Intended Use

Sample coolers type “125-300 H”, “125-400 H”, and “125-600 H” are heat exchangers for subcooling of hot water samples or for condensation and subcooling of steam samples.

Liquid water of suitable quality shall be used as coolant; or as an alternative other suitable non-corrosive and non-hazardous aqueous solutions.

Safety Instructions

DANGER

Use the vessel as intended only!

Completely read these operating instructions before mounting, putting into service, or use of the vessel!

WARNING

The vessel will be pressurized after having been put into service!

Do not exceed the operating limit values as listed on the vessel name plate!

Do not use in case pressure-containing parts are damaged!

Ensure cooling water side pressure relief during operation!

Before opening, disassembly, or maintenance of the vessel, ensure isolation from the process, pressure relief, and a cooling down period!

CAUTION

Sample fluid outlet may be hot!

Before opening the sample outlet valve, verify that the vessel is subject to cooling water flow!

CAUTION

Hot surfaces and components! Do not touch!

Pipelines and valve bodies subject to sample fluid inlet flow will be hot!

NOTICE

Observe the complete product documentation!

See data sheet and drawing, each available from the internet:
http://www.ewt-water.com/en/download.html

NOTICE

Verify suitable cooling water quality and sufficient cooling water flow rate!

Unsuitable cooling water quality or a too low cooling water flow rate will facilitate scaling and corrosion, in turn possibly causing failure of pressure-containing parts!
Refer to the technical data sheet (see above)!

Mounting

The vessel is intended for either wall mounting or skid mounting; see drawing.

Pipelines for sample fluid and cooling water shall be connected as indicated on the drawing.

Putting into Service and Use

Before sampling, open the cooling water inlet valve. With the vessel being subject to cooling water flow, fully open the isolating valve in the sample inlet line. Afterwards, partly open the throttling valve in the sample outlet line.

NOTICE

Throttle sample flow at the outlet only!

Throttling of sample flow at the inlet may damage the isolating valve!

Adjust the cooling water flow and the sample flow as needed by throttling the respective valves, until the process data conform to their respective requirements.

The handwheels of the isolating valves may initially be hard to turn; that will however ease up with continuous exposure to service conditions.

Maintenance

Depending on process conditions, regular internal visual inspection and cleaning of the sample cooler will be required. Actual inspection and cleaning intervals shall be adjusted based on operating experience: Estimated ≤ 12 months with non-softened or moderate chloride concentration cooling water, ≤ 36 months with softened and low chloride concentration cooling water, and ≥ 5 years with demineralized cooling water.

NOTICE

Replace the gasket each time after having opened the vessel!

Elastomer flat gaskets may embrittle after extended use, and thus become unsuitable for re-use.

An effective cleaning agent for removal of hardness scale or iron deposits is citric acid, to be applied as an aqueous solution with a concentration of about 2%, pH around 2, temperature preferably ≥ 30 °C, exposure time ≥ 30 minutes; repeated several times as required. When using any other cleaning agent, refer to the instructions of the respective supplier.

WARNING

Observe the safety data sheets of hazardous substances!

Handling of cleaning chemicals requires observing the corresponding hazard statements and precautionary statements!

After cleaning and before putting into service, thoroughly flush the vessel with cooling water.

EWT Eckert Wassertechnik GmbH • Ludwig-Erhard-Straße 11 • 29225 Celle • Germany • ✆ +49 5141 97828 0 • 💻 info@ewt-water.com