

Title (en)  
BURNER FOR PULVERULENT, GASEOUS AND/OR LIQUID FUELS

Publication  
**EP 0101462 B1 19890726 (DE)**

Application  
**EP 83900631 A 19830215**

Priority  
DE 3206074 A 19820217

Abstract (en)  
[origin: DE3206074A1] The burner for pulverulent, gaseous and/or liquid fuels has an ignition chamber (20) with a wall (8) which opens out and having the rotation symmetry, as well as an exhaust pipe (17, 17') connected thereto. At the center of the chamber wall, there is arranged the inlet of a pipe (1) for the admission of a fuel jet (A) as well as an air supply (50) surrounding said inlet, for the admission of a vortex of combustion air which produces inside the ignition chamber a hot recirculation stream (B) mixing the fuel jet and heating the latter at the ignition temperature. The air quantity of the vortex supplied to the ignition chamber is only a portion of the total combustion air required. In the area between the chamber wall and the exhaust pipe there is provided a second air admission pipe (60) through which another portion of the combustion air (C) may be introduced in the ignition chamber, said portion being totally or partially mixed with the fuel jet. The sum of the combustion air portions participating within the ignition chamber to the mixture with the fuel jet (and hence to the ignition and initiation of the combustion) is adjusted so as not to exceed 50 % of the total combustion air required. By conjugating all those measures, there is provided a burner particularly appropriate for the production of heat for industrial process and further having at intermediary and variable power rates a stable ignition producing a flame with an elongate and thin form in the combustion chamber and thus with a low radial deflection of particles.

IPC 1-7  
**F23D 1/00; F23D 11/00; F23D 11/10; F23D 17/00**

IPC 8 full level  
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CPC (source: EP)  
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Cited by  
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**DE 3206074 A1 19830818; DE 3206074 C2 19880707**; AU 1221883 A 19830908; AU 564097 B2 19870730; CA 1223775 A 19870707; DE 3380271 D1 19890831; DK 162617 B 19911118; DK 162617 C 19920406; DK 477283 A 19831017; DK 477283 D0 19831017; EP 0101462 A1 19840229; EP 0101462 B1 19890726; FI 833772 A0 19831017; FI 833772 A 19831017; IN 158983 B 19870228; IT 1161069 B 19870311; IT 8319635 A0 19830217; JP H0252765 B2 19901114; JP S59500482 A 19840322; TR 21937 A 19851125; WO 8302993 A1 19830901; ZA 831074 B 19831130

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