

12

EUROPEAN PATENT APPLICATION

21 Application number: **85305193.6**

51 Int. Cl.4: **F 24 D 3/00, F 24 H 1/10,**
F 25 B 27/00

22 Date of filing: **22.07.85**

30 Priority: **20.07.84 DK 3551/84**

71 Applicant: **I. Krüger A/S, 363, Gladsaxevej,**
DK-2860 Soborg (DK)

43 Date of publication of application: **26.02.86**
Bulletin 86/9

72 Inventor: **Kaiser, Niels Edmund Guldbaek, Deceased,**
deceased (DK)

84 Designated Contracting States: **AT CH DE FR GB IT LI NL**
SE

88 Date of deferred publication of search
report: **02.12.87 Bulletin 87/49**

74 Representative: **Holmes, Michael John et al, Frank B.**
Dehn & Co. European Patent Attorneys Imperial
House 15-19 Kingsway, London, WC2B 6UZ, (GB)

54 **A method and an appliance for the utilization of the heat of condensation of the water content of flue gases.**

57 In a method and a device for the recovery of heat of condensation from condensation of aqueous vapours in flue gases from the boilers of a district heating plant, in which a steam-driven heat pump is used for the transmission of the heat content of the flue gases to the return water from the consumer circuit before the water is sent back to the boilers, a heat pump (9, 10) is used which has two steps. The first step is operated at a lower temperature than the second step. Discharge steam from the first step is utilized for the operation of the second step. The first step comprises a compressor heat pump (11) driven by a steam expansion engine (14). The second step comprises a steam jet compressor (15). There is obtained a comparatively low temperature at the giving-off of the heat of condensation recovered, which is a condition for achieving a high effect factor necessary for obtaining reasonable installation costs.

EP 0 172 660 A3



European Patent
Office

EUROPEAN SEARCH REPORT

0172660

Application number

EP 85 30 5193

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.4)
A	EP-A-0 008 680 (CHEMISCHE WERKE HÜLS AG) * claims 1, 2 *	1	F 24 D 3/00 F 24 H 1/10 F 25 B 27/00
A	DE-A-2 543 569 (HERRMANN) * page 3, paragraphs 4, 5 *	5	
A	FR-A-2 477 684 (DOSMOND)		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			F 24 D 3/00 F 24 H 1/00 F 24 J 3/00 F 25 B 27/00 F 25 B 29/00
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 20-08-1987	Examiner PIEPER C
CATEGORY OF CITED DOCUMENTS			
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		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	