

Title (en)

A tube structure, a flow channel structure, and a heat exchanger

Title (de)

Rohranordnung, Fliesskanalstruktur und ein Wärmetauscher

Title (fr)

Structure de tubes, structure de passage de fluides et échangeur de chaleur

Publication

EP 1213557 B1 20070808 (EN)

Application

EP 01660221 A 20011205

Priority

FI 20002659 A 20001205

Abstract (en)

[origin: EP1213557A2] The invention relates to a tube structure, a flow channel structure and a heat exchanger, as well as their use, particularly in pre-heaters for air in boiler plants. The tube structure (P) is intended to be fixed between opposite walls (1, 2) of a flow channel (VK) or the like for a first heat transfer medium (VK) of a heat exchanger. A second heat transfer medium (TV) is arranged to flow through the tube structure (P). The tube structure (P) comprises, at its both ends (3, 4), fixing means (5, 6) for fixing the tube structure (P) in a releasable manner to the walls (1, 2) of the flow channel (VK). The first and second walls (1, 2) of the flow channel structure are provided with a compatible pair (17, 18) of holes, through which the tube structures (P) to be inserted in the heat exchanger are installed.

IPC 8 full level

F28F 9/10 (2006.01); **F28F 9/12** (2006.01)

CPC (source: EP)

F28F 9/10 (2013.01); **F28F 9/12** (2013.01)

Cited by

WO2007025506A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1213557 A2 20020612; EP 1213557 A3 20050302; EP 1213557 B1 20070808; AT E369536 T1 20070815; DE 60129780 D1 20070920;
DE 60129780 T2 20071206; ES 2288920 T3 20080201; FI 116418 B 20051115; FI 20002659 A0 20001205; FI 20002659 A 20020606

DOCDB simple family (application)

EP 01660221 A 20011205; AT 01660221 T 20011205; DE 60129780 T 20011205; ES 01660221 T 20011205; FI 20002659 A 20001205