



GAS BURNERS
TBG 45 - 45 P



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 | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. 0085

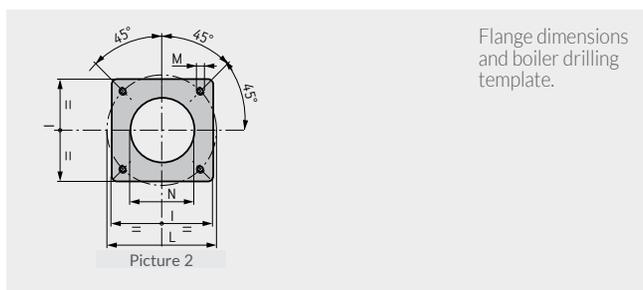
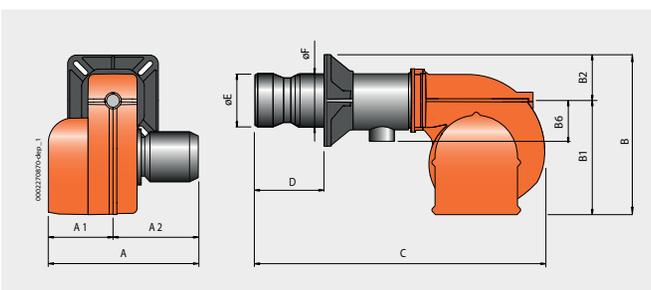


TBG 45

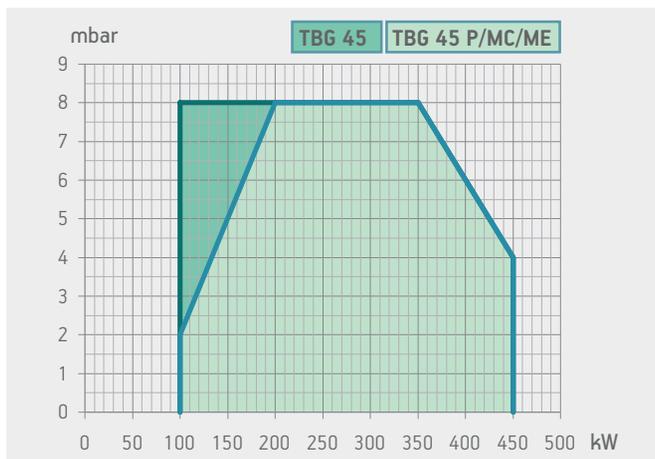


TBG 45 P

	TBG 45	TBG 45 P
Gas burner compliant with European standard EN676. Operation:	single-stage	two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	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	•	•
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:	manual	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
CE version gas train is complete with operation and safety valve with electromagnetic drive, 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:	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•
Electric protection rating:	IP44	IP44



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	Z mm	Z1 mm	Z2 mm	Pic.
TBG 45	480	200	280	433	325	108	160	880	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2
TBG 45 P	550	270	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	
TBG 45	1000	600	510	40
TBG 45 P	1000	600	510	40

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
Frequency 50 Hz							
	class 3	100 ÷ 450	TBG 45	17200010	1N AC 50Hz 230V	0,5	
	class 3	100 ÷ 450	TBG 45 P	17210010	1N AC 50Hz 230V	0,5	4)
Frequency 60 Hz							
	class 3	100 ÷ 450	TBG 45	17205410	1N AC 60Hz 220V	0,5	
	class 3	100 ÷ 450	TBG 45 P	17215410	1N AC 60Hz 220V	0,5	4)

The working field of the burner, as expressed in the "Thermal output kW" column, depends on the characteristics of the gas train it works with (see burner/train match diagram).

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980054

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

4 Equipped with air closure device.

Net calorific value at reference conditions of 0°C, 1013mbar:

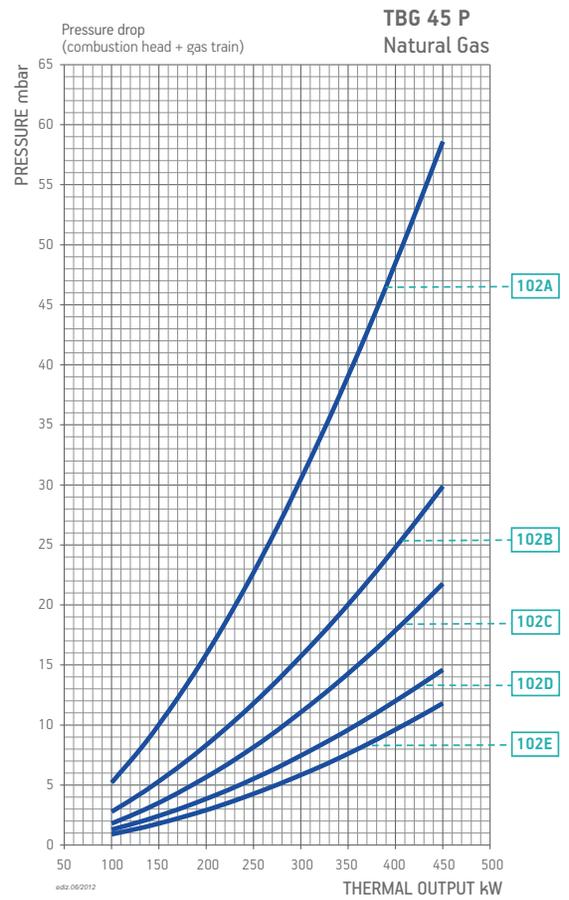
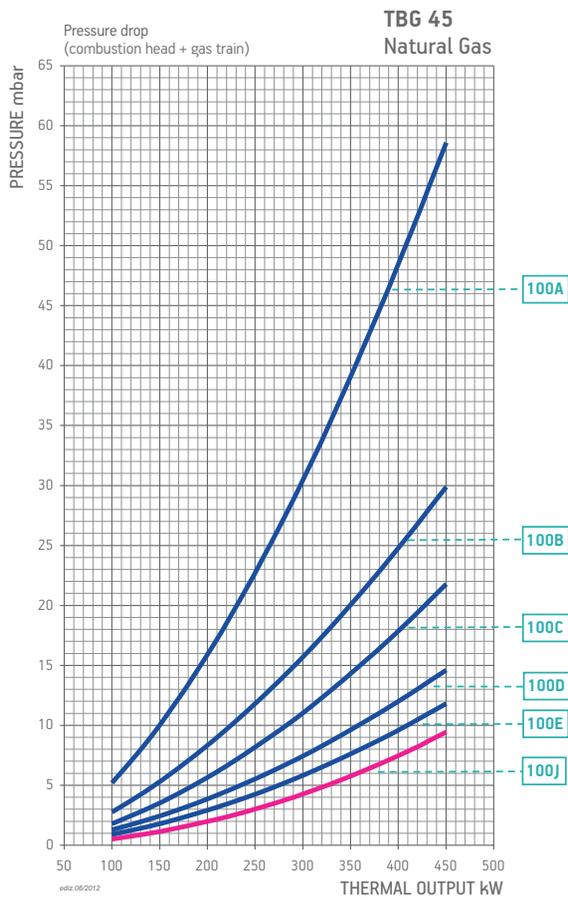
Natural gas: $H_i = 35,80 \text{ MJ/m}^3 = 8550 \text{ kcal/m}^3$,

LPG: $H_i = 92 \text{ MJ/m}^3 = 22000 \text{ kcal/m}^3$.

For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH

GAS



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 45	Natural gas	100A	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	12)		
						19990510	Included	96000005	98000101	M2			
			EXP	360	CTV	19990545	Included	96000005	-	M2	12)		
						19990545	Included	96000005	98000101	M2			
			100B	CE/EXP	360	CTV	19990511	Included	96000004	-	B2	12)	
							19990511	Included	96000004	98000101	M2		
		EXP	360	CTV	19990546	Included	96000004	-	M2	12)			
					19990546	Included	96000004	98000101	M2				
		100C	CE/EXP	360	CTV	19990512	Included	96000004	-	B2	12)		
						19990512	Included	96000004	98000101	M2			
		EXP	360	CTV	19990547	Included	96000004	-	M2	12)			
					19990547	Included	96000004	98000101	M2				
		100D	CE/EXP	360	CTV	19990513	Included	-	-	B2	12)		
						19990513	Included	-	98000101	M2			
		EXP	360	CTV	19990548	Included	-	-	M2	12)			
					19990548	Included	-	98000101	M2				
		100E	CE/EXP	360	CTV	19990514	Included	96000013	-	B2	12)		
						19990514	Included	96000013	98000101	M2			
		EXP	360	CTV	19990549	Included	96000013	-	M2	12)			
					19990549	Included	96000013	98000101	M2				
		100J	EXP	140		19990471	-	-	-	ME4			
		TBG 45 P	Natural gas	102A	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	12)
								19990510	Included	96000005	98000101	M2	
				102B	CE/EXP	360	CTV	19990511	Included	96000004	-	B2	12)
19990511	Included							96000004	98000101	M2			
102C	CE/EXP			360	CTV	19990512	Included	96000004	-	B2	12)		
						19990512	Included	96000004	98000101	M2			
102D	CE/EXP			360	CTV	19990513	Included	-	-	B2	12)		
		19990513	Included			-	98000101	M2					
102E	CE/EXP	360		19990514	Included	96000013	-	B2					

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	LPG	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	12)
					19990510	Included	96000005	98000101	M2	
		EXP	360	CTV	19990545	Included	96000005	-	M2	
TBG 45 P	LPG	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	12)
					19990510	Included	96000005	98000101	M2	

To choose the correct gas train please refer to the information on page 20 Burners Catalogue.

NOTES

9 The min feeding gas pressure at the inlet of the gas train can not be lower than 100 mbar.

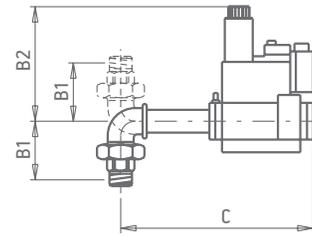
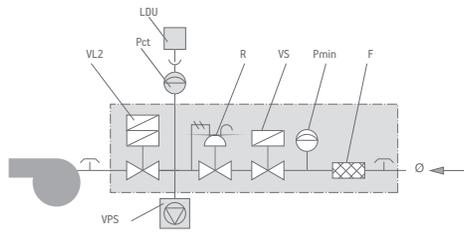
12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

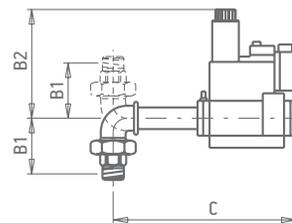
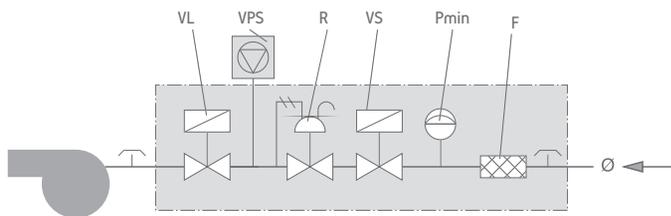
GAS TRAIN STRUCTURE AND COMPOSITION

B2



Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm L x P x H	Weight kg	
	F	LDU	Pct	Pmin	R	VL2	VPS	VS	Ø	B1	B2			C
19990510 (MB... 407 - 3/4")	●			●	●	●	■	●	3/4"	72	210	365	300 x 210 x 300	5
19990511 (MB... 410 - 1")	●			●	●	●	■	●	1"1/4	95	260	410	300 x 210 x 300	8
19990512 (MB... 412 - 1"1/4)	●			●	●	●	■	●	1"1/4	95	260	410	300 x 210 x 300	8
19990513 (MB... 415 - 1"1/2)	●			●	●	●	■	●	1"1/2	103	270	500	460 x 250 x 460	11
19990514 (MB... 420 - 2")	●			●	●	●	■	●	2"	114	330	500	520 x 410 x 410	13

M2



Gas train Part no.	Position							Gas train dimensions mm			Size of packaging mm L x P x H	Weight kg
	F	Pmin	R	VL	VPS	VS	Ø	B1	B2	C		
19990545 (MB... 407 - 3/4")	●	●	●	●	■	●	3/4"	72	140	450	300 x 210 x 300	5
19990546 (MB... 410 - 1")	●	●	●	●	■	●	1"1/4	95	160	490	400 x 300 x 280	8
19990547 (MB... 412 - 1"1/4)	●	●	●	●	■	●	1"1/4	95	160	490	400 x 300 x 280	8
19990548 (MB... 415 - 1"1/2)	●	●	●	●	■	●	1"1/2	103	270	600	460 x 250 x 460	11
19990549 (MB... 420 - 2")	●	●	●	●	■	●	2"	114	330	600	650 x 500 x 380	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.

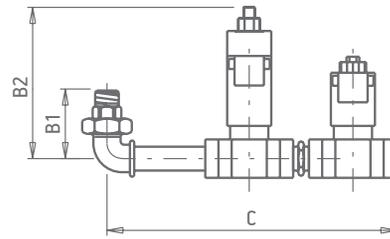
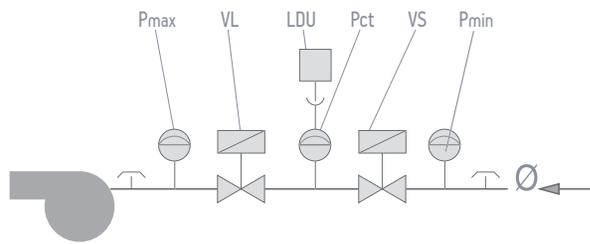
- RFP** Pressure regulator with filter for pilot gas train.
- RM** Manual flow rate regulator.
- RP** Pneumatic regulator.
- VF** Regulator throttle valve.
- VL** Operating valve.
- VL2** Two-stage operating valve.
- VLP** Operating pilot valve.
- VLR** Operating valve with pressure regulator.

- 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.

GAS TRAIN STRUCTURE AND COMPOSITION

ME4



Gas train Part no.	Position							Gas train dimensions mm			Size of packaging mm	Weight kg
	LDU	Pct	Pmax	Pmin	VL	VS	Ø	B1	B2	C	L x P x H	
19990471			●	●	1" 1/2	1" 1/2	1" 1/2	103	205	540	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.



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