

Title (en)

DEVICE FOR INJECTING STEAM INTO FLOWING WATER IN ORDER TO HEAT THE WATER

Title (de)

VORRICHTUNG ZUM INJEKTIEREN VON DAMPF IN STRÖMENDES WASSER ZUM ZWECKE DES ERHITZENS DES WASSERS

Title (fr)

DISPOSITIF SERVANT A INJECTER DE LA VAPEUR DANS DE L'EAU EN ECOULEMENT POUR RECHAUFFER CETTE EAU

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Application

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Abstract (en)

[origin: WO9922178A1] The invention relates to a device for injecting steam into flowing water in order to heat the water. The device comprises an essentially closed housing (404) and a mixing chamber (442) in which the steam is mixed with water which is to be heated. Said mixing chamber is located inside of said housing (404). One respective water inlet opening (416) and one water outlet opening (420) are arranged in the housing (404), whereby the water is fed from the water inlet opening (416) to the water outlet opening (420) via the mixing chamber (442). In addition, the inventive device has a steam chamber (440) located inside the housing and a steam inlet opening (424) which is also located inside said housing (404), whereby the steam is guided from the steam inlet valve (424) to the steam chamber (440). A separating wall (430) is situated between the steam chamber (440) and mixing chamber (442), whereby a plurality of nozzle bores which are arranged (432) in the separating wall (430) are provided for the accelerated entry of the steam into the mixing chamber (442). A fine-meshed structure (434) configured on the side of the separating wall (430) which faces the mixing chamber (442) at least in the area of the nozzle bores (432) is provided in order to reduce the exiting steam bubbles which are accelerated in the nozzle bores. The number of nozzle bore holes (432) and the diameters thereof are designed in such a way that a steam flow rate of 100 m/s is not exceeded in the area of the nozzle bores and/or the nozzle bores (432) are at least partially arranged at varying heights when the device is in an installed state.

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