

Title (en)
COUNTERCURRENT HEAT-EXCHANGER WITH HELICAL BANK OF TUBES

Publication
EP 0278961 B1 19901031 (DE)

Application
EP 87905169 A 19870821

Priority
CH 334886 A 19860821

Abstract (en)
[origin: WO8801362A1] A countercurrent heat-exchanger has several helical banks of tubes (1A, 1B) where a primary fluid flows, and a secondary fluid flows in the opposite direction in helical channels (2A, 2B) formed between the coils of the banks of tubes (1A, 1B). Each bank of tubes (1A, 1B) is composed of ten helical tubes linearly arranged side by side that form the helical channels (2A, 2B) for the secondary fluid between the central tube (9) and the jacket tube (10). The helical tubes are linked at both ends of each bank of tubes (1A, 1B) to one joining chamber (5A, 5B; 6A, 6B) composed of a holed joining plate (16) and of a lid (17). The helical banks of tubes rest freely on helically arranged supporting arms (20) fixed on the central tube (9), distributed on several radial planes and extending up to the jacket tube (10). Strap retainers (21) link the supporting arms (20) on the same radial plane. The helical banks of tubes can be attached for cleaning, and be removed from the jacket tube (10) together with their joining chambers (5A, 5B; 6A, 6B), the closing lid (13), the central tube (9), the primary inlet (3) and the primary outlet (8).

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