

Title (en)

Ultra low NO_x burner for process heating

Title (de)

Brenner für Prozessheizung mit sehr niedrigem NO_x Ausstoss

Title (fr)

Brûleur pour chauffage de procédé à très faible émission de NO_x

Publication

EP 1335163 A1 20030813 (EN)

Application

EP 03001381 A 20030127

Priority

- US 6259702 A 20020131
- US 6745002 A 20020205

Abstract (en)

An ultra low NO_x burner for process heating is provided which includes a fluid based flame stabilizer which provides a fuel-lean flame at an equivalence ratio in the range of $\phi = 0.05$ to $\phi = 0.3$ and fuel staging lances surrounding the flame stabilizer in circular, flat, or load shaping profiles, each lance comprising a pipe having a staging nozzle at a firing end thereof, each lance having at least one hole for staging fuel injection, and each hole having a radial divergence angle and an axial divergence angle. The at least one hole and the divergence angles provide circular, flat or load shaping flame pattern. The burner provides NO_x emissions of less than 9 ppmv at near stoichiometry combustion conditions. <IMAGE>

IPC 1-7

F23C 9/00; **F23D 14/22**

IPC 8 full level

F23C 5/32 (2006.01); **F23C 6/04** (2006.01); **F23D 14/22** (2006.01); **F23D 14/58** (2006.01); **F23M 5/02** (2006.01)

CPC (source: EP)

F23C 5/32 (2013.01); **F23C 6/047** (2013.01); **F23D 14/22** (2013.01); **F23D 14/58** (2013.01); **F23M 5/025** (2013.01); **F23C 2201/20** (2013.01); **F23C 2202/40** (2013.01); **F23D 2900/00011** (2013.01)

Citation (applicant)

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Citation (search report)

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