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[Continued on next page]

(54) Title: FLAT PANEL CONTACTORS AND METHODS

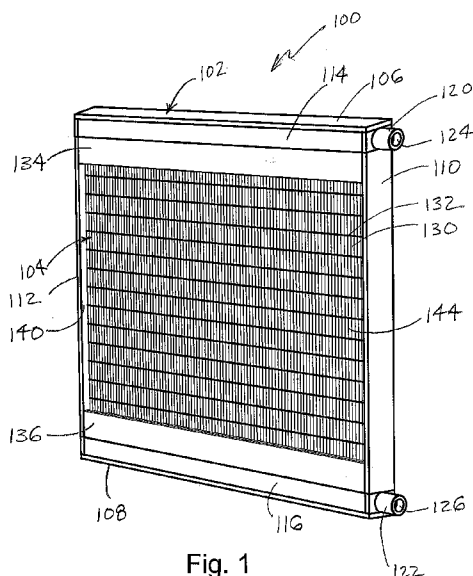


Fig. 1

(57) Abstract: Porous membrane contactors and/or their methods of manufacture and/or use are provided. In at least selected embodiments, the present invention is directed to flat panel hollow fiber or flat sheet membrane contactors and/or their methods of manufacture and/or use. In at least certain particular embodiments, the present invention is directed to hollow fiber array flat panel contactors, contactor systems, and/or their methods of manufacture and/or use. In at least particular possibly preferred embodiments, the contactor is adapted for placement in an air duct (such as an HVAC ductwork) and has a rectangular frame or housing enclosing at least one wound hollow fiber array or membrane bundle.



- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))* — *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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A. CLASSIFICATION OF SUBJECT MATTER***B01D 63/02(2006.01)i, B01D 63/00(2006.01)i, B01D 46/54(2006.01)i, B01D 53/22(2006.01)i, F24F 13/28(2006.01)i***

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:humidify, dehumidify, hollow fiber membrane, HVAC, ERV, liquid desiccant

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 03-063434 A (KOMATSU LTD) 19 March 1991	1-10, 13-17, 20
Y	See claim 1; figures 1-9; page 223	11-12, 18-19
Y	JP 2007-512131 A (Strionair, Inc.) 17 May 2007	11-12, 18-19
A	See paragraphs [0002]-[0003]; figures 2,3	1-10, 13-17, 20
X	JP 10-197016 A (MITSUBISHI RAYON CO LTD) 31 July 1998	1-3, 7, 20
A	See abstract; claims 1-4; paragraphs [0009]-[0013]; figures 1,2	4-6, 8-19
A	JP 2004-537399 A (Ozone Manufacturing Pty. Ltd.) 16 December 2004	1-20
	See paragraph [0002]; claims 1-17	
A	JP 2004-504928 A (DAIS ANALYTIC CORPORATION) 19 February 2004	1-20
	See paragraphs [0001], [0008]; claims 1-33; figures 1-4	



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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