



GAS BURNERS

TBG 85 MC-ME



baltur
Energy for People

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АНКАС

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kW **170 - 850**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



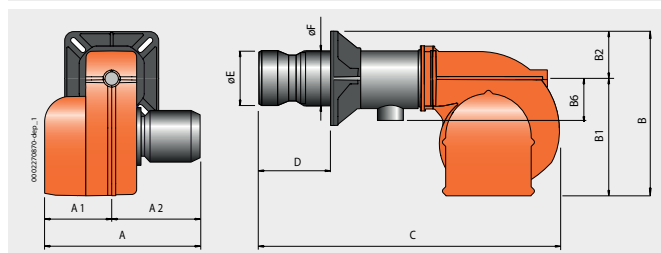
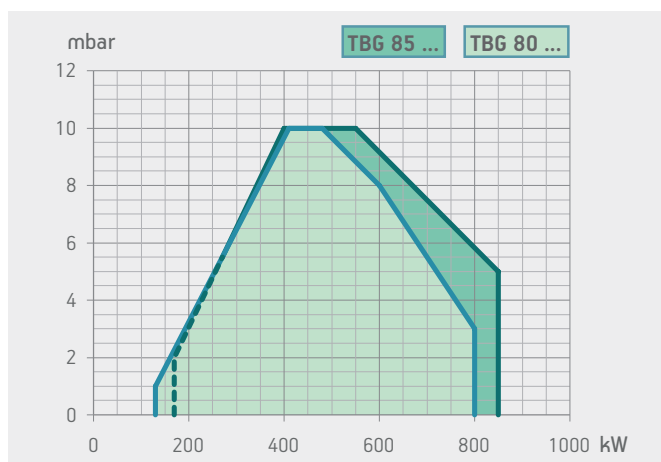
TBG 85 MC



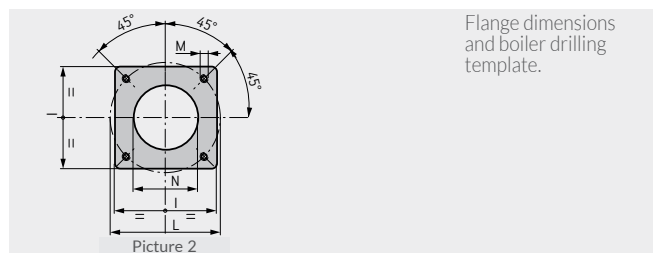
TBG 85 ME

Gas burner compliant with European standard EN676. Operation:

	TBG 85 MC	TBG 85 ME	TBG 85 ME V	TBG 85 ME V O2	TBG 85 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:	1:4	1:5	1:5	1:5	1:5
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.	•	•	•	•	•
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:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
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 (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, 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:	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:	IP44	IP40	IP40	IP40	IP40



Model	Size of packaging			Weight kg
	L	P	H	
	mm			
TBG 85 MC	1070	800	700	78
TBG 85 ME	1070	800	700	78
TBG 85 ME V	1070	800	700	81
TBG 85 ME V O2	1530	760	700	103
TBG 85 ME V CO	1530	760	700	115



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 85 MC	690	320	370	550	380	170	200	1230	175 ÷ 400	180	178	280	250 ÷ 325	M12	190	2
TBG 85 ME	610	240	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	190	2
TBG 85 ME V	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	190	2
TBG 85 ME V O2	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	190	2
TBG 85 ME V CO	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	190	2

	Inverter	O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz										
				class 2	170 ÷ 850	TBG 85 MC	17540010	3N AC 50Hz 400V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME	17500020	3N AC 50Hz 400V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V	17500025	1N AC 50Hz 230V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V O2	17500026	1N AC 50Hz 230V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V CO	17500027	1N AC 50Hz 230V	1,1	3) 4)
Frequency 60 Hz										
				class 2	170 ÷ 850	TBG 85 MC	17545410	3N AC 60Hz 380V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME	17505420	3N AC 60Hz 380V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V	on request	1N AC 60Hz 220V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V O2	on request	1N AC 60Hz 220V	1,1	3) 4)
				class 2	170 ÷ 850	TBG 85 ME V CO	on request	1N AC 60Hz 220V	1,1	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 85 ME V: modulating probe for LCM 100

MODULATING MODE

DESCRIPTION	PART NO.
TBG 85 MC: modulation kit	98000057
TBG 85 ME: modulation kit	98000059
TBG 85 MC/85 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

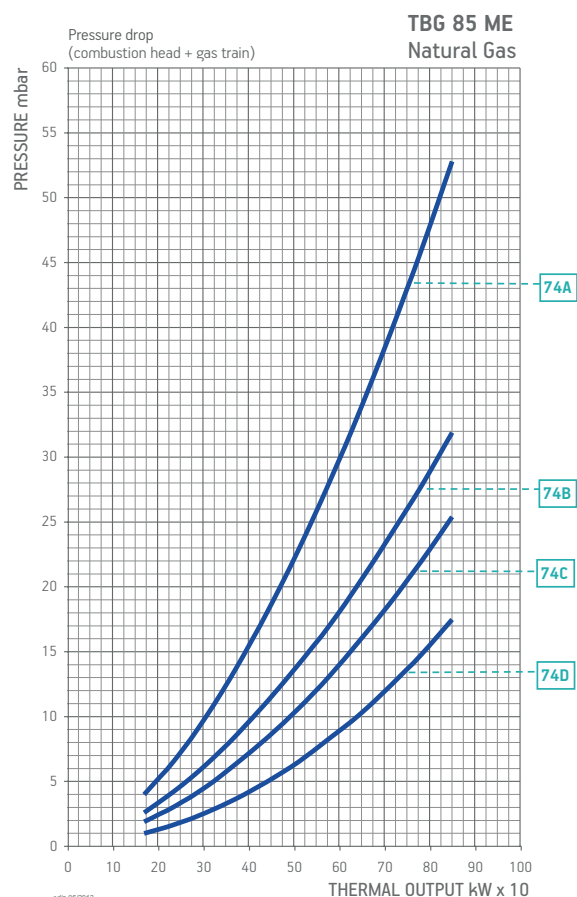
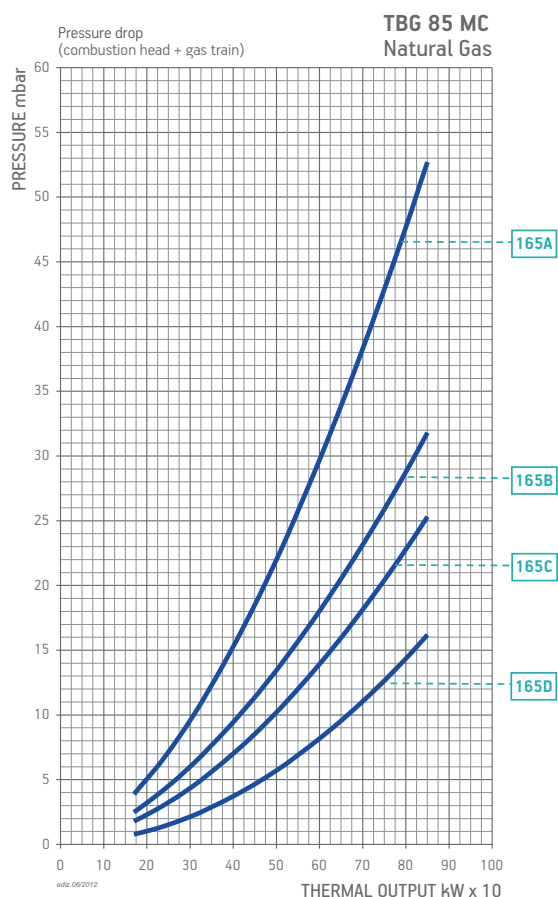
DESCRIPTION	PART NO.
Soundproof burner cover	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

BURNER/GAS TRAIN MATCH

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 85 MC	Natural gas	165A	CE/EXP	360		19990547	Included	96000032	-	B7	
					CTV	19990547	Included	96000032	98000101	B7	12)
		165B	CE/EXP	360		19990548	Included	96000007	-	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		165C	CE/EXP	360		19990549	Included	-	-	B7	
TBG 85 ME TBG 85 ME V TBG 85 ME V O2 TBG 85 ME V CO	Natural gas				CTV	19990549	Included	-	98000101	B7	12)
		165D	CE/EXP	500		19990550	Included	-	-	B7	
					CTV	19990550	Included	-	98000102	B7	12)
		74A	CE/EXP	360	CTV	19990557	Included	96000032	Included	D2	
		74B	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		74C	CE/EXP	360	CTV	19990559	Included	-	Included	D2	
		74D	CE/EXP	500	CTV	19990524	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 85 MC	LPG	CE/EXP	360		19990548	Included	96000007	-	98000357	B7	
				CTV	19990548	Included	96000007	98000101	98000357	B7	12)
TBG 85 ME/ME V TBG 85 ME V O2 TBG 85 ME V CO	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	98000357	D2	

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

NOTES

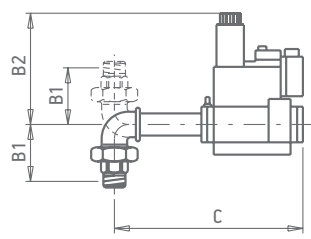
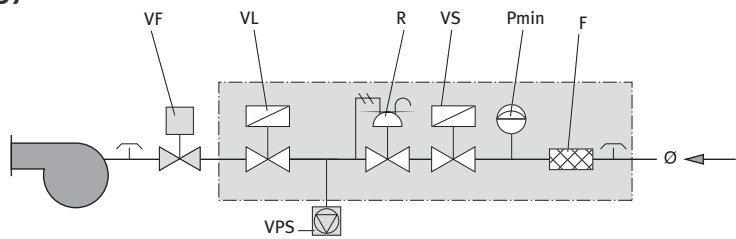
12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

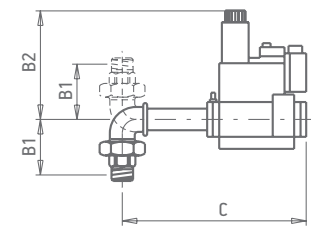
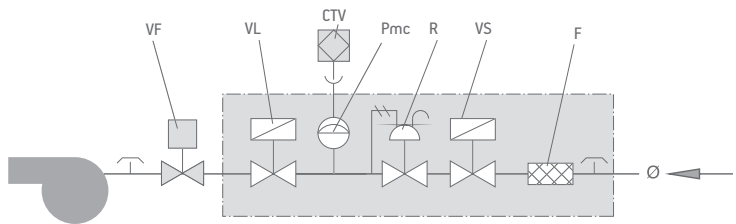
GAS TRAIN STRUCTURE AND COMPOSITION

B7



Gas train Part no.	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		
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
19990550 (VGD20.503 - 2")	●	●	●	◆	●	▲	●	2"	114	285	890	990 x 300 x 500	15

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
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
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.