

Title (en)

INSERT FOR A FLOW THROUGH HEATER

Title (de)

EINSATZ FÜR EINEN DURCHFLUSSERHITZER

Title (fr)

ELEMENT D'INSERTION POUR CHAUFFE-EAU INSTANTANÉ

Publication

EP 2359071 A2 20110824 (EN)

Application

EP 09756061 A 20091111

Priority

- IB 2009055013 W 20091111
- EP 08169083 A 20081114
- EP 09756061 A 20091111

Abstract (en)

[origin: WO2010055472A2] When feedback loop control is used for controlling a temperature of liquid at an outlet (5) of a flow through heater, a volume of an ineffective portion (4) of the flow through heater at the outlet (5) constitutes a dead volume which causes a delay in the feedback process. In order to minimize the delay, an insert (6) is applied, which serves for reducing the dead volume by occupying most of this volume. In a practical case, the insert (6) comprises a duct system (12) for conveying liquid from a liquid conveying conduit (2) of the flow through heater to an outlet (10) of the insert (6). Preferably, a volume of such a liquid conveying duct system (12) is relatively small, so that the presence of the duct system (12) in the insert (6) does not spoil the dead volume reducing effect of the application of the insert (6).

IPC 8 full level

F24H 1/14 (2006.01)

CPC (source: EP KR US)

A47J 31/545 (2013.01 - EP US); **F24H 1/14** (2013.01 - KR); **F24H 1/142** (2013.01 - EP US); **F24H 9/0015** (2013.01 - EP US);
F24H 9/2028 (2013.01 - EP KR US); **F24H 15/219** (2022.01 - EP KR US); **G01K 1/14** (2013.01 - EP US); **G01K 13/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2010055472A2

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)

WO 2010055472 A2 20100520; WO 2010055472 A3 20130110; CN 102317703 A 20120111; CN 201569131 U 20100901;
DE 202009015187 U1 20100624; EP 2359071 A2 20110824; JP 2012515891 A 20120712; KR 20110095886 A 20110825;
RU 2011123882 A 20121220; US 2011217027 A1 20110908

DOCDB simple family (application)

IB 2009055013 W 20091111; CN 200920269392 U 20091113; CN 200980145526 A 20091111; DE 202009015187 U 20091109;
EP 09756061 A 20091111; JP 2011543873 A 20091111; KR 20117013265 A 20091111; RU 2011123882 A 20091111;
US 200913128285 A 20091111