Title (en)

Burner.

Title (de)

Brenner.

Title (fr)

Brûleur.

Publication

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Application

EP 91250129 A 19910508

Priority

DE 9005563 U 19900516

Abstract (en)

[origin: EP0457417A2] The invention relates to a burner for gaseous, liquid or for gaseous and liquid fuel with a core air supply pipe for the supply of core air as first combustion portion, with an annular second outlet, which surrounds the core air supply pipe, for primary air as second combustion air portion, and with an annular thrid outlet, which surrounds the second outlet, for secondary air as third combustion air portion, the outlet of the gaseous fuel likewise taking place in such an annular manner in relation to the central core air flow that a first part of the gaseous fuel can be introduced inside the burner into the primary air flow and the second remaining part of the gaseous fuel can be introduced into the secondary air flow, the quantities supplied of core air and primary air on the one hand and of secondary air on the other hand being adjustable independently of one another, and the adjustment of the air flow quantities and the division of the fuel quantities taking place in such a manner that the primary air/fuel mixture emerging from the second outlet together with the core air is substoichiometric and the secondary air/fuel mixture emerging from the third outlet is superstoichiometric, a flue gas return pipe opening with its front end into the rear end of the core air supply pipe and forming therewith an annular nozzle as passage for the core air and the rear end of the flue gas return pipe being connected into the flue gas path at a point which has a low pressure difference in relation to the firing point. The invention envisages that a vapour jet injector (33) is integrated into the flue gas return pipe (21). The invention makes possible reduction of the NOx values with relatively low operating vapour quantities, as on the one hand the flue gas volume flow is increased and on the other hand the oxygen-free operating vapour quantity contributes additionally to the NOx reduction. <IMAGE>

IPC 1-7

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IPC 8 full level

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