

Title (en)

BURNER WITH SEQUENTIAL FUEL INJECTION

Title (de)

BRENNER MIT GESTUFTER BRENNSTOFFEINSPRITZUNG

Title (fr)

BRULEUR PRESENTANT UNE INJECTION DE COMBUSTIBLE ETAGEE

Publication

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Application

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Abstract (en)

[origin: WO03056241A1] The invention relates to a burner (1), comprising an inner chamber (22), surrounded by at least one shell (8, 9). Fuel is injected through fuel nozzles (6), arranged in the burner shells (8, 9), into a combustion air flow (23) flowing in the inner chamber (22) within said burner (1). The fuel/air mixture produced flows within a delay time τ to a flame front (3) in a combustion chamber (2) and ignites there. According to the invention, the formation of combustion-induced thermoacoustic vibrations is avoided, whereby means (24), projecting within the inner chamber (22) from the burner base (27), essentially in the direction of the combustion chamber (2), permit an injection of fuel into the combustion airflow (23) through at least two fuel injection holes (25) distributed over the length of the means (24), such that the delay time τ , between injection of the fuel and the combustion thereof at the flamefront, is subject to a distribution (12) which avoids combustion-induced vibrations in pre-mix operation.

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