

## **TBG 45 -60** from 100 to 450 kW

Available from June 2008



## Single-stage gas burners



Conform to: Gas Directive 90/396/CEE E.M.C. Directive 89/336/CEE L.V. Directive 73/23/CEE Reference standard: EN676 **CE**<sub>0085</sub>

### PLUS

- Low NOx and CO emissions gas burner compliant with European standard EN676
   "Classe III".
- · Combustion head fully accessible without the need to remove the burner
- High ventilation efficiency, low electrical input.
- Extreme silentness.

## **TECHNICAL AND FUNCTIONAL CHARACTERISTICS**

- Low NOx and CO emissions gas burner compliant with European standard EN676
   "Classe III".
- Single stage operation (on/off).
- Suitable for operation with any type of combustion chamber, according to standard EN 303.
- · High ventilation efficiency, low electrical input, low noise.
- · Air-gas mixing at blast-pipe.
- Exhaust gas recycling blast-pipe able to achieve very low pollutant emissions, particularly with regard to nitrous oxides (NOx).

### **CONSTRUCTION CHARACTERISTICS**

#### The burner consists of:

- · Light die-cast aluminium alloy casing.
- High performance centrifugal fan.
- · Combustion air intake with air flow adjustment device.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- · Stainless adjustable combustion head, equiped by stell flame disk.
- · Flame viewer.
- Mono-phase electric motor to run fan for TBG 45, three-phase for TBG 60.
- Air pressure switch to ensure the presence of combustion air.
- · Manual air flow adjustment.
- Gas train including safety and 1°/2° stage working valve that is
- electromagnetically driven, minimum pressure gange, pressure adjuster and gas

filter.

boiler fastening.

driven

Flame detection by ionisation electrode

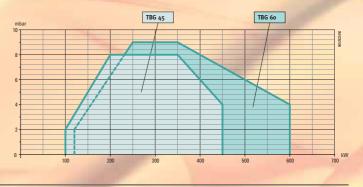
having to remove the burner from the boiler.

· Possibility to chose gas train with valve tightness control.

· Manual air flow adjustment

- Synoptic control panel with led of operation and block and burner off, operation and block indicator.
- Automatic control and command equipment for the burner, compliant with European standard EN298.
- Printed circuit electrical connections
- Intelligent connectors for burner/train (error proof).
- 7 poles plug for the auxiliary feeding and for the thermostatic connection, 4 poles plug to control the second stage operation.
- · Prepared for microamperometer connection with ionisation cable.
- Electrical protection rating IP44.

Thermal output kW	Model	Code	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
Frequency 50 Hz							
100 ÷ 450	TBG 45	17200010	1N AC 50Hz 230V	-	-	-	-
120 ÷ 600	TBG 60	17270010	3N AC 50Hz 400V	-	-	-	
Frequency 60 Hz							
100 ÷ 450	TBG 45	17205410	1N AC 60Hz 230V	-	-	-	-
120 ÷ 600	TBG 60	17275410	3N AC 60Hz 400V	-	-	-	



· Maintenance facilitated by the fact that the mixing unit can be removed without

· Gas regulation by means of a two-stage working valve that is electromagnetically

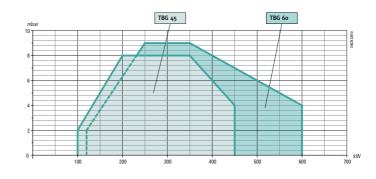
· Equipped with one 4 and 7-pole connector, one flange and one insulating seal for



## TBG 45 -60 P

Two-stage gas burners





### **PLUS**

- · Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III'
- Combustion head fully accessible without the need to remove the burner
- High ventilation efficiency, low electrical input.

## **TECHNICAL AND FUNCTIONAL CHARACTERISTICS**

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III"
- Two-stage operation (high/low flame).
- · Suitable for operation with any type of combustion chamber, according to standard FN 303
- · High ventilation efficiency, low electrical input, low noise
- · Air-gas mixing at blast-pipe
- Exhaust gas recycling blast-pipe able to achieve very low pollutant emissions, particularly with regard to nitrous oxides (NOx).
- · Maintenance facilitated by the fact that the mixing unit can be removed without

· Extreme silentness. · Electrical protection rating IP44.

- having to remove the burner from the boiler.
- · Regulation of air flow rate for first and second stage with damper closure on standby to prevent in-flue heat dispersion.
- · Gas regulation by means of a two-stage working valve that is electromagnetically driven
- · Possibility to chose gas train with valve tightness control.
- Equipped with one 4 and 7-pole connector, one flange and one insulating seal for boiler fastening.

## **CONSTRUCTION CHARACTERISTICS**

The burner consists of:

- · Light aluminium alloy fan part.
- High performance centrifugal fan.
- · Air intake with butterfly gate for the regulation of the air combusting flow rate, with sound insulation and designed for optimal air damper opening linearity
- · Combustion air input
- · Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers
- Stainless adjustable combustion head, equiped by stell flame disk.
- · Flame viewer
- · Mono-phase electric motor to run fan for TBG 45, three-phase for TBG 60.
- Air pressure switch to ensure the presence of combustion air.
- · Air flow regulation for first and second stage by means of electric servomotor.
- · Gas train including safety and 1°/2° stage working valve that is electromagnetically driven, minimum pressure gange, pressure adjuster and gas
- filter · Flame detection by ionisation electrode.
- · Synoptic control panel with led of operation and block and burner off, operation and

block indicator.

- · Automatic control and command equipment for the burner, compliant with European standard EN298.
- · Printed circuit electrical connections.
- Intelligent connectors for burner/train (error proof).
- 7 poles plug for the auxiliary feeding and for the thermostatic connection, 4 poles plug to control the second stage operation.
- Prepared for microamperometer connection with ionisation cable.
- · Electrical protection rating IP44.

Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

# NEW

## TBG 45 -60 PN

## Two-stage progressive/modulating gas burners with pneumatic regulation



### PLUS

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III".
- · Dynamic control of modulation.
- · Combustion head fully accessible without the need to remove the burner

## TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III".
- · Two-stage progressive/modulating operation.
- Ability to operate with output modulation by means of automatic RWF40 regulator mounted on the control panel (to be ordered separately with the modulation kit).
- Modulation ratio 1:4.
  Suitable for operation with any type of combustion chamber, according to
- Suitable for operation with any type of combustion chamber, according t standard EN 303.
- High ventilation efficiency, low electrical input, low noise.
- Air-gas mixing at blast-pipe.
- Exhaust gas recycling blast-pipe able to achieve very low pollutant emissions, particularly with regard to nitrous oxides (NOx).

## CONSTRUCTION CHARACTERISTICS

#### The burner consists of:

- Light die-cast aluminium alloy casing.
- High performance centrifugal fan.
- Air intake with butterfly gate for the regulation of the air combusting flow rate, with sound insulation and designed for optimal air damper opening linearity.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- Stainless adjustable combustion head, equiped by stell flame disk.
- Flame viewer.
- Mono-phase electric motor to run fan for TBG 45, three-phase for TBG 60.
- Air pressure switch to ensure the presence of combustion air.
- Air capacity adjustment with linear opening controlled by electric servo motor.
- Gas train with safety valve and pneumatic air/gas ratio valve, minimum pressure switch, pressure regulator and gas filter.
- · Flame detection by ionisation electrode.
- · Synoptic control panel with led of operation and block and burner off, operation and

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- High ventilation efficiency, low electrical input.
- Extreme silentness.
- · Electrical protection rating IP44.
- Maintenance facilitated by the fact that the mixing unit can be removed without having to remove the burner from the boiler.
- Regulation of air flow rate for first and second stage with damper closure on standby to prevent in-flue heat dispersion.
- Gas regulation by means of a proportional working valve that is pneumatically driven.
- · Possibility to chose gas train with valve tightness control.
- Equipped with one 4 and 7-pole connector, one flange and one insulating seal for boiler fastening.

block indicator.

- Automatic control and command equipment for the burner, compliant with European standard EN298.
- Printed circuit electrical connections.
- Intelligent connectors for burner/train (error proof).
- 7-pole outlet for burner electrical and thermostat connections, and 4-pole outlet for second stage control or for the connection of the capacity electronic regulator.
- Prepared for microamperometer connection with ionisation cable.
- · Electrical protection rating IP44.

Thermal output kW	Model	Code	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
Frequency 50 Hz							
100 ÷ 450	TBG 45 PN	17220010	1N AC 50Hz 230V	-	-	-	-
120 ÷ 600	TBG 60 PN	17290010	3N AC 50Hz 400V	-	-	-	-
Frequency 60 Hz							
100 ÷ 450	TBG 45 PN	17225410	1N AC 60Hz 230V	-	-	-	-
120 ÷ 600	TBG 60 PN	17295410	3N AC 60Hz 400V	-	-	-	-





## TBG 45 -60 ME

## Two-stage progressive/modulating gas burners with electronic cam

### PLUS

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III".
- Combustion head fully accessible without the need to remove the burner
   Use useful time officiency laws distribution.
- High ventilation efficiency, low electrical input.

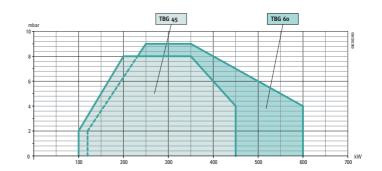
## TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Low NOx and CO emissions gas burner compliant with European standard EN676 "Classe III".
- Two-stage progressive/modulating operation.
- Ability to operate with output modulation by means of automatic RWF40 regulator mounted on the control panel (to be ordered separately with the modulation kit).
   Modulation ratio 1:4.
- Suitable for operation with any type of combustion chamber, according to standard EN 303.
- High ventilation efficiency, low electrical input, low noise.
- Air-gas mixing at blast-pipe.
- Exhaust gas recycling blast-pipe able to achieve very low pollutant emissions, particularly with regard to nitrous oxides (NOx).

## CONSTRUCTION CHARACTERISTICS

The burner consists of:

- · Light die-cast aluminium alloy casing
- High performance centrifugal fan.
- Air intake with butterfly gate for the regulation of the air combusting flow rate, with sound insulation and designed for optimal air damper opening linearity.
- Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
- Stainless adjustable combustion head, equiped by stell flame disk.
- Flame viewer.
- · Mono-phase electric motor to run fan for TBG 45, three-phase for TBG 60.
- Air pressure switch to ensure the presence of combustion air.
- Regulation of the air combusting flow rate by means of an electric pitch-pitch servomotor.
- Gas train with safety valve and pneumatic air/gas ratio valve, minimum pressure switch, pressure regulator and gas filter.
- · Flame detection by ionisation electrode.



- Extreme silentness.
- High modulation ratio.
- Electrical protection rating IP44.
- Maintenance facilitated by the fact that the mixing unit can be removed without having to remove the burner from the boiler.
- Regulation of air flow rate for first and second stage with damper closure on standby to prevent in-flue heat dispersion.
- Gas regulation by means of butterfly valve, driven by step motor, electronically controlled.
- Valves tightness control device compliant with European standard EN676.
- Equipped with one 4 and 7-pole connector, one flange and one insulating seal for boiler fastening.
- Synoptic control panel with led of operation and block and burner off, operation and block indicator.
- Electronic control box compliant with standard EN298, with microprocessor (electronic cam), integrated valves' tightness control; suitable for eBus connection. Display for operating sequence error code in the event of a lockout.
- Intelligent connectors for burner/train (error proof).
- 7-pole outlet for burner electrical and thermostat connections, and 4-pole outlet for second stage control or for the connection of the capacity electronic regulator.
  Prepared for microamperometer connection with ionisation cable.
- Prepared for microamperometer com
  Electrical protection rating IP44.

Thermal output kW	Model	Code	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
Frequency 50 Hz							
100 ÷ 450	TBG 45 ME	17230010	1N AC 50Hz 230V	-	-	-	-
120 ÷ 600	TBG 60 ME	17300010	3N AC 50Hz 400V	-	-	-	-
Frequency 60 Hz							
100 ÷ 450	TBG 45 ME	17235410	1N AC 60Hz 230V	-	-	_	-
120 ÷ 600	TBG 60 ME	17305410	3N AC 60Hz 400V	_	-	_	-





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## Quality System Certified UNI-EN ISO 9001 I.C.I.M. nº 202

Data reported in this brochure shall be considered as indicative; Baltur reserves the right to change them without previous notice.