



GAS BURNERS TBG 210 MC-ME



baltur
Energy for People

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АНКАС

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kW 400 - 2100

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.

CE 0085



TBG 210 MC



TBG 210 ME

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.

High ventilation efficiency, low electrical input, low noise.

Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers.

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.

Combustion air intake designed to achieve optimum linearity of the air gate opening.

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 (O₂) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance.Residual oxygen (O₂) and carbon monoxide (CO) and monitoring of oxidizing components (H₂) 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 pressure switch, pressure regulator and gas filter.

Fail proof connectors for burner/gas train connection.

Gas train outlet:

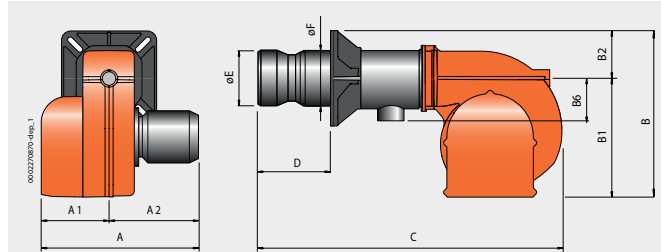
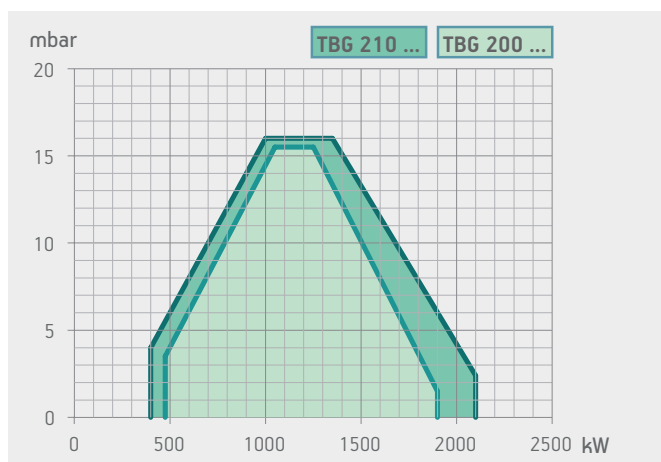
Flame detection by ionisation electrode with connector for microamperometer.

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

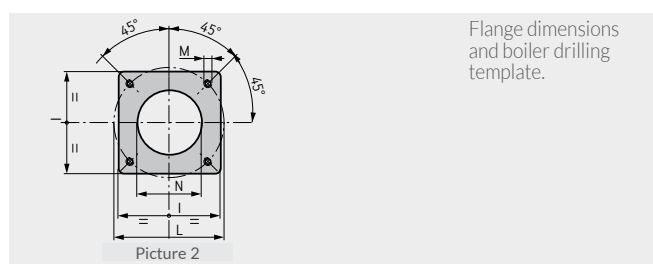
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.

Electric protection rating:

TBG 210 MC	TBG 210 ME	TBG 210 ME V	TBG 210 ME V O2	TBG 210 ME V CO
mechanical two-stage progressive	electronic two-stage progressive	modulating electronic	modulating electronic	modulating electronic
•	•			
1:4	1:5	1:5	1:5	1:5
class 2	class 2	class 2	class 2	class 2
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
		•	•	•
			•	
				•
•	•	•	•	•
•	•	•	•	•
down	up/down	up/down	up/down	up/down
•	•	•	•	•
•				
	•	•	•	•
IP44	IP40	IP40	IP40	IP40



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 210 MC	1070	800	700	94
TBG 210 ME	1070	800	700	94
TBG 210 ME V	1530	760	700	110
TBG 210 ME V O2	1530	760	700	122
TBG 210 ME V CO	1530	760	700	134



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 210 MC	690	320	370	550	380	170	200	1280	200 ÷ 450	250	219	320	280 ÷ 370	M12	255	2
TBG 210 ME	610	240	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	255	2
TBG 210 ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	255	2
TBG 210 ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	255	2
TBG 210 ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	255	2

		O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz										
				class 2	400 ÷ 2100	TBG 210 MC	17750010	3N AC 50Hz 400V	3,0	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME	17710020	3N AC 50Hz 400V	3,0	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V	17710025	3N AC 50Hz 400V	3,0	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V O2	17710026	3N AC 50Hz 400V	3,0	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V CO	17710027	3N AC 50Hz 400V	3,0	3) 4)
Frequency 60 Hz										
				class 2	400 ÷ 2100	TBG 210 MC	17755410	3N AC 60Hz 380V	3,5	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME	17715420	3N AC 60Hz 380V	3,5	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V	on request	3N AC 60Hz 380V	3,5	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V O2	on request	3N AC 60Hz 380V	3,5	3) 4)
				class 2	400 ÷ 2100	TBG 210 ME V CO	on request	3N AC 60Hz 380V	3,5	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION

TBG 210 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION	PART NO.
TBG 210 MC: modulation kit	98000057
TBG 210 ME: modulation kit	98000059
TBG 210 MC/210 ME: modulating probe	

NOTES

3 Sound proof lid on burner air intake.

4 Equipped with air closure device.

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

Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,

LPG: Hi = 92 MJ/m³ = 22000 kcal/m³.

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

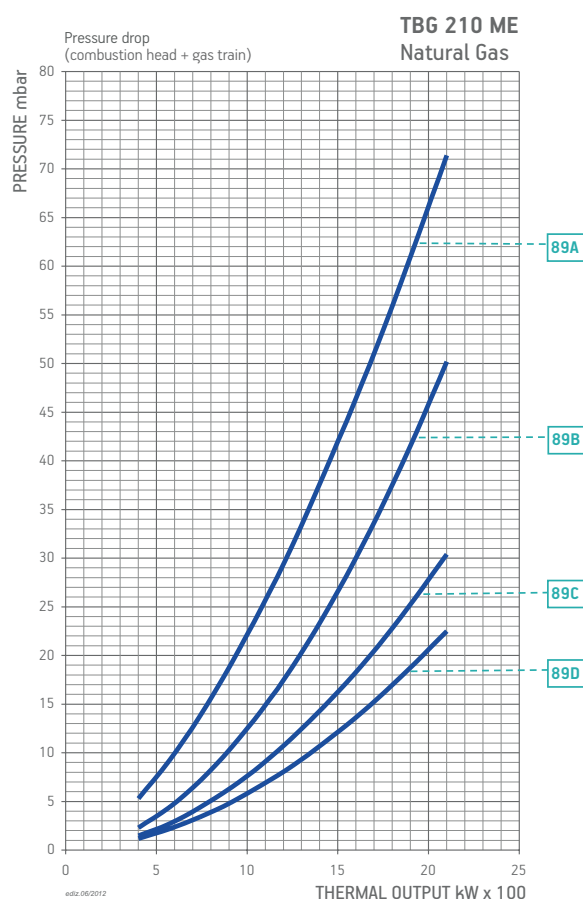
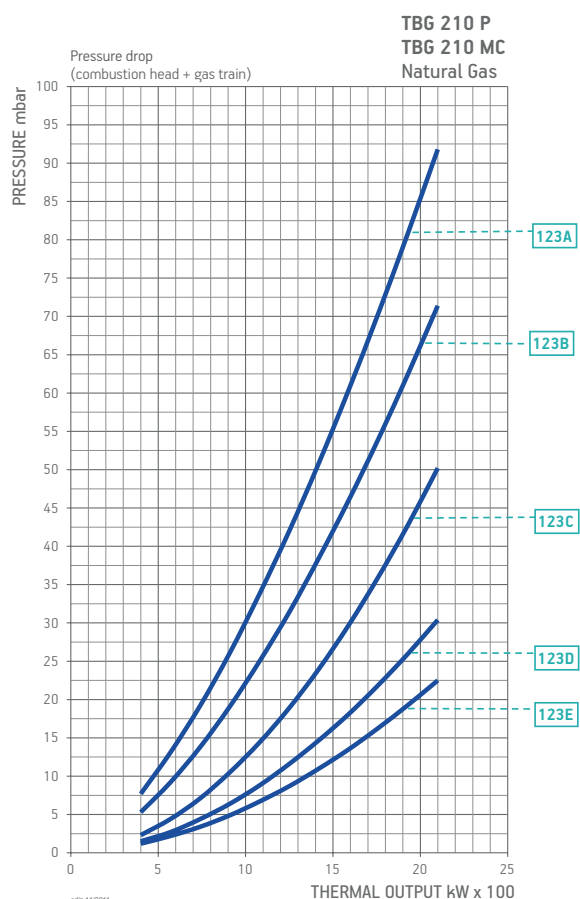
ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

BURNER/GAS TRAIN MATCH



CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Curve on graph	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Pic.	Notes
						Part no.	Part no.	Part no.	Part no.		
TBG 210 MC	Natural gas	123A	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
			EXP	360	CTV	19990548	Included	96000007	-	BE7	
		123B	CE	360	CTV	19990549	Included	-	98000101	B7	11)
			EXP	360	CTV	19990549	Included	-	-	BE7	
		123C	CE	500	CTV	19990550	Included	-	98000102	B7	11)
			EXP	500	CTV	19990550	Included	-	-	BE7	
		123D	CE	500	CTV	19990563	Included	-	98000101	B7	11)
			EXP	500	CTV	19990563	Included	-	-	BE7	
		123E	CE	500	CTV	19990564	Included	-	98000101	B7	11)
			EXP	500	CTV	19990564	Included	-	-	BE7	
			CE/EXP	360	CTV	19990559	Included	-	98000101	BE7	
			CE/EXP	500	CTV	19990524	Included	-	Included	D2	
TBG 210 ME TBG 210 ME V TBG 210 ME V O2 TBG 210 ME V CO	Natural gas	89C	CE/EXP	500	CTV	19990525	Included	-	Included	D2	
		89D	CE/EXP	500	CTV	19990526	Included	-	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Notes
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 210 MC	LPG	CE	360	CTV	19990549	Included	-	98000101	98000359	B7	11)
		EXP	360	CTV	19990549	Included	-	-	98000359	BE7	
					19990549	Included	-	98000101	98000359	BE7	
TBG 210 ME/ME V TBG 210 ME V O2 TBG 210 ME V CO	LPG	CE/EXP	360	CTV	19990559	Included	-	Included	98000359	D2	

To choose the correct gas train please refer to the information on Burners Catalogue.

NOTES

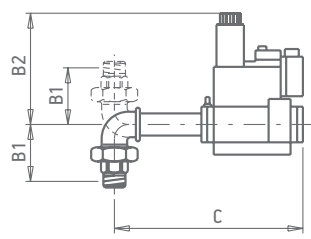
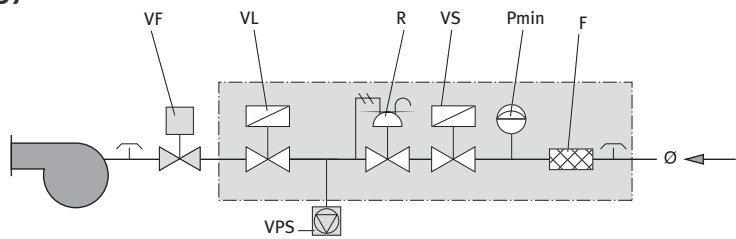
11 The train must be always completed with the VPS kit to comply with the EN676 regulations.

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

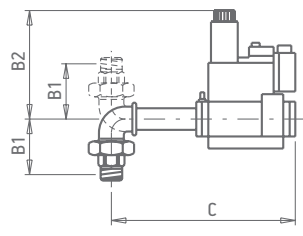
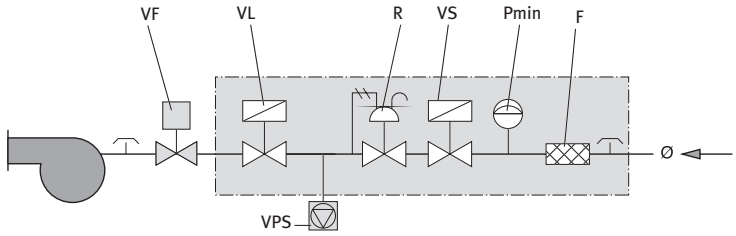
GAS TRAIN STRUCTURE AND COMPOSITION

B7



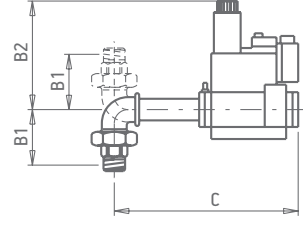
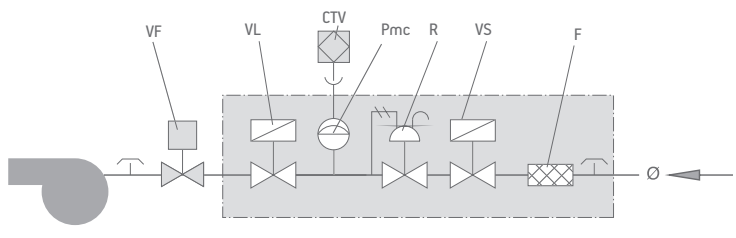
Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm L x P x H	Weight kg
	F	Pmin	R	VF	VL	VPS	VS	Ø	B1	B2	C		
19990548 (MB...415 - 1"1/2")	●	●	●	◆	●	▲	●	1"1/2	103	170	600	460 x 250 x 460	11
19990549 (MB...420 - 2")	●	●	●	◆	●	▲	●	2"	114	220	600	460 x 250 x 460	13
19990550 (VGD20.503 - 2")	●	●	●	◆	●	▲	●	2"	114	285	890	990 x 300 x 500	15
19990563 (VGD40.065 - 2"1/2")	●	●	●	◆	●	▲	●	DN65	114	320	1120	1380 x 430 x 700	26
19990564 (VGD40.080 - 3")	●	●	●	◆	●	▲	●	DN80	114	325	1175	1380 x 430 x 700	28

BE7



Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm L x P x H	Weight kg
	F	Pmin	R	VF	VL	VPS	VS	Ø	B1	B2	C		
19990548 (MB...415 - 1"1/2")	●	●	●	◆	●	■	●	1"1/2	103	170	600	460 x 250 x 460	11
19990549 (MB...420 - 2")	●	●	●	◆	●	■	●	2"	114	220	600	460 x 250 x 460	13
19990550 (VGD20.503 - 2")	●	●	●	◆	●	■	●	2"	114	285	890	990 x 300 x 500	15
19990563 (VGD40.065 - 2"1/2")	●	●	●	◆	●	■	●	DN65	114	320	1120	1380 x 430 x 700	26
19990564 (VGD40.080 - 3")	●	●	●	◆	●	■	●	DN80	114	325	1175	1380 x 430 x 700	28

D2



Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm L x P x H	Weight kg
	CTV	F	Pmc	R	VF	VL	VS	Ø	B1	B2	C		
19990524 (VGD20.503 - 2")	●	●	●	●	◆	●	●	2"	114	285	890	990 x 300 x 500	14
19990525 (VGD40.065 - 2"1/2")	●	●	●	●	◆	●	●	DN65	114	320	1120	1380 x 430 x 700	26
19990526 (VGD40.080 - 3")	●	●	●	●	◆	●	●	DN80	114	325	1175	1380 x 430 x 700	28
19990559 (MB... 420 - 2")	●	●	●	●	◆	●	●	2"	114	220	520	520 x 410 x 410	13

- CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.

- RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regulator.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.

- VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

- As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.