elster
Kromschröder

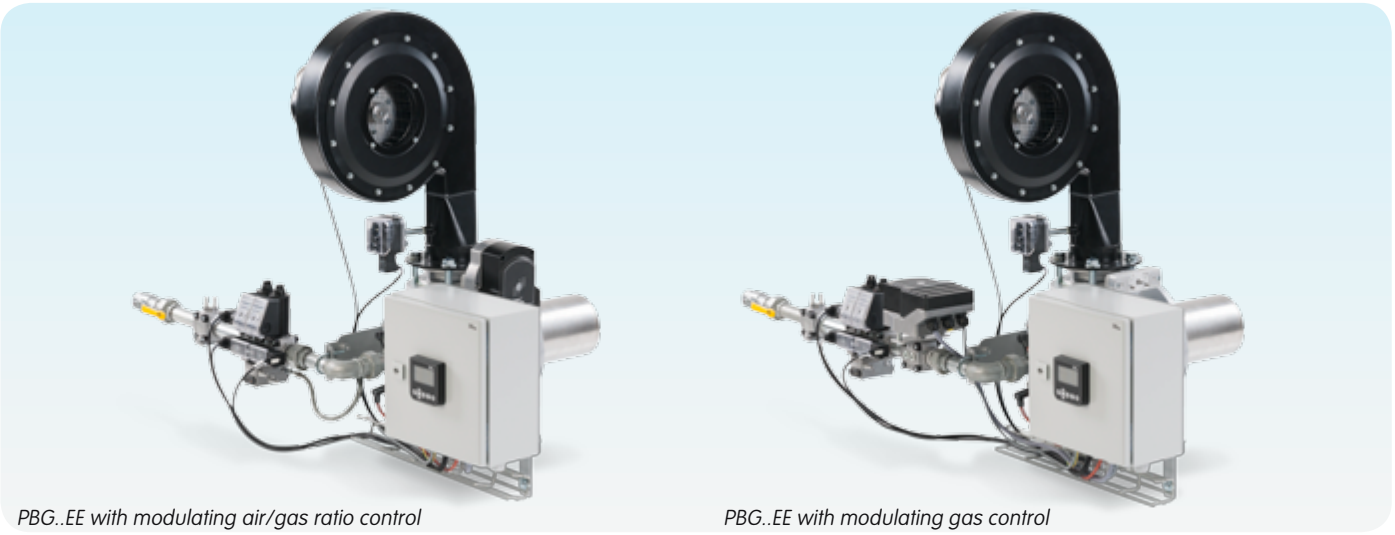
Forced draught burner PBG..EE

Product brochure · GB
7 Edition 11.14

EAC

- Robust burner design for applications in industry
- Easy to install thanks to compact design, complete pre-assembly and pre-wiring
- Electronic actuator permits easy integration into existing control systems
- Large temperature range thanks to excess air operation
- Direct ignition and monitoring
- Large capacity range up to 1100 kW
- Pre-set for safe ignition
- Combustion chamber reverse flow pressure up to 7 mbar

Application



PBG..EE with modulating air/gas ratio control

PBG..EE with modulating gas control

Completely pre-assembled and pre-wired burner unit with mounted fan, gas safety system, gas control system and burner control unit for applications in industry. Typical applications include drying systems, hot air generation or process gas heating.

Thanks to its compact design, both conversion of existing systems and initial installation can be implemented within a very short time.

Control is carried out in a pneumatic ratio control system (modulating air/gas ratio control) or using the linear flow control with actuator in the gas circuit with a constant air volume.

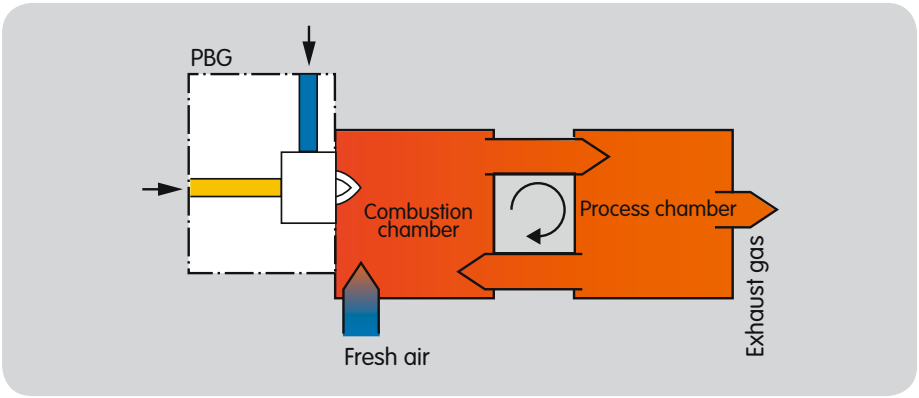
PBG..EE with modulating air/gas ratio control

The air/gas ratio control VAG regulates the ratio of gas pressure to air pressure. The burner capacity is controlled in modulating mode by adjusting the air butterfly valve.

PBG..EE with modulating gas control

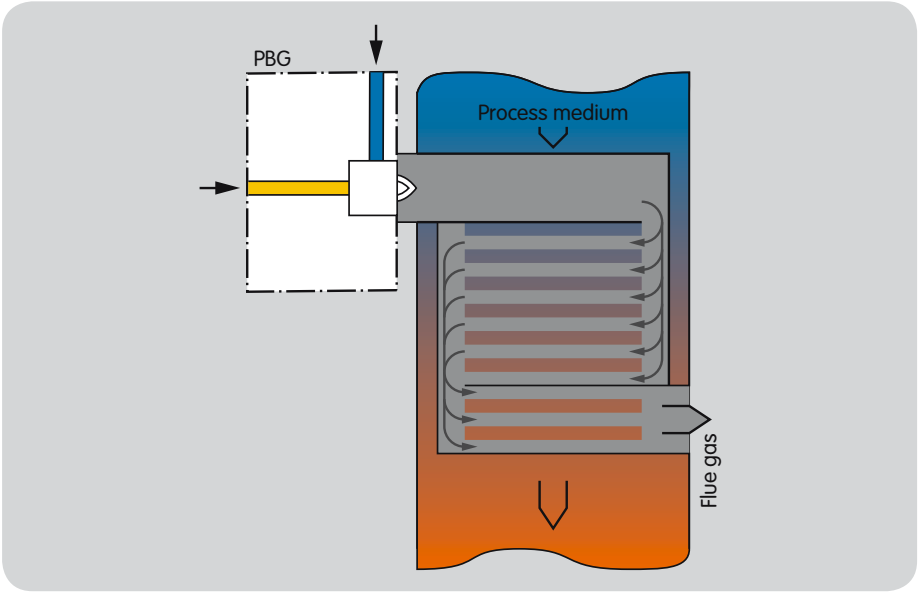
The gas flow rate can be adjusted in modulating mode using the linear flow control with actuator. The air flow rate remains constant.

Examples of application



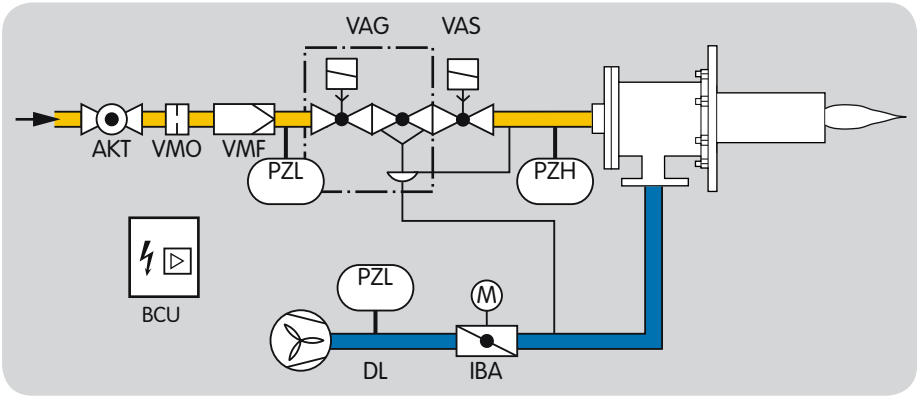
Direct heating

The forced draught burner PBG fires into a combustion chamber which is directly connected to the process chamber. Thanks to this direct firing system, optimal utilization of the heat generated is possible, e.g. in directly heated drying systems.



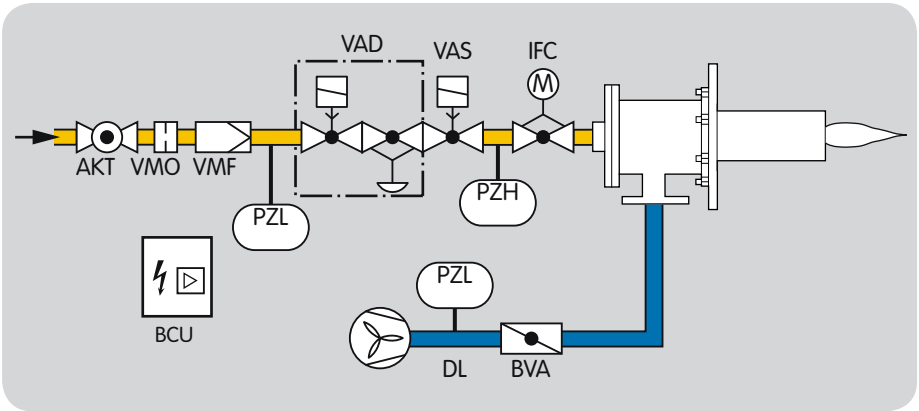
Indirect heating

The forced draught burner PBG fires into a combustion chamber which heats the process medium indirectly via a heat exchanger. For applications in which combustion gases must be kept separate from the product, e.g. for hot air generation or process gas heating.



Modulating air/gas ratio control

The burner capacity is controlled in modulating mode by adjusting the air butterfly valve. The air/gas ratio control regulates the ratio of gas to air.



Modulating gas control with constant air volume

The burner capacity is controlled in modulating mode by adjusting the linear flow control with actuator in the gas circuit with a constant air volume.

Technical data

Gas inlet pressure p_u: 50–100 mbar.

Gas types: natural gas, LPG.

Mains voltage:
PBG 300–2000: 230 V AC, ±10%, 50 Hz,
PBG 3000–5000: 400 V AC, ±10%, 50 Hz.

Electrical power consumption:

PBG	300	500 – 2000	3000	5000
kW	0.65	0.85	1.2	2.3

Control type: modulating.

Control: three-point step, 0–10 V, 0(4)–20 mA.
Systems are supplied with 4–20 mA control.

Control range (without combustion chamber reverse flow pressure):

	PBG 300 – 2000	PBG 3000 – 5000
Modulating air/gas ratio control	> 1:20	1:10
Modulating gas control	1:10	1:10

Flame control: with ionization electrode (UV sensor as an option).

Ignition: direct spark ignition.

Combustion chamber reverse flow pressure:

	PBG 300 – 2000	PBG 3000 – 5000
Combustion chamber reverse flow pressure	-3 to +7 mbar	-3 to +2 mbar

Maximum combustion chamber temperature: 1000°C.

Burner size

Burner	Capacity [kW]*	Weight [kg]	Flame length [mm]**
PBG 300	85	70	550
PBG 500	140	75	720
PBG 750	200	75	850
PBG 1000	270	75	1100
PBG 2000	550	90	1300
PBG 3000	660	115	1600
PBG 5000	1100	140	1900

** The specified capacity applies to a maximum reverse flow pressure of 0 mbar.*
*** Measured in the open air (natural gas).*

Type code

Code	Description
PBG	Forced draught burner for gas
300–5000	Burner size
C, D, E	Burner construction stage
-EE-	European market
V F	Pneumatic air/gas ratio control Gas train with linear flow control
B G	Gas type: natural gas LPG
-A	System construction stage
F	Flame control with ionization electrode

Maintenance

Twice per year, but if the media are highly contaminated, this interval should be reduced.

Detailed information on this product

http://docuthek.kromschroeder.com/documents/index.php?lang=en&selclass=6&sellang=GB&folder=401097

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