



GAS BURNERS

TBG 650 LX MC - LX ME



baltur
Energy for People

ООО Промэлектроника
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АНКАС

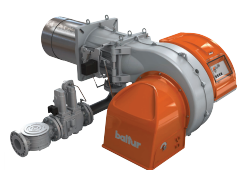
kW 600 - 6500

SERIES TBG



CE 0085

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE |
MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.



TBG 650 LX MC



TBG 650 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:

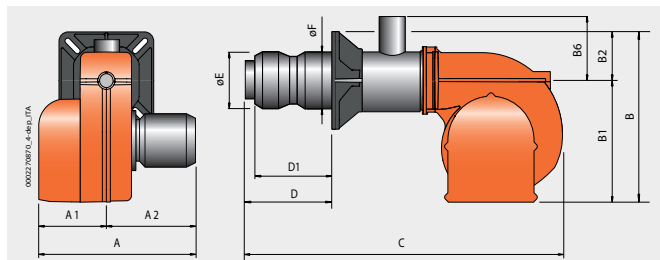
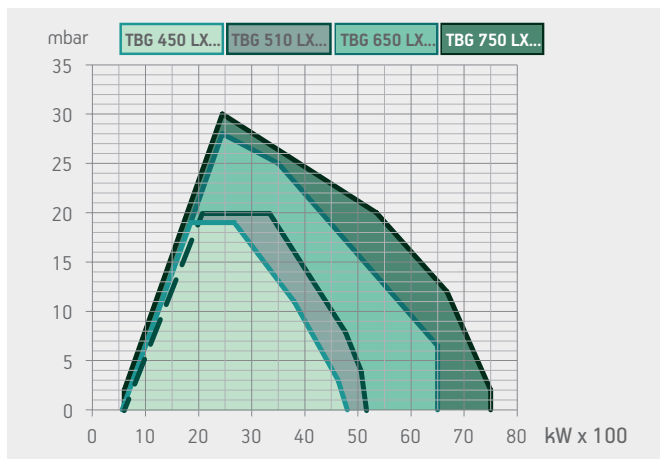
Flame detection by ionisation electrode with connector for microamperometer

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

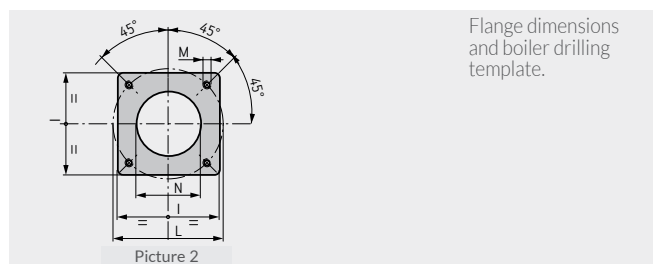
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment

Electric protection rating:

TBG 650 LX MC	TBG 650 LX ME	TBG 650 LX ME V	TBG 650 LX ME VO ₂	TBG 650 LX ME VCO
mechanical two-stage progressive	electronic two-stage progressive	modulating electronic	modulating electronic	modulating electronic
•	•			
1:11	1:11	1:11	1:11	1:11
class 3	class 3	class 3	class 3	class 3
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
•	•	•	•	•
•	•	•	•	•
		•	•	•
			•	
				•
•	•	•	•	•
•	•	•	•	•
up/down	up/down	up/down	up/down	up/down
•	•	•	•	•
•				
	•	•	•	•
IP54	IP54	IP54	IP54	IP54



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 650 LX MC	1500	1320	970	275
TBG 650 LX ME	1500	1320	970	275
TBG 650 LX ME V	1950	1510	1210	295
TBG 650 LX ME V O2	1950	1510	1210	307
TBG 650 LX ME V CO	1950	1510	1210	319



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	N mm	Pic.
TBG 650 LX MC	1110	580	530	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 650 LX ME	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 650 LX ME V	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 650 LX ME V O2	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2
TBG 650 LX ME V CO	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	415	2

	Inverter	O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz										
				class 3	600 ÷ 6500	TBG 650 LX MC	18160010	3N AC 50Hz 400V	15	4)
				class 3	600 ÷ 6500	TBG 650 LX ME	18170010	3N AC 50Hz 400V	15	4)
				class 3	600 ÷ 6500	TBG 650 LX ME V	18170015	3N AC 50Hz 400V	15	4) 10)
				class 3	600 ÷ 6500	TBG 650 LX ME V O2	18170016	3N AC 50Hz 400V	15	4) 10)
				class 3	600 ÷ 6500	TBG 650 LX ME V CO	18170017	3N AC 50Hz 400V	15	4) 10)
Frequency 60 Hz										
				class 3	600 ÷ 6500	TBG 650 LX MC	on request	3N AC 60Hz 380V	15	4)
				class 3	600 ÷ 6500	TBG 650 LX ME	on request	3N AC 60Hz 380V	15	4)
				class 3	600 ÷ 6500	TBG 650 LX ME V	on request	3N AC 60Hz 380V	15	4) 10)
				class 3	600 ÷ 6500	TBG 650 LX ME V O2	on request	3N AC 60Hz 380V	15	4) 10)
				class 3	600 ÷ 6500	TBG 650 LX ME V CO	on request	3N AC 60Hz 380V	15	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION

TBG 650 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION

PART NO.

TBG 650 MC: modulation kit	98000055
TBG 650 ME: modulation kit	98000059
TBG 650 MC/650 ME: modulating probe	

NOTE

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

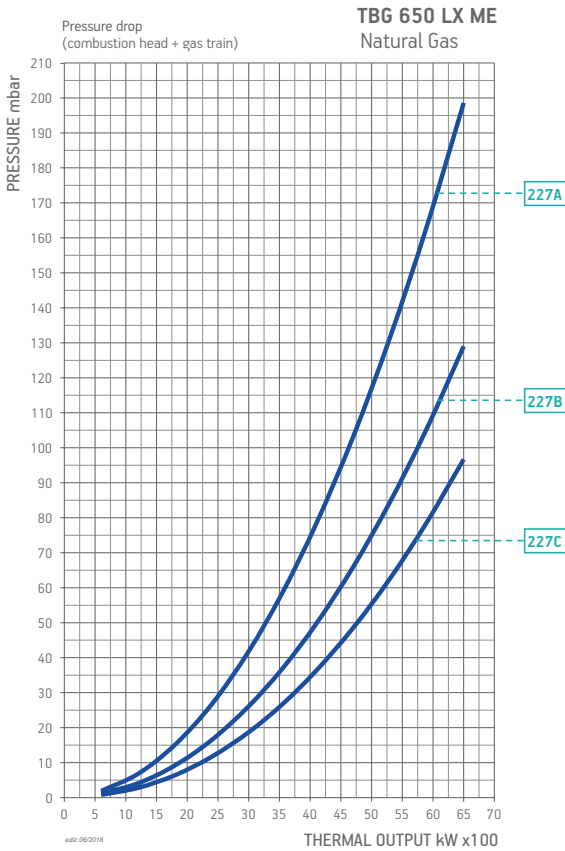
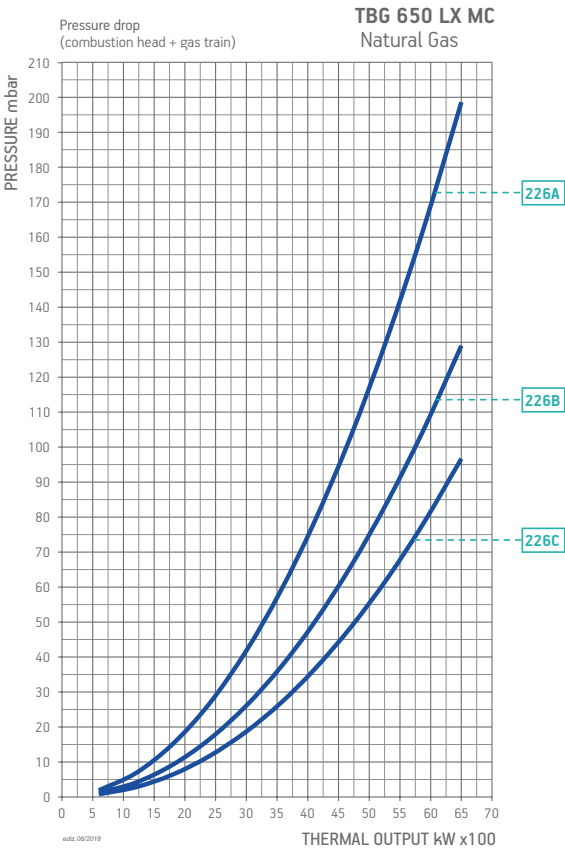
PART NO.

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 650 LX MC	Natural gas	226A	CE/EXP	500	CTV	19990600	Included	-	Included	D8	
		226B	CE/EXP	500	CTV	19990601	Included	-	Included	D8	
		226C	CE/EXP	500	CTV	19990602	Included	-	Included	D8	
TBG 650 LX ME/ME V	Natural gas	227A	CE/EXP	500	CTV	19990542	Included	-	Included	D4	
TBG 650 LX ME V O2		227B	CE/EXP	500	CTV	19990543	Included	-	Included	D4	
TBG 650 LX ME V CO		227C	CE/EXP	500	CTV	19990544	Included	-	Included	D4	

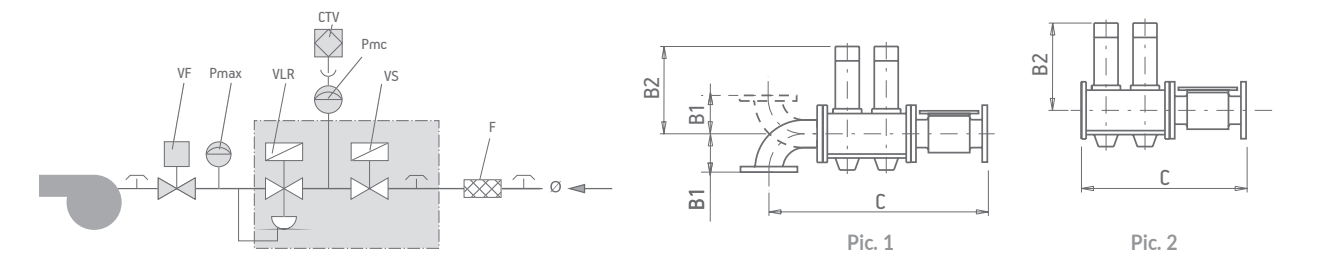
To choose the correct gas train please refer to the information on Burners Catalogue.

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	
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

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
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

- 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.