

Title (en)

Heat exchanger having tubes jointed by expanded sheet metal

Title (de)

Wärmeaustauscher mit Rohren, die durch Streckmetall verbunden sind

Title (fr)

Echangeur de chaleur à tubes reliés par des plaques de métal déployé

Publication

**EP 0539638 B1 19970806 (FR)**

Application

**EP 91402881 A 19911028**

Priority

FR 9013161 A 19901022

Abstract (en)

[origin: FR2668250A1] Heat exchanger comprising a plurality of substantially parallel tubes, which can be combined in rows and are intended for circulating a first fluid, characterised in that each tube of a row is joined to the two adjacent tubes of the same row by an expanded metal plate integral with or solidly attached to the two tubes which it joins, along a generatrix of the tube, and in that the plates joining the tubes are formed in a single piece from end to end of one and the same row of tubes, this piece being designed to form, by itself, at least a portion of the said tubes or to receive them in intimate contact, a second fluid circulating outside the tubes in a direction which is overall perpendicular to the expanded metal plates, through their orifices. These heat exchangers are advantageously usable for exchanges between a liquid circulating in the tubes and a gas (for example air) circulating in cross-currents outside the tubes. <IMAGE>

IPC 1-7

**F28F 1/12**; B21D 53/04

IPC 8 full level

**F28F 1/12** (2006.01)

CPC (source: EP)

**F28F 1/04** (2013.01); **F28F 1/12** (2013.01); **F28F 1/22** (2013.01); **F28F 2255/12** (2013.01)

Cited by

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