

Title (en)

Boiler with return water injection in the lower part of the heat exchanger

Title (de)

Heizkessel mit Rücklaufwassereinspritzung unten im Heizkörper

Title (fr)

Chaudière à injection basse d'eau de retour dans le corps de chauffe

Publication

EP 0870998 B1 20020619 (FR)

Application

EP 98440069 A 19980407

Priority

FR 9704646 A 19970411

Abstract (en)

[origin: EP0870998A1] A water heater (1) has an outlet (9) for the heated water feed at the top and an intake (10) for a return flow feed at the bottom. The return flow feed is connected to an injection tube (13) with a closed end (17) and a series of orifices all facing in the same direction, so that the water returning to the heater at low temperature is mixed with the reheated water inside it. The injection tube orifices are equipped with nozzles which are positioned to direct jets of water along rising channels (2-6) at the back or front of the heater. In addition the channels can have restrictions at their lower ends to give an increased Venturi effect from the return flow nozzles.

IPC 1-7

F24H 9/12; F24H 9/00

IPC 8 full level

F24H 9/00 (2006.01); **F24H 9/12** (2006.01)

CPC (source: EP)

F24H 9/0036 (2013.01); **F24H 9/13** (2022.01)

Designated contracting state (EPC)

AT BE CH DE FR IT LI

DOCDB simple family (publication)

EP 0870998 A1 19981014; **EP 0870998 B1 20020619**; AT E219570 T1 20020715; DE 69806090 D1 20020725; DE 69806090 T2 20030102; FR 2762075 A1 19981016; FR 2762075 B1 19990528

DOCDB simple family (application)

EP 98440069 A 19980407; AT 98440069 T 19980407; DE 69806090 T 19980407; FR 9704646 A 19970411