

Fully non-corrosive condensate aftercooler

ELTE s.r.o.

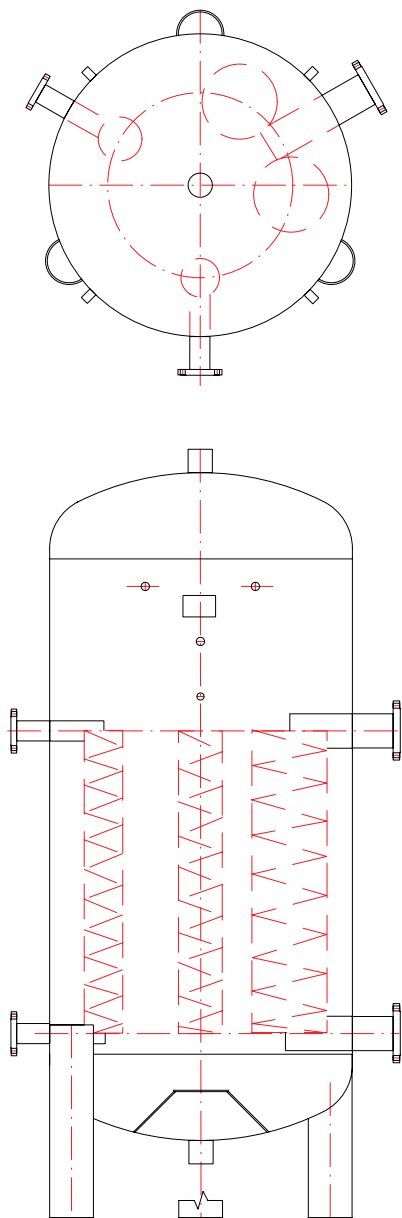
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Construction parameters

Shell:

Working overpressure: 0,6 MPa (1 MPa)

in other parameters as per customer request

Running temperature: max. 95°C

Material: AISI 304 (ČSN 17 240)

Heating spirals:

Working overpressure: 2,5 MPa

Running temperature: max. 165°C

Material: WNr. 1.4541, AISI 321 (ČSN 17 248.4)

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Use:

Comprehensive aftercooling of condensate obtained from steam-water heat exchanger stations serving for preheating of DHW.

Technical specification:

Condensate aftercooler consists of a stainless container fit with a couple of non-corrosive curved helixes, heat-exchanging insets (usually 2 or 3) for condensates varying in pressure to flow through. (Usually condensates come from central heating, DHW heat exchangers, and/or steam distributors). Through the aftercooler shell, in counter-flow, the pre-heated DHW flows. At the aftercooler's bottom, it proceeds through the rectifying built-in system ensuring optimum circulation of the water around heat-exchanging insets. The container entails two elliptical bottoms and a cylindrical shell resting on three legs.

Whilst in the bottom cap, an outlet for cool water to flow in is installed, in the upper cap an outlet for the outgoing hot water is mounted. In the shell, relevant sleeve pieces for technical equipment such as temperature and pressure sensors, etc., are installed.

Technical design and calculation of aftercooler:

The product is made to order. The Orderer chooses the volume size of the container, and communicates the number of condensate outlets (i.e. the number of heat-exchanging insets), as well as - for each condensate outlet - the mass throughput thereof (in kg/sec.), including inlet temperature thereof (in °C). Moreover, the Orderer will indicate the inlet temperature of the cooling medium.

ELTE s.r.o. then calculates the surface sizes of the respective heat-exchange insets, and will determine whether the said insets can be installed in the container of the specified volume. As a general rule, the larger the container volume, the longer the period pending the product needs to after-cool the condensate - even when DHW is not being withdrawn. The price quotation is set after the assignment is technically okayed. In its basic version, condensate aftercoolers are supplied Insulation-free, with dipped surface.

