

Title (en)
TUBE BUNDLE HEAT EXCHANGER

Title (de)
ROHRBÜNDELWÄRMETAUSCHER

Title (fr)
ÉCHANGEUR DE CHALEUR À FAISCEAU TUBULAIRE

Publication
EP 4004474 C0 20230607 (DE)

Application
EP 20758111 A 20200724

Priority
• DE 102019120096 A 20190725
• DE 2020100663 W 20200724

Abstract (en)
[origin: WO2021013312A1] The invention relates to a tube bundle heat exchanger having a tube bundle (5) in a housing (2), wherein the housing (2) has a first inlet (3) and a first outlet (4) for a first medium (M1) for passage through the tube bundle (5) and a second inlet and a second outlet for a second medium for passage through a flow chamber surrounding the tube bundle (5) within the housing (2), wherein the ends of the tube bundle (5) are arranged in a tube sheet (11), which separates the flow chamber for the second medium from the first medium (M1). A separating body (16) is arranged as a flow distributor between the first inlet (3) and the tube sheet (11), which separating body prevents the first medium (M1) from flowing against the tube sheet (11) and has feed tubes (18), which bridge a compensating chamber (19) between the separating body (16) and the tube sheet (11) and protrude into the individual tubes (6) of the tube bundle (5) in order to conduct the first medium (M1) into the tubes (6), bypassing the tube sheet (11). The first inlet (3) is attached to a first group of tubes (6), the group having an enveloping surface, which is adjacent primarily to a second group of tubes (6) and is attached to the first outlet (4).

IPC 8 full level
F28D 7/16 (2006.01); **F28F 9/02** (2006.01)

CPC (source: CN EP KR US)
F28D 7/10 (2013.01 - US); **F28D 7/16** (2013.01 - EP); **F28D 7/1607** (2013.01 - CN KR); **F28D 7/1646** (2013.01 - KR); **F28D 7/1669** (2013.01 - KR); **F28F 9/0229** (2013.01 - CN EP KR); **F28F 9/0265** (2013.01 - CN EP KR); **F28F 9/027** (2013.01 - CN EP KR); **F28F 9/0282** (2013.01 - CN EP KR); **F28D 7/1607** (2013.01 - EP); **F28D 7/1638** (2013.01 - EP); **F28D 7/1646** (2013.01 - EP); **F28D 7/1669** (2013.01 - EP); **F28D 2021/0033** (2013.01 - KR)

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

Participating member state (EPC – UP)
AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI

DOCDB simple family (publication)
DE 102019120096 A1 20210128; CN 114144633 A 20220304; CN 114144633 B 20230606; EP 4004474 A1 20220601; EP 4004474 B1 20230607; EP 4004474 C0 20230607; JP 2022534130 A 20220727; KR 20220076450 A 20220608; US 11408682 B2 20220809; US 2022163265 A1 20220526; WO 2021013312 A1 20210128

DOCDB simple family (application)
DE 102019120096 A 20190725; CN 202080053166 A 20200724; DE 2020100663 W 20200724; EP 20758111 A 20200724; JP 2022504618 A 20200724; KR 20227006370 A 20200724; US 202017622636 A 20200724