

Title (en)

Fluid guide plate and associated plate heat exchanger

Title (de)

Fluideiterplatte und zugehöriger Plattenwärmetauscher

Title (fr)

Plaque de guidage de fluide et échangeur de plaque associé

Publication

**EP 3023727 A1 20160525 (EN)**

Application

**EP 14194574 A 20141124**

Priority

EP 14194574 A 20141124

Abstract (en)

A fluid guide plate (10) and a plate heat exchanger (20) are provided. The fluid guide plate (10) includes a first heat exchanging surface (11), a second heat exchanging surface (12), and a plurality of heat exchanging portions (13) formed by recessing the first heat exchanging surface (11) and disposed in protrusion at the second heat exchanging surface (12). Each of the heat exchanging portions (13) has a polygonal planar contour. The plate heat exchanger (20) includes a plurality of fluid guide plates (21, 22). The heat exchanging portions (213, 223) on the fluid guide plates (21, 22) are staggered to form a channel system. Accordingly, the heat exchanging portions (213, 223) allow fluids (100, 101) to vigorously flow and form a longitudinal vortex in the channel system to further generate a strong turbulence for enhancing heat transfer efficiency and reducing pressure drops of the fluids (100, 101). Further, the fluid guide plates (10, 21, 22) of the present invention are capable of significantly reducing mold developments and lowering production costs.

IPC 8 full level

**F28F 3/04** (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP)

**F28D 9/005** (2013.01); **F28F 3/044** (2013.01)

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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

DOCDB simple family (publication)

**EP 3023727 A1 20160525; EP 3023727 B1 20200108**

DOCDB simple family (application)

**EP 14194574 A 20141124**