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 eviter 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 const 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)

F23D 14/34 (2013.01); **F23D 14/46** (2013.01); **F23D 14/60** (2013.01); **F23D 14/64** (2013.01); **F23D 14/74** (2013.01); F23D 2210/00 (2013.01)

Citation (search report)

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Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

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

DOCDB simple family (application)

EP 99112485 A 19990701; DE 19831933 A 19980716