



GAS BURNERS

TBG 450 LX MC - LX ME



baltur
Energy for People

ООО Промэлектроника
sales@prom-elec.com

АHKAC

kW 600 - 4800

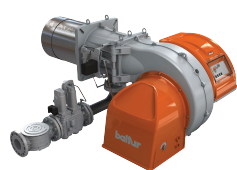
SERIES TBG



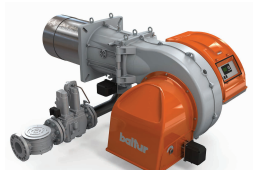
LOW NOx

CE 0085

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.



TBG 450 LX MC



TBG 450 LX 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.

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 (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 and maximum pressure switch, pressure regulator and gas filter.

Fail proof connectors for burner/gas train connection.

Gas train outlet:

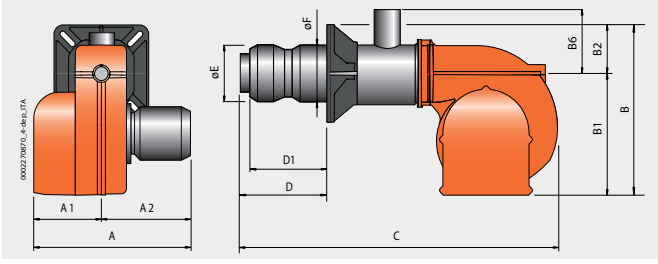
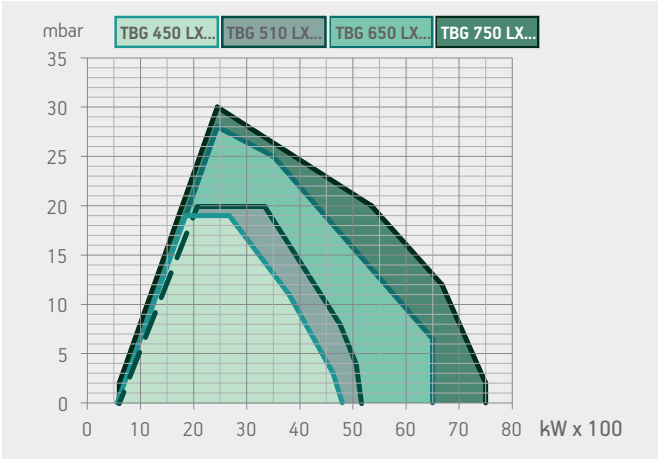
Flame detection by ionisation electrode with connector for microamperometer.

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

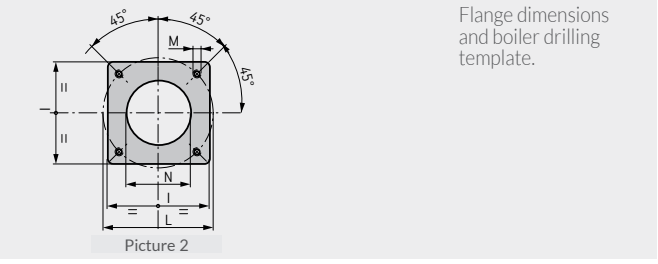
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.

Electric protection rating:

	TBG 450 LX MC	TBG 450 LX ME	TBG 450 LX ME V	TBG 450 LX ME VO ₂	TBG 450 LX ME VCO
	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 3	class 3	class 3	class 3	class 3
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 ₂) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance.				•	
Residual oxygen (O ₂) and carbon monoxide (CO) and monitoring of oxidizing components (H ₂) 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:	up/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



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 450 LX MC	1500	1150	970	260
TBG 450 LX ME	1500	1150	970	260
TBG 450 LX ME V	1950	1510	1210	275
TBG 450 LX ME V O2	1950	1510	1210	287
TBG 450 LX ME V CO	1950	1510	1210	299



Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	D mm	D1 mm	E mm	F mm	I mm	L mm	M mm	N mm	Pic.
TBG 450 LX MC	1060	530	530	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 450 LX ME	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 450 LX ME V	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 450 LX ME V O2	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 450 LX ME V CO	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2

		O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz										
				class 3	600 ÷ 4800	TBG 450 LX MC	18100010	3N AC 50Hz 400V	9,2	4)
				class 3	600 ÷ 4800	TBG 450 LX ME	18110010	3N AC 50Hz 400V	9,2	4)
				class 3	600 ÷ 4800	TBG 450 LX ME V	18110015	3N AC 50Hz 400V	9,2	4) 10)
				class 3	600 ÷ 4800	TBG 450 LX ME V O2	18110016	3N AC 50Hz 400V	9,2	4) 10)
				class 3	600 ÷ 4800	TBG 450 LX ME V CO	18110017	3N AC 50Hz 400V	9,2	4) 10)
Frequency 60 Hz										
				class 3	600 ÷ 4800	TBG 450 LX MC	on request	3N AC 60Hz 380V	11,0	4)
				class 3	600 ÷ 4800	TBG 450 LX ME	on request	3N AC 60Hz 380V	11,0	4)
				class 3	600 ÷ 4800	TBG 450 LX ME V	on request	3N AC 60Hz 380V	11,0	4) 10)
				class 3	600 ÷ 4800	TBG 450 LX ME V O2	on request	3N AC 60Hz 380V	11,0	4) 10)
				class 3	600 ÷ 4800	TBG 450 LX ME V CO	on request	3N AC 60Hz 380V	11,0	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 450 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION	PART NO.
TBG 450 MC: modulation kit	98000055
TBG 450 ME: modulation kit	98000059
TBG 450 MC/450 ME: modulating probe	

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/m³ = 8550 kcal/m³.
- For different type of gas and pressure values, please get in contact with our commercial department.

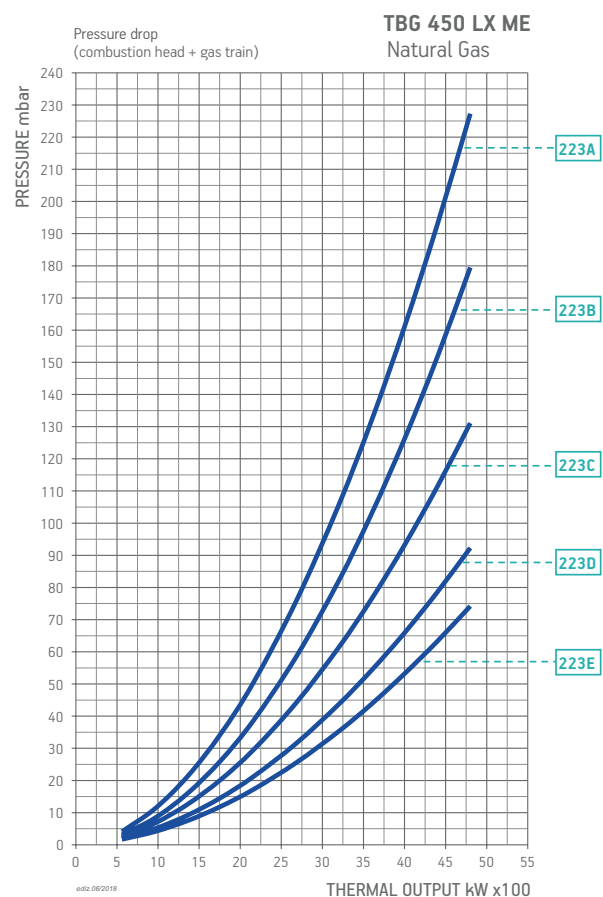
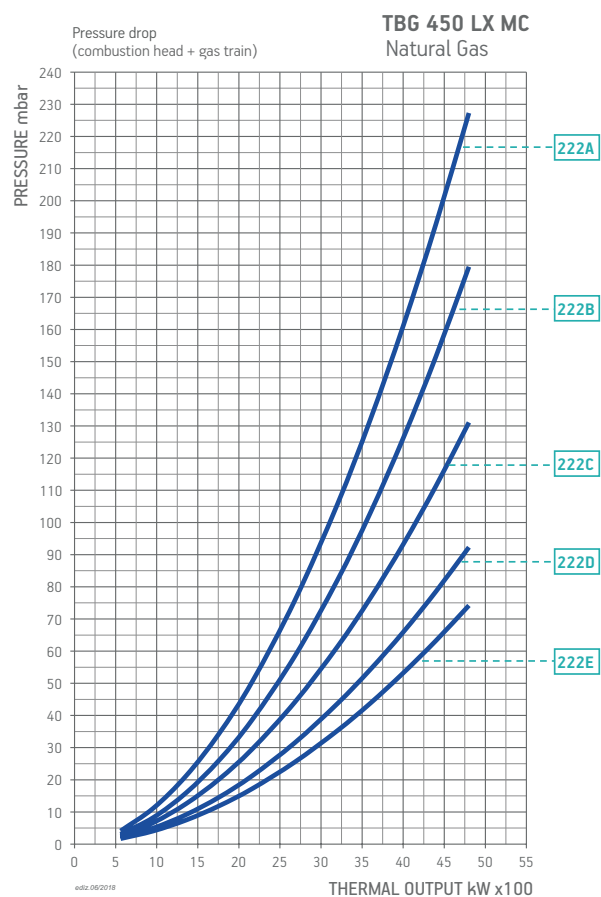
ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980058

GAS BURNERS ACCESSORIES

Boiler coupling kit.

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 450 LX MC	Natural gas	222A	CE/EXP	500	CTV	19990599	Included	–	Included	D8	
		222B	CE/EXP	500	CTV	19990665	Included	–	Included	D8	
		222C	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		222D	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		222E	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 450 LX ME TBG 450 LX ME V TBG 450 LX ME V O2 TBG 450 LX ME V CO	Natural gas	223A	CE/EXP	500	CTV	19990541	Included	–	Included	D4	
		223B	CE/EXP	500	CTV	19990666	Included	–	Included	D4	
		223C	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		223D	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		223E	CE/EXP	500	CTV	19990544	Included	–	Included	D4	

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

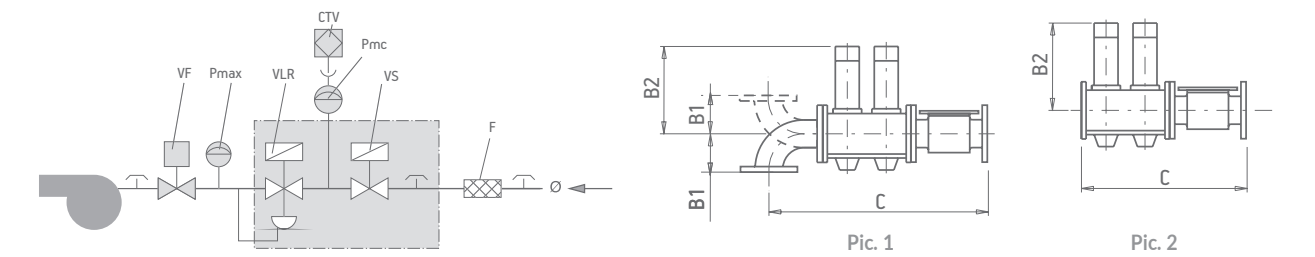
NOTES

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

GAS TRAIN STRUCTURE AND COMPOSITION

D4



Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight	Pic.
	CTV	F	Pmax	Pmc	VF	VLR	VS	Ø	B1	B2	C	L x P x H	kg	
19990541 (VGD20.503 - 2")	●	2"	●	●	◆	●	●	2"	145	285	890	990 x 300 x 500	23	1
19990542 (VGD40.065 - 2"1/2)	●	DN65	●	●	◆	●	●	DN65	135	320	970	1380 x 430 x 700	36	1
19990543 (VGD40.080 - 3")	●	DN80	●	●	◆	●	●	DN80	135	325	1010	1380 x 430 x 700	38	1
19990544 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44	1
19990666 (VGD2.065 - 2"1/2)	●	DN65	●	●	◆	●	●	DN65	135	285	1120	1380 x 430 x 700	45	1

D8



Gas train Part no.	Position									Gas train dimensions mm			Size of packaging mm	Weight
	CTV	F	Pct	Pmax	Pmin	VF	VLR	VS	Ø	B1	B2	C	L x P x H	kg
19990599 (VGD20.503 - 2")	●	2"	●	●	●	◆	●	●	2"	145	285	890	990 x 300 x 500	23
19990600 (VGD40.065 - 2"1/2)	●	DN65	●	●	●	◆	●	●	DN65	135	320	970	1380 x 430 x 700	36
19990601 (VGD40.080 - 3")	●	DN80	●	●	●	◆	●	●	DN80	135	325	1010	1380 x 430 x 700	38
19990602 (VGD40.100 - 4")	●	DN100	●	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44
19990665 (VGD20.065 - 2"1/2)	●	DN65	●	●	●	◆	●	●	DN65	135	285	1120	1380 x 430 x 700	45

- 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.