

Title (en)
PREMIXING BURNER COMPRISING A VORTEX GENERATOR DEFINING A TAPERED VORTEX SPACE, AND SENSOR MONITORING

Title (de)
VORMISCHBRENNER MIT EINEM, EINEN KEGELFÖRMIGEN DRALLRAUM BEGRENZENDEN DRALLERZEUGER MIT
SENSORÜBERWACHUNG

Title (fr)
BRULEUR A PREMELANGE COMPORTANT UN GENERATEUR DE TOURBILLON DEFINISSANT UN ESPACE DE TOURBILLON CONIQUE, ET
UNE SURVEILLANCE PAR CAPTEUR

Publication
EP 1714073 A1 20061025 (DE)

Application
EP 05716640 A 20050208

Priority
• EP 2005050529 W 20050208
• CH 2112004 A 20040212

Abstract (en)
[origin: WO2005078341A1] The invention concerns a premixing burner comprising a vortex generator defining a tapered vortex space (1), the generator comprising at least two partly tapered shells (2, 3). Said partly tapered shells are mutually offset on an axis of the burner (A), they comprise air venting slots (4) extending opposite the axis of the burner (A) and, combined, an outer contour of the premixing burner flaring conically and having a maximum outer diameter (A_{max}) which decreases in the axial direction to form a zone with minimum outer diameter (A_{min}). The invention is characterized in that at least one partly tapered shell (2, 3), in the zone located between the maximum outer diameter and the minimum outer diameter, comprises a receiving unit (7) which is spaced apart from the premixing burner outer contour flaring conically and exceeding it locally in the radial direction outwards. Said receiving unit has a maximum radial span (R_{max}) less than the larger half of the outer diameter (A_{max}) of the premixing burner outer contour. In the receiving unit (7) is located at least one hollow channel (8) provided with at least one opening longitudinally opposite the vortex space (1), said channel extending substantially parallel to the burner axis (A).

IPC 8 full level
F23C 7/00 (2006.01); **F23D 14/46** (2006.01); **F23N 5/02** (2006.01)

CPC (source: EP US)
F23C 7/002 (2013.01 - EP US); **F23D 14/46** (2013.01 - EP US); **F23N 5/022** (2013.01 - EP US); **F23N 2241/20** (2020.01 - EP US)

Citation (search report)
See references of WO 2005078341A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2005078341 A1 20050825; CA 2555153 A1 20050825; CA 2555153 C 20121113; CN 100590355 C 20100217; CN 1918430 A 20070221;
EP 1714073 A1 20061025; EP 1714073 B1 20160831; US 2007059655 A1 20070315; US 7428817 B2 20080930

DOCDB simple family (application)
EP 2005050529 W 20050208; CA 2555153 A 20050208; CN 200580004504 A 20050208; EP 05716640 A 20050208; US 50246806 A 20060811