



PENTAIR Myers STEP-1 Effluent Pumping Insert Package Owner's Manual

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PENTAIR Myers STEP-1 Effluent Pumping Insert Package

**CALIFORNIA PROPOSITION 65 WARNING:**

This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

PACKAGE INCLUDES

- 1-1/2" plastic ball shut-off valve and handle
- 1-1/2" plastic check valve
- Poly junction box with cord grips
- ALC level control switch
- Alarm switch
- Plastic fittings and length of 1-1/2" plastic pipe
- Plastic adapter for 1-1/4" and 1-1/2" NPT thread to 1- 1/2" solvent weld pipe
- Plastic rope
- 48" deep tank with inlet holes around bottom, 18" riser with 1-1/2" hub for power and 1-1/2" hub for pump discharge (threaded)
- Fiberglass cover with locking holes

BASIN INSTALLATION

- **A.** Remove basin unit from carton.
- **B.** Remove parts package from inside basin.
- **C.** Remove shipping restraints from orange alarm switch.
- **D.** Check to make sure basin assembly will fit into tank and rest on first shoulder (requires 18-1/2" dia. round

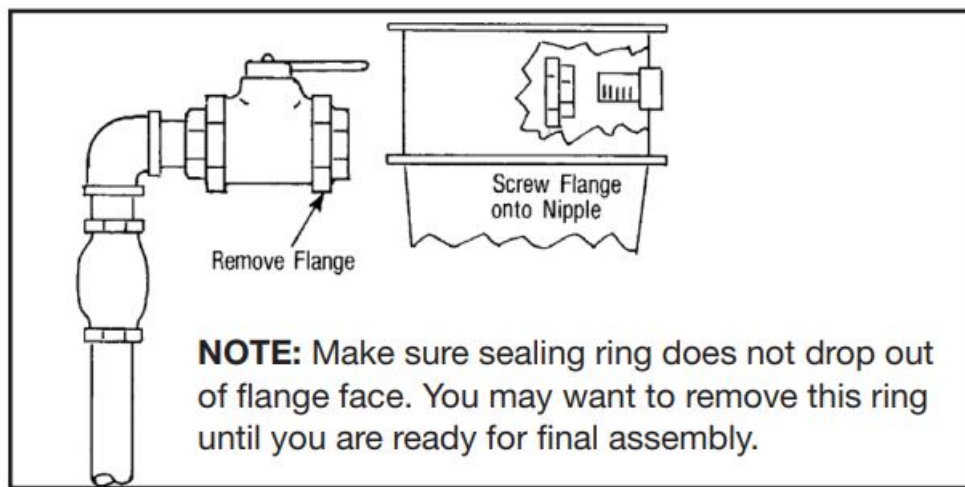
hole). If the hole is square, an adapter plate may be required.

Adapter plate will cover a hole as large as 24". The plate should be caulked or cemented to top of tank so a water-tight seal is obtained. For additional security, holes may be drilled around the edge of the plate and lag bolted to top of tank.

- **E.** After it has been determined that the tank fits properly into the access hole and that the tank flange arrangement leaves no holes for infiltration, build up an approximately 1" thick ridge of mortar or caulking around the lip of the access hole.
- **F.** Set the basin into the hole making sure that the mortar seals all the way around the basin flange. Care should be taken to make sure discharge flange is pointed in proper direction.

PUMP INSTALLATION

- **A.** Remove threaded flanged end from valve assembly. Be careful not to drop square sealing ring out of flange. Screw threaded end of flange onto discharge pipe nipple.



- **B.** The 1-1/2" plastic discharge pipe must be cut to length and cemented into the check valve and properly sized adapter depending on the type of pump you are using. This dimension is important and should be measured accurately and have a relatively square cut on the end. After the pipe is cut, screw the adapter into the pump discharge case, slip the pipe into the socket and slip the valve assembly over the top of the pipe.

1-1/2" DISCHARGE PIPE LENGTH		
PUMP MODEL	DISCHARGE ADAPTER	CUT 1-1/2" PIPE LENGTH TO
S25	1-1/2"	42"
S4	1-1/2"	42"
WHRE	2"*	38-1/2"

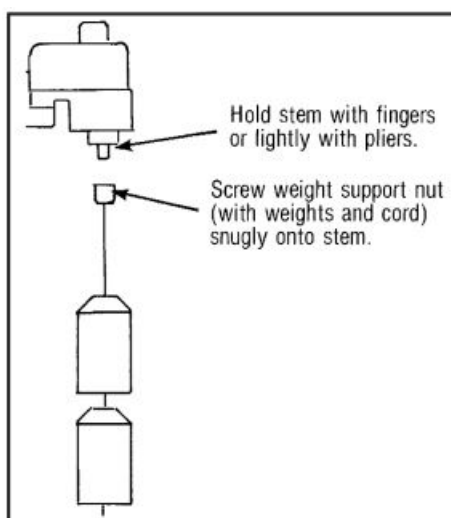
*This adapter does not come with package, but may be ordered separately.

Measure from the bottom of the pump to the bottom of the valve. This dimension should be the same as from the bottom of the basin to the bottom of the flange on the discharge pipe.

If the pipe is a little short, it can be lengthened slightly when the pipes are cemented together (make sure there is enough contact inside solvent weld sleeve to secure pipe). If the pipe is too long, it may have to be cut off.

- **C.** The pipes are now ready to cement. Make sure that the pipes are positioned in correlation to pump.
- **D.** Use a good grade PVC cement. All parts should be clean. Apply a liberal coat of cement on both parts to be mated. Assemble parts and make 1/4 twist. Make sure parts are aligned before cement sets up.
- **E.** After the cement has set up, fasten the nylon rope to the top of the pump and carefully lower the pump into the tube using the rope to bear the weight of the pump.
- **F.** Fasten the valve coupling to the valve flange that has been installed on discharge nipple. (Make sure the square sealing gasket has been installed in the flange.) The flange face should line up with the discharge without bending or straining the parts. Secure the top end of the nylon rope by tying around the discharge pipe.
- **G.** Remove top of junction box by removing 4 screws. Cut off power cord on pump approximately 1' longer than the top of the basin (pull pump cord so it extends 1' outside of basin and cut off). Strip outside jacket so about 8" of single insulated wire is showing. Run power cord through the empty cord grip in the junction box so that the outer cord jacket shows inside the junction box and tighten the cord grip around the cable jacket.

CONNECTING LEVEL CONTROL SWITCH



- **A.** The weights on the level control switch are preset at the factory.
- **B.** Screw the weight assembly onto the bottom of the switch plunger.

WIRING

- **A.** Run wire from entrance panel or other adequate source to junction box. Direct bury or individual stranded wire in conduit may be used. Two wires and ground are required for the pump and an additional 2 wires (14 ga.) are required for alarm.
- **B.** Enter the 1-1/2" conduit flange and pull the wires up into the junction box so the leads stick out about 6". The alarm wires should be marked or color coded so they can be identified.
- **C.** The incoming lines must be sealed to keep condensation moisture or ground water from entering the junction box.

CONNECTING PUMP, SWITCH AND ALARM

- **A.** Connect black wire from pump to black wire on ALC (black) switch.
- **B.** Connect white wire of pump to white wire of incoming power.
- **C.** Connect the 2 wires from the alarm switch (orange ball) to the 2 incoming alarm wires.

- **D.** Connect incoming ground wire to green wire of pump.
- **E.** Make sure wire connections are correct and secure. Push wires into box and put on cover. Make sure the cord grips around the incoming cables are snug.

The fiberglass basin cover may be locked by inserting padlocks through the holes on each side of the cover. If locking is not required, the cover may be held on by bolts supplied.

CONNECTING ALARM

Two types of alarms are available:

1. Inside alarm fastens to inside wall and plugs into 110V outlet. Audible alarm warns of high water. Unit also has alarm silence and test switch.
2. Outside alarm fastens to side of house or post and has red flashing light. This alarm has 2 circuit breakers, one for pump and one for the alarm. Terminal blocks are supplied for connecting the pump and alarm wires and the enclosure is lockable.

WIRE SELECTION TABLE FOR EFFLUENT PUMPS								
PUMP MODEL	VOLTAGE	HP	MAX. AMPS	WIRE SIZE REQUIRED PER TOTAL LENGTH OF LINE IN FEET*				
				100	200	300	400	500
S25M1C	115	1/4	8	14	12	10	10	8
S4M1C	115	4/10	12	14	12	10	8	6
S4M2C	230	4/10	6	14	14	14	14	12
WHRE-11C	115	1/2	14.4	12	10	8	6	6
WHRE5-21C	230	1/2	7.2	14	14	14	12	12
WHRE10-21C	230	1	9.0	14	14	12	12	10
WHRE20-21C	230	2	14.5	12	12	12	10	10

* Wire selection based on allowable voltage drop within system rated at normal voltage.

If low voltage is expected, it may be necessary to go to the next larger wire size.

STANDARD LIMITED WARRANTY

Pentair Myers® warrants its products against defects in material and workmanship for a period of 12 months from the date of shipment from Pentair Myers or 18 months from the manufacturing date, whichever occurs first – provided that such products are used in compliance with the requirements of the Pentair Myers catalog and technical manuals for use in pumping raw sewage, municipal wastewater or similar, abrasive-free, noncorrosive liquids.

During the warranty period and subject to the conditions set forth, Pentair Myers, at its discretion, will repair or replace to the original user, the parts that prove defective in materials and workmanship. Pentair Myers reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for prior sold and/or shipped units.

Start-up reports and electrical schematics may be required to support warranty claims. Submit at the time of start-

up through the Pentair Myers website: <http://forms.pentairliterature.com/startupform/startupform.asp?type=m>. Warranty is effective only if Pentair Myers authorized control panels are used. All seal fail and heat sensing devices must be hooked up, functional and monitored or this warranty will be void. Pentair Myers will cover only the lower seal and labor thereof for all dual seal pumps. Under no circumstance will Pentair Myers be responsible for the cost of field labor, travel expenses, rented equipment, removal/reinstallation costs or freight expenses to and from the factory or an authorized Pentair Myers service facility.

This limited warranty will not apply: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with the printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and parts used in connection with such service; (d) to units that are not installed in accordance with applicable local codes, ordinances and good trade practices; (e) if the unit is moved from its original installation location; (f) if unit is used for purposes other than for what it is designed and manufactured; (g) to any unit that has been repaired or altered by anyone other than Pentair Myers or an authorized Pentair Myers service provider; (h) to any unit that has been repaired using non factory specified/OEM parts.

Warranty Exclusions: PENTAIR MYERS MAKES NO EXPRESS OR IMPLIED WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. PENTAIR MYERS SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

Liability Limitation: IN NO EVENT SHALL PENTAIR MYERS BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY PENTAIR MYERS PRODUCT OR PARTS THEREOF. PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY RESULT FROM IMPROPER INSTALLATION. PENTAIR MYERS DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY UNDER THIS WARRANTY, FOR IMPROPER INSTALLATION. PENTAIR MYERS RECOMMENDS INSTALLATION BY PROFESSIONALS.

Some states do not permit some or all of the above warranty limitations or the exclusion or limitation of incidental or consequential damages and therefore such limitations may not apply to you. No warranties or representations at any time made by any representatives of Pentair Myers shall vary or expand the provision hereof.

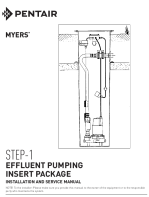
1101 MYERS PARKWAY ASHLAND, OHIO, USA 44805 419-289-1144

WWW.FEMYERS.COM

Warranty Rev. 12/13

490 PINEBUSH ROAD, UNIT #4
CAMBRIDGE, ONTARIO, CANADA N1T 0A5
800-363-PUMP

Documents / Resources

 <p>Diagram showing the STEP-1 Effluent Pumping Insert Package, a vertical assembly with a pump and piping.</p>	<p>PENTAIR Myers STEP-1 Effluent Pumping Insert Package [pdf] Owner's Manual Myers STEP-1, Effluent Pumping Insert Package, Myers STEP-1 Effluent Pumping Insert Package, Pumping Insert Package, Insert Package, Package</p>
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References

- [Start-Up Report](#)

-  [Myers](#) | [Brands](#) | [Pentair](#)

Manuals+