

Title (en)  
Burner for liquid or gaseous fuels

Title (de)  
Brenner für flüssige oder gasförmige Brennstoffe

Title (fr)  
Brûleur pour combustibles liquides ou gazeux

Publication  
**EP 0589226 B1 19970305 (DE)**

Application  
**EP 93113542 A 19930825**

Priority  
DE 4231788 A 19920923

Abstract (en)  
[origin: EP0589226A1] Burner with a mixing pipe as passage for the combustion air and a baffle plate arranged in the front region of the mixing pipe, the combustion air being introduced into the combustion space as core air through a central opening in the baffle plate, as twisted air via oblique slots in the baffle plate and as axial air past the baffle plate on the outside. According to the invention, there is provided between the collar (7) of the baffle plate (6) and the inner wall of the mixing pipe (1) an annular body (13) which divides the combustion air portion flowing between baffle plate and mixing pipe into two part flows (14, 17), and a number of nozzles (16) are arranged in an end face (15) of the mixing pipe in the path of the part flow (17) running between the annular body (13) and the mixing pipe. Air jets (17b) pass through the nozzles (16) into the flame at high speed, and a radial air flow (17a) is formed through the gap (18) between the annular body (13) and the end face (15). As a result, a stepped combustion with a substoichiometric primary zone with intensified inner recirculation and a superstoichiometric secondary zone rich in waste gas is achieved and thus the formation of fuel and thermal NO<sub>x</sub> is reduced considerably. <IMAGE>

IPC 1-7  
**F23D 11/40**

IPC 8 full level  
**F23D 11/40** (2006.01)

CPC (source: EP)  
**F23D 11/402** (2013.01)

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