

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMEÜBERTRAGER

Title (fr)  
ECHANGEUR DE CHALEUR

Publication  
**EP 0787276 B1 20011121 (DE)**

Application  
**EP 96922743 A 19960705**

Priority  
• DE 9601205 W 19960705  
• DE 19525364 A 19950712  
• DE 19546489 A 19951213

Abstract (en)  
[origin: WO9703332A1] The invention pertains to a heat-exchanger intended in particular for use in heat-generating and cooling machines which use the regenerative gas cycle process with separation of the heat exchange mediums. A pipe (1) with ribs (2) to increase the heat-exchange surface area serves as the flow channel for the heat-absorbing or heat-releasing, preferably liquid, heat carrying medium. The invention also pertains to a process for manufacturing a heat exchanger of this type. In order to produce a heat exchanger which is compact in volume and has a very small hydraulic diameter for the heat-releasing medium, the ribs (2) on the outer side surface (1a) of the pipe (1) are provided on their top parts (2a) with an impermeable and thermally insulating covering (5), and at least one flow channel is provided between the covering (5) and the outer side surface (1a) of the pipe (1) for the second heat-exchange medium which is formed preferably by a process gas.

IPC 1-7  
**F28D 7/02**; **F28F 9/00**

IPC 8 full level  
**B29C 63/40** (2006.01); **F28D 7/02** (2006.01); **F28D 7/10** (2006.01); **F28F 9/00** (2006.01); **B29K 105/02** (2006.01); **B29L 9/00** (2006.01)

CPC (source: EP)  
**F28D 7/022** (2013.01); **F28F 9/00** (2013.01); **F05C 2225/08** (2013.01)

Cited by  
EP1152167A2

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB IT LI NL SE

DOCDB simple family (publication)  
**WO 9703332 A1 19970130**; AT E209329 T1 20011215; EP 0787276 A1 19970806; EP 0787276 B1 20011121; ES 2168492 T3 20020616; JP H10506179 A 19980616

DOCDB simple family (application)  
**DE 9601205 W 19960705**; AT 96922743 T 19960705; EP 96922743 A 19960705; ES 96922743 T 19960705; JP 50540797 A 19960705