

Title (en)  
Burner apparatus and methods

Title (de)  
Brennervorrichtung und Verfahren

Title (fr)  
Appareil de brûleur et procédés

Publication  
**EP 2148137 A2 20100127 (EN)**

Application  
**EP 09251881 A 20090727**

Priority  
US 22062308 A 20080725

Abstract (en)  
A burner assembly for and method of combusting fuel gas in a furnace is provided. The burner assembly (10) includes a burner tile (18) having a burner throat (48) disposed therethrough. Combustion air is conducted through the burner throat into a combustion zone in the furnace. A pilot assembly (20) is used to generate a pilot flame (62) within the burner throat. Fuel gas is injected into an ignition zone (80) located outside the burner throat and ignited therein. The pilot flame (62) generated in the burner throat (48) can be used to ignite the fuel gas in the ignition zone (80). The ignited fuel gas is admixed with combustion air in the combustion zone. The burner assembly can be operated without admixing a significant amount of fuel gas with combustion air in the burner throat, which can help control the formation of undesirable nitrogen oxides (NO<sub>x</sub>).

IPC 8 full level  
**F23M 5/02** (2006.01); **F23D 14/22** (2006.01); **F23D 14/26** (2006.01)

CPC (source: EP KR US)  
**F23D 14/22** (2013.01 - EP US); **F23D 14/26** (2013.01 - EP KR US); **F23D 14/58** (2013.01 - KR); **F23D 14/64** (2013.01 - KR);  
**F23M 5/025** (2013.01 - EP US)

Cited by  
EP2956719A4; US9803855B2; US10571124B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2148137 A2 20100127**; **EP 2148137 A3 20101020**; AR 072609 A1 20100908; AU 2009202864 A1 20100211; AU 2009202864 A9 20120705; BR PI0902485 A2 20100420; CN 101634450 A 20100127; EP 2148138 A2 20100127; EP 2148138 A3 20101020; JP 2010048544 A 20100304; KR 20100011921 A 20100203; MX 2009007707 A 20100407; TW 201009261 A 20100301; US 2010021853 A1 20100128

DOCDB simple family (application)  
**EP 09251881 A 20090727**; AR P090102840 A 20090724; AU 2009202864 A 20090714; BR PI0902485 A 20090727; CN 200910161606 A 20090722; EP 09251886 A 20090727; JP 2009172666 A 20090724; KR 20090066915 A 20090722; MX 2009007707 A 20090717; TW 98124444 A 20090720; US 22062308 A 20080725