

Title (en)
Heat exchanger for liquid fluids.

Title (de)
Wärmeaustauscher für flüssige Medien.

Title (fr)
Echangeur de chaleur pour fluides liquides.

Publication
EP 0289424 A1 19881102 (FR)

Application
EP 88401038 A 19880428

Priority
FR 8706176 A 19870430

Abstract (en)
1. A heat exchanger for two liquid fluids, in which a first fluid is caused to flow in conduits formed by pairs of channel plates (1, 2) assembled together and defining between them conduits (3), the said pairs of channel plates being contained within an envelope (7) into which tube ends (13, 14) communicate for respectively supplying and evacuating a second fluid flowing in the spaces separating the pairs of channel plates (1, 2), wherein conduits (3) carry the flow of the first fluid supplied through distributor tubes (10) which are introduced into openings (9) of simple collecting chambers (4) formed between pairs of complementary channel plates (1, 2), characterised in that the distributor tubes are brazed to the envelope (7) and to a cover member (8) of the latter which carries external bosses (17) for receiving fastening bolts, the gripping action of which causes flexible sealing members (16_a) to be compressed, the said flexible sealing members being gripped by the tubes (10), which act as spacers between the base of the envelope (7) and its cover member (8).

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Citation (search report)
• [A] US 2511084 A 19500613 - SHAW JOE C
• [A] DE 1953438 A1 19700430 - CHAUSSON USINES SA
• [A] FR 2494418 A1 19820521 - CHAUSSON USINES SA [FR]
• [A] US 3946804 A 19760330 - TKACH GRIGORY ANATOLIEVICH, et al
• [A] FR 1546293 A 19681115 - ROSENBLADS PATENTER AB

Cited by
CN104576911A; CN106767049A; EP0632247A1; US5810071A; CN110411251A; DE19549801B4; EP0819906A3; CN105466255A; FR3035710A1; CN107532857A; US6752202B2; US6702006B2; WO0190671A1; WO0190673A1; WO9429659A1; WO2016176276A1

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