage to pump or other equipment.

- Do not install in corrosive environments.
- Periodically inspect pump and system components. Regularly check hoses for weakness or wear, making certain that all connections are secure.

PRODUCT INFORMATION

Description

Pioneer ElectricPAKs include a rigidly mounted electric motor and Pioneer pump in either a Pioneer prime or a standard centrifugal configuration supported by a modular frame intended for fixed installations. The rigid mount between pump and motor maintains coupling alignment during transportation and operation, increasing the time between coupling inspections.

For portable applications, drag skid, lifting bail, and quick connect junction box accessories are available. The drag skid adder is highly recommended.

Refer to the motor manuals and applicable guides for startup, installation, and maintenance. The package as a whole is not under the same warranty. For warranty information, please see the owner's manual of each component.

UNPACKING & INSPECTION

⚠ WARNING



Risk of severe injury or death.

- When lifting or moving heavy components, use suitable lifting equipment, in good condition, rated for at least 5 times the weight of the materials being moved.
- Ensure forklift fork/tines are fully inserted. Failure to do so can lead to product damage, and/or the unit to fall off the forklift and cause injury or death.
- Use only labeled tie down points to secure unit for transportation. Failure to use labeled tie down points could lead to equipment damage and/or allow unit to come loose during transit and cause injury or death.

NOTICE

Risk of damage to equipment.

- The pump package must be transported in a level, horizontal position and secured using the identified tie-down points.
- If the pump package is dropped, impacted, or otherwise mishandled, malfunction can occur.

Transportation and Storage

Normal packaging is designed to protect the pump during shipment and for storage up to three months. It is recommended to store the unit in a clean, dry place, protected from the environment, dirt, and debris.

IMPORTANT: See manufacturer's recommendations for motor, panel, and pump storage.

1. Ensure the bearings are packed with recommended grease or coated with oil to prevent moisture from entering the bearing housings.
2. Ensure the suction and discharge flanges are covered to prevent entry of debris.
3. Periodically check oil levels.
4. For cold weather storage, fully drain casing prior to storing.

Unpacking

1. Check for missing and damaged parts. Immediately report any issues to the transport company and equipment manufacturer.

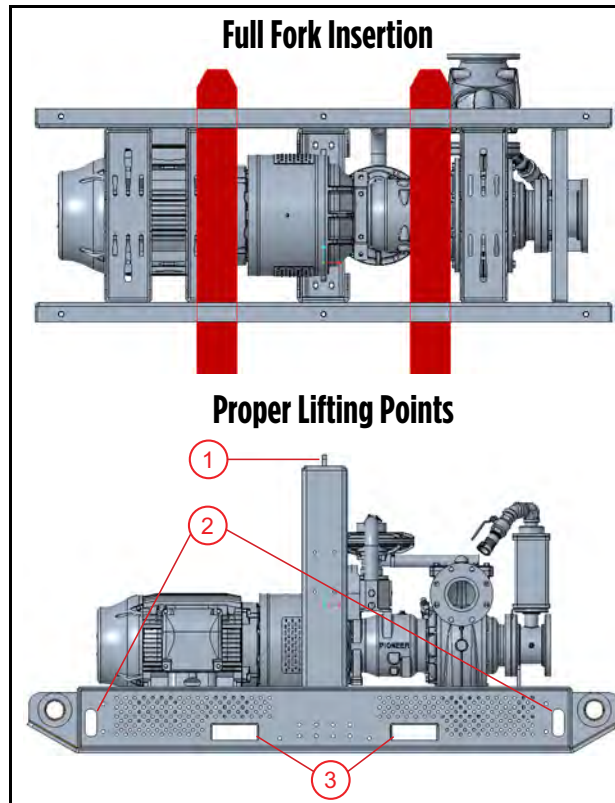
NOTE: Parts and/or accessories are sometimes individually wrapped or fastened to the equipment.

2. Examine the pump and motor unit upon arrival for shipping damage.
 - If there is damage, notify the shipping agent and your sales representative.

PHYSICAL INSTALLATION

Foundation

3. Check that guards are in their proper place and that fasteners are tightened.
4. Use skids for unloading if facilities are not available for lifting the materials off the carrier's vehicle.



1 Lifting Point 2 Tie Down Points 3 Fork Pockets

PHYSICAL INSTALLATION

⚠ WARNING



Risk of severe injury or death.

- When lifting or moving heavy components, use suitable lifting equipment, in good condition, rated for at least 5 times the weight of the materials being moved.

⚠ CAUTION

Risk of bodily injury or property damage.

- Pump installation and operation should only be performed by a qualified individual with experience in pump systems.
- Pumps can develop very high pressure in some situations. Gauges should be installed on the suction and discharge to monitor pressure.
- Ensure that the foundation is rated to accommodate the operating weight of the package and that it is sized sufficiently for the weight and loads the package will experience.
- Ensure all pipe loads are fully supported independently of the pump. Use properly rated gaskets and flanges and fully tighten all bolts when connecting to the pump.

Foundation

For fixed installations, provide a solid, level foundation.

1. Locate the foundation as close as possible to the liquid to be pumped.
 - Provide adequate space for operation, maintenance, and inspection of the pump and equipment.
2. Allow the foundation to completely dry and cure before installing the pump system.
3. Use anchor bolts to attach the pump baseplate to the foundation.

4. Use a machinist's level on the mounting pads for adjustments as the anchor bolts are tightened.
5. Provide leveling nuts or wedges for mounting the baseplate to the foundation.
6. For steel frames or similar structures, set the pump directly over support beams rigid enough to prevent distortion and misalignment.

For portable skid-mounted configurations, make sure the pump set is level.

Piping Installation

Reference pump manual for specific piping installations. In general, complete the following:

- Ensure couplings are aligned.

NOTE: Generally, alignment is not needed because of the ElectricPAK's motor stool.

- Properly support all suction and discharge piping to avoid strain on the pump.
- Piping should match the pump inlet and outlet connection sizes.
- Do not restrict suction intake.

NOTE: Do not use concentric reducers going into suction.

- Use isolation joints when needed.
- Orient eccentric reducers downwards.



ELECTRICAL INSTALLATION

Refer to the motor and drive manuals for electrical hazards and instructions.

Pre-Start Verifications

These verifications are supplementary to those found in individual assembly equipment manuals. Ensure all installation and start-up instructions are completed.

1. Check electrical incoming voltage meets requirements and an adequate ground connection exists.
2. Inspect the overall system for damage during installation.
3. Pressurize the system with the site water to remove any trapped air.
4. If there are any water leaks in the piping, isolate the location and tighten the connections.
5. Verify motor and pump bearings and seal are adequately lubricated according to their respective user manuals.
6. Ensure all guards are in place prior to energizing equipment. Refer to individual assembly equipment manual's for start-up and operation.

MAINTENANCE

⚠ WARNING



Risk of severe injury or death.

- To minimize risk of electrical shock, disconnect power before working on or around the system.
- When lifting or moving heavy components, use suitable lifting equipment, in good condition, rated for at least 5 times the weight of the materials being moved.
- Never stand or be otherwise located below a hanging load.

⚠ CAUTION

Risk of bodily injury or property damage.

- A pressurized system can cause a pump to deadhead.
- Rapidly closing the discharge valve can cause a damaging pressure surge. A dampening arrangement should be provided in the piping.
- Never use the suction valve to throttle the flow.
- Pump may become hot during operation. Allow pump to cool before servicing.
- Safety glasses, cut-resistant gloves, and safety boots should be worn. Use proper protective gloves and clothing when handling heated parts.

NOTICE

Risk of damage to equipment.

- If the pump package is dropped, impacted, or otherwise mishandled, malfunction can occur.

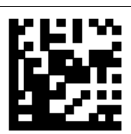
Periodic Maintenance

Daily:

- Check all piping connections, pipe supports, and equipment fasteners for tightness.
- Verify the electric motor is aligned correctly.
- Inspect guards and replace if damaged.
- Check all oil quality and levels. If contaminated, replace immediately.
- Follow the instructions on all tags, labels, and decals attached to the equipment.

Monthly (or if sooner, every 500 hours of operation):

- Inspect couplings for wear, degradation, and corrosion. Replace as necessary, following the manufacturer's installation instructions.



For technical assistance, parts, or repair, please contact:

503.266.4115 | pioneerpump.com

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