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## I & M Mark 934 Series

### *Installation & Maintenance Instructions for the Mark 934 Sanitary Steam Traps*

**Warning:** Steriflow Sanitary Steam Traps must only be used, installed and repaired in accordance with these Installation & Maintenance Instructions. Observe all applicable public and company codes and regulations. In the event of leakage or other malfunction, call a qualified service person; continued operation may cause system failure or a general hazard. Before servicing any valve, disconnect, shut off, or bypass all pressurized fluid.

### **Please read these instructions carefully!**

The thermostatic style Mark 934 Series of sanitary steam traps will provide you with long, trouble-free service when correctly installed and maintained. Time spent reading these instructions now may save trouble and downtime later.

These sanitary traps offer 316L Stainless Steel bodies with Tri-Clamp® style ends and Tube Welded Ends. The replacement thermal element is easily accessed by way of the Tri-Clamp® style body joint. Body gasket is of Teflon encapsulated Viton.

### **Ideal Installation**

1. Blow or flush out piping per sanitary piping requirements to ensure no foreign materials are present.
2. Verify that your sanitary steam trap will meet system conditions by checking information lasered on the body for operating differential pressure and maximum pressure and temperature limits of the trap body.
3. The recommended installation is in a vertical pipe run with the inlet uppermost.
4. Isolation valves should always be installed on either side of the trap for service purposes.
5. Install as per approved piping methods for sanitary systems as shown Figure 1 as a typical installation.

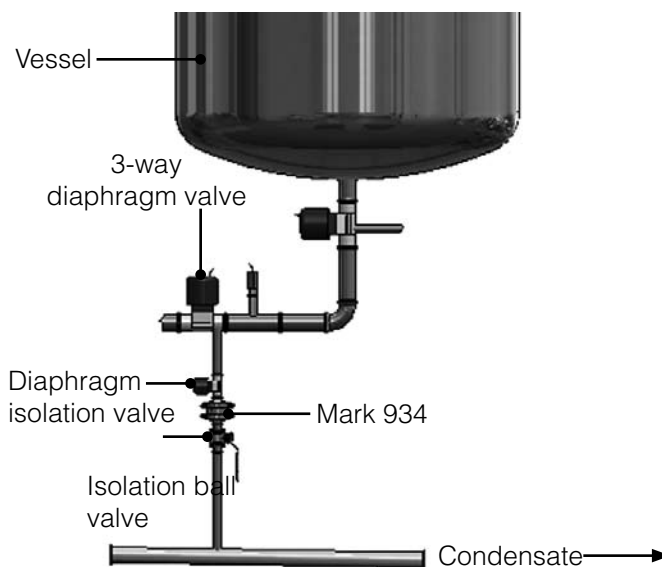
### **Installation & Operation**

The Mark 934 sanitary steam trap features two thermostatic elements of 316L construction that move to close the valve seat when thermostatic forces expand the internal thermal fill. The trap body is self draining.

The Mark 934 sanitary steam trap is specifically designed to facilitate the sterilization of sanitary vessel including fermentors, bioreactors and auto-claves without the addition of a SIP heat-up bypass loop.

The two thermostatic elements will remain open during the heat up phase to remove the necessary condensate. As the sterilization temperature is approached, the larger thermostatic element will close, allowing the smaller thermostatic element to control at the sterilizing condition with minimum sub-cooling.

**Figure 1 - Typical Installation**



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## Maintenance

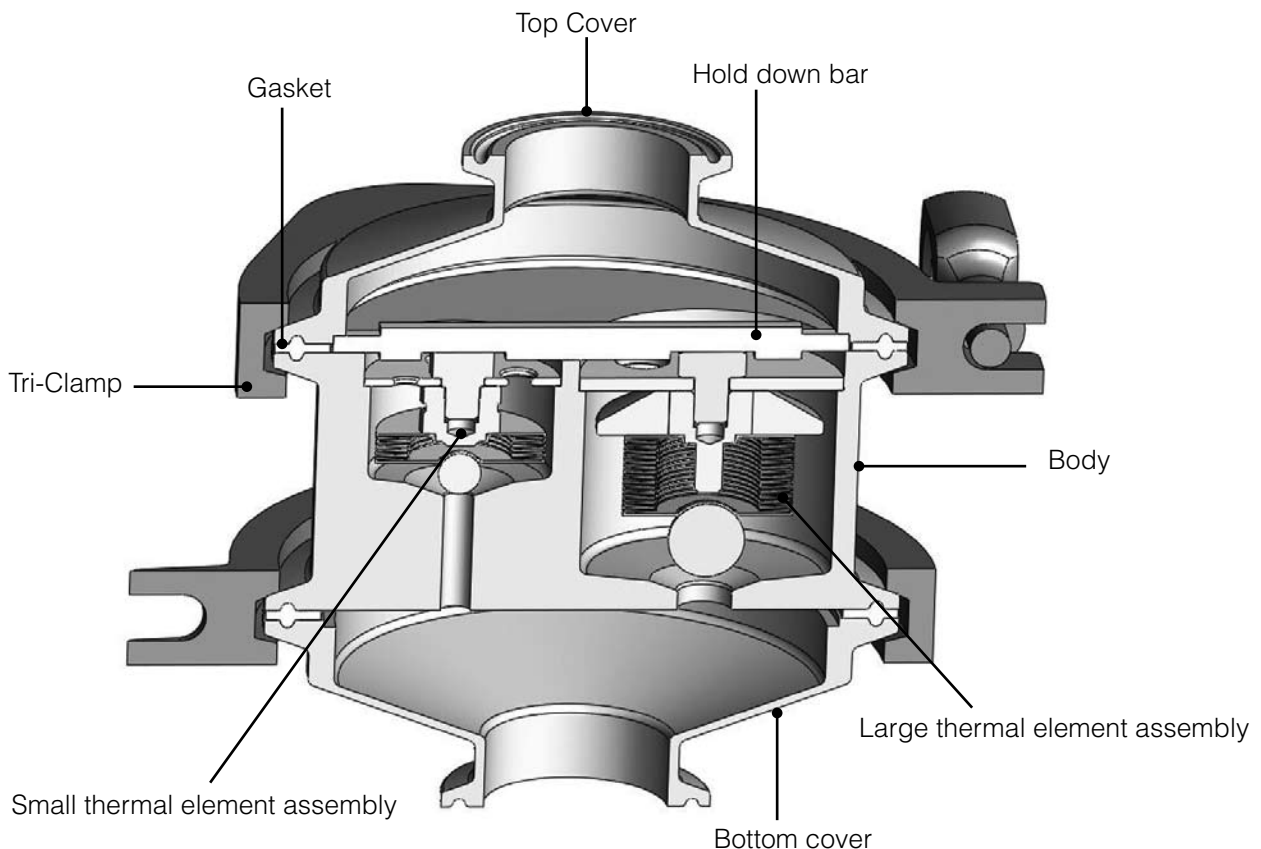
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1. Check that the steam supply is shut off and that the isolation valves upstream and downstream of the steam traps are closed.
2. Remove the steam trap from the sanitary piping by disconnecting the inlet and outlet Tri-clamps.
3. The trap can be disassembled by removing the Tri-clamp holding the inlet cover.
4. Remove the hold-down bar covering the top of the studs on the two steam trap thermal element assemblies.
5. Remove the two steam trap thermal element assemblies.
6. Inspect and clean the components per sanitary application requirements.
7. Inspect for wear and damage to the thermal element seating surfaces and the valve seat area of the trap body outlets.
8. Replace the trap thermal elements if poor operation is suspected.
9. Reassemble the trap components by:
  - a. Replacing the thermal elements
  - b. Replacing the body to top cover gasket. Note: the joint gasket is reusable unless leakage has occurred.
  - c. Placing the hold-down bar over the top studs
  - d. Attaching the top cover and tightening the Tri-clamp
10. Reinstall the trap in the sanitary piping using proper gaskets and Tri-clamp connectors

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## Exploded View

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**Figure 2 - Mark 934 Exploded View**