



GAS BURNERS

TBG 1600 MC - ME



baltur
Energy for People

ООО Промэлектроника
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АНКАС

kW **1600 - 16000**SERIES **TBG**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.

CE 0085



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

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 performanceResidual 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:

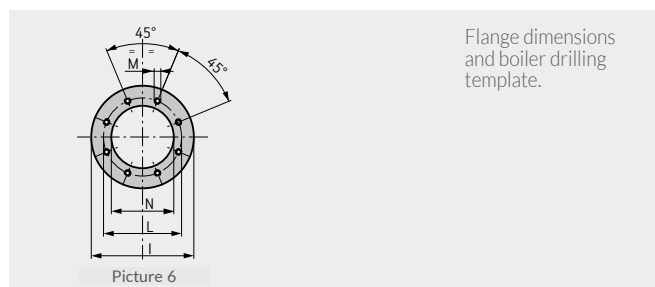
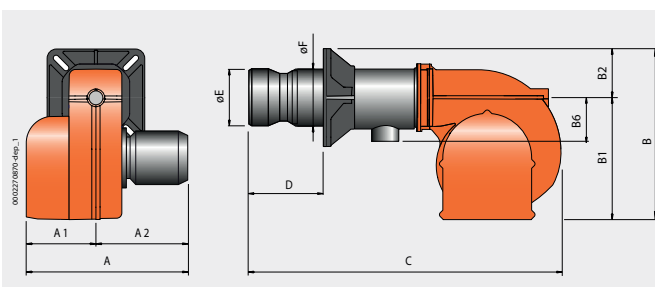
Flame detection by ionisation electrode with connector for microamperometer

Control panel with display diagram for working mode with indication lights

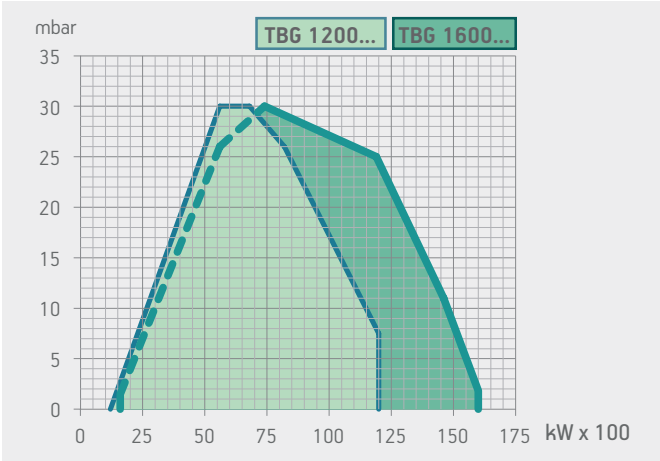
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment

Electric protection rating:

	TBG 1600 MC	TBG 1600 ME	TBG 1600 ME V	TBG 1600 ME V O ₂	TBG 1600 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:	1:10	1:10	1:10	1:10	1:10
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	•	•	•	•	•
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:	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	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	N mm	Pic.
TBG 1600 MC	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	555	6
TBG 1600 ME	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	555	6
TBG 1600 ME V	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	555	6
TBG 1600 ME V O ₂	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	555	6
TBG 1600 ME V CO	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	555	6



Model	Size of packaging			Weight kg
	L	P mm	H	
TBG 1600 MC	1950	1680	1300	704
TBG 1600 ME	1950	1680	1300	704
TBG 1600 ME V	1950	1680	1300	730
TBG 1600 ME V O2	1950	1680	1300	742
TBG 1600 ME V CO	1950	1680	1300	754

		O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz										
				class 2	1600 ÷ 16000	TBG 1600 MC	67490020	3N AC 50Hz 400V	30	4)
				class 2	1600 ÷ 16000	TBG 1600 ME	67480010	3N AC 50Hz 400V	30	4)
				class 2	1600 ÷ 16000	TBG 1600 ME V	67480015	3N AC 50Hz 400V	30	4) 10)
				class 2	1600 ÷ 16000	TBG 1600 ME V O2	67480016	3N AC 50Hz 400V	30	4) 10)
				class 2	1600 ÷ 16000	TBG 1600 ME V CO	67480017	3N AC 50Hz 400V	30	4) 10)
Frequency 60 Hz										
				class 2	1600 ÷ 16000	TBG 1600 MC	67495420	3N AC 60Hz 380V	30	4)
				class 2	1600 ÷ 16000	TBG 1600 ME	67485410	3N AC 60Hz 380V	30	4)
				class 2	1600 ÷ 16000	TBG 1600 ME V	on request	3N AC 60Hz 380V	30	4) 10)
				class 2	1600 ÷ 16000	TBG 1600 ME V O2	on request	3N AC 60Hz 380V	30	4) 10)
				class 2	1600 ÷ 16000	TBG 1600 ME V CO	on request	3N AC 60Hz 380V	30	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 1600 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION	PART NO.
TBG 1600 MC: modulation kit	98000055
TBG 1600 ME: modulation kit	98000059
TBG 1600 MC/1600 ME: modulating probe	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980061

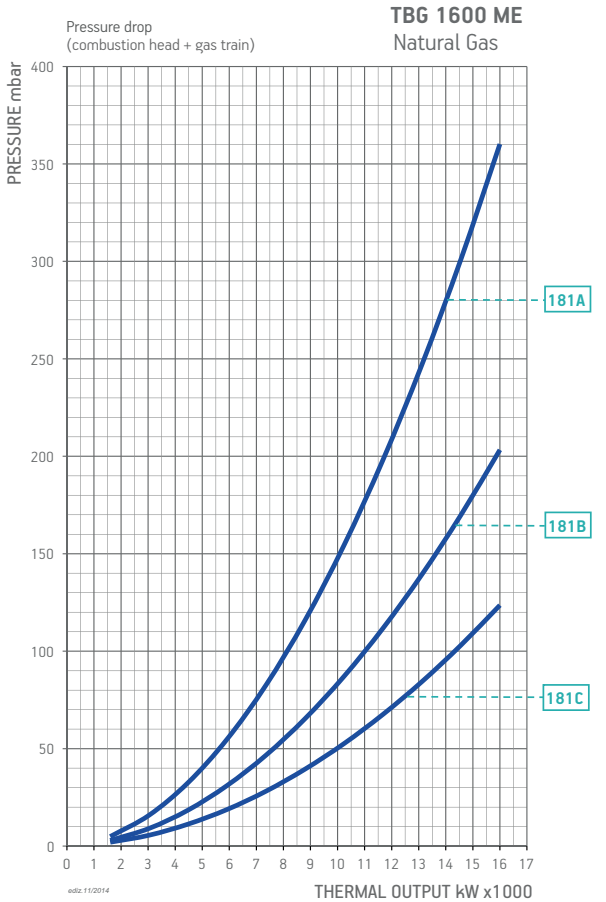
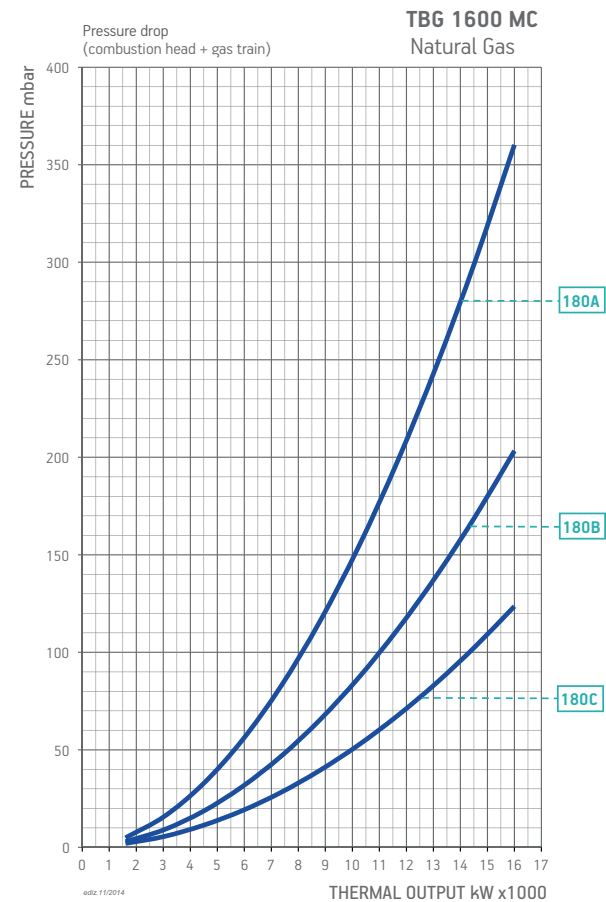
GAS BURNERS ACCESSORIES

Boiler coupling kit.

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.

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 1600 MC	Natural gas	180A	CE/EXP	500	CTV	19990615	Included	-	Included	D8	
		180B	CE/EXP	500	CTV	19990616	Included	-	Included	D8	
		180C	CE/EXP	500	CTV	19990617	Included	-	Included	D8	
TBG 1600 ME/ME V	Natural gas	181A	CE/EXP	500	CTV	19990606	Included	-	Included	D4	
TBG 1600 ME V O2		181B	CE/EXP	500	CTV	19990607	Included	-	Included	D4	
TBG 1600 ME V CO		181C	CE/EXP	500	CTV	19990608	Included	-	Included	D4	

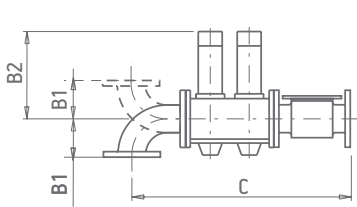
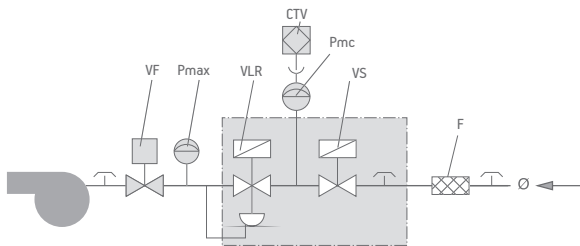
To choose the correct gas train please refer to the information on Burners Catalogue.

NOTES

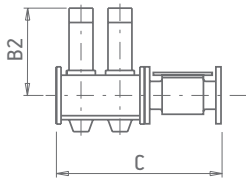
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

GAS TRAIN STRUCTURE AND COMPOSITION

D4



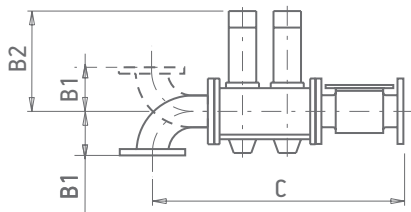
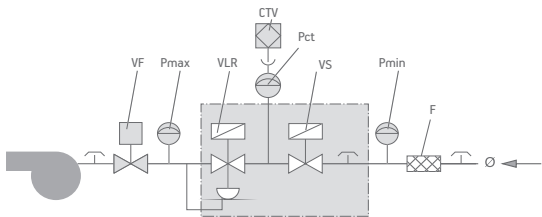
Pic. 1



Pic. 2

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	
19990606 (VGD40.080 - 3")	●	DN80	●	●	◆	●	●	DN80	165	325	1015	1380 x 430 x 700	38	1
19990607 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44	1
19990608 (VGD40.125 - 5")	●	DN125	●	●	◆	●	●	DN125	170	350	1275	1580 x 430 x 720	60	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
19990615 (VGD40.080 - 3")	●	DN80	●	●	●	◆	●	●	DN80	165	325	1015	1380 x 430 x 700	38
19990616 (VGD40.100 - 4")	●	DN100	●	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44
19990617 (VGD40.125 - 5")	●	DN125	●	●	●	◆	●	●	DN125	170	350	1275	1580 x 430 x 720	60

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.