

Title (en)

Method for avoiding thermoacoustice flame and pressure vibrations in a furnace

Title (de)

Verfahren zur Vermeidung von thermoakustischen Flammen- bzw. Druckschwingungen bei Feuerungen

Title (fr)

Procédé pour éviter des vibrations pour flamme et par pression dans un four

Publication

**EP 0972986 A3 20000531 (DE)**

Application

**EP 99112485 A 19990701**

Priority

DE 19831933 A 19980716

Abstract (en)

[origin: EP0972986A2] The method is for use in heating systems where the flame holder separates the air/mix chamber(1) from the combustion chamber(2). A throttle is arranged in the air chamber upstream of the flame holder(3) to increase the acoustic damping and to decouple the combustion chamber from the mixing chamber. The throttle(5) has a variable cross section. The throttle opening is varied in dependence on the air/mixture flow volume such that the pressure gradient (dy/dx) of the throttle with increasing flow volume is always smaller than that of a throttle with constant cross section according to the relationship  $dy/dx$  is less than  $2 \text{ const} \cdot x$ . An Independent claim is also included for a burner operated according to the method. The throttle is varied through the use of an external control using an actuator.

IPC 1-7

**F23D 14/34**; **F23D 14/64**; **F23D 14/46**; **F23D 14/60**

IPC 8 full level

**F23D 14/34** (2006.01); **F23D 14/46** (2006.01); **F23D 14/60** (2006.01); **F23D 14/64** (2006.01); **F23D 14/74** (2006.01)

CPC (source: EP)

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Citation (search report)

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**EP 0972986 A2 20000119**; **EP 0972986 A3 20000531**; DE 19831933 C1 20000127

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