

Installation Manual

7225000L

Simplex Sewage/Grinder Systems

Models



Pro370-Series
Sewage System



Pro380-Series
Sewage System

ProVore® 380-Series Grinder System



Pro380-SD-Series Sewage System

ProVore® 380-SD-Series Grinder System



700-Series
Sewage System

ProVore® 700-Series Grinder System

Vertical Discharge 21"D x 30"H 41 Gallon System

Indoor and Outdoor*
Installation

Vertical Discharge 24"D x 24"H 41 Gallon System

Indoor and Outdoor*
Installation

Side Discharge 24"D x 24"H 41 Gallon System

Indoor and Outdoor
Installation

Vertical Discharge 24"D x 36"H 70 Gallon System

Indoor Installation Only

IMPORTANT: All Liberty Pumps products are supplied with their own separate Installation/Operation/Maintenance manuals. Ensure receipt of these manuals, and that they are read and understood prior to installation. For questions, call Liberty Pumps customer service at 1-800-543-2550.

7000 Apple Tree Avenue Bergen, NY 14416 ph: 1-800-543-2550 fax: 1-585-494-1839

www.LibertyPumps.com

Keep this manual handy for future reference.

For replacement manual, visit LibertyPumps.com, or contact Liberty Pumps at 1-800-543-2550.

Retain dated sales receipt for warranty.

NOTICE

Installer: Manual must remain with owner or system operator/maintainer.

Record information from system nameplate:

System:

Model(s):

Mfg Date:

Install Date:

^{*} with optional Access Riser

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Safety Guidelines

À	This safety alert symbol is used in the manual and on the pump to alert of potential risk for serious injury or death.
<u>A</u>	This safety alert symbol identifies risk of electric shock . It is accompanied with an instruction intended to minimize potential risk of electric shock.
	This safety alert symbol identifies risk of fire . It is accompanied with an instruction intended to minimize potential risk of fire.
	This safety alert symbol identifies risk of serious injury or death . It is accompanied with an instruction intended to minimize potential risk of injury or death.
▲ DANGER	Warns of hazards which if not avoided will result in serious injury or death.
▲ WARNING	Warns of hazards which if not avoided could result in serious injury or death.
▲ CAUTION	Warns of hazards which if not avoided could result in minor or moderate injury.
NOTICE	Signals an important instruction related to the pump. Failure to follow these instructions could result in pump failure or property damage.

▲WARNING

Read every supplied manual before using pump system. Follow all the safety instructions in manual(s) and on the pump. Failure to do so could result in serious injury or death.

Safety Precautions

▲WARNING



RISK OF ELECTRIC SHOCK

- Accidental contact with electrically live parts, items, fluid, or water can cause serious injury or death.
- Always disconnect pump(s) from power source(s) before handling or making any adjustments to either the pump(s), the pump system, or the control panel.
- All installation and maintenance of pumps, controls, protection devices, and general wiring shall be done by qualified personnel.
- All electrical and safety practices shall be in accordance with the National Electrical Code®, the Occupational Safety and Health Administration, or applicable local codes and ordinances.
- Do not remove cord and strain relief, and do not connect conduit to pump.
- Pump shall be properly grounded using its supplied grounding conductor. Do not bypass grounding wires or remove ground prong from attachment plugs. Failure to properly ground the pump system can cause all metal portions of the pump and its surroundings to become energized.
- Do not handle or unplug the pump with wet hands, when standing on damp surface, or in water unless wearing Personal Protective Equipment.
- Always wear dielectric rubber boots and other applicable Personal Protective Equipment (PPE) when water is on the floor and an energized pump system must be serviced, as submerged electrical connections can energize the water. Do not enter the water if the water level is higher than the PPE protection or if the PPE is not watertight.
- Do not lift or carry a pump or a float assembly by its power cord. This will damage the power cord, and could expose the electrically live wires inside the power cord.
- The electrical power supply shall be located within the length limitations of the pump power cord, and for below grade installations it shall be at least 4 ft (1.22 m) above floor level.
- Do not use this product in applications where human contact with the pumped fluid is common (such as swimming pools, fountains, marine areas, etc.).
- Protect the power and control cords from the environment. Unprotected power and control (switch) cords can allow water to wick through ends into pump or switch housings, causing surroundings to become energized.
- Single-phase 208/230V pumps shall only be operated without the float switch by using the circuit breaker or panel disconnect.
- Some products may have internal capacitors that could cause shock. Avoid contact with plug ends after removing from energy source.

AWARNING / RISK OF FIRE

- These pumps are not to be installed in locations classified as hazardous in accordance with the National Electric Code®, ANSI/NFPA 70.
- This product requires a separate, properly fused and grounded branch circuit, sized for the voltage and amperage requirements of the pump, as noted on the nameplate.

 Overloaded branch circuit wires will get very hot and can catch on fire. When used, electrical outlets shall be simplex of the appropriate rating.
- Do not use an extension cord to power the product. Extension cords can overload both the product and extension cord supply wires. Overloaded wires will get very hot and can catch on fire.
- Sewage and effluent systems produce and may contain flammable and explosive gases. Prevent introduction of foreign objects into basin as sparks could ignite these gases. Exercise caution using tools and do not use electronic devices or have live, exposed electrical circuits in or around basins, open covers and vents.
- Do not use this product with or near flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. If rotating elements inside pump strike any foreign object, sparks may occur. Sparks could ignite flammable liquids.

AWARNING RISK OF SERIOUS INJURY OR DEATH

- Energizing the control panel or breaker for the first time is potentially dangerous. Licensed electrical personnel should be present when the panel or breaker is energized for the first time. If faults caused by damage or poor installation practices have not been detected, serious damage, injury or death can result when power is applied.
- Do not modify the pump/pump system in any way. Modifications may affect seals, change the electrical loading of the pump, or damage the pump and its components.
- All pump/pump system installations shall be in compliance with all applicable Federal, State, and Local codes and ordinances.
- Do not allow children to play with the pump system.
- Do not allow any person who is unqualified to have contact with this pump system. Any person who is unaware of the dangers of this pump system, or has not read this manual, can easily be injured by the pump system.
- In 208/230V installations, one side of the line going to the pump is always "hot", whether the float switch is on or off. To avoid hazards, install a double pole disconnect near the pump installation.
- Vent basin in accordance with local code. Proper venting of sewer and effluent gases alleviates poisonous gas buildup and reduces the risk of explosion and fire from these flammable gases.

- Wear adequate Personal Protective Equipment when working on pumps or piping that have been exposed to wastewater. Sump and sewage pumps often handle materials that can transmit illness or disease upon contact with skin and other tissues.
- Keep clear of suction and discharge openings. To prevent injury, never insert fingers into pump while it is connected to a power source.
- Do not use this product with flammable, explosive, or corrosive fluids. Do not use in a flammable and/or explosive atmosphere as serious injury or death could result.
- Do not remove any tags or labels from the pump or its cord.
- A grinder pump contains metal parts that rotate at high speeds. Be careful around pump base while power is connected. Make sure that the pump is either in the tank or clear from people and wires when in operation.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. www.p65warnings.ca.gov.

ACAUTION

◆ This pump has been evaluated for use with water only, however use with human waste and toilet paper is permitted.

NOTICE

- ◆ Do not use pumps with fluid over 140°F (60°C). Operating the pump in fluid above this temperature can overheat the pump, resulting in pump failure.
- Do not use pump system with mud, sand, cement, hydrocarbons, grease, or chemicals. Pump and system components can be damaged from these items causing product malfunction or failure. Additionally, flooding can occur if these items jam the impeller or piping.
- Do not introduce any consumer item that is not toilet paper into a non-grinder (dewatering, effluent, sewage) pump/ pump system. This includes, but is not limited to the following: feminine products, wipes, towels, towelettes, dental floss, swabs, pads, etc. Items such as these put the pump under undo strain and can result in pump/pump system failure. Additionally, it creates conditions for discharge line blockage.
- ◆ Submersible Pump—do not run dry.
- The Uniform Plumbing Code[®] states that sewage systems shall have an audio and visual alarm that signals a malfunction of the system, to reduce the potential for property damage.
- Do not exert heavy pressure or run heavy equipment on the backfill material as this could cause the tank to collapse.
- ◆ 700-Series systems are *not* suitable for outdoor applications.
- Pro370 and vertical discharge Pro380 and ProVore 380-Series systems require an Access Riser for outdoor use. Consult Liberty Pumps for ordering information.
- Unless specifically noted, covers are *not* traffic rated.

Introduction

Before installation, read the following instructions carefully. Each pump is individually factory tested to ensure proper performance. Closely following these instructions will eliminate potential operating problems, assuring years of trouble-free service.

ProVore grinder systems (including ProVore 700-Series) easily handle solids and sewage waste found in typical residential applications. Their unique cutter system grinds difficult wastes and then pumps it through a 1-1/2" or 2" discharge line. The ProVore-Series system is supplied with a 2" discharge outlet. Do not increase this pipe size above 2" as adequate flow rates may not be achieved for proper operation. Discharge sizes may be reduced to 1-1/4". Consult Liberty Pumps for proper pipe and system sizing.

Pro-Series and ProVore-Series vertical discharge systems come with an integral control system with alarm and QuickTree® float system. Pump and alarm floats are preset on the QuickTree system at proper operating levels. The QuickTree system is located under a separate access cover for ease of maintenance and service. Floats for both pump activation and alarm are mounted on a stainless steel tree (rod), separate from the pump. There is no need to disconnect plumbing or remove the pump to inspect service or replace floats. QuickTree floats are preset at the factory for optimum operating levels and should not be adjusted.

Systems also feature a clear disposable construction cover designed to protect the system during rough-in and masonry work. The protective cover should remain in place until finish plumbing; however, it can be removed and reinstalled if required. The cover is snapped into the threaded ports of the discharge and vent. To remove the clear cover, simply pull upward, disengaging it from the discharge and vent holes.

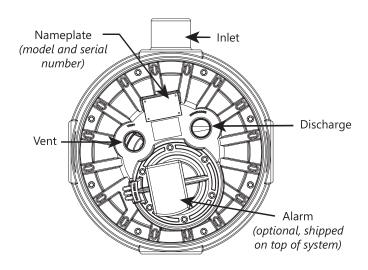
Pro-Series and ProVore-Series side discharge systems feature a 2" side discharge and 4" no-hub type inlet. Systems come pre-assembled from the factory with an automatic pump.

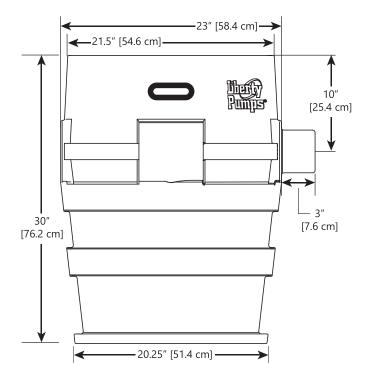
700-Series systems (non-grinder types) feature a heavy-duty basin with 4" inlet hub pre-assembled to basin. Systems come pre-assembled from the factory with pump and automatic controls pre-mounted, requiring no system assembly at job site. The cover is equipped with a 2" or 3" discharge and 2" or 3" vent flange.

Was the current system sized by a professional? Minimum fluid flows are required in sewage applications. Consult Liberty Pumps for proper pump sizing prior to installation.

Covers & Basins

370-Series





380-Series Vertical Discharge

380-Series Side Discharge

