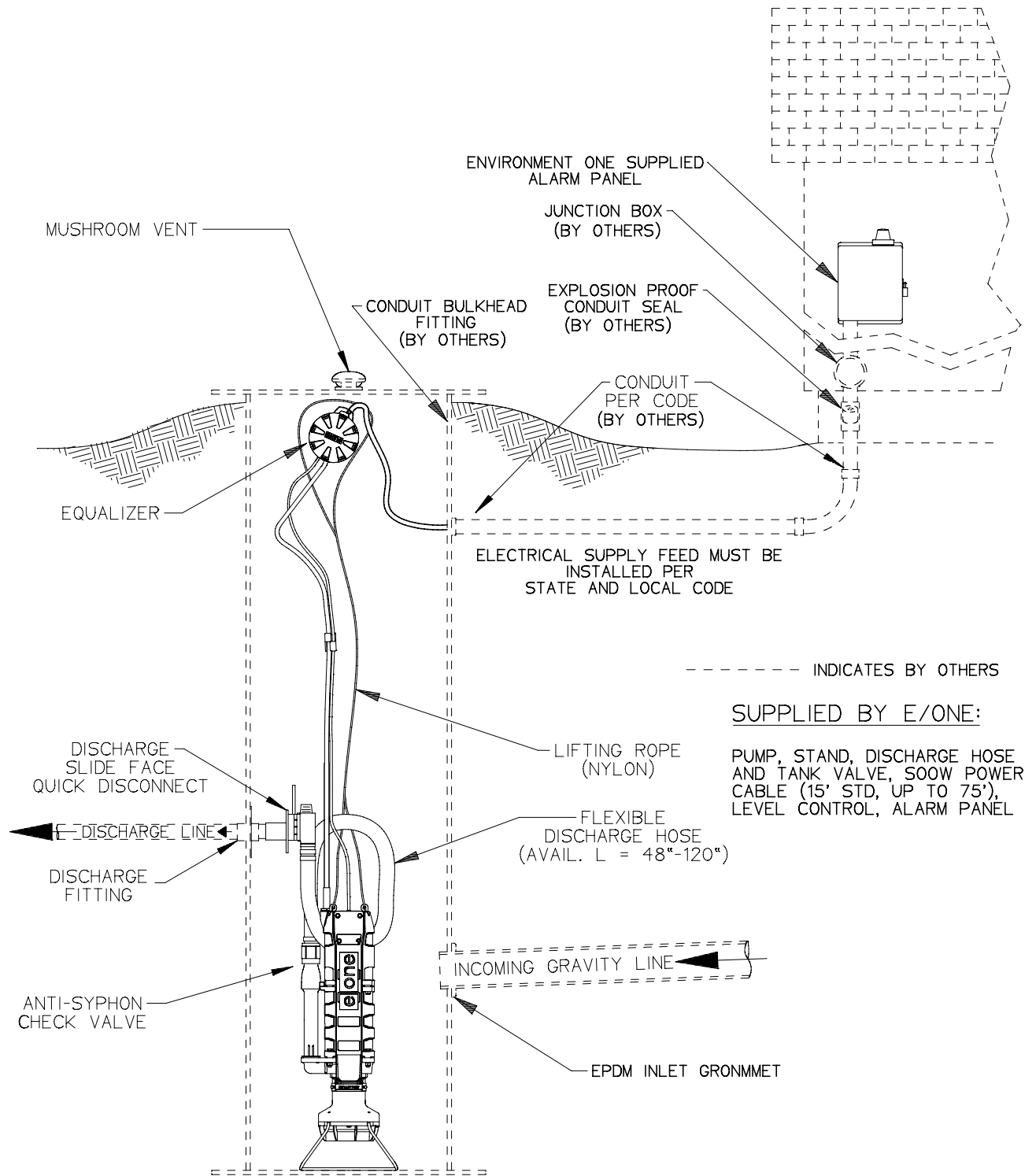


WX - Explosionproof Grinder Pump Installation Instructions

**for Flexible Hose &
Horizontal Slideface**

WX Installation Layout



ENVIRONMENT ONE SUPPLIED
ALARM PANEL

JUNCTION BOX
(BY OTHERS)

EXPLOSION PROOF
CONDUIT SEAL
(BY OTHERS)

CONDUIT
PER CODE
(BY OTHERS)

MUSHROOM VENT

CONDUIT BULKHEAD
FITTING
(BY OTHERS)

EQUALIZER

ELECTRICAL SUPPLY FEED MUST BE
INSTALLED PER
STATE AND LOCAL CODE

----- INDICATES BY OTHERS

SUPPLIED BY E/ONE:

PUMP, STAND, DISCHARGE HOSE
AND TANK VALVE, 500W POWER
CABLE (15' STD, UP TO 75'),
LEVEL CONTROL, ALARM PANEL

DISCHARGE
SLIDE FACE
QUICK DISCONNECT

LIFTING ROPE
(NYLON)

FLEXIBLE
DISCHARGE HOSE
(AVAIL. L = 48"-120")

DISCHARGE LINE

DISCHARGE
FITTING

INCOMING GRAVITY LINE

ANTI-SYPHON
CHECK VALVE

EPDM INLET GROMMET

**INSTALLATION IS TO CONFORM TO NEC ARTICLE 501

STATION AND PUMP MUST BE INSTALLED PER ALL LOCAL,
STATE AND NATIONAL ELECTRICAL AND PLUMBING CODES

Read all instructions before starting unit installation. If you have any questions, call your local distributor or Environment One's Service department for assistance at 518-346-6161.

No modifications can be made to this unit without affecting the Explosionproof listing, the safe operation of the product, as well as the manufacturer's warranty.

This product can only be serviced by Environment One personnel. Call Environment One's Service department at 518-346-6161.



Note: Occupational Safety and Health Standard (OSHA) mandates that anyone entering a confined space (such as sewage tank, manhole, septic tank, etc.) must follow the confined spaces rules and regulations. This can be found in Code of Federal Regulations Book 29, Section 1910.146, distributed by OSHA. This gives guidelines on how to safely enter tanks to make needed changes or repairs. **If possible, make all changes or repairs without entering the tank.**

Before beginning pump installation, unpack hardware to ensure all items needed to complete the installation are accounted for. Inspect station to see if additional items not supplied by Environment One will be needed to complete the job, such as plumbing hardware kit, replacement tank, special tools, electrical hardware, etc.

This is a sewage handling pump and must be vented in accordance with local plumbing codes. **This pump is approved for use in sewage applications that may be classified as**

- Class I, Division 1, Group D
- Intrinsically safe
- Certified by ETL to FM3600, 3610, 3615 and 3615.80 standards in accordance with National Electric Code, ANSI/NFPA 70. All piping and electrical systems must be in compliance with applicable local and state codes.

Safety Warnings

A **Caution** statement in this manual designates a situation that could cause equipment failure or damage. Follow the proper safety procedures as described in the instructions.

A **Warning** statement in this manual designates a situation that can cause bodily harm and/or equipment damage. Follow the proper safety procedures as described in the instructions.

Warning

- Thermally protected automatic reset motor will restart without warning after protector trips. Always disconnect motor from power supply before servicing.
- To reduce the risk of electrical shock, refer to instruction manual for proper installation.
- Substitution of components may impair intrinsic safety.
- To prevent ignition of flammable or combustible atmospheres, disconnect all power sources before servicing.
- Never throttle output valve.

Caution

- To reduce the risk of electrical shock, install all electrical connections above top grade level of the sump or in a listed liquid-tight panel box.
- This unit has more than one power supply connection. Disconnect all power supplies before servicing.
- For use in Class I, Division 1, Group D hazardous (classified) location, as certified by ETL to Factory Mutual Standards
- Acceptable for outdoor use in a tank
- Designed and manufactured in accordance with UL 778 listing standard
- This explosionproof pump is to only be serviced by Environment One Factory Personnel. Unauthorized repairs may void warranty and hazardous location listing, as well as the safe operation of this product.

Pump Specifications

Manufactured by: Environment One Corporation	Manufactured in: Niskayuna, New York, USA
Series: Extreme Max Pressure: 80 psi HP: 1 Phase: 1	Model: WX Voltage: 240VAC Max Amperage: 8 T-Code: T3C

Preparation of Tank

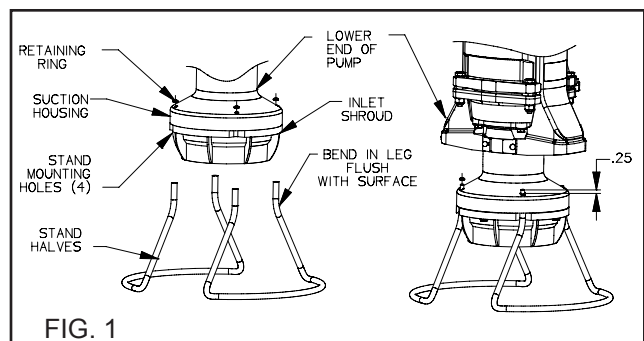
1. Remove tank lid.
2. Inspect lid integrity:
 - Clean all debris from lid
 - Inspect lid to ensure it is capable of supporting loads it may encounter (people, lawn tractor, trailer, etc.).
 - Inspect to ensure that lid can be sealed to prevent ground water infiltration. Note: If tank lid is deficient in any way, replace it.
3. Clean tank of any dirt and debris.
4. **Inspect tank interior for structural integrity and leak tightness.** Failure to prevent all infiltration may cause premature pump failure and void warranty.
5. Grade around the tank to prevent ground water infiltration during heavy rain.

Installing the Explosionproof Pump

1. Unpack all materials. Warranty registration and user instructions must be given to the owner. Hardware packed with the unit will be used during installation.

2. Do not drop, roll or impact the pump. Lift using the rope on the pump.

3. Attach pump stand. (Fig. 1) Temporarily rest the grinder pump on its side. Using a block of wood or similar object, prop up the lower pump end to allow installation of the pump stand. Align the two legs of each pump stand half with two of the holes in the pump lower end. Push the stand legs into the pump lower end. Using a mallet, ensure that the stand legs bottom into the mounting holes. Repeat for the other stand half. Turn the pump upright on the installed stand.



4. Install slide face discharge receiver to tank's discharge hub. The slide face has a 1 ¼-inch solvent weld socket. A 1 ¼-inch PVC nipple is supplied if a threaded connection is necessary. Glue nipple to slide face with Schedule 80 primer and glue. Take care not to get glue on slide face surfaces. (Fig. 2)

Flexible Hose Discharge

Refer to any documentation that may have shipped with your discharge.

5a. Attach the discharge hose to the anti-siphon check valve. Use pipe sealer on threads to ensure leak tightness. (Fig. 3)

6a. Check the O-ring on the slideface adapter for adequate lubrication. (Fig. 5)

7a. Attach discharge installation tool on male adapter. (Figs. 3 and 4)

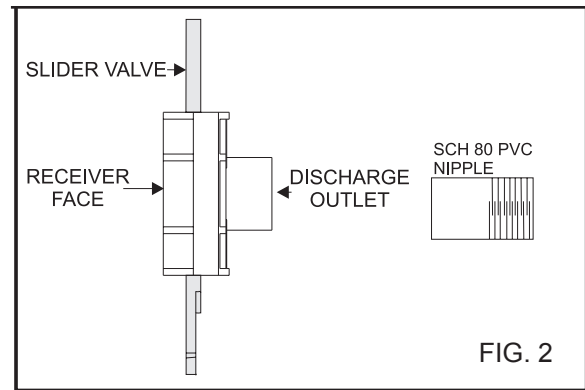


FIG. 2

Complete Pump Installation

8. Carefully lower the pump into the tank. Place pump so anti-siphon check valve is on opposite side of discharge in tank. Refer to the "Installation Layout" drawing in the front of this manual.

9. Rotate discharge hose and male adapter to create a loop or coil. Slide male adapter into slide face receiver until it seats. Push down on slider valve assembly to open. (Fig. 3)

10. Hang power cable, breather tubing with Equalizer, and lifting rope to prevent them from laying in sewage. Keep between 18 inches and 24 inches of power supply cable in tank. The Equalizer should be hung as high as possible in the tank. Refer to the "Installation Layout" drawing on page 3.

11. Install vent assembly in cover assembly. Hole size for vent grommet is 3 inches. The vent must be installed per national and local codes to ensure proper operation. Failure to properly vent tank will result in faulty operation and will void warranty.

12. Connect the pump to the alarm panel. The power cable should be installed between tank and electrical panel per National Electric Code (per NEC Article 501 Class 1 Location) and local codes. Maximum distance between pump and panel is 100 feet (maximum continuous cable length on the pump from the factory is 75 feet). The cable that is provided with the pump is not direct-bury cable. Plug and seal all electrical components (junction box, conduit, etc.) inside tank and control panel to ensure a watertight connection. **Failure to seal all joints may cause premature pump failure and void warranty.** Waterlogged junction boxes are one of the most common sources of grinder pump problems. It is recommended, when using a junction box, that the wire connections within the box are made with waterproof connectors to ensure they are protected from possible water that may leak inside. All electrical components and their installation must comply with NEC Article 501, Class 1 location, to ensure a proper explosionproof installation.

13. Power source to the panel must be 240 VAC. A dedicated 30-amp breaker with ground and separate neutral is required. Wire the alarm panel per the diagram provided within the enclosure.

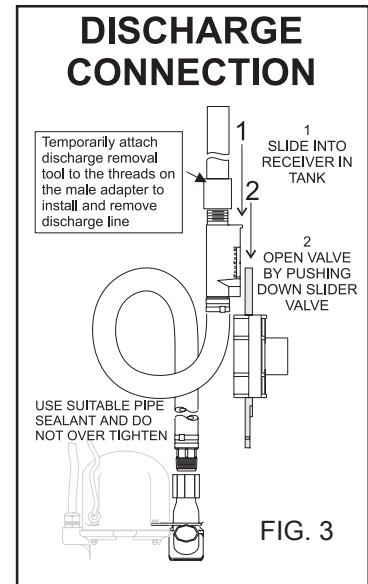


FIG. 3

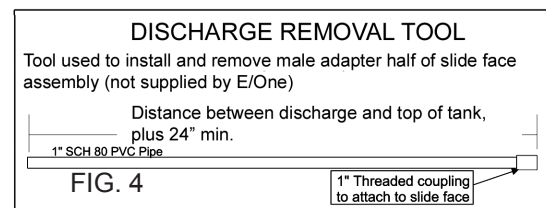


FIG. 4

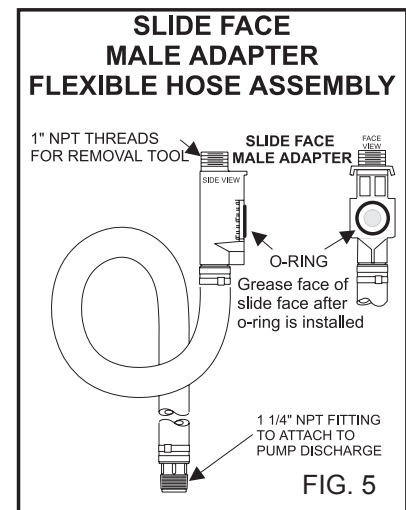


FIG. 5

Test Procedure

1. Make certain that all discharge shutoff valves are fully open (curb stops, slider valve, etc.). This valve must not be closed when the pump is operating. In some installations there may be a valve, or valves, at the street main that must also be open.

(Ignore all Trouble indications, LEDs and/or messages until the panel is reset at the end of this procedure.)

2. Turn off power at main power supply and panel. Use an ohmmeter set at the 2 meg scale. Check the continuity between the following leads from the explosionproof pump (tests should be performed with the pump and alarm breakers inside the panel OFF):

- Green to black
- Green to white
- Green to red
- Red to orange

Wire Color	Function
Red	Manual Run
Black	Pump L1
White	Pump L2
Green	Ground
Orange	Alarm Power Feed
Blue	Alarm Power Return

All these tests must read an open circuit. A short at any of these test points will cause premature pump failure if not corrected.

3. Turn on power at main power supply only.

4. Check voltage from the main power supply. The voltage at the pump must be within 10 percent of 240 VAC. Note the voltage.

5. Turn on the alarm power circuit breaker. Leave pump breaker off.

6. Fill tank with water until alarm turns on. This will be about 30 inches from bottom of tank. Turn off water.

7. Turn on pump power circuit breaker. Pump should immediately turn on.

8. Take a current (amperage) reading off the white lead to the pump. The reading should be between 5 and 8 amps for 240 VAC service. Higher amperage readings equal a higher discharge pressure. If the amperage is greater, then check the discharge line for a blockage. Note the amperage.

9. Within the first 1 to 3 minutes, the alarm will turn off. Within the following 1 to 2 minutes, the pump will turn off (in a 24-inch diameter tank).

10. Clear/Reset the alarm panel:

- Protect Panel: Turn pump and alarm breakers off and back on simultaneously.
- Protect Plus Panels: Perform a “cold start” from the Initialize System menu. Any user setting that were previously chosen will not be reset.

Close and lock the alarm panel.

11. Inspect the lid gasket and install new gasket material as required. Fasten lid to tank.

Call your local E/One distributor if you experience any problems. Please have ready the unit serial number, voltage, amperage read during start-up, type of application, and a description of the problem.



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User Instructions for the Environment One Grinder Pump

General Information

Your home is served by a low pressure sewer system; the key element is an Environment One grinder pump. The tank collects all solid materials and wastewater from the house. The solid materials are then ground to a small size suitable for pumping as a slurry with the wastewater. The grinder pump generates sufficient pressure to pump this slurry from your home to the wastewater treatment receiving line and/or disposal plant.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference; and 2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Care and Use of your Grinder Pump

The Environment One grinder pump is capable of accepting and pumping a wide range of materials, and an extensive grind test is required in order to obtain NSF approval. However, regulatory agencies advise that the following items should not be introduced into any sewer, either directly or through a kitchen waste disposal unit:

Glass	Seafood shells	Diapers, socks, rags or cloth	Syringes
Cotton swabs	Personal/cleaning wipes & sponges	Disposable toothbrushes	Latex/vinyl items
Metal	Plastic objects (toys, utensils, etc.)	Kitty litter	Dental floss
Aquarium gravel	Sanitary napkins or tampons	Cigarette butts	

Caution: Kitchen garbage disposals do not keep grease/oil out of the plumbing system

In addition, you must **never** introduce into any sewer:

Explosives	Strong chemicals	Lubricating oil and/or grease
Flammable material	Gasoline	

Items introduced into the sewer system from your home can potentially impact the water environment. Proper disposal of household wastes such as window cleaners, unused/expired pharmaceuticals, paint thinners, fats, fruit labels, etc. is important. For more information, visit <http://www.wef.org>.

Periods of Disuse

If your home or building is left unoccupied for longer than a couple of weeks, perform the following procedure:

Purge the System. Run clean water into the unit until the pump activates. Immediately turn off the water and allow the grinder pump to run until it shuts off automatically.

Duplex Units. Special attention must be taken to ensure that both pumps turn on when clean water is added to the tank.

Caution: Do not disconnect power to the unit

Power Failure

Your grinder pump cannot dispose of wastewater without electrical power. If electrical power service is interrupted, keep water usage to a minimum.

Pump Failure Alarm

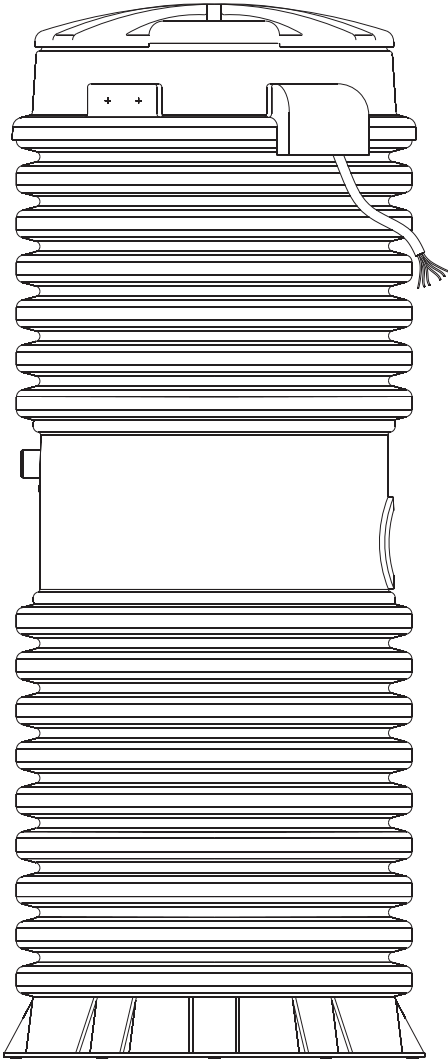
Your Environment One grinder pump has been manufactured to produce an alarm signal (120 volt) in the event of a high water level in the basin. The installer must see that the alarm signal provided is connected to an audible and/or visual alarm in such a manner as to provide adequate warning to the user that service is required. During the interim prior to the arrival of an authorized service technician, water usage must be limited to the reserve capacity of the tank.

For service, please call your local distributor:



Limited Warranty

For E/One Extreme D-Series,
W-Series & Upgrade



Environment One Corporation offers a limited warranty that guarantees its product to be free from defects in material and factory workmanship for a period of two years from the date of installation, or 27 months from the date of shipment, whichever occurs first, provided the product is properly installed, serviced and operated under normal conditions and according to manufacturer's instructions. Repair or parts replacement required as a result of such defect will be made free of charge during this period upon return of the defective parts or equipment to the manufacturer or its nearest authorized service center.

Model Number: _____

Serial Number: _____

Installation Date: _____



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