

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMETAUSCHER

Title (fr)  
ÉCHANGEUR DE CHALEUR

Publication  
**EP 2573494 A1 20130327 (EN)**

Application  
**EP 11783340 A 20110406**

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Abstract (en)  
A heat exchanger is provided of which the heat exchange efficiency is significantly improved by providing a flat tube with an increased surface area and increasing the flow speed of fluid that flows outside the flat tube. The heat exchanger includes an outer case (2) defining therein a tubular space (3), and a flat tube (4) received in the tubular space (3). A first fluid and a second fluid are fed through the tubular space, outside and inside the flat tube, respectively, to exchange heat between the first and second fluids. The flat tube (4), which defines a flow passage (6) therein, includes a peripheral wall having a surface increasing shape (15) which is in the form of a longitudinally continuous helical corrugation, longitudinally continuous corrugations, corrugations continuous in section in a width direction, or longitudinally extending fins formed on an outer surface of the peripheral wall of the flat tube so as to be spaced apart from each other in the width direction. Fluid passages (5) are defined by a large number of fluid flow rectifying grooves (5a) formed parallel to each other in the inner periphery of the tubular space (3) of the outer case (2).

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