Title (en)

VIRTUAL TEMPERATURE MEASURING POINT

Title (de)

VIRTUELLE TEMPERATURMESSSTELLE

Title (fr)

POINT DE MESURE DE TEMPERATURE VIRTUELLE

Publication

EP 1938067 A1 20080702 (DE)

Application

EP 06793810 A 20060925

Priority

- EP 2006066704 W 20060925
- EP 05022820 A 20051019
- EP 06793810 A 20060925

Abstract (en)

[origin: EP1777505A1] Mathematical model for determination of non-linear temperature profiles for thick wall engineering components e.g. high temperature fluid transfer pipes, turbine shafts considers the wall as a composite of parallel layers each with non-steady state in- and out-heat flows, calculates a mean temperature for each layer from an instantaneous heat balance, and from integration of these produces values for the wall temperature at given depths. The technique considers a generally cylindrical thick wall as comprising a series of concentric layers e.g. 1-10, where layer 1 is in contact with a process fluid. The system calculates heat transfer coefficients and then sequentially computes mean temperatures for the layers, by repeated application of the algorithms.

IPC 8 full level

G01K 17/20 (2006.01)

CPC (source: EP KR US)

F27D 21/0014 (2013.01 - EP US); **G01K 7/42** (2013.01 - EP US); **G01K 17/20** (2013.01 - EP KR US); **G01K 19/00** (2013.01 - KR)

Citation (search report)

See references of WO 2007045546A1

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 NL PL PT RO SE SI SK TR

Designated extension state (EPC)

RS

DOCDB simple family (publication)

EP 1777505 A1 20070425; CN 101292141 A 20081022; CN 101292141 B 20130417; EP 1938067 A1 20080702; IL 190449 A0 20081103; IL 190449 A 20130430; JP 2009512842 A 20090326; JP 4694625 B2 20110608; KR 101334885 B1 20131202; KR 20080072855 A 20080807; US 2009132196 A1 20090521; US 7909506 B2 20110322; WO 2007045546 A1 20070426

DOCDB simple family (application)

EP 05022820 A 20051019; CN 200680038844 A 20060925; EP 06793810 A 20060925; EP 2006066704 W 20060925; IL 19044908 A 20080326; JP 2008536004 A 20060925; KR 20087011939 A 20060925; US 8375506 A 20060925