

Title (en)

HIGH-TEMPERATURE SHORT-TIME TREATMENT DEVICE, SYSTEM, AND METHOD

Title (de)

HOCHTEMPERATUR-KURZZEITBEHANDLUNGSVORRICHTUNG, -SYSTEM UND -VERFAHREN

Title (fr)

DISPOSITIF, SYSTÈME ET PROCÉDÉ DE TRAITEMENT À HAUTE TEMPÉRATURE DE COURTE DURÉE

Publication

EP 4189317 A1 20230607 (EN)

Application

EP 21848608 A 20210713

Priority

- US 202063057020 P 20200727
- US 2021041417 W 20210713

Abstract (en)

[origin: US2022026160A1] A dual path heat exchanger integrated as a single unit able to process fluid stream through a continuous, single-use high temperature short time process. The heat exchanger contains both a heating section and a cooling section in the same unit. In one embodiment, the heating and cooling sections (which may be formed separately for other uses) are formed as a plate and frame structure with a thermally conductive thin film or foil forming the physical barrier between the process stream flow path and the thermal medium (heating or cooling) flow path. The film/foil renders the heat exchanger suitable for single-use and/or to be disposable. A manifold, which also may be formed as a single unit, may be used to transfer fluid flow between the sections of the heat exchanger, and/or to transfer fluid into and out of the system formed by the heat exchanger and manifold.

IPC 8 full level

F28F 3/08 (2006.01); **F28D 9/00** (2006.01); **F28F 3/02** (2006.01)

CPC (source: EP US)

F28D 9/005 (2013.01 - EP); **F28D 9/0062** (2013.01 - EP); **F28D 9/0075** (2013.01 - US); **F28D 9/0093** (2013.01 - EP US);
F28D 21/0001 (2013.01 - EP); **F28F 3/10** (2013.01 - US); **F28F 9/0075** (2013.01 - US); **F28F 9/0251** (2013.01 - EP);
F28D 2021/005 (2013.01 - EP); **F28F 2225/02** (2013.01 - EP); **F28F 2265/20** (2013.01 - EP); **F28F 2270/00** (2013.01 - EP)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

US 2022026160 A1 20220127; EP 4189317 A1 20230607; WO 2022026172 A1 20220203

DOCDB simple family (application)

US 202117374050 A 20210713; EP 21848608 A 20210713; US 2021041417 W 20210713