



GAS BURNERS TBG 45 MC-ME



baltur
Energy for People

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АНКАС

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kW 100 - 450

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 | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676.



TBG 45 MC



TBG 45 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.

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 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, minimum pressure switch, pressure regulator and gas filter.

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.

Possibility to choose gas train with valve tightness control.

Fail proof connectors for burner/gas train connection.

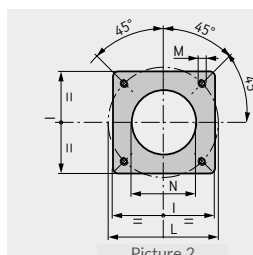
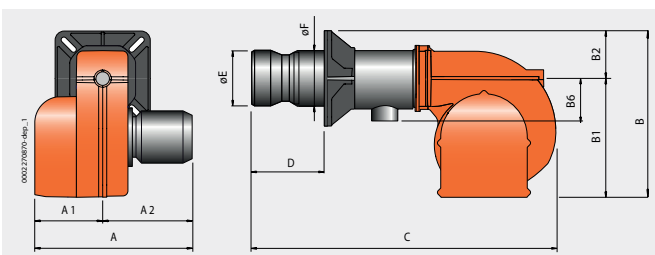
Gas train outlet:

Flame detection by ionisation electrode with connector for microamperometer.

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

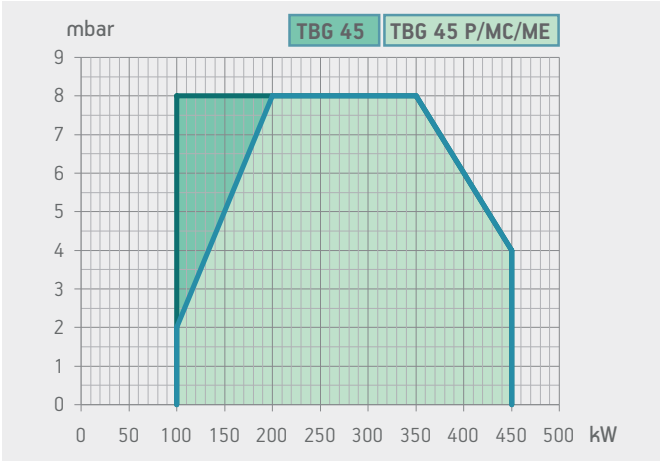
Electric protection rating:

	TBG 45 MC	TBG 45 ME	TBG 45 ME V	TBG 45 ME V O ₂	TBG 45 ME V CO
	mechanical two-stage progressive	electronic two-stage progressive	modulating electronic	modulating electronic	modulating electronic
	•	•			
	1:4	1:4	1:4	1:4	1:4
	class 3	class 3	class 3	class 3	class 3
	•	•	•	•	•
	•	•	•	•	•
	•	•	•	•	•
	•	•	•	•	•
	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
	•	•	•	•	•
			•	•	•
				•	
					•
	•				
		•	•	•	•
	•				
	down	up/down	up/down	up/down	up/down
	•	•	•	•	•
		•	•	•	•
	IP44	IP40	IP40	IP40	IP40



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 45 MC	610	330	280	455	325	130	160	880	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	2
TBG 45 ME	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	2
TBG 45 ME V	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	2
TBG 45 ME V O ₂	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	2
TBG 45 ME V CO	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	2



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 45 MC	1070	800	700	49
TBG 45 ME	1000	600	510	40
TBG 45 ME V	1050	750	480	43
TBG 45 ME V O2	1070	800	610	78
TBG 45 ME V CO	1070	800	610	91

		O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz										
				class 3	100 ÷ 450	TBG 45 MC	17240010	1N AC 50Hz 230V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME	17230020	1N AC 50Hz 230V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V	17230025	1N AC 50Hz 230V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V O2	17230026	1N AC 50Hz 230V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V CO	17230027	1N AC 50Hz 230V	0,5	4)
Frequency 60 Hz										
				class 3	100 ÷ 450	TBG 45 MC	17245410	1N AC 60Hz 220V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME	17235420	1N AC 60Hz 220V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V	on request	1N AC 60Hz 220V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V O2	on request	1N AC 60Hz 220V	0,5	4)
				class 3	100 ÷ 450	TBG 45 ME V CO	on request	1N AC 60Hz 220V	0,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 45 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION	PART NO.
TBG 45 MC: modulation kit	98000058
TBG 45 ME: modulation kit	98000059
TBG 45 MC/45 ME: modulating probe	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980054

GAS BURNERS ACCESSORIES

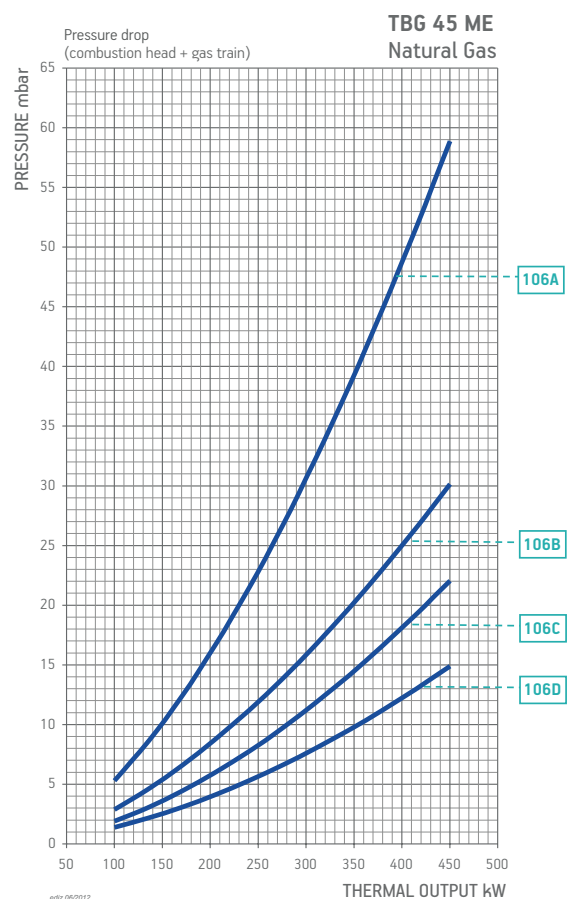
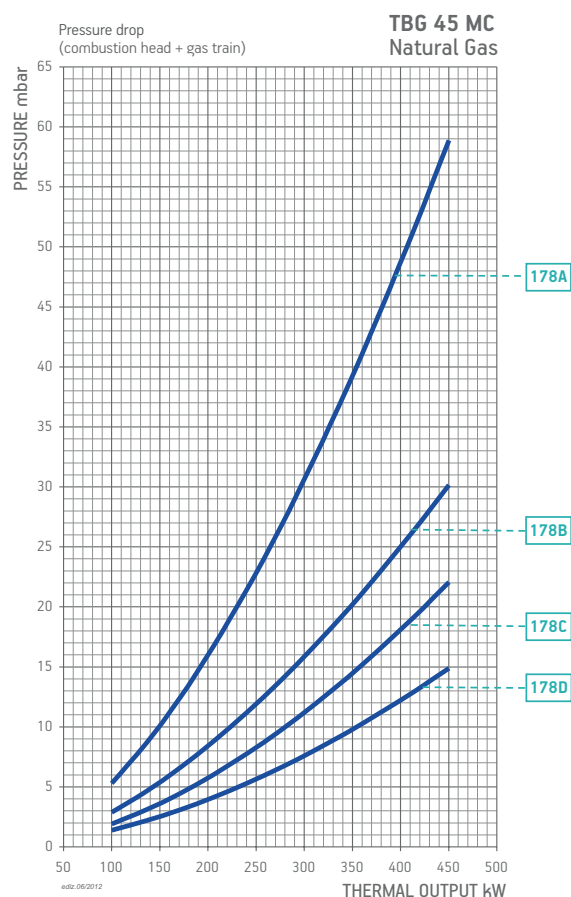
TBG 45 MC: boiler coupling kit, plug for wiring.
TBG 45 ME/45 ME V: boiler coupling kit.

NOTES

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.

BURNER/GAS TRAIN MATCH

GAS



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 45 MC	Natural gas	178A	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	12)
						19990545	Included	96000005	98000101	B7	
		178B	CE/EXP	360		19990546	Included	96000004	-	B7	
						19990546	Included	96000004	98000101	B7	
		178C	CE/EXP	360		19990547	Included	96000004	-	B7	
TBG 45 ME TBG 45 ME V TBG 45 ME V O2 TBG 45 ME V CO	Natural gas				CTV	19990547	Included	96000004	98000101	B7	12)
		178D	CE/EXP	360		19990548	Included	-	-	B7	
						19990548	Included	-	98000101	B7	
		106A	CE/EXP	360		19990555	Included	96000005	Included	D2	
		106B	CE/EXP	360		19990556	Included	96000004	Included	D2	
		106C	CE/EXP	360	CTV	19990557	Included	96000004	Included	D2	
		106D	CE/EXP	360		19990558	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	Pic.	Notes
					Part no.	Part no.	Part no.	Part no.		
TBG 45 MC	LPG	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	12)
					19990545	Included	96000005	98000101	B7	
TBG 45 ME/ME V TBG 45 ME V O2 TBG 45 ME V CO	LPG	CE/EXP	360	CTV	19990555	Included	96000005	Included	D2	

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

NOTES

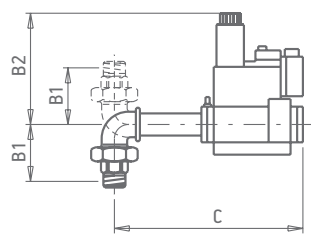
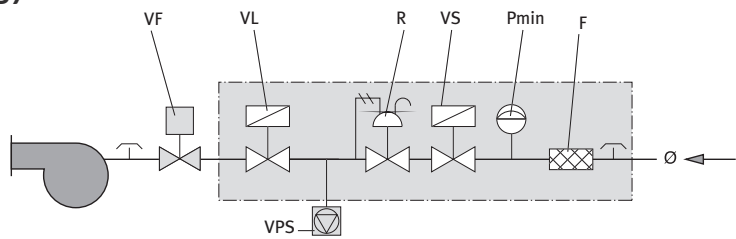
12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

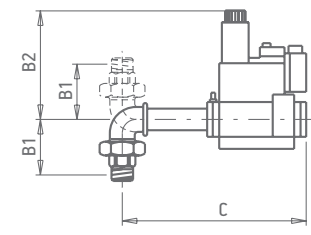
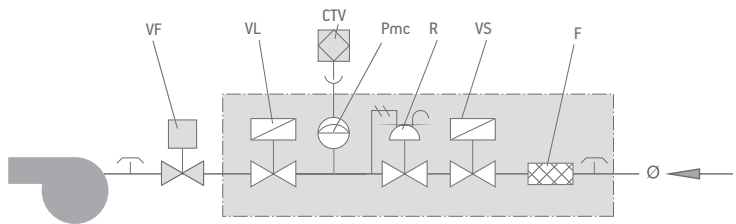
GAS TRAIN STRUCTURE AND COMPOSITION

B7



Gas train Part no.									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		
19990546 (MB...410 - 1")	●	●	●	◆	●	■	●	1"1/4	95	260	490	400 x 300 x 280	8
19990547 (MB...412 - 1"1/4)	●	●	●	◆	●	■	●	1"1/4	95	260	490	400 x 300 x 280	8
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

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		
19990555 (MB...407 - 3/4")	●	●	●	●	◆	●	●	3/4"	72	140	350	300 x 210 x 300	5
19990556 (MB...410 - 1")	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990557 (MB...412 - 1"1/4)	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990558 (MB...415 - 1"1/2)	●	●	●	●	◆	●	●	1"1/2	103	170	490	460 x 250 x 460	11

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.