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(54) **SYSTEM FOR TEMPERATURE TREATMENT WITH TRANSFER MEDIUM**

(57) The invention relates to a system for treating the temperature of a space in a building, comprising:

- a closed pipe system for circulating a transfer medium under pressure during operation of the system,
- a heat exchanger connected to the pipe system for acting on the temperature of the transfer medium;
- at least one additional heat exchanger in the space for treating and connected to the pipe system for treating the temperature of the air in the space by means of the transfer medium supplied via the pipe

system; and

- replenishing means connected to the pipe system for selective replenishing of the transfer medium in the pipe system to maintain the pressure thereof above a predetermined minimum pressure,

wherein the replenishing means are connected via a controllable valve to a replenishing source under pressure, and comprise a sensor to detect the need for replenishing of the transfer medium, which comprise a protection against replenishing of the transfer medium when there is leakage in the pipe system.

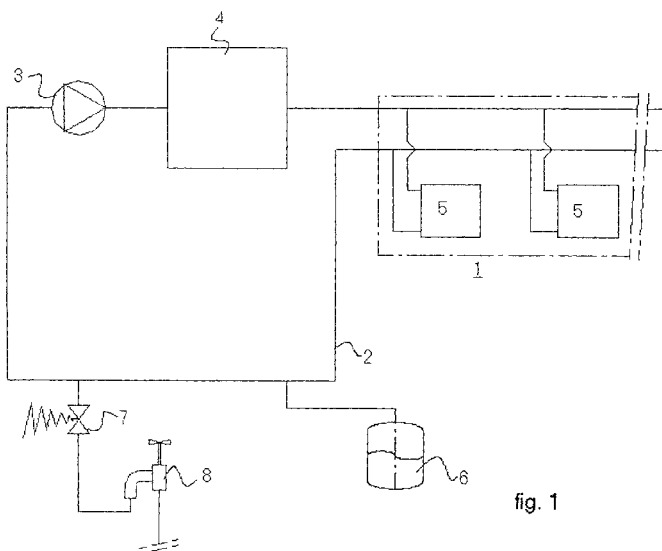


fig. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 02 07 5377

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 0 947 777 A (CNOSSEN JAN HENK) 6 October 1999 (1999-10-06)	1-3,17,18	F24D3/10
Y	* column 1-5; figures *	12	
A	EP 0 179 271 A (SASSERATH & CO KG H) 30 April 1986 (1986-04-30) * page 10-11; figure 1 *	1	
X	DE 43 25 685 A (DUMMANN KLAUS) 9 February 1995 (1995-02-09) * the whole document *	1-3	
Y	FR 2 417 064 A (JULIEN & MEGE) 7 September 1979 (1979-09-07) * page 4-6; figures *	12	
A	DE 30 07 454 A (SASSERATH & CO KG H) 10 September 1981 (1981-09-10) * page 8; figure 1 *		
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			F24D
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 28 August 2003	Examiner von Mittelstaedt, A
<p>CATEGORY OF CITED DOCUMENTS</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> <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>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
1-14, 17-22
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

Application Number
EP 02 07 5377

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-11

A system for treating the temperature in a building with replenishing means, the replenishing means comprising a plunger with 3 passages and a housing with 2 connections. The essential features of this invention are related to the shape and arrangement of said components.

2. Claims: 12-14

A system for treating the temperature in a building with replenishing means, the replenishing means comprising forcing means to carry the replenishing means in a filling position. The technical effect is, that a user does not have to press the 'filling button' as long as the filling has accomplished, but he only has to push it once.

3. Claims: 15-16

A system for treating the temperature in a building with replenishing means, the replenishing means comprising a non-return valve. The technical effect is, to prevent transfer medium from flowing back to the replenishing source.

4. Claims: 17-22

A system for treating the temperature in a building with replenishing means, the replenishing means comprising an expansion reservoir. The technical effect is, that in case of overpressure (e.g. during heating up period) the excess water can be stored in the reservoir and be re-used, if the pressure drops (e.g. during no- or low-operation periods). The water consume is thus reduced.

**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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28-08-2003

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