

Title (en)

Connecting element for tubular heat exchangers

Title (de)

Verbindungselement für Röhrenwärmetauscher

Title (fr)

Élément de connexion pour échangeurs de chaleur à tubes

Publication

EP 2381202 A2 20111026 (DE)

Application

EP 11162949 A 20110419

Priority

DE 102010028117 A 20100422

Abstract (en)

The element has a flow separation edge (7') formed at circumference of a passage opening in a rounded or conical manner and arranged at an angle of about ninety degree to a longitudinal axis of the element. The passage opening is formed in a circular manner, where the element is designed symmetrical to the passage opening. A partial circular type recess or notch is arranged axially symmetrical to the longitudinal axis. The recess or notch is formed in an area, which is found between an inlet opening and the flow separation edge. An independent claim is also included for a method for retrofitting a flow system with a tubular heat exchanger.

Abstract (de)

Verbindungselement (7,17,27) zur Verbindung eines Wärmetauscherelements (1) eines Röhrenwärmetauschers mit wenigstens einem produktführenden Rohr (13) zu einem Strömungssystem, wobei das Verbindungselement (7,17,27) eine Durchgangsöffnung aufweist, wobei am Umfang der Durchgangsöffnung eine Strömungsabrisskante (7',17',27') ausgebildet ist.

IPC 8 full level

F28D 7/16 (2006.01); **F28F 9/26** (2006.01); **F28F 13/06** (2006.01)

CPC (source: EP US)

F28D 7/16 (2013.01 - EP US); **F28F 9/26** (2013.01 - EP US); **F28F 13/06** (2013.01 - EP US); **Y10T 29/49391** (2015.01 - EP US)

Citation (applicant)

- EP 1604162 B1 20060802 - TUCHENHAGEN DAIRY SYSTEMS GMBH [DE]
- DE 102005059463 B4 20091224 - GEA TDS GMBH [DE]
- DE 69612998 T2 20010906 - TETRA LAVAL HOLDINGS & FINANCE [CH]

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2381202 A2 20111026; **EP 2381202 A3 20140402**; CN 102235836 A 20111109; CN 102235836 B 20131016;
DE 102010028117 A1 20111027; US 2011259563 A1 20111027

DOCDB simple family (application)

EP 11162949 A 20110419; CN 201110103658 A 20110422; DE 102010028117 A 20100422; US 201113091222 A 20110421