

Title (en)

HEAT EXCHANGER WITH REDUCED COMPONENT THICKNESS AND METHOD FOR MAKING SAME

Title (de)

WÄRMETAUSCHER MIT VERRINGERTER BAUTEILDICKE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ECHANGEUR DE CHALEUR A EPAISSEUR DE COMPOSANT REDUIT ET SON PROCEDE DE FABRICATION

Publication

EP 2334835 A1 20110622 (FR)

Application

EP 09783620 A 20091001

Priority

- EP 2009062729 W 20091001
- FR 0805415 A 20081001

Abstract (en)

[origin: WO2010037803A1] The invention relates to a heat exchanger and to a method for making same. The exchanger comprises components essentially made of aluminium (Al). The components include a tube cluster, inserts disposed between and/or in the tubes of said cluster, and at least one collector plate. The method of the invention includes the steps of: selecting tubes made of an aluminium core alloy and comprising 0.3 and 3.0 wt % of magnesium (Mg) as well as other chemical elements; selecting the thickness of said tubes independently from the thickness of said spacers; coating at least one surface of at least some of said components with an aluminium filler alloy; and assembling said components by flux-free brazing in a controlled atmosphere at a temperature of between 580°C and 620°C.

IPC 8 full level

C22C 1/04 (2006.01)

CPC (source: EP)

B23K 1/0012 (2013.01); **B23K 1/008** (2013.01); **B23K 1/206** (2013.01); **B23K 35/0216** (2013.01); **B23K 35/0266** (2013.01);
B23K 35/286 (2013.01); **B23K 35/3006** (2013.01); **B23K 35/38** (2013.01); **C22C 21/00** (2013.01); **C22C 21/02** (2013.01); **C22C 21/06** (2013.01);
C22C 21/10 (2013.01); **C22C 21/12** (2013.01); **C22C 21/14** (2013.01); **C22C 21/16** (2013.01); **F02B 29/0462** (2013.01); **F28D 1/05366** (2013.01);
F28F 1/126 (2013.01); **F28F 3/025** (2013.01); **F28F 21/084** (2013.01); **F28F 21/089** (2013.01); **B23K 2101/14** (2018.07); **B23K 2103/10** (2018.07);
F28D 2021/0082 (2013.01); **Y02T 10/12** (2013.01)

Citation (search report)

See references of WO 2010037803A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

FR 2936597 A1 20100402; EP 2334835 A1 20110622; WO 2010037803 A1 20100408

DOCDB simple family (application)

FR 0805415 A 20081001; EP 09783620 A 20091001; EP 2009062729 W 20091001