

Title (en)
HOLLOW PLATELET HEAT EXCHANGERS

Title (de)
HOHLSCHEIBEN-WÄRMETAUSCHER

Title (fr)
ECHANGEURS THERMIQUES A PLAQUETTES CREUSES

Publication
EP 2032928 B1 20090909 (FR)

Application
EP 07788872 A 20070612

Priority
• FR 2007000967 W 20070612
• FR 0605248 A 20060613

Abstract (en)
[origin: CA2654633A1] One of these heat exchangers (76) consists of a stack of thin-metal walled hollow platelets (7S1-J5), 12 cm long and 5 wide. Each of these walls has a central region stiffened by alternating bosses with steep slopes, situated between two connection regions. Each wall is made by pressing then cutting an appropriate sheet of metal (aluminium 0.3 mm thick). The edges of the two fin walls form steps, symmetrically welded, the height of each step determining the internal half-thickness of a fin. Each platelet connection region ends in a narrow mouth with a cross section that has the same surface area as the embossed central region, and is welded to the edges of a slot made in an external manifold (80-82). The thickness of the internal channel of a platelet is about 0.4 mm when the fluid concerned is a liquid (water) and that of the spaces between the platelets is 7 mm when the other fluid is a gas (air). By hot pressing or thermoforming, sheets of glass or polymer may also be used but the performance is reduced.

IPC 8 full level
F28D 9/00 (2006.01); **F28D 1/03** (2006.01)

CPC (source: EP KR US)
F28D 1/03 (2013.01 - KR); **F28D 1/0316** (2013.01 - EP US); **F28D 9/00** (2013.01 - KR); **F28F 3/04** (2013.01 - KR); **F28F 3/042** (2013.01 - EP US)

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