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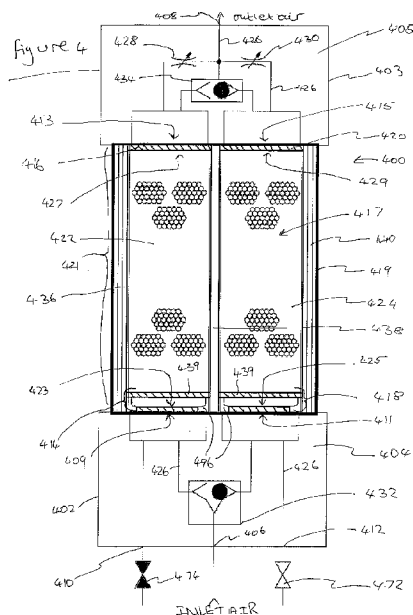
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— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: A FLUID SEPARATION DEVICE



(57) Abstract: A fluid separation device (400) for separating water from a stream of compressed air, the device having a housing (402) defining a first volume (404) with two apertures (406, 408) therein communication with the first volume, the first volume and the apertures being adapted to have a stream of air flowing there through, a first filter (414) contained within the first volume for separating liquid water from the air stream, and a plurality of desiccant beads contained within the first volume for separating water vapour from the air. An exhaust silencer is also disclosed.

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— *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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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2010/050297

A. CLASSIFICATION OF SUBJECT MATTER INV. B01D53/26 F04B39/16 F16K11/00 B01D46/00 F01N13/00				
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) B01D F04B				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 4 231 768 A (SEIBERT CHESTERFIELD F ET AL) 4 November 1980 (1980-11-04)	1-4, 9, 10		
Y	figures 1,2 column 1, line 5 - line 10 column 2, line 59 - column 3, line 18 column 5, line 38 - column 6, line 13	5-8		
X	FR 2 539 052 A1 (LICENTIA GMBH [DE]) 13 July 1984 (1984-07-13)	1-4, 9, 10		
Y	figure 1 abstract	5-8		
X	DE 42 28 326 A1 (BAUER KOMPRESSOREN [DE]) 3 March 1994 (1994-03-03)	1-10		
	figures 1,2 column 1, line 3 - line 62 column 3, line 56 - column 5, line 25			
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<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.</td> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> See patent family annex.</td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.			
* Special categories of cited documents :				
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
Date of the actual completion of the international search	Date of mailing of the international search report			
17 May 2010	15/09/2010			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Burkhardt, Thorsten			

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2010/050297

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/52973 A1 (HONEYWELL INT INC [US]) 26 July 2001 (2001-07-26)	1-4,9,10
Y	page 3, line 9 - page 5, line 36; figures 1,2	5-8
Y	----- EP 0 879 627 A1 (MICHAEL HUEMER TPH ING [AT]) 25 November 1998 (1998-11-25) figure 1 column 1, line 9 - column 2, line 17 column 4, line 10 - line 57 -----	5-8

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2010/050297

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

see additional sheet(s)

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10

A fluid separation device with a housing defining a first volume with at least one aperture, a first filter and a fluid separation medium

2. claims: 11-19

A valve with a housing defining a first volume with at least three apertures and aperture blocking means

3. claims: 20-23

A fluid disposal device with a filter for separating water from a gas, heat generating means and water transfer means

4. claims: 24-34

A device for separating one liquid from a gas with two body portions, a fluid transfer means and liquid catching means

5. claims: 35-40

An exhaust silencer with a first body portion with two apertures and a second body portion suitable to change the direction of a fluid

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2010/050297

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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