

Title (en)

Heat exchanger and process for the watertight fixation of heat exchange elements to an end plate.

Title (de)

Wärmeaustauscher und Verfahren zur flüssigkeitsdichten Befestigung einer Bodenplatte an einem Wärmeaustauschernetz.

Title (fr)

Echangeur de chaleur et procédé pour la fixation étanche des éléments d'échange dans une plaque d'extrémité.

Publication

EP 0387678 B1 19931124 (DE)

Application

EP 90104324 A 19900307

Priority

DE 3908266 A 19890314

Abstract (en)

[origin: EP0387678A1] The invention relates to a heat exchanger comprising a heat exchanger grid having a multiplicity of oval tubes (3), and a baseplate attached to said grid by widening the tubes (3). The ratio of the diameters of the tubes (3) is 2.5 : 1 to 8 : 1 inside the heat exchanger grid, and 1.2 : 1 to 3 : 1 inside the perforations of the baseplate. A process for fixing such heat exchanger grids to a baseplate is also described. This process is characterised in that before being widened the tube ends are deformed from outside by applying pressure with the aid of a special pressure tool (15, 15a,b), with the result that their cross-sections are reduced parallel to the maximum diameter but increased, by contrast, parallel to the minimum diameter. <IMAGE>

IPC 1-7

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IPC 8 full level

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Citation (examination)

- DE 3505492 A1 19860821 - THERMAL WAERME KAELTE KLIMA [DE]
- US 4739828 A 19880426 - BAYER JUERGEN [DE], et al

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