

Title (en)

Flat tube heat exchanger with twisted tube ends

Title (de)

Flachrohr-Wärmeübertrager mit tordiertem Flachrohrendabschnitt

Title (fr)

Echangeur de chaleur à tubes plats avec extrémité de tubes déformée par torsion

Publication

**EP 0845647 B1 20020703 (DE)**

Application

**EP 97120669 A 19971126**

Priority

DE 19649129 A 19961127

Abstract (en)

[origin: EP0845647A1] The heat exchanger includes flat tubes (1) which have one end sector (1a) deformed to fit in a component (3) forming a connection cavity. This end sector is twisted and/or bent to form an adjacent section (1b) of smaller measurement across the cross section. The flat tubes may be twisted about an angle ( alpha , beta ) between about 10 and 20 degrees at the end fitting in the connection component. This end may be bent in a V shape or a U shape so that the flanks of the bent end sectors are in contact with each other.

IPC 1-7

**F28F 1/02**; **F28D 1/053**

IPC 8 full level

**F28D 1/047** (2006.01); **F28D 1/053** (2006.01); **F28F 1/02** (2006.01); **F28F 1/12** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP)

**F28D 1/05366** (2013.01); **F28D 1/05383** (2013.01); **F28F 1/025** (2013.01); **F28F 1/126** (2013.01)

Cited by

EP1321734A1; EP1300644A3; CN109990627A; FR2887973A1; FR2887972A1; FR2793013A1; DE19846267A1; CN110207528A; US6170569B1; US6993838B1; WO2007048888A1; WO0055561A1

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DE FR SE

DOCDB simple family (publication)

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