

kW **2700 - 22000**SERIES **TBG**CONFORM TO: GAS DIRECTIVE 2009/142/CE | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE |  
MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

GAS

**Gas burner compliant with European standard EN676. Operation:**

Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).

Modulation ratio:

Low NOx and CO emissions gas burner according to European standard EN676:

Adjusting the combustion head.

Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler.

Fixed boiler coupling flange.

Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler.

Combustion air intake with butterfly valve. Air flow adjustment:

Fully closing air damper on shutdown to avoid loss of heat through the chimney.

Device made of sound-absorbing material to reduce fan noise.

Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption.

Residual oxygen (O<sub>2</sub>) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance.Residual oxygen (O<sub>2</sub>) and carbon monoxide (CO) and monitoring of oxidizing components (H<sub>2</sub>) in fumes to ensure increased performance and less atmospheric pollution.

CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter.

Fail proof connectors for burner/gas train connection.

Gas train outlet:

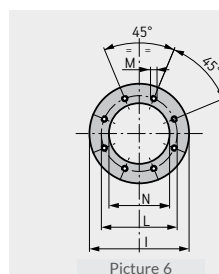
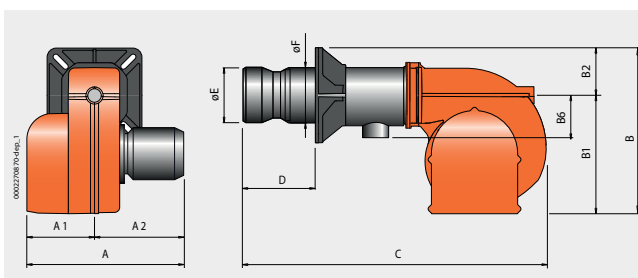
Flame detection by ionisation electrode with connector for microamperometer.

Control panel with display diagram for working mode with indication lights.

Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.

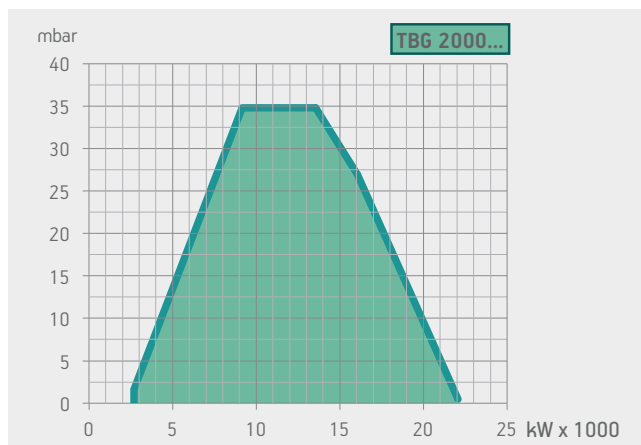
Electric protection rating:

	TBG 2000 MC	TBG 2000 ME	TBG 2000 ME V	TBG 2000 ME V O2	TBG 2000 ME V CO
	mechanical two-stage progressive	electronic two-stage progressive	modulating electronic	modulating electronic	modulating electronic
Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).	•	•			
Modulation ratio:	1:8	1:8	1:8	1:8	1:8
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head.	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler.	•	•	•	•	•
Fixed boiler coupling flange.	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler.	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney.	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise.	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption.			•	•	•
Residual oxygen (O <sub>2</sub> ) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance.				•	
Residual oxygen (O <sub>2</sub> ) and carbon monoxide (CO) and monitoring of oxidizing components (H <sub>2</sub> ) in fumes to ensure increased performance and less atmospheric pollution.					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter.	•	•	•	•	•
Fail proof connectors for burner/gas train connection.	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer.	•	•	•	•	•
Control panel with display diagram for working mode with indication lights.	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54



Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	D mm	E mm	F mm	I mm	L mm	M mm	N mm	Pic.
TBG 2000 MC	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	640	6
TBG 2000 ME	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	640	6
TBG 2000 ME V	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	640	6
TBG 2000 ME V O2	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	640	6
TBG 2000 ME V CO	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	640	6



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 2000 MC	2100	2040	1380	1150
TBG 2000 ME	2100	2040	1380	1150
TBG 2000 ME V	2100	2040	1380	1176
TBG 2000 ME V O <sub>2</sub>	2100	2040	1380	1188
TBG 2000 ME V CO	2100	2040	1380	1200

	Inverter	O <sub>2</sub>	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply kW	Motor	Note
Frequency 50 Hz										
				class 2	2700 ÷ 22000	<b>TBG 2000 MC</b>	<b>67510010</b>	3N AC 50Hz 400V	45	4)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME</b>	<b>67500010</b>	3N AC 50Hz 400V	45	4)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V</b>	<b>67500015</b>	3N AC 50Hz 400V	45	4) 10)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V O<sub>2</sub></b>	<b>67500016</b>	3N AC 50Hz 400V	45	4) 10)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V CO</b>	<b>67500017</b>	3N AC 50Hz 400V	45	4) 10)
Frequency 60 Hz										
				class 2	2700 ÷ 22000	<b>TBG 2000 MC</b>	<b>67515410</b>	3N AC 60Hz 380V	45	4)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME</b>	<b>67505410</b>	3N AC 60Hz 380V	45	4)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V</b>	<b>on request</b>	3N AC 60Hz 380V	45	4) 10)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V O<sub>2</sub></b>	<b>on request</b>	3N AC 60Hz 380V	45	4) 10)
				class 2	2700 ÷ 22000	<b>TBG 2000 ME V CO</b>	<b>on request</b>	3N AC 60Hz 380V	45	4) 10)

## TO COMPLETE THE BURNER

### DESCRIPTION

TBG 2000 ME V: modulating probe for LCM 100 (see page 294)

## MODULATING MODE

DESCRIPTION	PART NO.
TBG 2000 MC: modulation kit	98000055
TBG 2000 ME: modulation kit	98000059
TBG 2000 MC/2000 ME: modulating probe (see page 294)	

## ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 299)	97980063

## GAS BURNERS ACCESSORIES

Boiler coupling kit.

## NOTES

4 Equipped with air closure device.

10 Inverter supplied separately, not included on the machine.

Net calorific value at reference conditions of 0°C, 1013mbar:

Natural gas: Hi = 35,80 MJ/m<sup>3</sup> = 8550 kcal/m<sup>3</sup>,

For different type of gas and pressure values, please get in contact with our commercial department.