

Title (en)  
LAMINATED TYPE HEAT EXCHANGER

Title (de)  
LAMELLENWÄRMETAUSCHER

Title (fr)  
ECHANGEUR DE CHALEUR DE TYPE STRATIFIE

Publication  
**EP 1118829 A4 20020703 (EN)**

Application  
**EP 99929747 A 19990708**

Priority  

- JP 9903685 W 19990708
- JP 28074998 A 19981002
- JP 37026598 A 19981225

Abstract (en)  
[origin: EP1118829A1] A guide plate (19) which causes a heat exchanging medium traveling along the laminating direction to advance straight toward the communicating point at which the tank portions to which the heat exchanging medium is moving and the corresponding passage portions communicate with each other is provided. In a single-side tank type laminated heat exchanger, a guide plate (19) is provided at the shifting area over which an even-numbered pass shifts into an odd-numbered pass, to cause the heat exchanging medium traveling along the laminating direction to advance straight toward the communicating point at which the tank portions in the odd-numbered pass communicate with the passage portions in communication with the tank portions. The angle of inclination at the guide plate (19) is set within the range of 5 &tilde; 65 DEG relative to the laminating direction, and the length of the inclined portion is set within the range of 1 &tilde; 15mm. Thus, the extent of an uneven flow of heat exchanging medium is minimized in the laminated heat exchanger in which the heat exchanging medium flows from the tank portions into the passage portions after it travels along the laminating directions through the tank portions which are in communication with each other, to achieve an improvement in the heat exchanging efficiency with the heat exchanging medium almost completely evenly distributed to the individual tube elements. By forming the guide plate in a curved shape or by providing a bead at the guide plate, the guide plate is reinforced. In addition, by rounding the two shoulders of the guide plate, the guide plate is prevented from vibrating. <IMAGE>

IPC 1-7  
**F28D 1/03**; **F28F 9/02**; **F28F 9/22**

IPC 8 full level  
**F28D 1/03** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP)  
**F28D 1/0341** (2013.01); **F28F 9/0265** (2013.01)

Citation (search report)  

- [DA] EP 0727625 A2 19960821 - ZEXEL CORP [JP]
- [DX] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 11 29 November 1996 (1996-11-29)
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 411 (M - 1648) 2 August 1994 (1994-08-02)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 01 29 January 1999 (1999-01-29)
- See references of WO 0020816A1

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
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