

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMETAUSCHER

Title (fr)  
ECHANGEUR DE CHALEUR

Publication  
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Application  
**EP 04732869 A 20040514**

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Abstract (en)  
[origin: WO2004102099A1] The invention relates to a heat exchanger comprising a base body comprising a plurality of at least one feeder or distributor tube and at least one evacuation or collector tube, cross-flown by a liquid and/or gaseous heat exchanger medium, provided on the outside with heat exchange lamellae disposed in a parallel position in relation to each other. The distributor and collector tube are embodied in the form of box-shaped elongate hollow distributor, collector and deflector bodies, and provided with at least one feeder line and/or discharge line for the heat exchanger medium, wherein respectively one deflector chamber insert body comprising a plurality of identical distributor and collector chambers is provided in order to supply a quantitatively individual amount of partial medium flows to the heat exchanger tubes and in order to evacuate the medium from the heat exchanger tubes. The walls defining the above-mentioned chambers are adjacent to the surface of the internal Wallis of the hollow distributor, collector and deflector bodies. The novel heat exchanger is characterised in that the distributor and collector chambers are placed at a certain distance from each other and are embodied in the form of deflector chambers (7,7') for the heat exchanger medium and which are respectively connected to the outlet (102) of one (10, 10') of the heat exchanger tubes (10, 10', 10'') and to the inlet (101) of the following or respectively adjacent heat exchanger tube (10', 10''). The heat exchanger tubes (10, 10'; 10', 10'') are hydraulically connected to each other and are placed, at least with regard to the defining wall (70, 70') thereof, against the surface of the lateral internal walls (401,402) into which the heat exchanger tubes, hollow distributor, collector, and deflector body open (4, 4') and are surrounded by the above-mentioned defining wall (70,70') and the surface of the above-mentioned internal walls (401, 402) of the above-mentioned hollow body. The deflector chambers deflect the heat exchanger medium (wtm) cross-flowing them from a heat exchanger tube (10,10') into the next or adjacent heat exchanger tube (10',10'), essentially by 180 DEG, said deviation taking the form of a semi-circle, or being C shaped or Y-shaped. The invention also relates to the welding of parts, tubes and/or components preferably provided for said novel heat exchanger.

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