DRAIN CONNECTION

INLET CONDENSATE DRAIN CONNECTION

1. Position the pump beneath the equipment / unit so that condensate or high temperature discharge water flows into the pump inlet freely (use either of the two openings provided). When pressurized hot water is connected always use a tundish prior to entering the pump.
2. The inlet pipe should be positioned as close to the bottom of the tank as possible and the bottom cut at an angle of greater than 30° to ensure the free flow of the condensate from the boiler.
3. If the pump is to be used for both boiler condensate & PRV discharge, the copper PRV pipe should only be inserted at least 1.4" (but no greater than 1.8") into the tank inlet.

OUTLET CONDENSATE CONNECTIONS

1. Connect the 3/8" I.D tubing to the discharge adapter / non return valve. For best results, secure tubing with clamp but do not pinch, or restrict the tubing. The non return valve has a quick release mechanism with a 1/4 turn bayonet type fitting.
2. Tubing should rise vertically but not exceed the maximum shut off head (pumping height) of 46' above the pump. Any horizontal runs should be taken into consideration when assessing the maximum shut off. This shut off will be reduced if bends and horizontal runs are included in the outlet pipe work. If in doubt please contact DiversiTech for advice.
3. At highest point angle tubing horizontally and create a downward slop to drainage point. Do not bend sharply or twist the tubing in a way that might result in collapse or restriction of the tubing. Creating a downward slope will allow condensate to drain by gravity and keep tubing empty.
4. If not possible to create a downward slope, try to create an inverted "U" trap directly above the pump at the highest point.

COMMISSIONING & TESTING

1. Before commissioning, check for debris in the tank. Remove any material which might block the drain line or drain into the pump tank.
2. Turn on power and slowly fill the tank with clean water, as the float rises to the on level position the motor should turn on.
3. Leave the clean water in the tank as this will effectively prime the pump ready for use and help to prevent any flue products passing through the pump from the boiler condensate drain pipe.

This pump is designed for use with condensing boiler applications. Caution must be taken to ensure acidity of condensate does not increase below the average pH of 2.8 (to prevent pitting) by routinely cleaning or flushing tank with fresh water.

MAINTENANCE & SERVICING

1. Before servicing the pump, disconnect the electric power for both the pump and the equipment unit.
2. It is recommended that the pump be checked every six months for proper operation. It is important to check for debris which may cause a blockage to the pump discharge adapter/non return valve. Check for proper free movement of pump float and switch and check for free, unrestricted movement of motor and fan.
3. Clean the holding tank and float with warm water and mild soap. Rinse completely when finished.
4. Check the inlet and outlet piping. Clean as necessary. Be sure there are no kinks in the outlet line that would inhibit or restrict flow.

BOILER PUMP
Condensate Removal Pump

TROUBLESHOOTING

The unit does not run.	a) Check the power supply. b) Check the appliance to see if the condensation is actually being produced. c) Make sure the inlet piping is not clogged. If it is clogged, the appliance may eventually be damaged.
The unit makes loud noises when running.	a) Make sure the inside of reservoir is clean. b) Make sure there is no siphoning action.
The unit runs but does not pump the liquid out.	a) Check that the highest point of the outlet piping does not exceed the maximum delivery head of the pump. b) Check that the inside of outlet piping is clean. c) Inspect the check valve following the maintenance instructions.
Liquid drains back into the pump from the outlet piping.	a) The check valve may have debris in it. Clean the check valve following the maintenance instructions.
Liquid leaks from around the check valve.	a) Make sure the outlet piping is tightly connected with the check valve. b) Make sure the check valve is fastened properly. c) If the o-ring under the check valve is damaged, replace with a new one.

LIMITED WARRANTY

All pumps manufactured by or for DiversiTech Corporation (the Company) and sold by the Company under the DiversiTech brand are warranted to be free of defects in workmanship and materials for a period of 24 months from date of sale from the distributor to the contractor. The Company will credit, repair or replace, at its option, any Pump if deemed defective within this time period. All products returned to the Company must include a return authorization issued by the Company. The returned product should be suitably packaged and shipped prepaid from the point of shipment to the point designated in the Company's return authorization.

This warranty is a limited warranty and shall be in lieu of any other warranties, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There are no other warranties that extend beyond the description of the face hereof. The liability of the Company arising out of it's supply of said products, or their use shall not in any case exceed the cost of correcting defects in the products as set forth above. The Company shall not be liable for any costs or damage incurred by its customers in the removal or replacement of defective products from units in which the products have been assembled. In no event shall the company be liable for loss of profits, indirect, consequential, or incidental damages.

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DOC30613
MADE IN KOREA

BOILER PUMP
Condensate Removal Pump

BP-46, BP-46-230

Instruction Manual

DIVERSITECH®

BOILER PUMP
Condensate Removal Pump

The DiversiTech Boiler Pump is designed to automatically remove the water produced by condensing furnace and boilers that produce high temperature condensate. Can also be used for air conditioning evaporation coils, especially when high lift is required. These pumps can also be used for other types of fresh water removal from refrigeration equipment, dehumidifiers, water dispensers, etc. where gravity drainage is impossible.

NAME OF EACH COMPONENT

GENERAL FEATURES OF **BOILER PUMP**

- High performance pump - up to 46' of lift
- Up to 212 degrees Fahrenheit condensate
- Flame retardant and high impact plastic construction
- Low noise motor with thermal protector
- Stainless steel pump shaft
- 90 degree turn check valve for easy servicing

⚠ WARNING ⚠

1. DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, ALCOHOL, ETC.
2. DO NOT USE IN EXPLOSIVE ATMOSPHERES
3. DO NOT HANDLE PUMP WITH WET HANDS OR WHEN STANDING ON A WET OR DAMP SURFACE OR IN WATER
4. RISK OF ELECTRIC SHOCK - THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND GROUNDING-TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRIC SHOCK, BE CERTAIN THAT IT IS CONNECTED ONLY TO A PROPERLY GOUNDED, GROUNDING-TYPE RECEPTACLE.
5. CONNECT THE PUMP ONLY TO THE POWER SUPPLY SPECIFIED ON THE NAMEPLATE OF THE PUMP
6. IN ANY INSTALLATION WHERE PROPERTY DAMAGE AND/OR PERSONAL INJURY MIGHT RESULT FROM AN INOPERATIVE PUMP, A BACKUP SYSTEM AND/OR ALARM SHOULD BE USED
7. DO NOT TWIST THE DRAIN HOSE AND DISCHARGE HOSE
8. BEFORE ANY MAINTENANCE OR REPAIR OF THE PUMP PLEASE DISCONNECT THE PUMP FROM THE POWER SUPPLY TO AVOID AN ELECTRICAL SHOCK
9. KEEP CHILDREN AWAY FROM THE PUMP
10. THIS IS NOT A SUBMERSIBLE PUMP
11. ALL SERVICE AND INSTALLATION SHOULD BE DONE BY A QUALIFIED SERVICE TECHNICIAN
12. THE INTERMITTENT RATING OF THIS PUMP IS NOT LONGER THAN 5 MINUTES

BOILER PUMP
Condensate Removal Pump

SPECIFICATIONS

Boiler Pump

	115V	230V
Model	BP-46	BP-46-230
Max Flow	114 Gal/Hr	
Max Head	46'	
Tank Capacity	1 Gal	
Volts	115V/2.7A	230V/1A
Hz	60 Hz	
Discharge Size	3/8"	
High-level Alarm	240VAC, 3A dry contact	

Length	12.8"
Width	6.3"
Inlet Height	4.5"
Overall Height	9.8"
Cable Length	5.9'

*Suitable for boilers up to 1,028 MBH (when used for boiler condensate only)

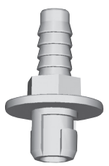
INSTALLATION GUIDE

1. This condensate pump is designed for pumping away condensate from condensing boilers, PRV discharge and high temperature water up to 212°F. The pump is controlled by a float / switch mechanism which turns the pump on to discharge the condensate when approximately .7 gallons of condensate collects in the tank. The pump switches off automatically when the tank drains to approximately .3 gallons, giving a drink cycle of .4 gallons.
2. This pump is carefully packaged, inspected and tested to ensure safe operation and delivery. When you receive the pump, examine it carefully to determine that there are no broken or damaged parts that may have occurred during shipment. If damage has occurred, please contact your supplier. They will assist you in replacement or repair, if required.
3. Read the instructions carefully before attempting to install, operate or service the pump. Know the pump application, limitations and potential hazards. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Please retain these instructions for future reference. Installation and connections are to be made by a qualified person.
4. If installed for combined boiler condensate & PRV discharge, this pump is only suitable for boilers up to 143MBH.

How to Use the Check Valve

① To uninstall
→ Turn 90° counter-clock-wise
→ Pull up to remove check valve from hole

② To install
→ Insert the check valve into the hole
→ Turn check valve 90° clockwise



BOILER PUMP
Condensate Removal Pump

SAFETY

1. Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc. Do not use in explosive environments. This pump should be used with liquids compatible with the pump component materials.
2. Do not handle the pump with wet hands or when standing on a wet or damp surface, or in water. To reduce the risk of electrical shock, be certain that the electrical supply is connected to a permanent EARTH ground.
3. For installations where property damage and/or personal injury might result from an inoperative or leaking pump due to power cuts, discharge line blockage, or any other reason, a backup system and/or alarm should be used.
4. Support the pump and piping when assembling and when installed. Failure to do so may cause piping to break, pump to fail, motor bearing failures, etc.

INSTALLING THE PUMP

1. Carefully unpack the pump.
2. The pump is designed to be floor standing and it is essential that the pump must sit on a level surface. If installing on bare floor boards, to reduce noise transmission, it is advisable to place the pump onto a noise absorbing material (such as underlay or carpet).
3. The pump should not be installled in a manner that will subject it to splashing or spraying.
4. PRV discharge should be routed through a tundish before entering the pump.

ELECTRICAL CONNECTIONS

1. If desired, connect overflow safety switch terminals. Normally closed contact can be used to shut down equipment and normally open contact can be used to activate optional audible or visual alarm. The microswitch in the overflow safety is rated for 240V, 3A.
2. Plug the pump into a suitable outlet based on the voltage specified on the label located on the pump.
3. If a permanent wiring solution is preferred, the plug can be cut off and the pump can be wired in accordance with NEC and local codes.
4. If pump is installed on a separate branch circuit, a 3.0 amp fuse is recommended.