

Title (en)

Gas-fired water or air heater.

Title (de)

Gasbefeuerter Wasser- oder Lufterhitzer.

Title (fr)

Dispositif de chauffage à gaz pour eau ou air.

Publication

**EP 0062854 A1 19821020 (DE)**

Application

**EP 82102802 A 19820402**

Priority

DE 3114866 A 19810413

Abstract (en)

1. Gas heated water or air heater including a control apparatus which controls the supply of gas and of combustion air to the burner, comprising the following features : a) a gas control valve (1-5) controls the supply of heating gas ; b) an air control valve (21-25) controls the supply of combustion air in the same sense as the gas supply ; c) a servopressure regulator (7) compares the pressure at the outlet (5 or 7) of the gas control valve (1-5) or of the air control valve (21 to 25), respectively, with a setpoint value determined by a temperature sensor (8) and controls with its outlet pressure the actuator (2, 4) of the gas control valve as well as the actuator (23, 24) of the air control valve ; d) the outlet (5) of the gas control valve is connected to an injector nozzle (34) positioned opposite the inlet (33) of the burner with said nozzle simultaneously drawing primary air for the burner ; e) the burner (30) and a heat exchanging surface (16) heated by the burner are surrounded by a closed housing (31) which is provided with an inlet (35) for secondary air and is provided with an outlet to the stack (32, 41) ; f) a second injector nozzle (36) located opposite of an inlet (35) for secondary air and during operation drawing secondary air to the burner is connected to the outlet (27) of the air control valve (21-25) characterized in that g) an air ejecting nozzle (42) is provided in the stack (32, 41) of the heater (31) and generates artificial draft ; h) an adjustable throttle (45, 47) is provided in the connecting pipe (43) to the air ejecting nozzle (42) ; i) the connecting pipe (43, 44) is with its inlet connected to the inlet (25) or to the outlet (27) of the air control valve (21-25).

Abstract (de)

Bei einem gasbefeueren Wasser- oder Lufterhitzer mit gleichzeitiger Regelung der Gas- und Verbrennungsluftzufuhr soll trotz verringerter Rauchgastemperatur für einen ausreichenden Zug im Rauchgasabzug (32,41) gesorgt werden. Hierzu dient eine im Rauchgasabzug angeordnete Injektordüse (42), welche mit Druckluft gespeist wird. Sie ist hierzu an die die Verbrennungsluft liefernde Druckluftquelle (26) angeschlossen. Um die Gefahr der Kondensatbildung im Rauchgasabzug (41) zu verringern, kann ein Teil (43') der Anschlußleitung (43) zur Injektordüse (42) im Wärmekontakt mit dem Erhitzer stehen, insbesondere teilweise im Inneren des Erhitzergehäuses (31) verlaufen.

IPC 1-7

**F23N 1/04**; **F23L 17/16**

IPC 8 full level

**F23L 17/16** (2006.01); **F23N 1/04** (2006.01); **F23N 3/00** (2006.01); **F24H 1/14** (2006.01)

CPC (source: EP)

**F23N 1/047** (2013.01)

Citation (search report)

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