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(54) **Double flow-circuit heat exchange device for periodic positive and reverse directional pumping**

(57) The present invention provides a double flow-circuit heat exchange device (1000) for periodic positive and reverse directional pumping, which is disposed with the bi-directional fluid pump (123) capable of producing positive pressure or negative pressure at the fluid port

on two sides of the bi-directional heat exchange device (1000) for periodically positive and reverse pumping the two fluid circuits in opposite flowing directions, thereby in the operation of periodically positive and reverse pumping to maintain the two fluid circuits in different flowing directions.

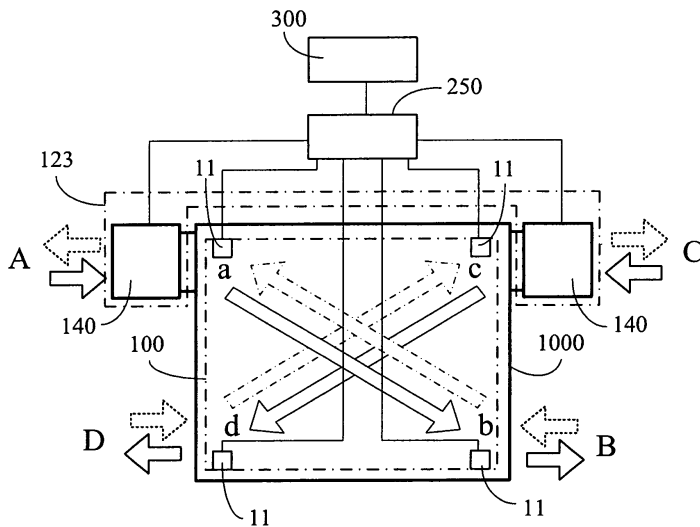


FIG. 2

**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 09 25 1862

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 0 536 445 A1 (CA BYGG AB [SE]) 14 April 1993 (1993-04-14) * abstract * * column 2, line 47 - line 51 * -----	1	INV. F28D21/00 F28F13/06 F24F3/14 F28F13/10 F28F19/00 F24F12/00
X	WO 03/091632 A1 (OXYCELL HOLDING BV [NL]; REINDERS JOHANNES ANTONIUS MAR [NL]; BERBEN E) 6 November 2003 (2003-11-06) * page 1 * * page 2, line 24 - line 28 * * page 5, line 22 - line 25 * -----	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			F28F F24F
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search: see sheet C</p>			
Place of search Munich		Date of completion of the search 18 October 2011	Examiner Bain, David
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>			

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EPO FORM 1503 03.82 (P04E07)



**INCOMPLETE SEARCH
SHEET C**

Application Number

EP 09 25 1862

Claim(s) completely searchable:

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Claim(s) searched incompletely:

1

Claim(s) not searched:

2-23

Reason for the limitation of the search:

The set of claims 1 to 23 as originally filed does not comply with the requirements of Article 84 EPC concerning clarity to such an extent that no meaningful search has been carried out on their subject-matter (Rule 63 EPC).

As a matter of fact, it was impossible to determine a clear subject-matter to search and examine because the poor phrasing of the claims renders the latter not understandable.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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18-10-2011

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