

Title (en)  
Heating system component

Title (de)  
Bauteil einer Heizungsanlage

Title (fr)  
Composant d'un système de chauffage

Publication  
**EP 1106838 A1 20010613 (EN)**

Application  
**EP 00309946 A 20001109**

Priority  
• CN 99241050 U 19991210  
• CN 99241052 U 19991210  
• CN 99241051 U 19991210

Abstract (en)  
A component for attachment, in use, to a heating system. The component comprises a first inlet (1) for receiving a heated gas, the inlet comprising a first frusto-conical region (5) followed by an outwardly tapered nozzle (6) for generating a high speed gas jet. There is a second inlet (2) for receiving cooled water from the heating system. A mixing region surrounds the nozzle region and connects to the second inlet. The mixing region comprises a circular chamber component surrounding at least a portion of the gas nozzle, an inwardly tapered frusto-conical component (7) positioned upstream from the outlet of the gas nozzle and leading into a third mixing region (8) of generally regular cross section, the mixing region being configured to mix, in use, heated gas from the nozzle and cooled liquid from the second inlet to produce mixed heated liquid at high pressure and high forward flow velocity. A diffusion region (9) comprises an outwardly tapered frusto-conical tube for reducing the flow of the heated liquid whilst increasing its pressure to a predetermined value. An outlet (3) attached to the diffusion region for receiving and dispersing heated liquid therefrom. <IMAGE>

IPC 1-7  
**F04F 5/46**; F04F 5/24; F24D 1/00

IPC 8 full level  
**F04F 5/24** (2006.01); **F04F 5/46** (2006.01); **F22D 1/28** (2006.01); **F24D 1/00** (2006.01)

CPC (source: EP)  
**F04F 5/24** (2013.01); **F04F 5/46** (2013.01); **F22D 1/28** (2013.01); **F24D 1/005** (2013.01)

Citation (search report)  
• [X] DE 283826 C  
• [X] US 5163821 A 19921117 - KELLY QUENTIN T [US], et al  
• [X] DE 2511476 A1 19760923 - SANDOZ AG  
• [A] DE 3005653 A1 19810820 - BBC BROWN BOVERI & CIE [DE]  
• [A] EP 0724079 A1 19960731 - BAEZ GMBH HELMUT [DE]

Cited by  
US6746146B1; CN104624582A; CN108916129A; CN103742895A; CN102588354A; CN103990631A; EP1340946A3; EP2803760A3; GB2385120A; GB2385120B; CN104624583A; CN114688105A; CN110685660A; US7228690B2

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 1106838 A1 20010613**; DE 1106838 T1 20020613; ES 2168233 T1 20020616

DOCDB simple family (application)  
**EP 00309946 A 20001109**; DE 00309946 T 20001109; ES 00309946 T 20001109