

Title (en)

HEAT EXCHANGER WITH LONGITUDINAL BAFFLE AND DUAL OPERATING METHOD THEREOF

Title (de)

WÄRMETAUSCHER MIT LÄNGSWAND UND DOPPELBETRIEBSVERFAHREN DAFÜR

Title (fr)

ÉCHANGEUR DE CHALEUR À DÉFLECTEUR LONGITUDINAL ET SON PROCÉDÉ DE FONCTIONNEMENT DOUBLE

Publication

EP 4390295 A1 20240626 (EN)

Application

EP 23020451 A 20230929

Priority

IT 202200026160 A 20221221

Abstract (en)

Shell-and-tube heat exchanger with substantially cylindrical geometry and straight exchanging tubes, apt to indirectly exchange heat between a shell-side fluid and a tube-side fluid contacted in pure counter-current and with a number of shell-side passes larger than the number of tube-side passes. The heat exchanger comprises shell-side longitudinal baffles, plane or cylindrical in shape, having one end open and free longitudinally opposite and delimiting different shell-side zones crossed and not crossed by the tube-bundle. Heat exchanger configured to operate in dual mode and, in particular, as a boiler when the shell-side fluid mainly exchanges latent heat and as a heater or cooler when the shell-side fluid mainly exchanges sensible heat.

IPC 8 full level

F28F 13/06 (2006.01); **F28D 7/16** (2006.01); **F28F 9/22** (2006.01); **F28F 19/00** (2006.01)

CPC (source: EP)

F28D 7/16 (2013.01); **F28D 7/1607** (2013.01); **F28F 2009/224** (2013.01); **F28F 2009/226** (2013.01)

Citation (search report)

- [A] CN 202692763 U 20130123 - UNIV NANJING AERONAUTICS
- [A] US 2017205147 A1 20170720 - RIZZI ENRICO [IT]
- [A] US 11054196 B2 20210706 - MANENTI GIOVANNI [IT]
- [A] DE 1551553 A1 19700521 - WAAGNER BIRO AG

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

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