

Title (en)
BLUE-FLAME BURNER WITH OPTIMIZED COMBUSTION CHARACTERISTICS

Title (de)
VERBRENNUNGSOPTIMIERTER BLAUBRENNER

Title (fr)
BRULEUR A FLAMME BLEUE OPTIMISANT LA COMBUSTION

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Application
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• EP 9404204 W 19941217

Abstract (en)
[origin: WO9516882A1] The invention concerns a liquid-fuel burner comprising a housing (10), a precombustion chamber (48) containing a nozzle assembly (24) with a nozzle (28) which produces a jet of fuel (80), a combustion chamber (92) in which the fuel jet broadens out, a partition (90) between the precombustion and combustion chambers, and a fan (16) designed to force a stream of combustion air into the combustion chamber, the fuel burning essentially stoichiometrically with a blue flame. In order to improve the burner to minimize the amounts of pollutants in the combustion gases, the invention proposes that, in addition to a stream of combustion air (102) entering the combustion chamber near the fuel jet, a second, recirculation-stabilizing stream of air (106) enters opposite the first stream, at a defined radial distance further out from the first stream. Inside the combustion chamber, an inner recirculation stream (112) is formed which is stabilized by the second stream of combustion air.

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CPC (source: EP)
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Cited by
DE102004021093B3; DE10349836B3; DE102007059063B3; EP1731834A1; DE102005026649A1; DE10348272B3; DE102005020664A1; DE102005020664B4; DE102004009787B3; DE10254664B3; DE202009014953U1; EP1489352A1

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