

If there is a requirement to sample hot or boiling waters, the installation of sample coolers is essential.

Safety

To ensure compliance with health and safety regulations. **The health and safety act 1974** requires employers to provide a safe method of sampling water in boiler plants.

Accuracy

A significant portion of any heated water sample will be lost into the atmosphere as steam flashes off which means that the resultant sample will not be representative.

Convenience

Opening of drain plugs or loosening of pipe can be extremely difficult, regardless of the safety hazard.

Application

Sample coolers should be installed whenever it is necessary to obtain a sample of water from a system where the operating temperature exceeds 60°C i.e. steam boilers, steam and condensate mains, closed heating circuits and water systems.

Specifications

All Stainless Steel.

Welded to BS EN 287.

Fixed coil.

10 mm dia. stainless steel type 304 1.0 mm wall thickness coil, annealed condition.

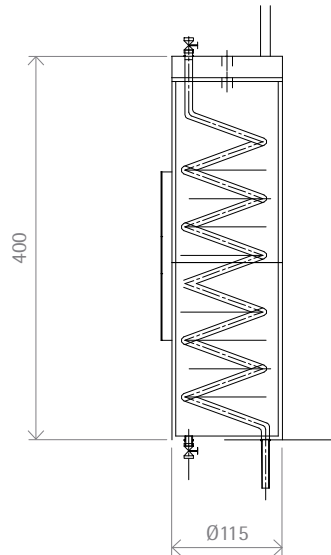
Suitable for pressures up to and including 139 Bar @ 336°C.

Max. working pressure for the shell 14 Bar.

Coolant inlet and outlet 1/2" BSP.

Sample flow controlled by a 3/8" (10 mm) valve. Cooling water by a 1/2" valve.

(No valves are supplied with the sample coolers).



Fixed Water Sample Cooler



British Standards Publication.

BS 8552:2012 Sampling and monitoring of water from building services closed systems code of practice addresses the particular issues of sampling water from closed-circuit heating and cooling systems in buildings and related infrastructure.

The purpose of sampling a closed-circuit water system is to provide information about the current condition of that system and/or the water within it.

That might include, but is not limited to-

- water treatment status,
- water quality,
- bacteriological contamination
- corrosion activity

Confidence in the results obtained, which are crucially dependent on consistent sampling and analysis protocols, is extremely important to industry.

BS Standards Publication BS 8552; 2012 The Building Services Closed systems code of practice states sampling of the water systems is required:

"Periodically through the life of the system. At least every three months"

Installation

The sample cooler should be installed as close as possible to the system take-off point at a height to facilitate convenient operation. The unit must be mounted vertically.

An isolating valve capable of withstanding the full system pressure should be installed immediately by the take-off point.

The cooling water should be taken to a suitable drain through a tundish.

Operation

- Open the cold-water inlet valve fully and ensure cooling water is flowing to drain.
- Open the sample-regulating valve slowly until system water starts to flow, then allow sample to run to waste for a suitable period to purge the stagnant water in the sample line.
- Regulate the sample flow until a stable temperature of 15 °C is reached, then collect sufficient volume of water in a suitable container.
- When sample has been acquired, close the regulating valve, then the cold-water inlet valve.