

Title (en)

HEAT EXCHANGER FOR HEAT EXCHANGE BETWEEN A FIRST FLUID AND A SECOND FLUID

Title (de)

WÄRMETAUSCHER ZUM WÄRMETAUSCH ZWISCHEN EINEM ERSTEN FLUID UND EINEM ZWEITEN FLUID

Title (fr)

ÉCHANGEUR DE CHALEUR POUR L'ÉCHANGE DE CHALEUR ENTRE UN PREMIER FLUIDE ET UN DEUXIÈME FLUIDE

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Application

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Abstract (en)

[origin: WO2008071362A1] A heat exchanger is provided for heat exchange between a first fluid, in particular a charge air or an exhaust gas, and a second fluid, in particular a coolant, comprising: a block (9) for conducting the first and second fluids separately from each other and for heat exchange, which block (9) has a number of flow channels through which the first fluid can flow; at least one box (3) which is assigned to the block (9) and has a flow connection with the flow channels; and at least one base (1), which is provided with one or more through-openings (7) for leading through the flow channels between the block (9) and the box (3); a flow channel being formed as a flat tube (11) with a narrow tube side (13) and a wide tube side (15), and the through-opening (7) having at least one delimiting contour (19) made to arch away from a plane (23) that is substantially perpendicular to the direction of the tube axis (21) and extends at a distance (25) from said plane. To minimize stresses in the region of the transition from the narrow tube side (13) to the wide tube side (15), the invention provides that a distance value at least at a transition (27) between the narrow tube side (13) and the wide tube side (15) is less than a distance value on the wide tube side (15) in such a way that stresses in the region of the transition (27) are reduced, wherein, at least on the wide tube side (15) and at the transition (27), a change in the distance value is continuous.

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