

Title (en)  
RADIAL FLOW ANNULAR HEAT EXCHANGERS

Title (de)  
RINGFÖRMIGER WÄRMETAUSCHER MIT RADIALSTRÖMUNG

Title (fr)  
ECHANGEURS THERMIQUES ANNULAIRES A ECOULEMENT RADIAL

Publication  
**EP 1141645 B1 20021002 (EN)**

Application  
**EP 99964346 A 19991223**

Priority  
• CA 9901246 W 19991223  
• CA 2257076 A 19981223

Abstract (en)  
[origin: WO0039516A1] A heat exchanger is disclosed using a plurality of stacked plate pairs (30) consisting of face-to-face, mating, ringlike plates (32), each plate having an outer peripheral flange (34), an annular inner boss (36) located in a common plane with the peripheral flange (34), and an offset intermediate area (39) located between the peripheral flange (34) and the inner boss (36). The peripheral flanges (34) and inner bosses (36) in the mating plates (32) are joined together. The intermediate areas (39) have outwardly disposed joined intermediate bosses (46) having aligned inlet and outlet openings (48, 50) forming manifolds (52, 54) for the flow of the first heat exchange fluid circumferentially through the plate pairs (30) from the inlet manifold (52) to the outlet manifold (54). The heat exchanger also has a header (70, 76, 82) enclosing either the inner bosses (36) or the outer peripheral flanges (34) to cause all of a second heat exchange fluid to pass between the plate pairs transversely relative to the flow of the first heat exchange fluid.

IPC 1-7  
**F28D 9/00**

IPC 8 full level  
**F28F 3/08** (2006.01); **F28D 9/00** (2006.01); **F28F 3/04** (2006.01)

CPC (source: EP KR)  
**F28D 9/00** (2013.01 - KR); **F28D 9/0012** (2013.01 - EP); **F28F 3/04** (2013.01 - EP)

Cited by  
KR100412278B1; US11162736B2; WO2023191313A1

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)  
**WO 0039516 A1 20000706**; AT E225491 T1 20021015; AU 3027500 A 20000731; AU 755895 B2 20030102; CA 2257076 A1 20000623; CA 2257076 C 20050322; DE 69903350 D1 20021107; DE 69903350 T2 20030710; EP 1141645 A1 20011010; EP 1141645 B1 20021002; ES 2186430 T3 20030501; JP 2002533654 A 20021008; JP 3493519 B2 20040203; KR 100412278 B1 20031231; KR 20010083957 A 20010903

DOCDB simple family (application)  
**CA 9901246 W 19991223**; AT 99964346 T 19991223; AU 3027500 A 19991223; CA 2257076 A 19981223; DE 69903350 T 19991223; EP 99964346 A 19991223; ES 99964346 T 19991223; JP 2000591373 A 19991223; KR 20017008124 A 20010623