

Title (en)
FIN-PLATE HEAT EXCHANGER

Title (de)
RIPPENPLATTENWÄRMETAUSCHER

Title (fr)
ÉCHANGEUR THERMIQUE À AILETTE

Publication
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Application
EP 18275099 A 20180719

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Abstract (en)
A fin-plate heat exchanger is arranged to allow heat to be exchanged between a first fluid and a second fluid. The fin-plate heat exchanger (1) comprises: a core (100) with first flow paths (200) for the first fluid and second flow paths (300) for the second fluid; a plurality of separating plates (101); a plurality of fin components (103); a plurality of first enclosure bars (203, 204, 206); and a plurality of second enclosure bars (305, 306). The heat exchanger (1) further comprises a manifold (400) arranged in fluid communication with each of the first flow paths (200) of the core (100). The manifold (400) and the core (100) are formed as one integral piece, said integral piece comprising a stack of laminate members (101, 201, 301, 501, 502) and said fin components (103). The plurality of laminate members (101, 201, 301, 501, 502) comprise: first fluid enclosure structures (201) each including a first manifold section (202) and said first enclosure bars (203, 204, 206); second fluid enclosure structures (301) each including at least one second enclosure bar (305, 306), at least some of the of the second fluid enclosure structures (301) comprising a second manifold section (302). The plurality of laminate members (101, 201, 301, 501, 502) also comprise the plurality of separating plates (101), with each separating plate (101) comprising a third manifold section (102), and each separating plate (101) separating each first enclosure structure (201) from adjacent second enclosure structures (301). The first, second and third manifold sections (202, 302, 102) are shaped to form the manifold (400) when the plurality of laminate members (101, 201, 301, 501, 502) are stacked.

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Citation (applicant)
• EP 2474803 A2 20120711 - HS MARSTON AEROSPACE LTD [GB]
• US 2015260459 A1 20150917 - CAMERON SEAN L [GB]

Citation (search report)
• [XYI] US 2006032251 A1 20060216 - WAKITA NAOSHI [JP], et al
• [YD] EP 2474803 A2 20120711 - HS MARSTON AEROSPACE LTD [GB]
• [Y] US 2018015539 A1 20180118 - VERSLUYS KILEY JAMES [US], et al
• [A] US 2018045469 A1 20180215 - POLLARD BERWYN [GB]
• [A] EP 3150952 A1 20170405 - ALFA LAVAL CORP AB [SE], et al

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