

# MADDEN MANUFACTURING, INC.

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## Type 1 Sample Cooler Installation and Operation Instructions

### Installation:

1. Determine how the unit will be mounted securely to a supporting structure. Install by bolting the cap directly to a supporting member using (2) 3/8"-16 hex head cap screws.
2. Install cooling water supply line and control valve, install at connection "IN" on the left side of the cap. The cooling water drain line will be installed at the "OUT" connection on the right side of the cap. All connections are 1/4" NPTF. The control valves are not included but may be readily obtained from a valve supplier.
3. Install sample valve and supply line to the "SAMPLE IN" connection on the top of the cap. Make sure you select supply line and valve construction capable of handling the heat, pressure and chemical activity of the sample liquid.
4. **Note:** Installation of control valves is required on both the sample and cooling water inlet piping.
5. Install the 90 degree sample discharge spout at the connection "SAMPLE OUT".
6. Test piping connections for leaks and repair as needed.

### Operation:

1. Open cooling water supply valve. Cooling water must continue running during the entire sampling operation.
2. Open valve on sample supply line. Let this line run free for a brief period to flush the supply line and the sample cooler so the sample being drawn will be fresh.
3. Adjust the sample supply valve until the sample flow is low enough to cool the sample adequately for safe handling of the sample, cool enough for your tests or testing equipment. The lower the rate of sample flow the more the sample will be cooled.
4. After drawing the fresh sample close both first the sample valve and then the cooling water valve.

### Specifications:

<u>MODEL NO.</u>	<u>COIL MATERIAL</u>	<u>COIL SURFACE AREA (SQ. FT.)</u>	<u>COIL RATING PSI</u>	<u>LENGTH</u>
SC0001	COPPER	1.3	300	17.25"
SC0002	COPPER	2.6	300	31.50"
SC0003	316 SS	1.3	1,200	17.25"
SC0004	316 SS	2.6	1,200	31.50"

Shell rating: 150 psi

