

Title (en)  
Method and device for fuel combustion

Title (de)  
Verfahren und Vorrichtung zur Verbrennung von Brennstoffen

Title (fr)  
Procédé et dispositif pour la combustion des combustibles

Publication  
**EP 0789187 B1 20030226 (DE)**

Application  
**EP 96810567 A 19960828**

Priority  
DE 19536672 A 19950930

Abstract (en)  
[origin: DE19536672A1] The combustion air is directed in a channel over a delta-shaped body consisting of at least one triangular vortex-generating area (1) and one downstream trapezoidal flame stabilising area (3). Fuel is introduced into the eddying combustion air in the vortex-producing area which is set at an angle to the main flow so that the twist of the longitudinal vortex induced in the main stream is smaller than the critical twist for producing a recirculation zone (5). The flame stabilising area (3) is set at an angle to the flow so that the twist of the vortex induced in the flow is greater than the critical twist for producing the recirculation zone. For each delta-shaped body, a pair of dome-shaped recirculating zones is produced which stabilises the ignited mixture of combustion air and fuel.

IPC 1-7  
**F23C 7/00**; **F23D 11/40**; **F23D 14/22**; **F23D 14/74**; **F23D 17/00**; **F23R 3/20**

IPC 8 full level  
**F23C 7/00** (2006.01); **F23D 11/40** (2006.01); **F23D 14/22** (2006.01); **F23D 14/74** (2006.01); **F23D 17/00** (2006.01); **F23R 3/20** (2006.01)

CPC (source: EP US)  
**F23D 11/402** (2013.01 - EP US); **F23D 17/00** (2013.01 - EP US); **F23R 3/20** (2013.01 - EP US); **F23D 2209/20** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR NL

DOCDB simple family (publication)  
**DE 19536672 A1 19970403**; DE 59610173 D1 20030403; EP 0789187 A2 19970813; EP 0789187 A3 19981014; EP 0789187 B1 20030226; US 5791891 A 19980811

DOCDB simple family (application)  
**DE 19536672 A 19950930**; DE 59610173 T 19960828; EP 96810567 A 19960828; US 72043596 A 19960930