

Title (en)
CONDENSATION HEAT EXCHANGER WITH PLASTIC CASING

Title (de)
KONDENSATIONSWÄRMETAUSCHER MIT KUNSTSTOFFMANTEL

Title (fr)
ECHANGEUR DE CHALEUR A CONDENSATION, A ENVELOPPE PLASTIQUE

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Application
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Abstract (en)

[origin: WO2004036121A1] The invention concerns a heat exchanger comprising at least one helically bound bundle (2) of tubes, whereof the thermally conductive wall has a flattened and oval cross-section, whereof the main axis is perpendicular to that (X-X') of the helix, while the width of the interstice separating two adjacent turns is small and constant, said bundle being fixedly mounted inside a casing (1) fitted with a pipe for evacuating gases generated by a burner (6), means being provided for circulating cold water inside said bundle (2), said exchanger being further designed so that the hot gases pass radially through the bundle via the interstices of the turns. Said exchanger is characterized in that the casing (1) is made of heat-resistant plastic material and means (5; 3-30) are provided for ensuring mechanical containment of the beam in the axial direction, and for damping the thrust loads resulting from the fluid internal pressure, preventing their being transmitted to the casing (1). The inventive condensation heat exchanger is particularly designed for domestic use and is inexpensive to produce.

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