

Installation, Operating and Maintenance Instructions

Boiler Condensate Pump - VCMX-20-STA



Little GIANT

1. INTRODUCTION

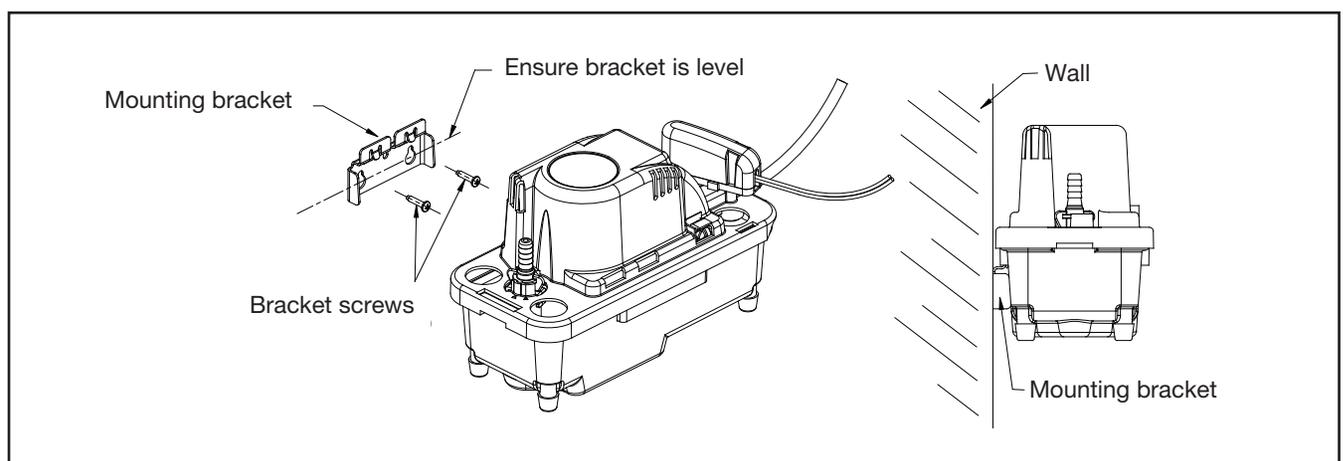
- 1.1 Your Condensate Pump is designed as an automatic condensate removal pump for pumping away room temperature condensate water dripping from condensing boilers. The pump is controlled by a float/switch mechanism which turns the pump on to discharge the water when approximately 42mm of water collects in a tank. The pump switches off automatically when the tank drains to approximately 27.5mm.
- 1.2 The condensate pump you have purchased is a high quality product that has been engineered to give you a long and trouble-free service.
- 1.3 This pump is carefully packaged, inspected and tested to ensure safe operation and delivery. When you receive the pump, examine it carefully to determine 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.
- 1.4 Read 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! Retain instructions for future reference. Installation and connections are to be made by a qualified person.

2. SAFETY GUIDELINES

- 2.1 Do not use to pump flammable or explosive fluids such as petrol, fuel oil, kerosene, etc. Do not use in explosive atmospheres. This pump should be used with liquids compatible with pump component materials.
- 2.2 Do not handle the pump with wet hands or when standing on 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.
- 2.3 For installations where property damaged 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(s) and/or alarm should be used.
- 2.4 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.
- 2.5 The pump is designed to take condensate only, under no circumstances should high temperature pressure relief be discharged into the pump. (A PH-3-8L-HW High Temperature Water Pump is an alternative that has been specially designed for this application.)

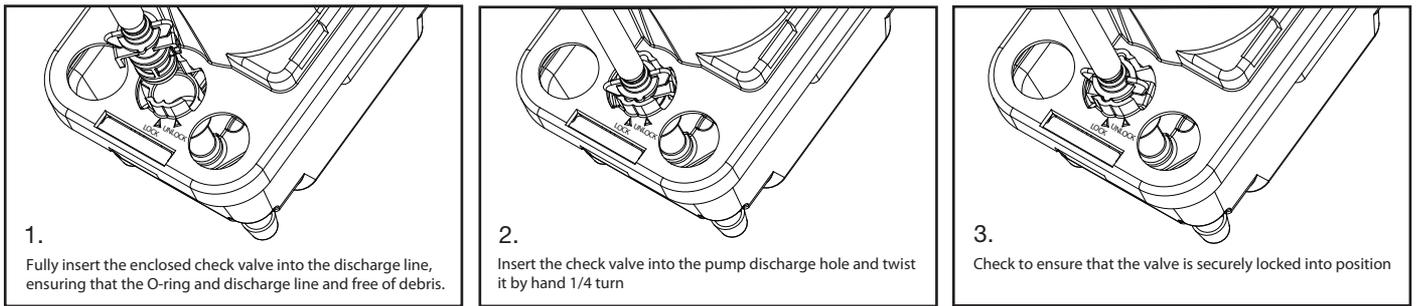
3. INSTALLATION

- 3.1 Carefully unpack the pump.
- 3.2 Mounting the pump: Using the enclosed mounting bracket, mount the pump on a nearby wall. The tank has a mounting slot on each side so it can be positioned either way. Ensure that the pump is level. If mounting the pump on a flat surface, install the enclosed 4 rubber feet onto the bottom of the tank.



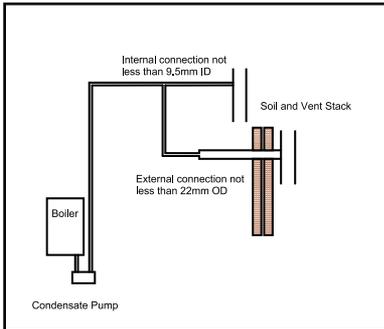
3.4 The pump should not be installed in a manner that will subject it to splashing or spraying.

3.5 The pump is supplied with a 1/4 turn quick release non-return valve - steps 1, 2 and 3.

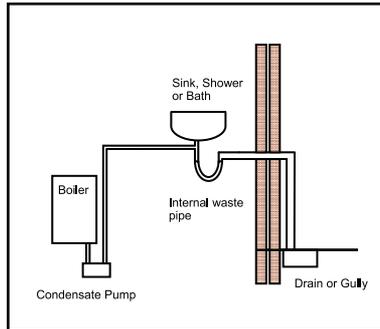


3.6 The following installation pipe routing options are available:

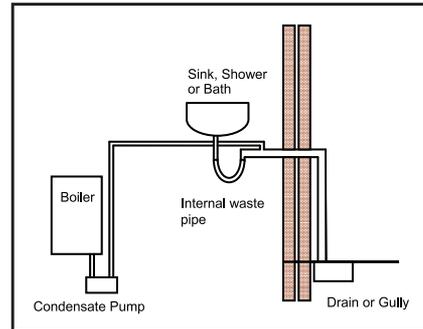
Connection to Soil and Vent stack



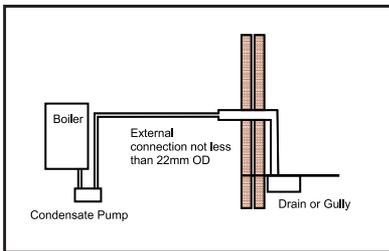
Connection to internal waste pipe upstream of sink, shower or bath



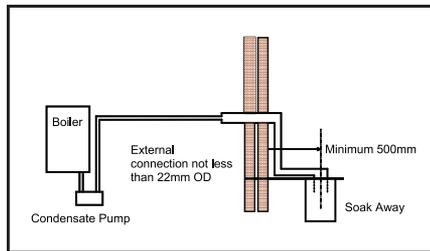
Connection to internal waste pipe down stream of sink, shower or bath



Connection to external drain, gully or rain water hopper



Connection to external Soak Away



4. ELECTRICAL CONNECTIONS

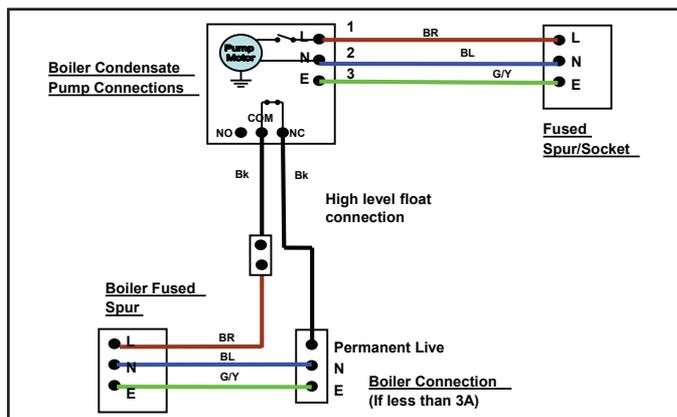
4.1 Shut off electrical power at fuse box before making any connections. All wiring must comply with local codes.

4.2 Line voltage: Connect the pump to voltage specified on label located on the pump:

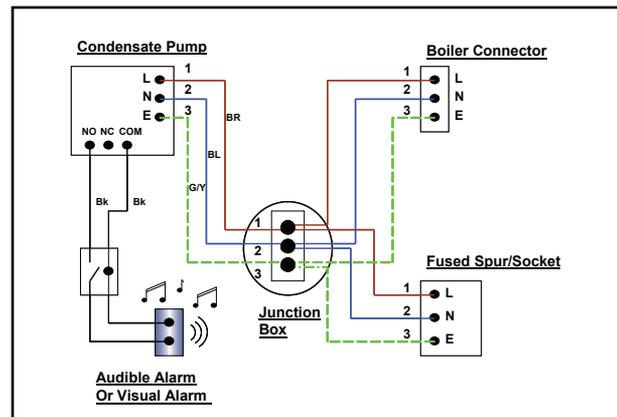
Live (Line) - Brown Neutral - Blue Earth - Yellow/Green

4.3 If fused plug is used, a 1.0 Amp fuse is recommended.

4.4 Connection of the high level safety switch / potential free contact to either the boiler 240v circuit or an audible alarm. The pump is fitted with a 240v micro switch which will activate if the pump starts to overflow in the event of outlet pipe blockage or pump failure. The following wiring diagrams show how the switch can be connected into a boiler circuit or a separate audible alarm.



Boiler connection to the high level safety switch



Audible alarm connection to the high level safety switch

5. WATER DRAIN CONNECTIONS

Inlet Water Connections

- 5.1 Position the pump beneath the boiler so that condensate water flows into the pump inlet freely (use any of the three openings provided).
- 5.2 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.
- 5.3 Keep plugs in unused pump inlet openings to prevent debris from falling into the pump tank.

Outlet Water Connections

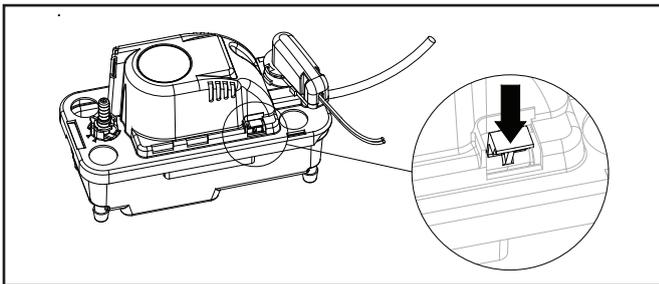
- 5.4 Connect the supplied 3/8" I.D tubing to the discharge adapter. For best results, secure tubing with clamp but do not pinch, kink or restrict the tubing in any way.
- 5.5 Tubing should rise vertically but not exceed the maximum shut off head (pumping height) of 4.8 metre above the pump.
- 5.6 At highest point angle tubing horizontally and create a downward slope 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 water to drain by gravity and keep tubing empty of water.
- 5.7 If not possible to create a downward slope, try to create an inverted "U" trap directly above the pump at the highest point.

6. COMMISSIONING & MAINTENANCE

- 6.1 Before servicing the pump, disconnect the electric power at the fuse box for both the pump and the boiler.
- 6.2 Upon commissioning, check for debris in the drain pan. Remove any material that might block the drain line or drain into the pump tank.
- 6.3 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.
- 6.4 Clean the holding tank and float with warm water and mild soap. Rinse completely when finished.
- 6.5 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.

7. TESTING

- 7.1 Turn on power.
- 7.2 Lift the motor/tank cover assembly off the tank and hold level.
- 7.3 Test motor switch by pushing the test level with your finger which will turn the motor on.
- 7.4 This pump is designed for use with condensing boiler removal applications. Caution must be taken to ensure acidity of condensate does not increase below the average PH 2.8 (to prevent localized pocket of acid that acts like a battery causing pitting) by routinely cleaning or flushing tank with fresh water.



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Are you having problems routing PRV or T&P valves?

SOLUTION ONE - FOR BOILER PRV
use a PH-3.8L-HW pump



- ✓ Can deal with boiler condensate
- ✓ Handles 100°C pressure relief

SOLUTION TWO - FOR UNVENTED T&P
use a PH-SL-HW pump



- ✓ Unvented temperature & pressure relief
- ✓ Solar cylinder temperature & pressure relief

Solutions from Pump House!

