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- (72) **Inventor; and**
(71) **Applicant :** KONTU, Mauri [FI/FI]; Vahteruksenraitti 22, FI-23660 Kalanti As. (FI).
- (74) **Agent:** TURUN PATENTTITOIMISTO OY; P.O. Box 99, FI-20521 Turku (FI).
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(54) **Title:** PLATE HEAT EXCHANGER AND METHOD FOR IMPROVING PRESSURE RESISTANCE OF A PLATE HEAT EXCHANGER

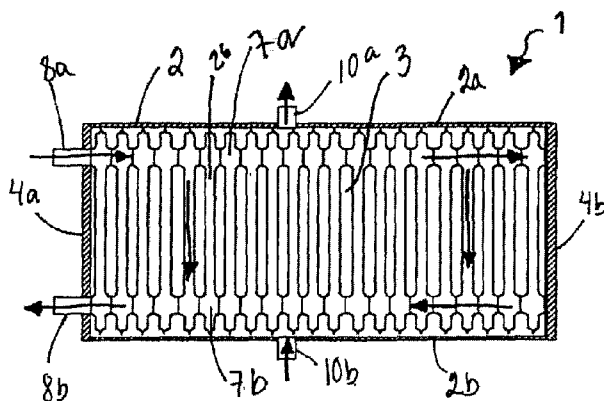


FIG. 1

(57) **Abstract:** The invention relates to a plate heat exchanger (1), which comprises a stack of plates (3) made up of a number of heat exchange plates, where the heat exchange plates are attached to each other in pairs as plate pairs. A shell surrounds the stack of plates, whereby inlet and outlet connections (8a, 8b, 10a, 10b) for the first and the second heat exchange medium have been arranged through the shell. The inlet and outlet connection for the first heat exchange medium is arranged in connection with the inner parts of the stack of plates, and the inlet and outlet connection for the second heat exchange medium is arranged in connection with the inner side of the shell, i.e. with the outer side of the stack of plates. Openings (6a, 6b) have been arranged in the heat exchange plates, which openings have been arranged to face each other in adjacent plates so that they form the inlet and outlet channel inside the stack of plates for the first heat exchange medium. At least a part, preferably all, of the heat exchange plates are formed out of two or more plate elements arranged in close contact on top of each other, which plate elements are attached to each other at least at the perimeters of the openings in the plate elements. The invention also relates to a method for improving the pressure resistance of a plate heat exchanger.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	figures 3,4,6,7	1,2,4,8, 9,11
Y	----- US 6 627 330 B1 (SHIMIZU MASAKI [JP] ET AL) 30 September 2003 (2003-09-30) column 5, line 34 - line 45; figures 1,3,4	2,9
Y	----- US 4 407 359 A (BERGER RAYMOND [FR] ET AL) 4 October 1983 (1983-10-04) figure 6	4,11
Y	----- JP 2005 114251 A (CALSONIC KANSEI CORP) 28 April 2005 (2005-04-28) figures 4,7	4,11
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Further documents are listed in the continuation of Box C.

See patent family annex.

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NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Martínez Rico, Celia

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2004/256083 A1 (REHBERG PETER [DE] ET AL) 23 December 2004 (2004-12-23) cited in the application figure 5 -----	1,8

INTERNATIONAL SEARCH REPORT

Information on patent family members

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