Safety Warnings

Thank you for purchasing your Ion Technologies pump. To help ensure years of trouble-free operation, please read the following manual carefully.

CAUTION: Read these safety warnings first before installing, servicing, or operating any pump.

Before Installation

This manual contains important information for the safe use of this product. Read this manual completely and follow the instructions carefully. Reasonable care and safe methods relating to the installation and operation of this product should be practiced. Check local codes and requirements before installation.

WARNING: Risk of Electrical Shock or Electrocution. May result in serious injury or death or fire hazard. Installer must disconnect all electrical sources prior to installation, handling or servicing. Only qualified personnel may install this system. NFPA 70/National Electric Code (NEC) or local codes must be followed. System must be properly grounded according to NEC. Do not lift pump by power cord.

WARNING: Risk of Asphyxiation. Installer(s) and/or service personnel must use proper personal protective equipment and follow OSHA 29 CFR 1910.146 or OSHA 29 CFR 1926. Pump may be installed in a location classified by as a confined space.

WARNING: Risk of Fire or Explosion. Do not smoke or use open flames in or around this system. This system is not intended for use in hazardous locations per NFPA 70 National Electric Code. Do not pump flammable liquids. Consult factory for optional equipment rated for hazardous location use.

WARNING: Cutting Risk. Risk of serious cutting or amputation exists. Disconnect all power sources prior to servicing pump. Pump may start without warning.

CAUTION: Do not modify the cord and plug. When using the cord and plug, plug into a grounded outlet only. When wiring to a system control, connect the pump ground lead to the system ground.

CAUTION: Do not run the pump dry. Dry running can overheat the pump (causing burns to anyone handling it) and will void the warranty.

CAUTION: The pump normally runs hot. To avoid burns, allow it to cool for 30 minutes after shutdown before handling it.

Submersible sump pumps are not approved for use in swimming pools, recreational water installations, decorative fountains or any installation where human contact with the pumped fluid is common. Pump designed to be installed in a sump or wet location where drainage collects.

DO NOT THROW AWAY OR LOSE THIS MANUAL. Keep it in a safe place so that you may refer to it often for the continued safe operation of the product.

Pump Installation

These important instructions must be followed for satisfactory performance of your pump. Before installation, check your local electrical and plumbing codes.

1. Provide proper sump. Minimum sump diameter is 18″.
2. Make sure sump is free of string, cloth, nails, gravel, etc. before installing pump.
3. Do not set pump directly on the bottom of sump if it is not solid. Raise the pump by placing bricks or concrete blocks underneath it.

4. Use steel or plastic pipe for all connecting lines between pump and sewer outlet.

Note: Some city regulations do not allow installing a pump with plastic pipe. Check local regulations.

5. Drill a 1/8″ inch hole into discharge pipe 4 inches above the pump's discharge.

6. A check valve should be installed in discharge pipe, above the cover of the basin.

7. Connect to power source using 3-prong grounded 115 volt AC receptacle. Do not remove ground pin from electrical plug. Do not use an extension cord.

8. Use pump submerged for sump, dewartering applications (temperature to 120° F).

9. In applications where the pump may sit idle for months at a time, it is recommended that the pump(s) be cycled every few months to ensure the pumping system is working properly when needed.

10. An audible alarm for high water conditions should be installed for additional protection against high water conditions.

Your pump warranty is void...

If...power cord has been cut.

If...pump has been used to pump mud, cement, tar, abrasives or chemicals.

If...pump has been used for pumping hot water (above 120°F).

If...cord tag has been removed.

Pump Servicing

Servicing should be performed only by an authorized service center.

WARNING: Always disconnect the pump from power source before handling or making any adjustments. Always wear rubber boots when there is water on the floor and you must unplug the pump or make any adjustments.

Note: Automatic thermal overload protects the sealed-in-oil motor. Running dry may overheat the motor and activate the overload protector until the unit cools.

Troubleshooting

Pump does not run or just hums.

1. Line circuit breaker may be off, blown or loose.

2. Cord prong may not be making contact in receptacle.

3. If all symptoms check okay, motor winding may be open; take to authorized service center for check.

Pump runs but does not deliver water.

1. Check valve may be installed backward. Arrow on valve points in direction of flow.

2. Discharge gate valve, if used, may be closed.

3. Pump may be air locked. Start and stop several times by plugging and unplugging cord. Check vent hole in pump case for plugging.

4. Ion Technologies pumps have a small air vent hole in the impeller cavity to let out trapped air. If this hole becomes plugged, pump may air lock. To break the air lock, use a small screwdriver to clear hole in the impeller cavity.

5. As a secondary precaution in installations of this type – 1/16″ hole should be drilled in the discharge pipe below the check valve. The check valve should be installed in pump discharge above the cover on the basin.

Note: In sumps where the pump is operating daily, air locking rarely occurs.

1. Pump head may be too high. Pump cannot deliver water over 33′ vertical lift. Horizontal distance does not affect pumping, except for friction loss through the pipe.

2. Inlet in pump base may be clogged. Remove pump and clean out openings.

3. Impeller or volute openings may be plugged or partially plugged. Remove pump and clean out.

Pump runs but delivers only small amount of water.

1. Pump may be air locked. Start and stop several times by plugging and unplugging cord. Check vent hole in pump case for plugging.
2. Pump head may be too high. Pump cannot deliver water over 33′ vertical lift. Horizontal distance does not affect pumping, except loss due to friction through discharge pipe.
3. Inlet in pump base may be clogged. Remove pump and clean out openings.
4. Impeller or volute openings may be plugged or partially plugged. Remove pump and clean out.
5. Pump impeller may be partially clogged causing motor to run slow, resulting in motor overload. Clear impeller.

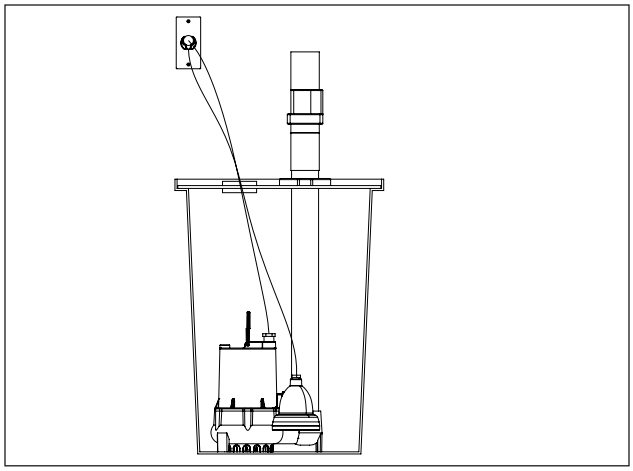
Fuse blows or circuit breaker trips when pump starts.

1. Inlet in pump base may be clogged. Remove pump and clean out openings.
2. Impeller or volute openings may be plugged or partially plugged. Remove pump and clean out.
3. Pump impeller may be partially clogged causing motor to run slow, resulting in motor overload. Clear impeller.
4. Fuse size or circuit breaker is too small.
5. Defective motor stator; return to authorized service center for verification.

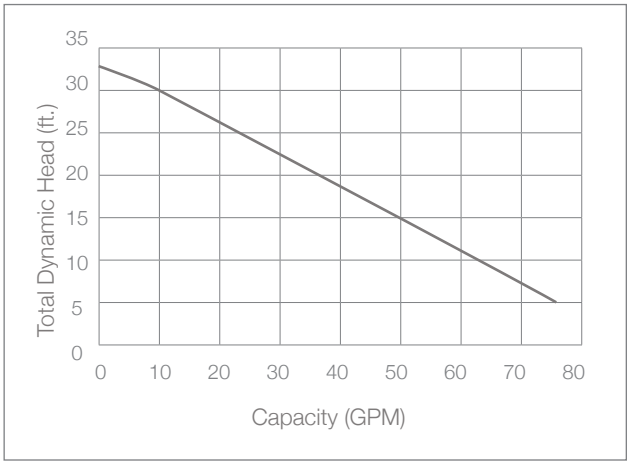
Motor runs for short time then stops. Then after short period starts again. Indicates tripping overload caused by symptom shown.

1. Inlet in pump base may be clogged. Remove pump and clean out openings.
2. Impeller or volute openings may be plugged or partially plugged. Remove pump and clean out.
3. Pump impeller may be partially clogged causing motor to run slow, resulting in motor overload. Clear impeller.
4. Defective motor stator; return to authorized service center.

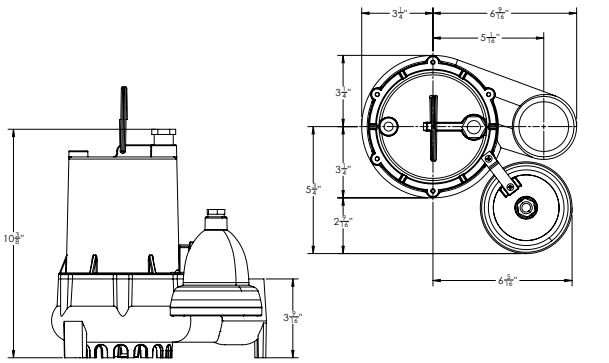
Installation Drawing



Performance



Dimensions



Ion|StormPro 3 Year Residential Warranty

1. Coverage and Term. Metropolitan Industries, Inc. ("**Metropolitan**") warrants to the original purchaser (the "Buyer") of each Ion|StormPro product (the "product"), that any part thereof which proves to be defective in material or workmanship within three (3) years from date of manufacture, will be replaced at no charge with a new or remanufactured part, F.O.B. factory. Buyer shall be responsible for all freight charges and all costs of field labor or other charges incurred in the removal and/or reinstallation of any product, part or component thereof.

2. Exclusions. **THE WARRANTY IS SUBJECT TO THE FOLLOWING CONDITIONS AND EXCLUSIONS:**

(a) The Warranty excludes products or workmanship which becomes defective as a result of: (i) earthquake, fire, storms, the elements or any other acts of God; (ii) normal wear and tear from use; (iii) accident, misuse, abuse or neglect; (iv) modifications made by Buyer or any third party, other than **Metropolitan**; and (v) Buyer's failure to properly install, maintain, service and/or operate the product under normal conditions and according to manufacturer's instructions.

(b) **Metropolitan** shall not be responsible for, and the Warranty shall not cover, extended damage which occurs because of Buyer's failure to notify **Metropolitan** promptly in writing of apparent defects.

(c) Any part or component designated as manufactured by anyone other than **Metropolitan** shall be covered only by the express warranty of the manufacturer thereof.

(d) The Warranty shall lapse upon Buyer's failure to fully comply with the terms and conditions of its contract with **Metropolitan**, including Buyer's failure to pay the purchase price for the product or any portion thereof. Buyer's subsequent compliance with the terms and conditions of any such contract, will not cause the term of the Warranty to extend beyond the time period set forth above.

(e) No actions taken by **Metropolitan** to correct a defect in a product shall extend the Warranty beyond the period set forth above. **Metropolitan** shall not be obligated to remedy any defect, where otherwise required pursuant to the Warranty unless and until Buyer notifies **Metropolitan** in writing of the defect and then only if such notification is made prior to the expiration of the period set forth above.

3. Process of Claims and Repairs. **Metropolitan** agrees that if the product or any part or component thereof shall fail to conform to the terms of this Warranty, **Metropolitan** shall replace such nonconforming product, part or component at the original point of delivery and furnish instruction for its disposition. Any transportation charges involved in such disposition and all costs of field labor or other charges incurred in the removal and/or reinstallation of any product, part or component thereof shall be the responsibility of Buyer.

4. Limitation on Liability. Notwithstanding any provision to the contrary, **Metropolitan's** entire liability under this Warranty shall not in the aggregate exceed, and Buyer's exclusive and sole remedies are, to the extent permitted by law, shall be to secure replacement of the defective product. **UNDER NO CIRCUMSTANCES SHALL METROPOLITAN BE LIABLE UNDER THE WARRANTY FOR ANY INDIRECT, PUNITIVE, SPECIAL, EXEMPLARY, CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING LOST PROFITS, REVENUE, USE OR ECONOMIC ADVANTAGE).**

5. Express Waiver of Any Other Warranties. **THE EXPRESS WARRANTY SET FORTH IN THIS WRITTEN WARRANTY IS THE ONLY WARRANTY MADE BY METROPOLITAN, OR ANY OTHER PARTY, IN CONNECTION WITH ANY PRODUCT PURCHASED FROM METROPOLITAN. NEITHER METROPOLITAN, NOR ANY OTHER PARTY, MAKES ANY OTHER EXPRESS OR IMPLIED WARRANTY WHICH IS NOT SET FORTH HEREIN, AND METROPOLITAN HEREBY DISCLAIMS AND BUYER HEREBY WAIVES ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

6. Not Transferable. The Warranty may not be transferred and shall be void on the sale or other transfer of the product.

7. Products and Warranty Subject to Change. **Metropolitan** reserves the right to make revisions to its products and their specifications, and to revise this Warranty and related information without notice.