

Title (en)
Corrugated heat exchange element

Title (de)
Gewellter Wärmetauschkörper

Title (fr)
Élément d'échange de chaleur ondulé

Publication
EP 1357345 A3 20070509 (DE)

Application
EP 03004778 A 20030305

Priority
DE 10218912 A 20020427

Abstract (en)
[origin: EP1357345A2] Corrugated heat-exchanger body (1) made of sheet metal has a flow channel (20) formed between two sides (4). Structures (5) in the sides have an arrangement direction (15) in one side which crosses the arrangement direction in the following side. The elements of the structures are beads (6), flutes, etc. which provide the flow channel with alternating constricted (11) and expanded areas (10). Adjacent flow channels are separated from each other. Independent claims are also included for alternative corrugated heat-exchanger bodies. Preferred Features: The arrangement direction of the structures in one side lies at an angle (α) to the vertical (14) and the arrangement direction of the structures in the following side lies at an opposite, but preferably identical angle (α).

IPC 8 full level
F28F 1/12 (2006.01); **F28F 3/02** (2006.01); **F28F 13/08** (2006.01)

CPC (source: EP US)
F28F 1/128 (2013.01 - EP US); **F28F 3/025** (2013.01 - EP US); **F28F 13/08** (2013.01 - EP US); **F28F 13/12** (2013.01 - EP US)

Citation (search report)

- [XY] AT 380104 B 19860410 - STELRAD RADIATOREN & KESSEL [AT]
- [Y] US 5476140 A 19951219 - LU JAMES W B [US]
- [Y] US 6073686 A 20000613 - PARK BYUNG-KYU [KR], et al
- [DX] US 3298432 A 19670117 - STANISLAUS PRZYBOROWSKI
- [X] US 5616289 A 19970401 - MAEDA YUTAKA [JP]
- [E] EP 1468238 A1 20041020 - AIR LIQUIDE [FR]
- [A] US 4344899 A 19820817 - MONJOIE MICHEL W J P R
- [A] FR 2804471 A1 20010803 - BEHR GMBH & CO [DE]

Cited by
CN116498885A; DE202008016603U1; US11953156B2

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