

Title (en)  
HEAT TRANSFER APPARATUS

Title (de)  
WÄRMEÜBERTRAGUNGSVORRICHTUNG

Title (fr)  
APPAREIL DE TRANSFERT DE CHALEUR

Publication  
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Application  
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Abstract (en)  
[origin: WO2018236076A1] The present invention relates to a heat transfer apparatus (1) for transferring heat between a first fluid and a second fluid. The apparatus (1) has an array (2) comprising: pipe elements (3, 3a, 3b, 3c) for enabling the first fluid to pass; one or more pipe bottoms (5) each having a through-opening (6); and one or more sealing elements (7) each having a through-opening (8). The pipe elements (3, 3a, 3b, 3c) include flat pipes having a first region (10) having a first height (X) and width (W), and one or more second regions (11) arranged at one end part of the pipe elements (3, 3a, 3b, 3c) and each having a supporting surface (13) having a second height (Y). The sealing elements (7) are each arranged between the supporting surfaces (13) and the edges of the pipe bottom (5) through-openings (6), and have a particular wall thickness (G). The pipe elements (3, 3a, 3b, 3c) having a wide side are arranged so as to be parallel to each other, and in the first region (10), are arranged in a state of being aligned with respect to each other at an interval (F). Webs (5-1) having a height (H) are each provided between the pipe bottom (5) through-openings (6) which are arranged so as to neighbor each other. The degree of deformation of the end parts of the pipe elements (3, 3a, 3b, 3c) in the height direction (c) within a range from a maximum value (CMmax) to a minimum value (CMmin) is pre-configured with reference to dimensional relations.

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Citation (search report)  
• [X] FR 2825458 A1 20021206 - BEHR GMBH & CO [DE]  
• [X] JP S5929994 A 19840217 - NTN TOYO BEARING CO LTD  
• [E] WO 2019229369 A1 20191205 - VALEO SYSTEMES THERMIQUES [FR]  
• [X] EP 1774237 A1 20070418 - BEHR GMBH & CO KG [DE]  
• See also references of WO 2018236076A1

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