

Title (en)
SHELL-AND-TUBE HIGH-PRESSURE HEAT EXCHANGER

Title (de)
ROHRBÜNDELHOCHDRUCKWÄRMETAUSCHER

Title (fr)
ECHANGEUR THERMIQUE HAUTE PRESSION A FAISCEAU DE TUBES

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Application
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Priority

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Abstract (en)
[origin: WO2006053857A1] The invention relates to a shell-and-tube high-pressure heat exchanger (10) for controlling the temperature of a working medium, comprising: a temperature-control space (15), which is enclosed by a housing (16) and delimited by two opposite end plates (12, 14); a tube bundle, which is accommodated inside the temperature-control space (15); a first supply device (24) for supplying the working medium whose temperature is to be controlled; a first evacuating device (25) with which the working medium can be evacuated; a second supply device (27) for supplying the temperature-control medium, and; a second evacuating device (29) with which a temperature-control medium can be evacuated from the temperature-control space (15). In order to produce a structurally simple and thus economical shell-and-tube heat exchanger, the invention provides that: a series of exact-fitting boreholes (36) for accommodating tube ends of the tube bundle are made at least in one end plate (12, 14); each tube end is inserted into a borehole (36) while being accommodated therein in a sealed manner; one or more flow spaces (30, 31, 32) are provided at least in one end plate (12, 14), which enable one or more tubes (17) to be flow-connected to one another, and; both end plates (12, 14) are spatially fixed with regard to one another.

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