

SAMPLE COOLERS

Efficient liquid to liquid mini heat exchangers. Available with copper and stainless steel coils.



Madden Sample Coolers are miniature heat exchangers designed to reduce high temperature liquid samples to safe, usable temperatures for analysis. They also function as effective coolers for pump seal flush liquid. The counter flow design efficiently cools the tube side liquid.

Sample coolers are available in copper and Type 316stainless steel tube coil material. All Madden sample coolers disassemble with standard tools for cleaning, or replacement of damaged coils. Carbon steel shell parts are painted with grey acrylic enamel. Shell side pressure rating is 150 psi. Madden Type 2 models maybe constructed using a variety of materials to meet a customer's specific requirements. Contact the factory for a quotation for applications with special material specifications.

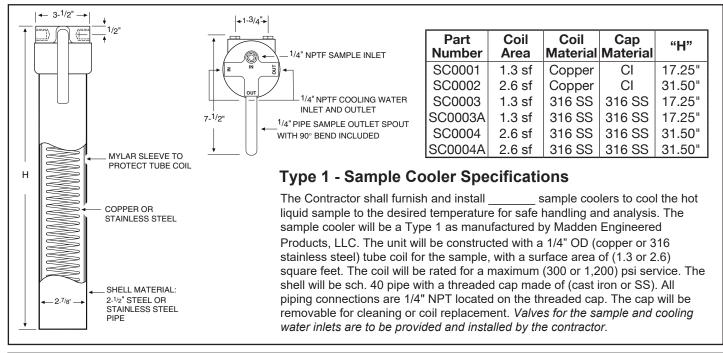
Type 1 sample cooler models have all the piping connections for the sample and the cooling water on the threaded cap on the top of the sample cooler. All coils are1/4" OD tubing, and all piping connections are 1/4"NPT.Cooling water enters on the left and exits opposite on the right. Sample inlet connection is vertical on the top, and the cooled sample exits from the spout.

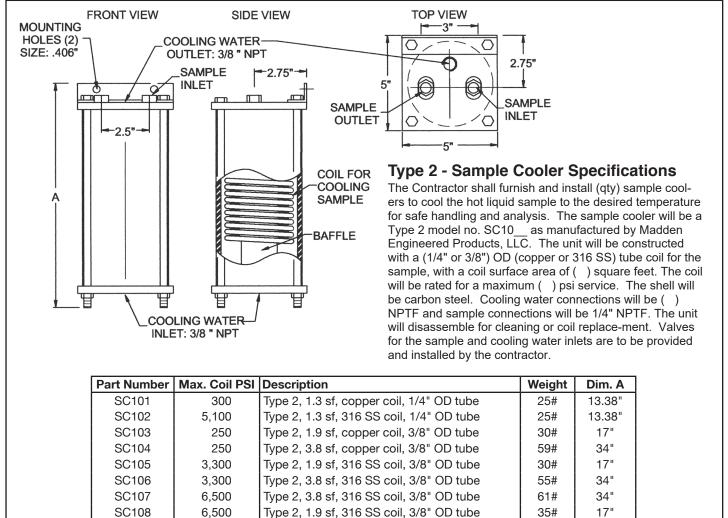
Type 2 sample coolers offer both 1/4" and 3/8"OD tubing coils. Sample connections are 1/4"NPTF and are made on the top plate. Cooling water connections are 3/8" NPTF located on both top and bottom plates. On our Type 2 design, we can offer up to 1" NPT cooling water connections.

NOTE: Typically, liquid grab samples can be cooled with 1.3 square foot coil surface area models. For continuous cooling of samples for instrument probes, or for steam samples, 2.6 sf or larger coil surface area is recommended.

Part Number	Coil Type (Max PSI & Temp)	Description - (Type, HX surface area, size of tube and connections)	Height & Weight
SC0001	Copper - 300 @ 400°F	Type 1, 1.3 Sq. Ft., CI head, 1/4" OD tube & NPT	17.25" - 15#
SC0002	Copper - 300 @ 400°F	Type 1, 2.6 Sq. Ft, CI head, 1/4" OD tube & NPT	31.5" - 25#
SC0003	316SS - 3,000 @ 1,000°F	Type 1, 1.3 Sq. Ft, SS head, 1/4" OD tube & NPT	17.25" - 15#
SC0004	316SS - 3,000 @ 1,000°F	Type 1, 2.6 Sq. Ft, SS head, 1/4" OD tube & NPT	31.5" - 25#
SC101	Copper - 300 @ 400°F	Type 2, 1.3 Sq. Ft, 1/4" OD tube & NPT/Compression	13.38" - 25#
SC102	316SS - 3,850 @ 1,000°F	Type 2, 1.3 Sq. Ft, 1/4" OD tube & NPT/Compression	13.38" - 25#
SC103	Copper - 250 @ 400°F	Type 2, 1.9 Sq. Ft, 3/8" OD tube & NPT/Compression	17" - 30#
SC104	Copper - 250 @ 400°F	Type 2, 3.8 Sq. Ft, 3/8" OD tube & NPT/Compression	34" - 59#
SC105	316SS - 2,500 @ 1,000°F	Type 2, 1.9 Sq. Ft, 3/8" OD tube & NPT/Compression	17" - 30#
SC106	316SS - 2,500 @ 1,000°F	Type 2, 3.8 Sq. Ft, 3/8" OD tube & NPT/Compression	34" - 55#
SC107	316SS - 4,925 @ 1,000°F	Type 2, 3.8 Sq. Ft, 3/8" OD tube (0.065") & NPT/Compression	34" - 61#
SC108	316SS - 4,925 @ 1,000°F	Type 2, 1.9 Sq. Ft, 3/8" OD tube (0.065") & NPT/Compression	17" - 35#

Dimensions and Specifications





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