



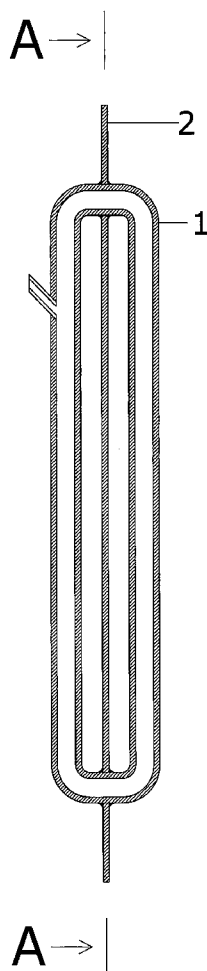
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(54) Title: ELIPSOIDAL REVERSIBLE HEAT EXCHANGE PIPE

(57) Abstract: The invention relates to a heat exchanger tube ellipsoidal reversible heat-transfer Temic in various technological equipment that uses fossil fuels or thermal energy. The heat exchanger cuprin-zinde three main elements, including (1) pipe oval with heat sealed by the nozzle (2), the metallic element separation (3), seal welded (4) reversibility thermal depending on positioning the heat source to-ward (A) and (B).





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DESCRIPTION OF THE INVENTION

The invention relates to an heat exchanger pipe, reversible, for heat transfer in various technological equipment that uses fossil fuels or electrical energy.

There are known several types of heat pipe heat exchangers such as those from some bread ovens, heat exchangers heat treatment with salt baths shaped pipe having right.

It is also known multiple heat pipe exchangers having the form of semi ellipse is used in some units for water heater.

The disadvantages of vertical heat pipe exchanger and semi ellipse are that their operation is made in semi-drowned version, as contact surfaces with primary caloric source is done sequentially - tangential.

The technical problem that invention proposes to solve is speed transfers, differentiated by a metallic element that separates one part of the heat pipe ellipsoid between primary caloric source and utility area.

Another technical problem trying to solve the invention, is the appearance of heat transfer in terms of **energy** and **exergetic**, depending on the direction of application of primary caloric source. and utility area.

Reversibility of the ellipsoidal heat pipe exchanger is given of direction of the application of primary caloric source, based on the functioning of he and an ellipsoidal part of the heat pipe ellipse at pipe exchanger.

Conformable of the ellipsoidal heat pipe exchanger invention, removes heat exchangers known disadvantages in that primary energy source is taken entirely by the metallic element separation area and an ellipsoidal part of the heat pipe ellipse, which picks up and carries the accumulated energy toward the utility.

Elipsoidal heat pipe exchanger, it is made of an elipsoidal metal pipe, fitted with a pipe sealing, which intersects the outer upright metallic element separation between primary heat source and utility area.

By using reversible heat exchanger tube heat ellipsoidal we can obtain the following benefits:

- a total heat transfer and fast
- reverse heat transfer
- upper limits of heat transfer
- low fuel consumption

In the following is give an example embodiment of the elipsoidal heat pipe exchanger, referring to the figure, which represents a schematic diagram function of heat exchanger.

The heat exchanger according to the invention comprises two components, the first component of which is ellipsoidal heat pipe 1 having connecting pipes sealing 2, and the second component 3 metal separating element component, is achieved by welding.

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1. The heat exchanger according to claim 1, characterized in that the elliptical pipe (1) which serves as a heat pipe, which provides heat transfer and the transfer agent inside, sealed by means of the socket (2), of the primary thermal energy.
2. The heat exchanger according to claim 1 and 2, characterized in that that separating metallic element (3) comprising the outer oval tube (1) is isolated and ensures sealing up separation plane (A) and (B) through welds (4).
3. The heat exchanger according to claims 1,2,3, characterized in that the reversibility of the direction of heat transfer is ordered by the application of heat energy source to the plane of the primary separation of the metal (A) and (B).

