

Title (en)

FINNED TUBE WITH A NOTCHED GROOVE BOTTOM AND METHOD FOR MAKING IT

Publication

**EP 0222100 B1 19890809 (DE)**

Application

**EP 86112550 A 19860910**

Priority

EP 85113859 A 19851031

Abstract (en)

[origin: US4796693A] A tube for heat transfer systems or the like is provided which includes helically or circumferentially disposed, radially extending ribs or fins. The base of the grooves defined between adjacent fins has a plurality of discrete impressions defined therein. The provision of discrete impressions in the groove base improves the heat transfer characteristics of the tube by greatly increasing the outer surface area of the tube relative to the inner surface area of the tube.

IPC 1-7

**B21C 37/20**; **B21D 15/04**; **F28F 1/36**; **F28F 13/18**

IPC 8 full level

**B21C 37/20** (2006.01); **B21D 15/04** (2006.01); **F28F 1/36** (2006.01); **F28F 13/18** (2006.01)

CPC (source: EP US)

**B21C 37/207** (2013.01 - EP US); **B21D 15/04** (2013.01 - EP US); **F28F 1/36** (2013.01 - EP US); **F28F 13/187** (2013.01 - EP US)

Cited by

DE102016006914A1; DE102016006914B4; DE102014002829A1; DE102018004701A1; DE10101589C1; EP0495453A1; US5186252A; US6119770A; DE4404357C1; EP0667504A1; DE4404357C2; DE202020005625U1; DE202020005628U1; EP1223400A2; US6913073B2; WO2017207089A1; US10996005B2; WO2022089772A1; WO2022089773A1; EP2101136A2; US8281850B2; EP3581871A1; US11073343B2

Designated contracting state (EPC)

DE FR GB NL SE

DOCDB simple family (publication)

**EP 0222100 A2 19870520**; **EP 0222100 A3 19871007**; **EP 0222100 B1 19890809**; DE 3664959 D1 19890914; US 4796693 A 19890110

DOCDB simple family (application)

**EP 86112550 A 19860910**; DE 3664959 T 19860910; US 92119486 A 19861021