



3170 Wasson Road • Cincinnati, OH 45209 USA
 Phone 513-533-5600 • Fax 513-871-0105
 steriflow@richardsind.com • www.steriflowvalve.com

Sample Cooler (SC60) Series

Installation & Maintenance Instructions for Sample Cooler (SC60) Series

Warning: Steriflow Sanitary Sample Coolers 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. Before disassembling a valve, be sure to release all spring tension.

Please read these instructions carefully!

Your Steriflow/Jordan product will provide you with long, trouble-free service if it is correctly installed and maintained. Spending a few minutes now reading these instructions can save hours of trouble and downtime later. When making repairs, use only genuine Steriflow Valve parts, available for immediate shipment from the factory.

SC60 Sample Cooler

The SC60 Sample Cooler is designed to allow clean steam and high purity water samples to be taken quickly and easily while maintaining product sterility during testing.

Design conditions

Coil design pressure 145 psig / 10 barg
 Shell design pressure 145 psig / 10 barg

Installation

* The sample cooler should be orientated vertically as shown at right.

* The SC60 includes a mounting kit which includes two M8 socket head cap screws, mounting bosses, and washers. This kit allows the user to mount to a most metal panels, or mounting brackets. The mounting bosses fit into the recessed counter bores featured on the back of the SC60 Heat exchanger. The cap screws are intended to pass through the washer into a the panel or bracket, through the boss and thread into the tapped holes shown above in the center of the SC60's recessed counter bores.

Note: If you want to mount the sample cooler to a solid wall, mounting kit # 31432 is required. Contact the factory for information.

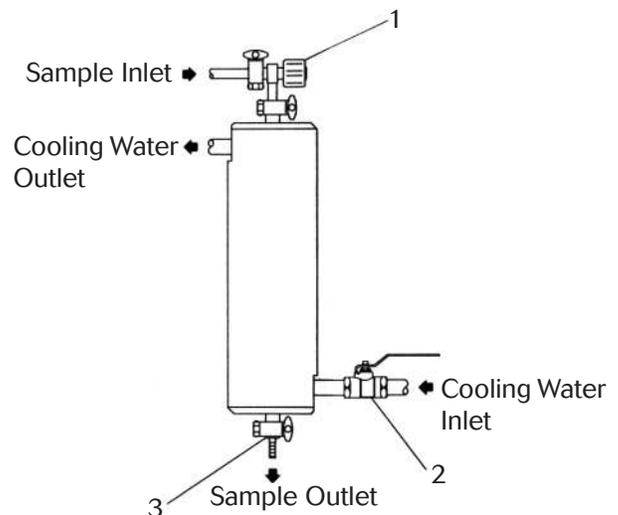
* Cooling medium, typically city, well, or chilled water, should be connected to the lower body connection. In order to allow the flow of cooling medium to be controlled during testing an isolation valve (2) should be included. The cooling water outlet should be piped to drain and be free of obstructions or isolation valves.

Where steam is the sample medium, a valve (1) suitable for continuous steam duty (SV) must be used. Valves with a "soft" seat will rapidly fail due to erosion of the seating surfaces, losing their ability to give appropriate control or to isolate.

If the steam supply is to be isolated with a valve adjacent to the steam main (Fig. 2) then the system connection of the SV should be connected to the inlet of the SC60 as illustrated. When installed in this orientation any residual condensate formed in the supply pipework will flow freely through the sample cooler once the main steam line is closed.

Operation

1. Open the cooling water inlet valve (2) and ensure that a flow of cooling medium is present.
2. Slowly open the sample inlet valve (1) until a sample is obtained at the sample outlet (3). Note that excessive flow will result in a high sample temperature. Both cooling water and sample valves can be



Accessories	
1	SV Sample Valve
2	1/2" Cooling Water Ball Valve
3	HA 1/4" Hose Adaptor on Sample Outlet

- regulated to adjust the sample outlet temperature.
- Once a suitable sample has been obtained the sample inlet valve (1) should be isolated. Cooling medium should be allowed to flow for a short period in order to condense/cool any medium passing through the coil. When no further sample is evident,

Installation for Continuous Supply to SC60 Sample Cooler and SIP

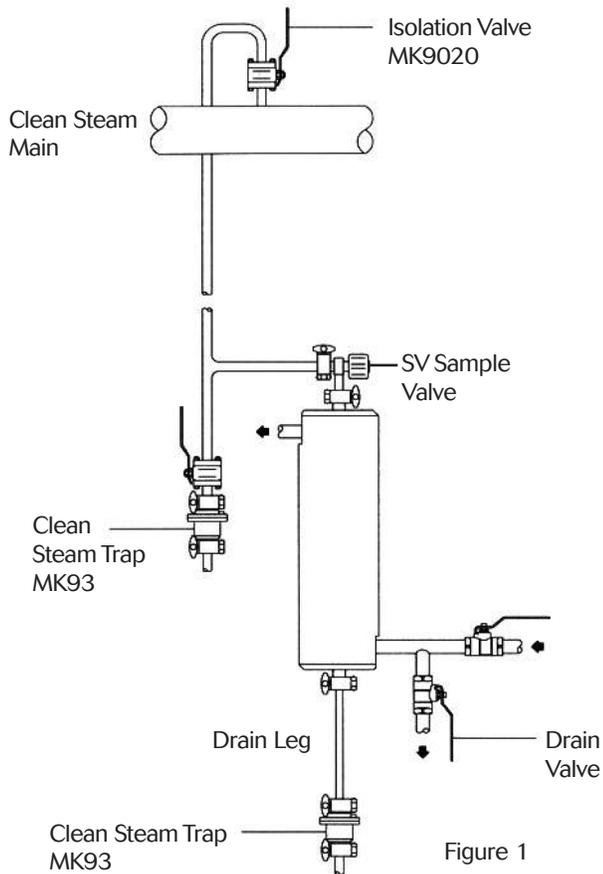


Figure 1

isolate the cooling water supply (2). If sampling steam, and the supply is to be isolated at the steam main (Fig. 2), both the sample and cooling water valves should be left open after isolation of the steam supply to allow any residual heat energy in the supply pipework to dissipate. Once the system has cooled, the water supply may be isolated.

Installation for Isolated Supply to SC60 Sample Cooler

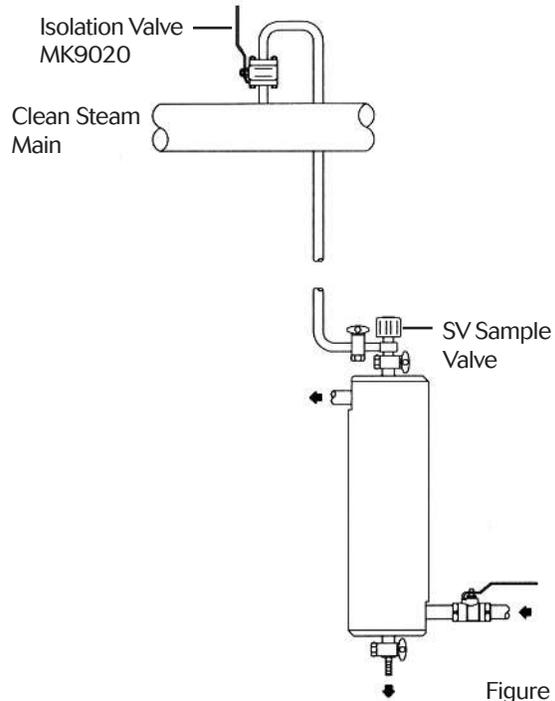


Figure 2

Sterilization in Place (SIP)

Prior to testing or at periodic intervals, it may be appropriate to sterilize the SC60 to ensure that sample integrity is maintained during testing.

In order to sterilize the SC60 in place, the following installation is recommended (Fig. 1).

1. A drain valve should be included between the cooling water isolation valve and cooling water inlet to allow residual cooling water to be purged from the shell prior to sterilization. Unless drained, this water will boil during sterilization.

The cooling water outlet connection should always be vented to atmosphere during sterilization to prevent any pressure build up in the shell of the unit.

2. A clean steam trap (MK93) should be fitted on the sample outlet connection. A minimum drain leg of

6" (150mm) should be allowed between the sample outlet connection and the trap to ensure that the coil is kept free of condensate during sterilization.

To Sterilize the SC60, first ensure that the shell has been drained of cooling water and that the spool and steam trap have been fitted. Open the steam main isolation valve and allow the supply piping to warm. Gently open the steam sample valve to allow steam in the coil of the SC60. Sterilize as required.

Once Sterilization is complete, isolate the SC60 and allow the unit to cool. Remove the spool and trap. Isolate the cooling water drain valve. The unit is now ready for normal use.

Caution: The SC60 will become hot during operation and sterilization. Personnel should be protected against contact with the installation with appropriate insulation.