

Intended Use

Sample coolers type "080-250 C" and "080-500 C" are heat exchangers for subcooling of hot water 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!

Before opening or disassembly 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**

Use cooling water of suitable quality only; see data sheet!

Unsuitable cooling water quality may result in reduced heat transfer and failure of pressure-containing parts!

Mounting

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

Pipelines for sample fluid and cooling water shall be connected as indicated on the drawing. The cooling water outlet should be connected to a line without downstream pressure, for example to an atmospheric line with downward slope in flow direction.

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**

Sample flow should ideally be throttled at the outlet only!

In case of high sample temperature, throttling of boiling liquid at the inlet may lead to inaccurate sample readings and failure of the sample inlet isolating valve!

Sample coolers type "080-250 C" are delivered with only one sample-side valve, serving as both isolating valve and throttling valve.

Adjust the cooling water flow and the sample flow as needed by throttling the respective valves, until sample outlet volume flow, sample outlet temperature, and cooling water outlet temperature all conform to the respective requirements.

Maintenance

When using cooling water containing suspended solids or being liable to hardness scaling, regular cleaning of the vessel internals is required. In this case, maintenance should be conducted at least once per year.

For removing hardness scale, acidic cleaning solution can be circulated through the cooling water side of the vessel. As cleaning agent, aqueous citric acid solution with a pH of about 2 ... 4 should be used.

**WARNING**

Observe the safety data sheets of hazardous substances!

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