GRINDER PUMP

INSTRUCTION AND OPERATING MANUAL

Specifications

Power Supply Requirements	230 VAC, 60 Hz
AMP Rating	15 Amps
Temperature Rating	32°F to 104°F
Discharge	1-1/4" NPT

MODEL MLFS22400

IMPORTANT!

READ ALL INSTRUCTIONS CONTAINED IN THIS MANUAL BEFORE USING THIS PRODUCT.

Save these instructions for future reference. Failure to read and follow the warnings and instructions within this instruction manual could result in property damage, serious injury or death.

SAFETY FIRST!

This instruction manual contains very important information for you to know and understand. This information is provided for your safety and to help prevent equipment problems from occurring. Please observe all safety information labeled danger, warning, caution, and notice.

WARNING

WARNING INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH, SERIOUS INJURY OR MAJOR PROPERTY DAMAGE.

RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

WARNING! To reduce the risk of electrical shock, this system must be properly grounded in accordance with the National Electric Code (NEC) and all applicable state and local codes and ordinances. The receptacle should be protected with a Ground Fault Circuit Interrupter (GFCI).

WARNING! To reduce the risk of electrical shock, always disconnect the pump / system from the power source BEFORE handling or servicing.

WARNING! Never remove the ground prong from the plug, or use an adapter that eliminates the ground prong.

WARNING! Never plug this pump system into an electric outlet while standing on a wet surface.

WARNING! Cables should be protected at all times to avoid punctures, cuts and abrasions that may result in exposed wiring. Never handle connected power cords with wet hands.

WARNING! The FloodStop® System has not been investigated for use in or around swimming pools, marine areas, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common.

WARNING! Do not use an extension cord. Extension cords could present a safety hazard if not properly sized, become damaged or the connection falls into the sump pit. Do not attempt to disassemble the FloodStop® System controller or Backup Pump. There are no field serviceable parts or repair options!

RISK OF EXPLOSION. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:

WARNING! Do not use to pump flammable or explosive liquids such as gasoline, fuel oil, kerosene, etc.

WARNING! Do not use in a flammable or explosive atmosphere.

NOT SUITED FOR POTABLE WATER APPLICATIONS.

WARNING! Do not use this pump to transfer water that will be used for potable (drinking) water. This pump is only to be used in applications for which it is designed.

CAUTION

CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR INJURY OR PROPERTY DAMAGE.

TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:

CAUTION! Do not use discharge hose. Discharge hose may whip under pressure. Use rigid piping and fittings to secure the pump in the sump basin to reduce movement.

CAUTION! Do not install the pump if it has been damaged in any way.

CAUTION! Do not carry or lift the pump by the power cord. Use the pump's lifting handle.

INSTALLATION

1. Set the pump on a solid, level surface in the bottom of the sump pit. If necessary, use bricks / blocks to provide a solid base. Avoid placing the pump on loose gravel, earth or sand.
2. Install discharge plumbing according to state and local codes. It is highly recommended that rigid PVC is used for the discharge line. Installing a union in the discharge line will make it easier to remove the sump pump for maintenance. The discharge line must be sloped downward away from the foundation to ensure that the water properly drains away and that the discharge line will not freeze during cold spells.
3. Install a check valve in the discharge line. The check valve may be positioned just above the sump basin for ease of service and/or replacement.
4. Assemble switch to the discharge line using the attached hose clamp. Position the switch so that when the float is at its lowest position it is at least 3" above the base of the pump (just above the inlet). Make sure that the switch is positioned where the float can move up and down freely.
5. Secure all power cords and switch cords to the discharge pipe using cable ties to prevent switch entanglement.
6. This pump uses a "piggyback" type switch to allow for the easy removal and replacement of the switch and to aid in troubleshooting switch / pump problems. Plug the pump into the back of the switch plug.
7. Plug the switch into a ground fault circuit interrupter (GFCI) protected outlet.
8. Fill the sump basin with water until the float rises and starts the pump cycle. The pump will stop when the water level falls to the switch's off position. Repeat this several times to ensure proper operation and that the switch operates freely.
9. Install the sump basin gasket / cover.

OPERATION

1. Make certain the pump is submerged in water. Running the pump dry can cause damage to the pump's components.
2. Plug the pump into a 230V power outlet. The pump will start operating when the float switch moves into the activation position. The water will be pumped out. When the water lowers to a certain level, the float switch will turn off the pump.
3. The motor is equipped with an automatically resetting thermal overload protector. If the motor gets too hot, the overload protector will shut off the pump before it is damaged. When the motor has cooled sufficiently, the overload protector will reset, and the motor will restart.

NOTICE: If the overload protector stops the pump repeatedly, disconnect the power from the pump and check to find the problem. Low voltage, a long extension cord, clogged impeller, screen blocked by debris, or water that is too hot can cause motor overheating.

TROUBLESHOOTING

WARNING

CAUTION INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR INJURY OR PROPERTY DAMAGE.

PROBLEM	POTENTIAL CAUSE	POSSIBLE SOLUTION
Pump Will Not Run	1. Blown fuse, tripped breaker or tripped GFCI 2. Low Line Voltage 3. Switch obstructed 4. Insufficient water level 5. Motor Failure 6. Switch Failure	1. Check all electrical connections. Check for blown fuses, tripped GFCI or tripped circuit breaker. 2. Contact a licensed electrician. 3. Remove obstruction and check for free movement. 4. Water needs to rise to a level that activates the switch. 5. Replace switch.
Pump Cycles too frequently	1. Switch Failure 2. Check valve not present or not operating properly	1. Replace switch. 2. Install or replace the check valve.
Pump Shuts off and turns on independent of switch (trips thermal overload protector). **CAUTION!** Pump may start unexpectedly. Disconnect power supply.	1. Switch failure 2. Switch obstructed 3. Inlet blocked or discharge blocked 4. Excessive inflow or pump not properly sized	1. Replace switch. 2. Remove obstruction and check for free movement. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size.
Pump runs continuously	1. Impeller obstructed or damaged 2. Piping attachments too rigid or too loose to building structure	1. Clean and / or replace impeller. 2. Install a rubber coupling to isolate pump vibration for discharge line.
Pump operates noisily or vibrates excessively	1. Impeller obstructed or damaged 2. Piping attachments too rigid or too loose to building structure	1. Clean and / or replace impeller. 2. Install a rubber coupling to isolate pump vibration for discharge line.
Pump runs but delivers insufficient capacity	1. Low line voltage 2. Impeller obstructed, worn or damaged 3. Inlet blocked or discharge blocked 4. Pump undersized for application 5. Check valve stuck closed of installed backwards	1. Contact a licensed electrician. 2. Clean and / or replace impeller. 3. Clean pump inlet. Check and remove any obstructions from the pump discharge line. 4. Recheck all sizing calculations to determine proper size. 5. Remove and examine check.

TERMS AND CONDITIONS OF SALE

Orders for this product are expressly made conditional on buyer's assent to company's terms and conditions of sale, which can be found by scanning the QR code below, or are available upon request by mail. Any terms and conditions in any of buyer's documents that are inconsistent with or add to seller's terms and conditions of sale are hereby rejected and are not binding upon company.

Installed by:

Model:

Date of Installation:

Serial Number:

NOTES

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IPS CORPORATION

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www.ipscorp.com

Warranty

See warranty information for more details.

WARRANTY INFORMATION

Mainline products will be covered by IPS Diversified Products Group ("Seller")'s limited warranty. It is as follows:

Warranty. For a period of one year from the date of shipment**, and provided payments for the products have been made by Buyer to Seller, Seller warrants to Buyer that its products: (i) substantially conform to Seller's published specifications and (ii) are free from defects in material or workmanship. Product performance is limited by the capability of the structure and/or system it is installed in. If a warranted product fails to conform to these warranties, Buyer must promptly notify Seller in writing. For a valid warranty claim, Seller will, at its discretion and at no product charge to the Buyer: (i) repair the product; (ii) replace the product; or (iii) offer a full refund of that portion of the purchase price allocable to the non-conforming product. Warranty repair or replacement by Seller will not extend or renew the applicable warranty period. Buyer will obtain Seller's agreement on the specifications of any tests it plans to conduct to determine whether a product non-conformance exists. Buyer will bear the costs of access for Seller's remedial warranty efforts (including removal and replacement of systems, structures or other parts of Buyer's facility), de-installation, decontamination and re-installation. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This warranty allocates the risks of product failure between Seller and Buyer. This allocation is recognized by both parties and is reflected in the price of the products. Buyer acknowledges that it has read this warranty, understands it, and agrees to and is bound by its terms.

**The products listed below have different warranty periods. All other terms of the Limited Warranty set forth herein apply to these products, just the duration of the warranty is different. Duration of the warranty begins at date of shipment.

Studor Products: 3 years
Water-Tite Roofing Products: Life of the current roof system
Roof Top Blox: 20 years
Test-Tite Pneumatics: 2.5 years
AB&A: 6 months
FloodStop Pumps and Smart Accessories: 3 years

What is Not Covered by Warranty. No representative of Seller has authority to waive, alter, vary or add to the scope of the warranty without prior written approval of an officer of Seller. Seller's warranty does not apply to: (i) products impacted by adverse water conditions, extreme weather or temperatures, or other natural conditions; (ii) improper or unauthorized repair, installation or maintenance of the products by a party other than Seller; (iii) use for purposes or under conditions other than those for which designed, or other abuse, negligence, misuse, unauthorized access, or normal wear and tear; (iv) unauthorized attachments, modifications or disassembly; (v) damage during shipping; or (vi) products purchased from unauthorized distributors, resellers or internet sites. Buyer's care in selection, adequate testing at time of installation and proper installation, operation and maintenance of all products is required for adequate performance.

Limitations of Liability. NOTWITHSTANDING ANY PROVISION OF THIS CONTRACT OR THE LAW, IT IS EXPRESSLY AGREED THAT SELLER'S TOTAL LIABILITY FOR ANY DAMAGES, COSTS OR EXPENSES ARISING OUT OF OR RELATED TO THIS CONTRACT OR ITS PRODUCTS, WHETHER BASED IN CONTRACT, WARRANTY, INDEMNITY, TORT/EXTRA-CONTRACTUAL LIABILITY (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AS APPLICABLE, OR, AT SELLER'S OPTION, A RETURN OF AN AMOUNT THAT WILL NOT EXCEED THE PURCHASE PRICE. UNDER NO CIRCUMSTANCES WILL SELLER, ITS OFFICERS, DIRECTORS, EMPLOYEES OR ASSIGNS BE LIABLE FOR ANY OTHER REMEDY, LOSS, COST, DAMAGE OR EXPENSE WHETHER DIRECT OR INDIRECT. IN NO EVENT WHATSOEVER WILL SELLER BE LIABLE FOR ANY CONSEQUENTIAL, LIQUIDATED, EXEMPLARY OR PUNITIVE DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF USE, INCOME, PROFIT, OR PRODUCTION; INCREASED COST OF OPERATION; SPOILAGE OR DAMAGE TO MATERIAL OR DATA; OR CHANGE OUT COSTS. BUYER WILL INDEMNIFY, DEFEND AND HOLD SELLER HARMLESS FROM ANY LOSS, COST, EXPENSE, DAMAGE, OR CAUSE OF ACTION TO OR BY A THIRD PARTY THAT EXCEEDS THESE LIMITATIONS OF LIABILITY.

**Effective July 1, 2023, due to an update in California law, the start date for product warranties will now be aligned with the date of delivery of the product. This change is for all Mainline products purchased on or after July 1, 2023 by California consumers. (California Legislative Information AB-2912)*