Title (en)

HEAT EXCHANGER AND HEATING SYSTEM EQUIPPED THEREWITH

Title (de)

WÄRMETAUSCHER UND DAMIT AUSGERÜSTETES HEIZSYSTEM

Title (fr)

ECHANGEUR THERMIQUE ET SYSTEME DE CHAUFFAGE EQUIPE DE CET ECHANGEUR

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Application

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Priority

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Abstract (en)

[origin: WO0221063A2] The invention relates to a heat exchanger (1) with a number of first ducts (2) for a first medium and a number of second ducts (4) for a second medium in heat-exchanging contact therewith via partition walls (5). The dimensions of the first ducts (2) in the flow direction of the first medium and perpendicularly thereof are herein chosen such that boundary layers (11) formed along the walls of the duct and developing in the flow direction meet each other in each case close to the downstream ends of the ducts (2). A very compact heat exchanger (1) is thus obtained.

[origin: WO0221063A2] The invention relates to a heat exchanger with a number of first ducts for a first medium and a number of second ducts for a second medium in heat-exchanging contact therewith via partition walls. The dimensions of the first ducts in the flow direction of the first medium and perpendicularly thereof are herein chosen such that boundary layers formed along the walls of the duct and developing in the flow direction meet each other in each case close to the downstream ends of the ducts. A very compact heat exchanger is thus obtained. The heat exchanger can be provided with a plurality of first ducts placed in series as seen in the flow direction, wherein means are in each case present between successive ducts for enhancing the heat transfer inside the first medium, for instance in the form of a space, such as a bend, with an enlarged cross-section compared to the first ducts. The invention also relates to a heating system provided with a heat source, one or more heating elements and a heat exchanger as described above arranged therebetween.

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F28F 13/02

IPC 8 full level (invention and additional information)

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CPC (invention and additional information)

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