

Title (en)
Heat exchange unit and heat exchanger using the heat exchange unit

Title (de)
Wärmetauschereinheit und Wärmetauscher der die Wärmetauschereinheit verwendet

Title (fr)
Unité d'échange de chaleur et échangeur de chaleur qui l'utilise.

Publication
EP 1724543 A1 20061122 (EN)

Application
EP 05253085 A 20050519

Priority
EP 05253085 A 20050519

Abstract (en)
A heat exchange unit and a heat exchanger having simple structures which can be manufactured at low cost are provided. The capacity and efficiency of the heat exchanger can be set in accordance with conditions. Heat exchanger tubes 2 and 4 are coiled with predetermined gaps to form heat exchange unit elements A and B, respectively. The elements A and B are shifted from each other so that the tubes 2 and 4 do not overlap each other. The elements A and B are connected to each other with a connection pipe 6 at inner ends thereof. Fluid enters the element A from an inlet header 12, flows into the element B through the connection pipe 6 at the center of element A, and then flows out of the element B through an outlet header 14. Heat is collected during this time.

IPC 8 full level
F28D 7/04 (2006.01); **F28D 7/02** (2006.01); **F28F 1/08** (2006.01)

CPC (source: EP)
F28D 7/028 (2013.01); **F28D 7/04** (2013.01); **F28F 1/08** (2013.01); **F28F 9/26** (2013.01)

Citation (search report)

- [XA] GB 138870 A 19210808 - GRISCOM RUSSELL CO
- [X] FR 771245 A 19341003 - SULZER AG
- [X] DE 19503506 A1 19960321 - JACOB KARL AUGUST [DE], et al
- [X] US 4557323 A 19851210 - HARDY BRIAN E [US], et al
- [A] FR 2817332 A1 20020531 - GUILLOT IND SA [FR]

Cited by
RU196872U1; CN107966047A; US2014054015A1; US9841244B2; EP3995754A1; US9528771B2; WO2019162269A1; WO2016069079A1; WO2012049318A1

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 MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR LV MK YU

DOCDB simple family (publication)
EP 1724543 A1 20061122

DOCDB simple family (application)
EP 05253085 A 20050519