



DESCRIPTION

Used for the safe and accurate sampling of steam and hot water and systems, the Aqua sample cooler provides a means to safely abstract a steam or hot water sample without the concentrating effect* caused by flash steam. The sample cooler can be fitted with various control and isolating valves to suit different pressure and temperature applications.

- Reliable, simple and safe to use
- Cost Effective
- 1" cooling water inlet & outlet
- 6mm compression sample inlet
- Copper coil to BSEN 1057 rated at 90 Bar
- Vessel rated at 10 bar
- Can be supplied with or without valves
- Standard version for boilers up to 20 Bar
- Other versions available for pressures up to 60 Bar

PRINCIPLE OF OPERATION

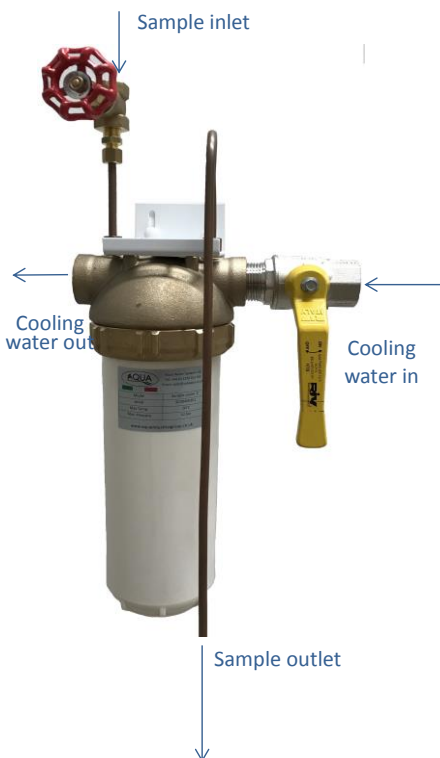
Cold water is run through the bowl to initially drop the temperature and continues to run while the sample is taken. Steam or hot water flows through the copper pipe and by the time it reaches the open end has condensed and cooled sufficiently to enable a sample to be safely collected.

CONCENTRATING EFFECT

If a sample, especially from a steam boiler, is cooled insufficiently, then only a portion of the steam will be condensed, the rest escaping as vapour resulting in concentrating the dissolved salts in the sample. In this case, when analysed, the results will not be representative of the whole and give artificially high figures. The Aqua sample cooler avoids this problem by fully condensing and cooling the sample before it is delivered.

INSTALLATION

The sample cooler should be fitted by a specialist pipe fitter and securely mounted via its fixing brackets to a wall. If it is fitted directly to the pipework or boiler, extra support may be required in the form of a bracket to the floor or a pipe support rail. A suitably rated sampling valve (for both temperature and pressure), should be fitted between the cooler and the boiler/hot water system. If the sampler is any distance from the hot water source, it is recommended that 2 valves be fitted one at the source, and one for convenient and safe flow control at the sampler.



STARTING POINT

Open the cooling water flow control valve slowly and allow cold water to run to drain for a few seconds to initially cool the sampler.

TAKING THE SAMPLE

Open the sampling valve(s) and allow hot water to run until any residue from the last sampling has been purged, and a fresh sample arrives. This 'old' residual sample water should be rejected, and not allowed to influence the new sample. When fresh (hot) sample water reaches the cooler, adjust the sample and cooling water flow rates as necessary to ensure that a fully cooled sample without flashing steam can be safely collected.

SHUTTING DOWN THE SAMPLER

Shut the sampling hot water valve(s) first, whilst the cooling water is still running, and allow it to continue flowing until the metal parts of the sampler are sufficiently cooled right down. You may now turn off the cooling water. Check that all valves are securely closed after use.

CAUTION:-

The sample cooler is safe in operation as the outlet and thus the whole coil remains at atmospheric pressure as long as the sample outlet remains free and clear. Under no circumstances should a valve be fitted to the sample outlet. Were this to be closed when the sample inlet was open, the cooler coil would be pressurised which could cause the cooler to shatter.

Code	Price	B
SAMPLECOOLERVERVALVE		