

Title (en)

CORRUGATED HEAT EXCHANGER TUBE FOR HOT WATER SUPPLY

Title (de)

GEWELLTES WÄRMETAUSCHERROHR ZUR HEISSWASSERVERSORGUNG

Title (fr)

TUBE ONDULÉ POUR ÉCHANGEUR THERMIQUE DESTINÉ À UNE ALIMENTATION EN EAU CHAUDE

Publication

EP 2071266 A1 20090617 (EN)

Application

EP 07792965 A 20070824

Priority

- JP 2007066436 W 20070824
- CN 200610113027 A 20060908

Abstract (en)

The present invention relates to a hot water corrugated heat transfer tube that exchanges heat between its interior and exterior. A plurality of projections, each whose height (H1) is in the range of 0.5 mm - 1.5 mm is provided in at least one part of the inner surface of a portion positioned in a section of a corrugated heat transfer tube, where the Reynolds number (Re) of the fluid flowing in the interior of the tube is less than 7,000. The height H1 of the projections is in the range of 0.05 - 0.15 times the inner diameter D or the height H1 of the projections is in the range of 1 - 3 times the depth (Hm) of the corrugated grooves. As a result, with a simple structure, the heat transfer performance in the low Reynolds number zone is improved, and the pressure loss inside the tube is small.

IPC 8 full level

F28D 7/02 (2006.01); **F28F 1/10** (2006.01); **F28F 1/40** (2006.01); **F28F 13/12** (2006.01)

CPC (source: EP KR US)

F28D 7/02 (2013.01 - KR); **F28F 1/30** (2013.01 - KR); **F28F 1/40** (2013.01 - KR); **F28F 1/42** (2013.01 - EP US); **F28F 1/426** (2013.01 - EP US); **F28F 13/12** (2013.01 - KR)

Cited by

CZ305768B6

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 2071266 A1 20090617; **EP 2071266 A4 20130123**; AU 2007292663 A1 20080313; AU 2007292663 B2 20100812; CN 1924507 A 20070307; JP 4768029 B2 20110907; JP WO2008029639 A1 20100121; KR 20090055604 A 20090602; US 2009250198 A1 20091008; WO 2008029639 A1 20080313

DOCDB simple family (application)

EP 07792965 A 20070824; AU 2007292663 A 20070824; CN 200610113027 A 20060908; JP 2007066436 W 20070824; JP 2008533094 A 20070824; KR 20097006255 A 20090326; US 44018607 A 20070824