

Title (en)

Heat exchanger in the form of a tube and its use for cooling the cooling water of a power generating station.

Title (de)

Wärmetauscher in Form eines Rohres und seine Verwendung zur Kühlung des Kühlwassers einer Kraftwerkanlage.

Title (fr)

Echangeur de chaleur en forme de tube et son application aux fins de refroidissement de l'eau réfrigérant une centrale électrique.

Publication

**EP 0009069 A1 19800402 (DE)**

Application

**EP 79101447 A 19790511**

Priority

DE 2834593 A 19780807

Abstract (en)

[origin: US4240500A] A heat exchange apparatus is disclosed comprising a heat transfer conduit wherein a heat transfer fluid flows in a corrugated sealed evacuated tube between hot and cold zones with the fluid being evaporated in the hot zone and condensed in the cold zone, said tube being wound to provide a plurality of windings, with a first portion of each winding being in the hot zone and a second portion of each winding being in the cold zone. The heat transfer conduit so wound is axially positioned within a tubular container comprised of a metal of high heat transfer conductivity and having a polygonal cross section. Each first portion of such windings is attached to an interior surface of the tubular container by means of a connector member also of a metal of high heat transfer conductivity, thus providing an efficient heat conductance path from the outside surface of the tubular container to the inside surface of the plurality of windings in the hot zone. The outside surface configurations of the corrugated, wound evacuated tube in combination with the interior straight surfaces of the polygonal tubular container provide a high turbulence circumstance for the efficient transfer of heat for example between a heated liquid passing about the outside surfaces of the tubular container and a cooling gas passed axially through the interior of the tubular container.

Abstract (de)

Bei Wärmetauscherrohren ist an der Innenwandung des Rohres (1) mindestens ein wendelförmig gewickeltes, gewelltes Wärmerohr (2) in gut leitendem Kontakt mit der Innenwandung des Rohres (1) angebracht.

IPC 1-7

**F28D 15/00**

IPC 8 full level

**F28F 1/00** (2006.01); **F28D 15/02** (2006.01)

CPC (source: EP US)

**F28D 15/0233** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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**EP 79101447 A 19790511**; BR 7904986 A 19790803; DE 2834593 A 19780807; JP 9271579 A 19790723; US 6405579 A 19790806