

Title (en)  
Heat exchanger

Title (de)  
Wärmetauscher

Title (fr)  
Echangeur de chaleur

Publication  
**EP 0990868 B1 20020828 (DE)**

Application  
**EP 99118524 A 19990918**

Priority  
DE 19844848 A 19980930

Abstract (en)  
[origin: EP0990868A2] The cross-section of the passages is arched inwards. Through the tubes and around them different heat-exchanging media flow. The tube ends (2) extend as far as below the level of the tube base surface (6) and with the passages (5) form an all-round contact surface (7), to which connect on both sides a solder gap (8) between the tube (1) and the passage (5).

IPC 1-7  
**F28F 9/18**

IPC 8 full level  
**F28F 9/18** (2006.01)

CPC (source: EP)  
**F28F 9/182** (2013.01); **F28D 2021/0082** (2013.01)

Cited by  
DE102007052888A1; CN102933930A; EP2295923A3; KR101363537B1; US10386129B2; DE102009022983A1; US8851157B2; US7413006B2; WO2006082084A1; WO2005028990A1; WO2011120977A2; US9366487B2; JP2017500528A; JP2018189363A; JP2020128865A; JP2022048152A

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 0990868 A2 20000405; EP 0990868 A3 20000726; EP 0990868 B1 20020828**; AT E223028 T1 20020915; DE 19844848 A1 20000406; DE 59902453 D1 20021002; ES 2182441 T3 20030301

DOCDB simple family (application)  
**EP 99118524 A 19990918**; AT 99118524 T 19990918; DE 19844848 A 19980930; DE 59902453 T 19990918; ES 99118524 T 19990918