Bell & Gossett
a xylem brand

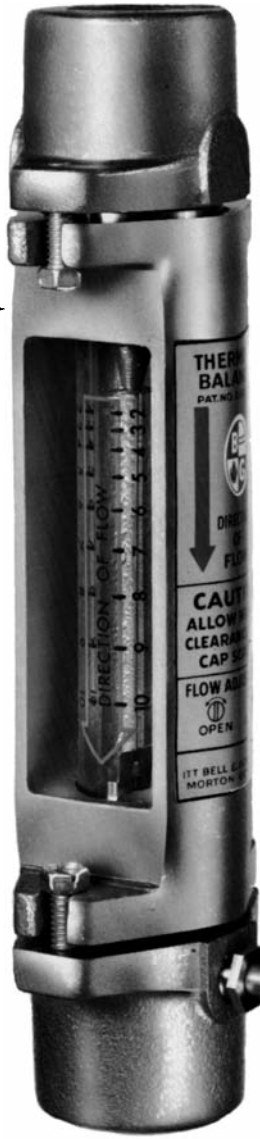
INSTRUCTION MANUAL
S17205E

Thermoflo® Balancer

INSTALLER: PLEASE LEAVE THIS MANUAL FOR THE OWNER'S USE.

SAFETY INSTRUCTION

This safety alert symbol will be used in this manual and on the Thermoflo Balancer safety instruction decals to draw attention to safety related instructions. When used the safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.



DESCRIPTION

The B&G Thermoflo Balancer is used for balancing a multi-zoned hydronic system. It is designed to give a direct reading of circuit flow rates. Flow ranges are 2 to 10 GPM for the 1" size and 1 to 5 GPM for the ¾" size. A built in balancing valve is included.

Operational Limits

Maximum Working Pressure 125 psig
Maximum Operating Temperature 250°F
System Fluid pH 7 to 9

INSTALLATION INSTRUCTIONS

1. The Thermoflo Balancer may be installed in any position. The red arrow should always point in the direction of water flow.

WARNING: Accidental glass breakage will result in the release of hot and/or pressurized system fluid.

a) Do not install Thermoflo Balancer where accidental glass breakage could cause water damage or injury.

b) Thermoflo Balancer Body is of rugged construction and will withstand all normal strains found in the average piping system. However, when screwing pipe into it, each threaded NPT end must be supported with a wrench to prevent damage to retaining screws.

c) Do not exceed the 125 psig working pressure or the maximum operating temperature of 250°F.

d) To prevent thinning of glass, system water must be maintained between 7 and 9 pH.

Failure to follow these instructions could result in a serious personal injury or death and property damage.

CAUTION: Overtightening and breakage can be caused by the use of Teflon impregnated pipe compound or Teflon tape on pide threads. Use caution when tightening pipe joints with Teflon materials applied. Failure to follow these instructions could result in property damage and/or moderate personal injury.

2. Thermoflo Balancers should be installed with a minimum of 3 (three) pipe diameters of unrestricted straight pipe upstream and downstream.
3. The accuracy of the Thermoflo Balancer or any flow indicating device is reduced by dirt or foreign material lodging on the flow indicating mechanism. Always clean a new system thoroughly by adding a cleaning compound to the original fill water. (Trisodium Phosphate has been found by many to be a satisfactory cleaning compound.) Operate the system for a few days, drain and refill with fresh water.

OPERATING INSTRUCTIONS

WARNING: Hot or cold system fluids can escape unexpectedly. Always wear safety glasses when looking toward or working on the Thermoflo Balancer. Failure to follow these instructions could result in serious personal injury or death and property damage.

1. Flow is read by matching up the loop on the end of the spring cone with the scale on the glass tube. Glass tube is graduated to read flow in GPM or Liters/Min.
2. Flow rate can be adjusted for system balance by placing a screw driver in slotted stem of Butterfly Valve and turning until desired flow rate is indicated.

SERVICE INSTRUCTIONS

WARNING: Hot system fluids or system fluids under pressure can be very hazardous. Isolate the Thermoflo Balancer from the system with shutoff valves before attempting any service. Vent the system pressure and allow the system temperature to cool below 100°F before removing the Thermoflow Balancer. Leave drain valves or vent open while servicing the Thermoflo Balancer. If liquid does not stop flowing from the drain valve, the isolating shutoff valves are not sealing and must be repaired before proceeding. Failure to follow these instructions could result in serious personal injury or death and property damage.

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

1. Loosen and remove the four cap screws from the end flanges. See Figure 1.
2. Pull the body assembly out with a slight twisting movement. See Figure 2.
3. Remove the two brass rings and gaskets. Replace gaskets. See Figure 3.
4. Remove the inner parts from the glass tube for cleaning. This may be done without removing the glass tube from the housing by pushing the spring-hanger assembly out of the inlet (upstream) end. Inspect rubber tube gaskets for damage or leakage. If noted, they must be replaced. This can be accomplished by gently pushing the glass tube from the housing and installing new gaskets on the ends of the tube. See Figure 4.

CAUTION: Improper glass tube assembly into housing could result in breakage of glass tube. Make sure glass tube is centered in the body housing to prevent end metal-to-glass contact. Failure to follow these instructions could result in property damage and/or moderate personal injury.

5. After cleaning all parts, replace spring-hanger assembly in the direction of the arrows. **Note:** The loop on the end of the spring cone should line up with the "Zero" end of the red arrow on the glass tube.
6. Re-assemble brass rings and gaskets and insert between end flanges. For greater ease of assembly, spread end flanges apart about ¼". Make sure that arrows point in direction of flow.
7. Replace cap screws, alternately tightening each side.

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Let's Solve Water

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