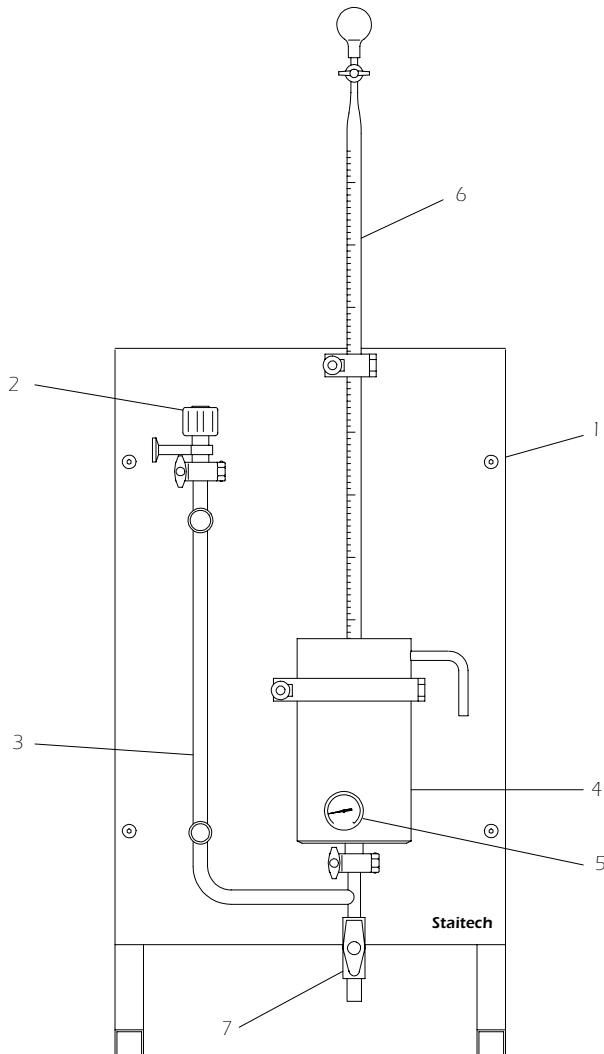


Steam Quality Testing Components

STE-01
10/01

Staitech



Steam Quality Testing Components

Staitech offer a complete range of products designed to aid with steam quality testing as set out in HTM2010 and HTM2031.

Non Condensable Gas Test Unit

The non condensable gas test unit offered by Staitech is designed in accordance with the guidelines set out in HTM2010. The system comprises a free standing stainless steel back plate onto which a stainless steel measuring cylinder and supply piping are mounted. Any non condensable gases present within the steam supply will collect in the burette, whilst a measuring beaker overflow allows the rate of condensation to be recorded. A thermometer is included to monitor the temperature of water within the measuring cylinder during testing.

Features offered by the assembly include:

- Simple and safe to use - designed with operator safety in mind
- Portable - can be moved easily between sampling points

Equipment list

1.	Back plate	316 Stainless steel
2.	HSV60 steam sample valve	316L Stainless steel
3.	Transfer tube	316L Stainless steel
4.	1500ml condensate beaker	316 Stainless steel
5.	0-120°C temperature gauge	Stainless steel
6.	50ml burette	Glass
7.	Drain valve	Stainless steel

Sample Coolers

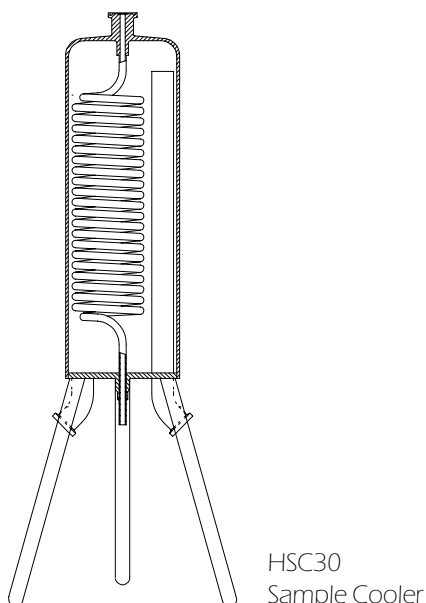
Staitech manufacture a range of sample coolers which allow samples of steam to be condensed for laboratory evaluation. As with the non condensable gas test unit, the sample cooler range are simple and safe to use, and will ensure consistent and repeatable samples are obtained. Three models of sample cooler are available:

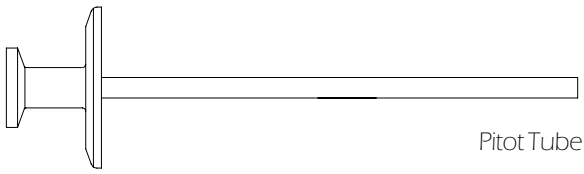
- HSC30 - Designed for portable operation.
- HSC50 - Designed for a fixed installation where frequent cleaning of the coil may be required.
- HSC60 - Designed for a fixed installation.

The capacity of the HSC range is dependent on the system pressure and temperature, together with the temperature and flow rate of the cooling water supply.

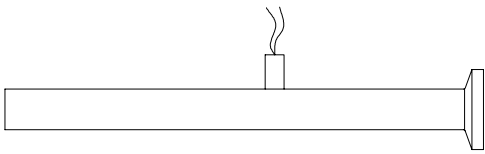
For steam, a 1 litre sample of condensate at 30°C will be produced in approximately 10 minutes, assuming a cooling water temperature and flow rate of 20°C and 0.1 l/s respectively.

Individual data sheets are available covering all sample cooler models.

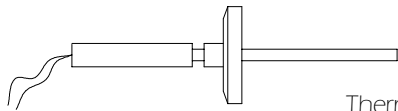




Pitot Tube



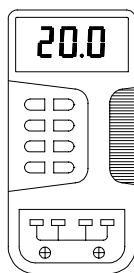
Expansion Tube



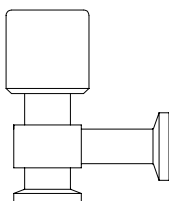
Thermocouple Fitting



Vacuum flask



Differential temperature indicator



Sample Valve

Steam Quality Testing Components

The following products are designed to aid with steam quality testing as set out in HTM2010 and HTM2031.

Pitot Tube

A 316 stainless steel pitot tube with 1"/1-1/2" Tri-Clamp compatible system connection. Wetted surfaces are finished to 0.8 microns Ra. The pitot tube has a 1/2" Tri-Clamp compatible connection on the outlet side to allow either a sampling hose adapter or expansion tube to be fitted. The standard unit has a 0.6mm orifice which is suitable for use in systems operating up to 4 barg. 0.4mm and 0.8mm orifices are available upon request.

Expansion Tube

The expansion tube fits directly on to the pitot tube outlined above using a 1/2" Tri-Clamp and EPDM seal. The expansion tube is supplied with a welded tip type K thermocouple terminating in a mini plug connector. The thermocouple installation is designed to ensure accurate and responsive temperature measurements.

Hose Adapter

In order to facilitate the dryness test outlined in HTM2010, a hose adapter and 450mm long rubber lined hose are available for use with the pitot tube. The hose adapter fits directly onto the pitot tube using a 1/2" Tri-Clamp and EPDM seal.

Thermocouple Fittings

A range of 316 stainless steel type K thermocouple fittings are available to monitor the steam system temperature. Typically, these have a 1/2" Tri-Clamp compatible system connection, 50mm insertion length and terminate in a mini plug connector. Other process connections and insertion lengths are available upon request.

Vacuum Flask

A stainless steel vacuum flask with rubber bung assembly as outlined in HTM2010 is available for use during dryness testing. The flask is supplied with a sample pipe and type K thermocouple terminating in a mini plug connector.

Differential Temperature Indicator

A hand held indicator is available for use with the above thermocouples during superheat and dryness testing. The unit will accept upto two inputs, and will indicate either individual temperature readings or a differential value.

Sample Valve

The HSV60 sample valve offered by Staitech is designed specifically for steam duty. The valve is manufactured in 316L stainless steel and has 1/2" Tri-Clamp compatible inlet and outlet connections. The valve is supplied as part of the non condensable gas test unit, and is suitable for use with all sample cooler models.

Further information and data sheets are available upon request covering all the above products.