

# BTG...

From 16,6 to 99 kW

Conform to:  
 Gas Directive 90/396/CEE  
 E.M.C. Directive 89/336/CEE  
 L.V. Directive 73/23/CEE  
 Reference standard: EN676



Single-stage gas burners

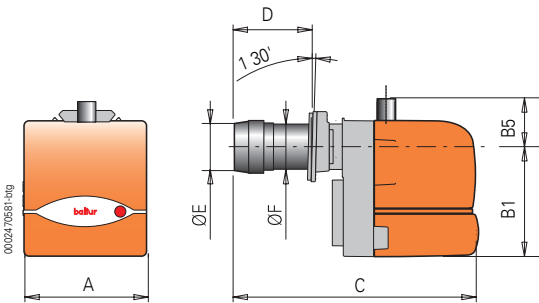


## TECHNICAL AND FUNCTIONAL CHARACTERISTICS

- Single stage operation (on/off).
- Air-gas mixing at blast-pipe.
- Ability to obtain optimal combustion values by regulating combustion air and blast-pipe.
- Maintenance facilitated by the fact that the mixing unit can be removed without having to remove the burner from the boiler.
- Manual air flow adjustment.
- Possibility to chose gas train with valve tightness control (except BTG3).
- Equipped with one 7-pole connector, one flange and one insulating seal for boiler fastening.
- On request: longer blast tube.

## CONSTRUCTION CHARACTERISTICS

- The burner consists of:
- Combustion air inlet with device to adjust the air flow; automatically closing air gate.
  - Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers (fixed on BTG 3).
  - Air pressure switch to ensure the presence of combustion air.
  - Automatic control and command equipment for the burner, compliant with European standard EN298.
  - Flame detection by ionisation electrode.
  - 7-pole outlet for burner electrical and thermostat connections.
  - Prepared for microamperometer connection with ionisation cable.
  - Electrical protection rating IP40.
  - Sound-proof plastic protective cover.
- To be ordered separately:
- Gas train complete with operation and safety valve, minimum pressure switch, pressure regulator and gas filter.



Model	A mm	B1 mm	B5 mm	C mm	D mm	E mm	F mm
BTG 3	250	170,0	48	330	90	90	90
BTG 6	245	218,5	53	410	50 ÷ 105	90	90
BTG 11	245	218,5	53	475	90 ÷ 150	108	90

Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
<b>Frequency 50 Hz</b>							
16,6 ÷ 42,7	BTG 3	17000010	1N AC 50Hz 230V	0,09	400 x 300 x 280	9	1)
30,6 ÷ 56,3	BTG 6	17040010	1N AC 50Hz 230V	0,11	540 x 300 x 320	12	1)
48,8 ÷ 99,0	BTG 11	17060010	1N AC 50Hz 230V	0,11	540 x 300 x 320	12	1)
<b>Frequency 60 Hz</b>							
16,6 ÷ 42,7	BTG 3	17000010	1N AC 60Hz 230V	0,09	400 x 300 x 280	9	1)
30,6 ÷ 56,3	BTG 6	17040010	1N AC 60Hz 230V	0,11	540 x 300 x 320	12	1)
48,8 ÷ 99,0	BTG 11	17060010	1N AC 60Hz 230V	0,11	540 x 300 x 320	12	1)

### Optionals

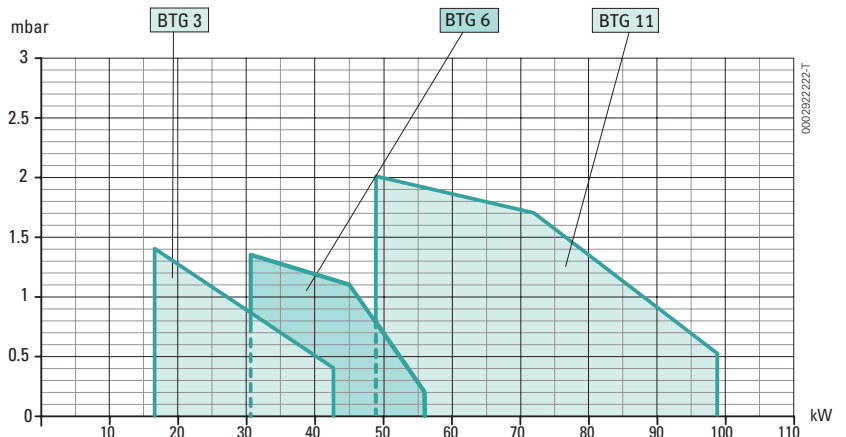
Description  
 300 mm long combustion head

### Gas burner accessories

Boiler coupling kit -7 pin plug

### Notes

- 1) Equipped with air closure device.
  - 2) Valve tightness control not required by EN676.
- CTV) Gas train with Valve Tightness Control.
- \*) Minimum gas train inlet pressure needed to obtain maximum burner power with a combustion chamber backpressure of zero.
- \*\*) Maximum gas inlet pressure at pressure regulator in CE version, at gas train for EXP version.
- Net calorific value at reference conditions of 0°C, 1013mbar:  
 Natural gas HI 35,8MJ/m<sup>3</sup> = 8550 kcal/m<sup>3</sup>  
 LPG HI 92MJ/m<sup>3</sup> = 22000 kcal/m<sup>3</sup>



# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

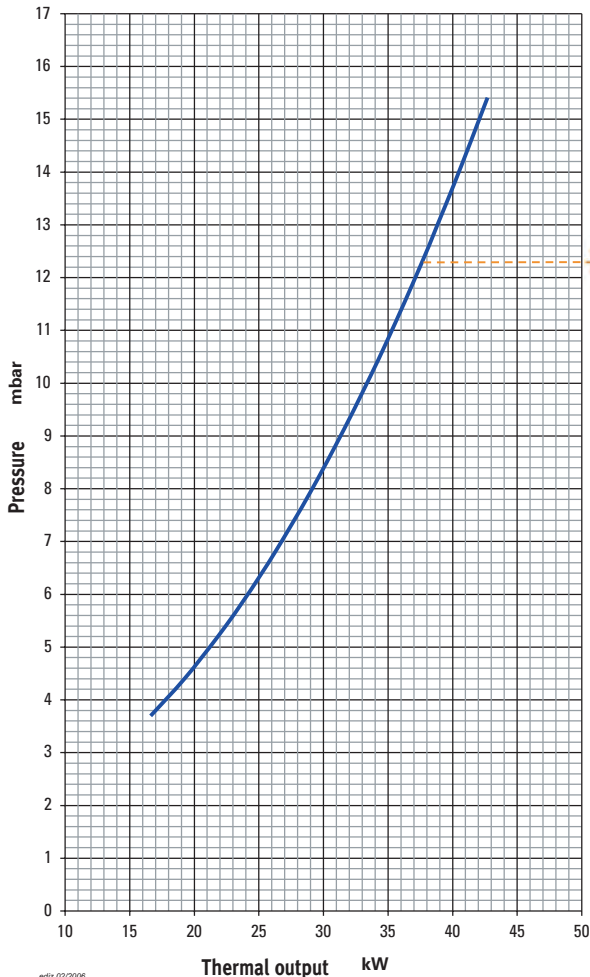
Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 3	NATURAL GAS	CE	1A		65	19990466	Included	–	–	M2	
		EXP	1A		65	19990466	Included	–	–	M2	
				1J		40	19990235	–	96000030	–	ME1

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 3	LPG	CE		30	19990466	Included	–	–	M2	
		EXP		30	19990235	–	96000030	–	ME1	

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.

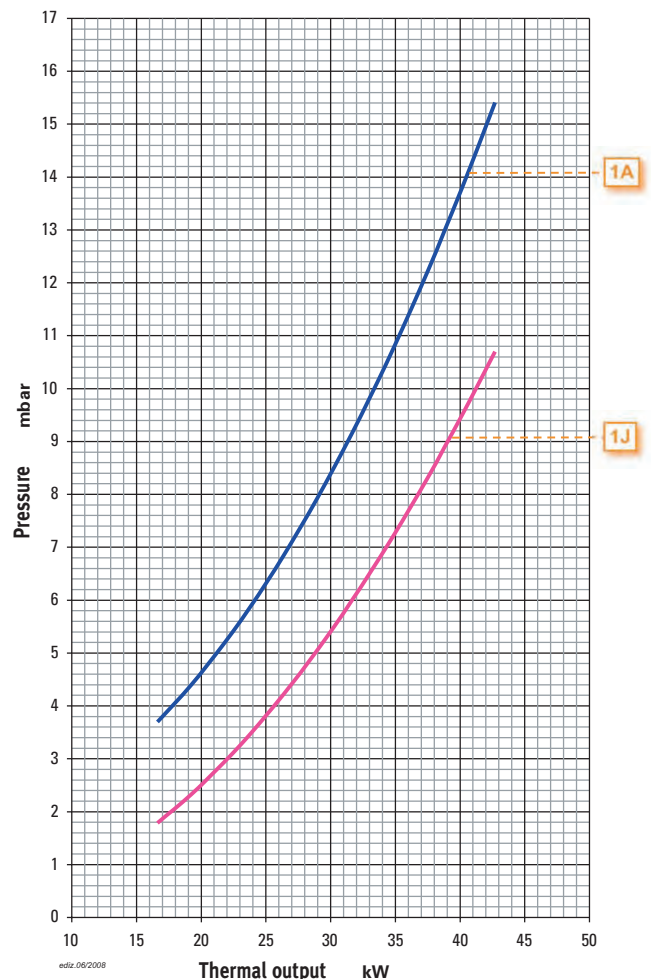


Pressure drop (combustion head + gas train + pressure regulator) BTG 3 NATURAL GAS CE



editz.02/2006

Pressure drop (combustion head + gas train) BTG 3 NATURAL GAS EXP



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# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

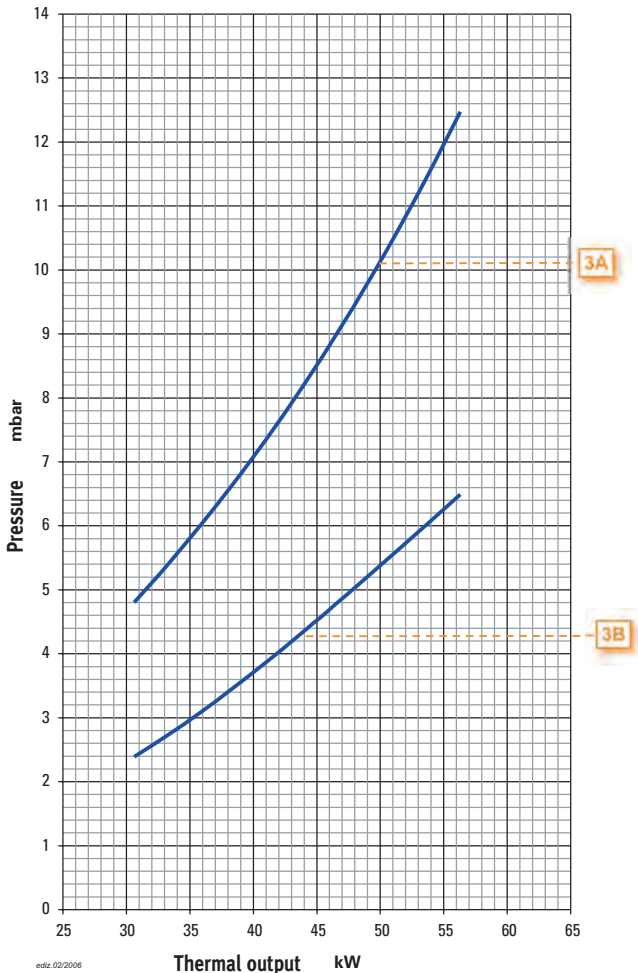
Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 6	NATURAL GAS	CE	3A		65	19990466	Included	96000001	–	M2	
			3B		360	19990002	Included	–	–	M2	
			CTV	360	19990002	Included	–	98000100	M2	12)	
		EXP	3A		65	19990466	Included	96000001	–	M2	
			3B		360	19990002	Included	–	–	M2	
			CTV	360	19990002	Included	–	98000100	M2		
		3J		40	19990235	–	–	–	ME1		

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 6	LPG	CE		30	19990466	Included	96000001	–	M2
		EXP		30	19990235	–	–	–	ME1

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.

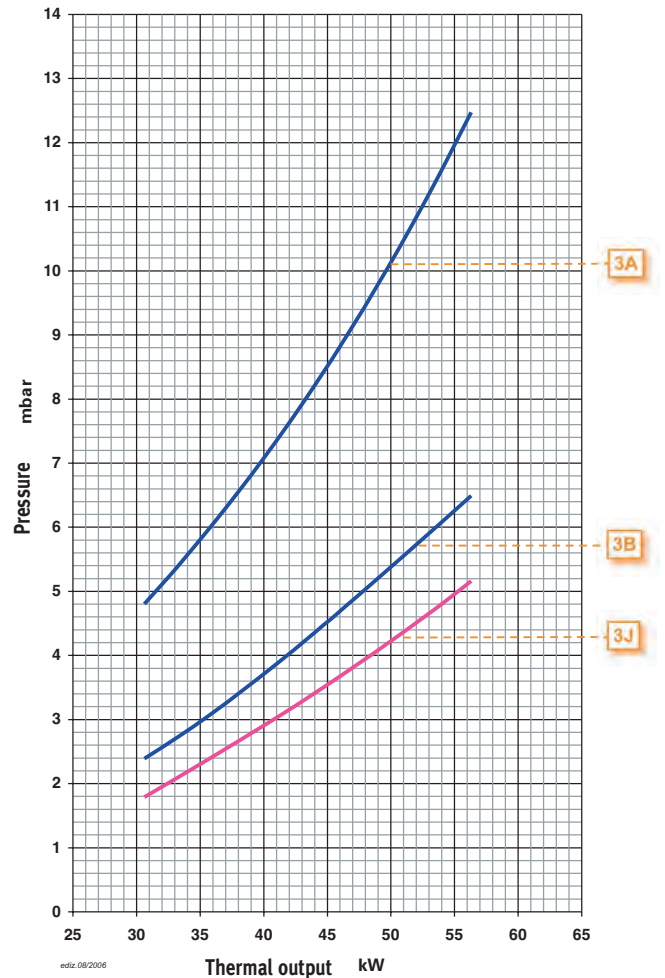
Pressure drop (combustion head + gas train + pressure regulator)

BTG 6 NATURAL GAS CE



Pressure drop (combustion head + gas train)

BTG 6 NATURAL GAS EXP



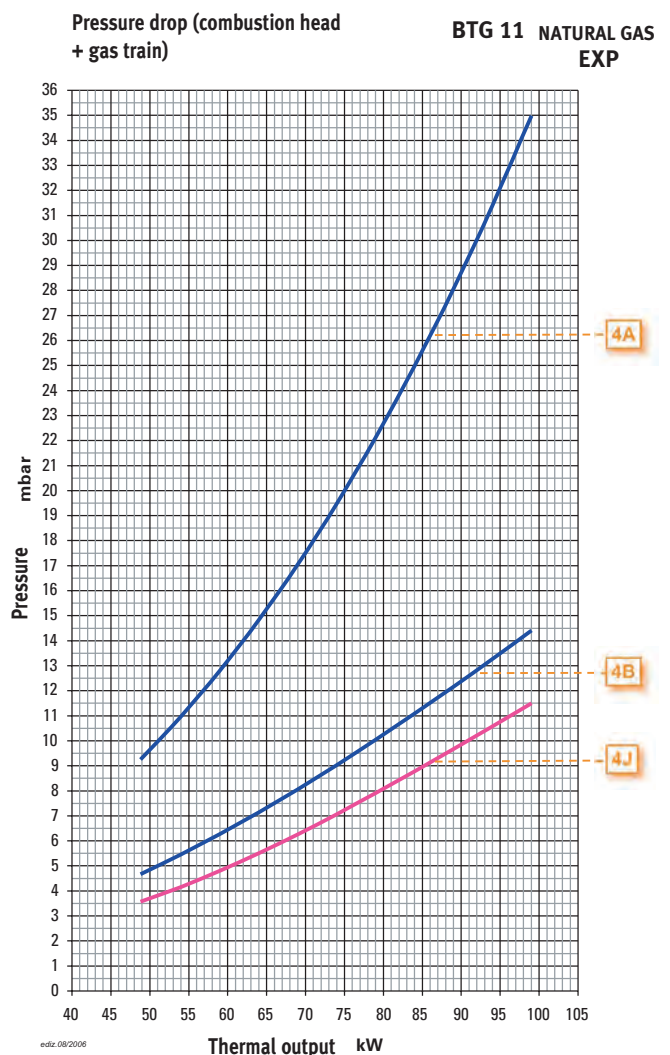
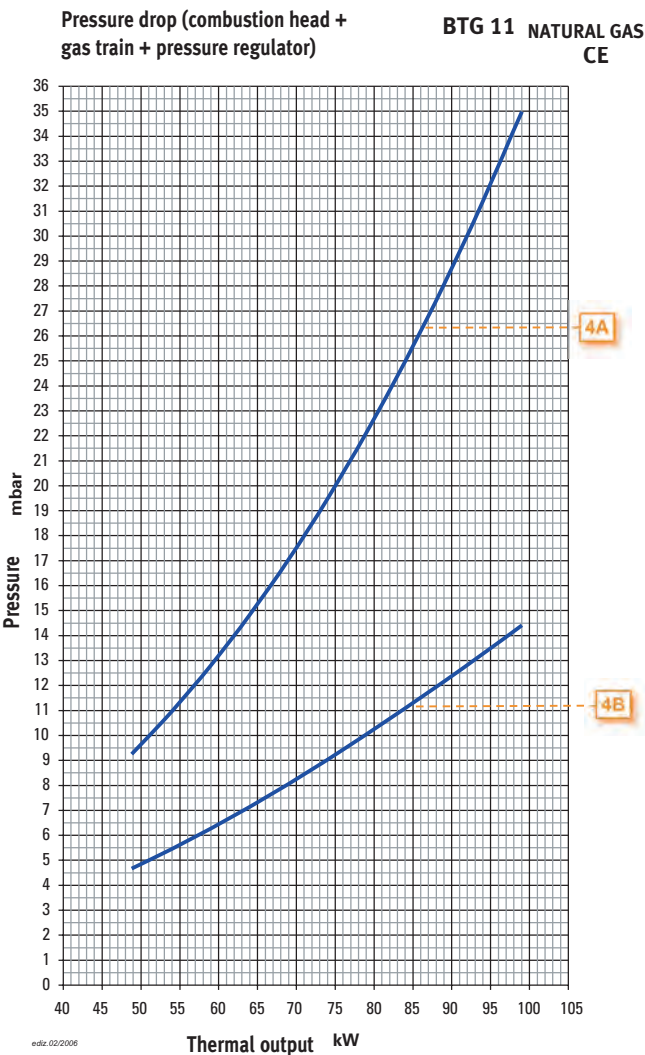
# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 11	NATURAL GAS	CE	4A		65	19990466	Included	96000001	-	M2	
			4B		360	19990002	Included	-	-	M2	
		EXP		CTV	360	19990002	Included	-	98000100	M2	12)
			4A		65	19990466	Included	96000001	-	M2	
			4B		360	19990002	Included	-	-	M2	
				CTV	360	19990002	Included	-	98000100	M2	
	4J		40	19990235	-	-	-	ME1			

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 11	LPG	CE		30	19990466	Included	96000001	-	M2	
		EXP		30	19990235	-	-	-	ME1	

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.



# BTG...

From 50 to 280 kW

Conform to:  
 Gas Directive 90/396/CEE  
 E.M.C. Directive 89/336/CEE  
 L.V. Directive 73/23/CEE  
 Reference standard: EN676



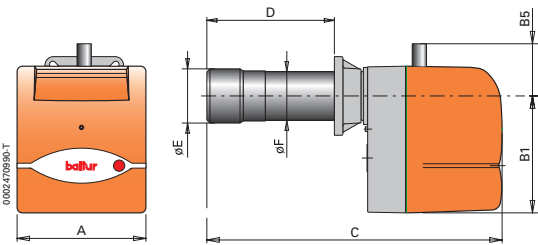
## TECHNICAL AND FUNCTIONAL CHARACTERISTICS



- Single stage operation (on/off).
- Air-gas mixing at blast-pipe.
- Ability to obtain optimal combustion values by regulating combustion air and blast-pipe.
- Exhaust gas recycling blast-pipe able to achieve very low pollutant emissions, particularly with regard to nitrous oxides (NOx) (class II for BTG 15 and class III for BTG 20 according to EN 676 norm).
- Maintenance facilitated by the fact that the mixing unit can be removed without having to remove the burner from the boiler.
- Manual air flow adjustment.
- Possibility to choose gas train with valve tightness control.
- Equipped with one 7-pole connector, one flange and one insulating seal for boiler fastening.

## CONSTRUCTION CHARACTERISTICS

- The burner consists of:
- Combustion air inlet with device to adjust the air flow; automatically closing air gate.
  - Sliding boiler coupling flange to adapt the head protrusion to the various types of boilers.
  - Air pressure switch to ensure the presence of combustion air.
  - Automatic control and command equipment for the burner, compliant with European standard EN298.
  - Flame detection by ionisation electrode.
  - 7-pole outlet for burner electrical and thermostat connections.
  - Prepared for microamperometer connection with ionisation cable.
- To be ordered separately:
- Electrical protection rating IP40.
  - Sound-proof plastic protective cover.
  - Gas train complete with operation and safety valve, minimum pressure switch, pressure regulator and gas filter.



Model	A mm	B 1 mm	B 5 mm	C mm	D mm	E mm	F mm
BTG 15	303	275	70	680	150 ÷ 280	126	114
BTG 20	303	275	70	695	150 ÷ 300	127	114
BTG 28	303	275	70	695	150 ÷ 300	135	114

Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Size of packaging L x P x H mm	Weight kg	Notes
<b>Frequency 50 Hz</b>							
50 ÷ 160	BTG 15	17080010	1N AC 50Hz 230V	0,18	780 x 370 x 410	18	1)
60 ÷ 205	BTG 20	17100010	1N AC 50Hz 230V	0,18	780 x 370 x 410	18	1)
100 ÷ 280	BTG 28	17140010	1N AC 50Hz 230V	0,18	780 x 370 x 410	18	1)
<b>Frequency 60 Hz</b>							
50 ÷ 160	BTG 15	17080010	1N AC 60Hz 230V	0,18	780 x 370 x 410	18	1)
60 ÷ 205	BTG 20	17100010	1N AC 60Hz 230V	0,18	780 x 370 x 410	18	1)
100 ÷ 280	BTG 28	17145410	1N AC 60Hz 230V	0,25	780 x 370 x 410	18	1)

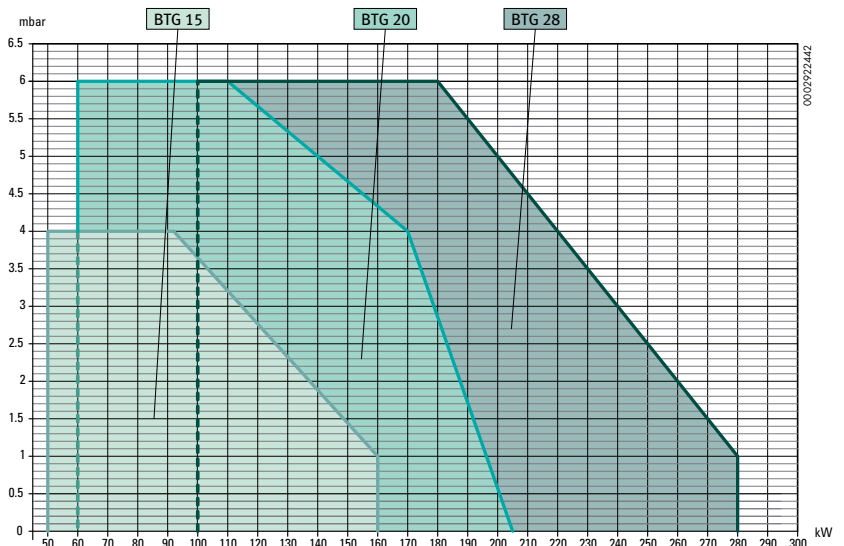
The working field of the burner, as expressed in the "Thermal output kW" column, depends on the characteristics of the gas train it works with (see burner/train match diagram).

### Gas burner accessories

Boiler coupling kit – 7 pin plug

### Notes

- 1) Equipped with air closure device.
  - 2) Valve tightness control not required by EN676.
- CTV) Gas train with Valve Tightness Control.
- \*) Minimum gas train inlet pressure needed to obtain maximum burner power with a combustion chamber backpressure of zero.
- \*\*\*) Maximum gas inlet pressure at pressure regulator in CE version, at gas train for EXP version.
- Net calorific value at reference conditions of 0°C, 1013mbar:  
 Natural gas HI 35,8MJ/m<sup>3</sup> = 8550 kcal/m<sup>3</sup>  
 LPG HI 92MJ/m<sup>3</sup> = 22000 kcal/m<sup>3</sup>



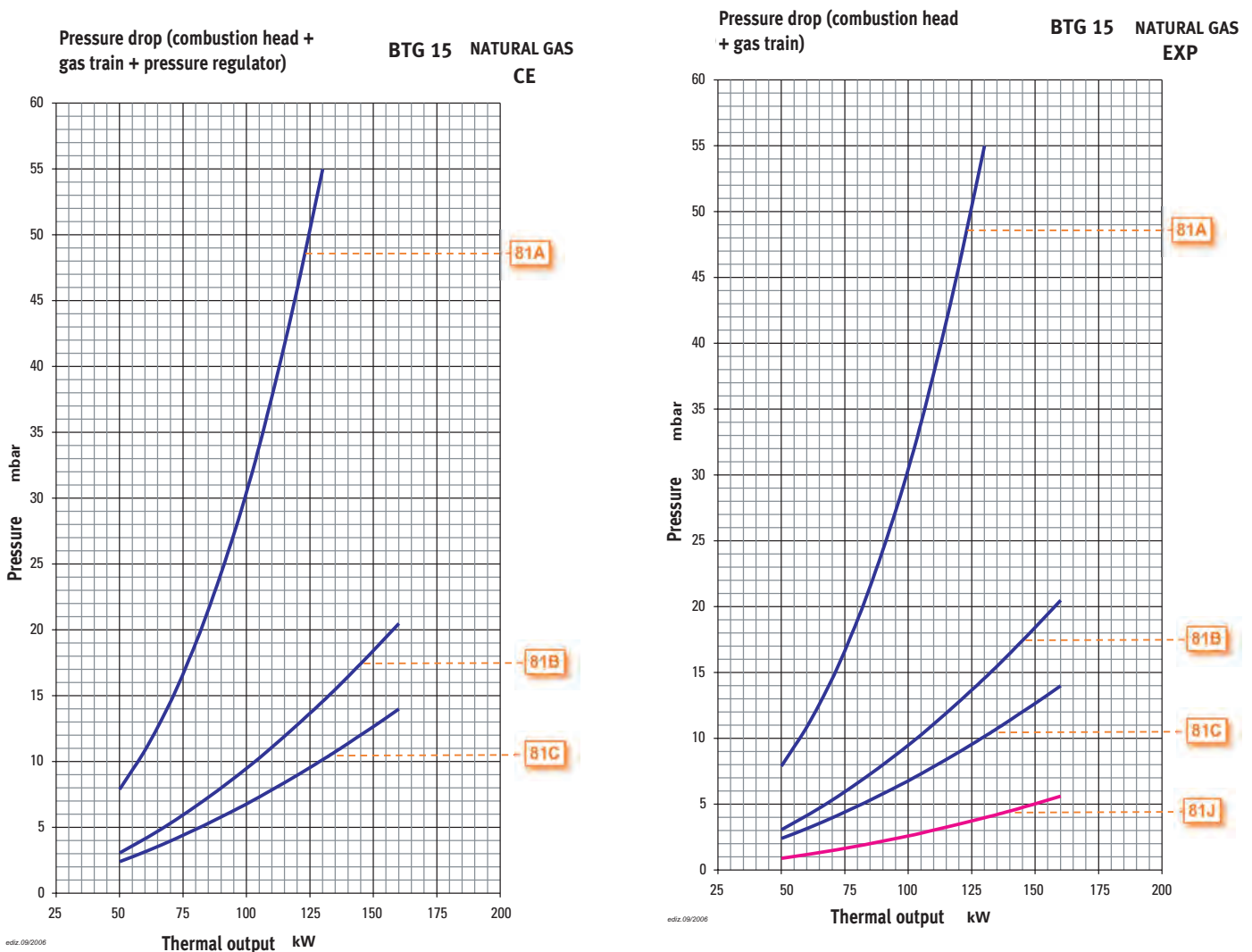
# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 15	NATURAL GAS	CE	81A	CTV	65	19990466	Included	96000001	-	M2	
					360	19990002	Included	-	-	M2	
			81B	CTV	360	19990002	Included	-	98000100	M2	12)
					360	19990005	Included	-	-	M2	
			81C	CTV	360	19990005	Included	-	98000100	M2	12)
					360	19990005	Included	-	-	M2	
		EXP	81A	CTV	65	19990466	Included	96000001	-	M2	
					360	19990002	Included	-	-	M2	
			81B	CTV	360	19990002	Included	-	98000100	M2	
					360	19990005	Included	-	-	M2	
81C	CTV	360	19990005	Included	-	98000100	M2				
		360	19990005	Included	-	-	M2				
		81J			40	19990004	-	-	-	ME1	

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 15	LPG	CE / EXP		30	19990466	Included	96000001	-	M2	

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.





# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

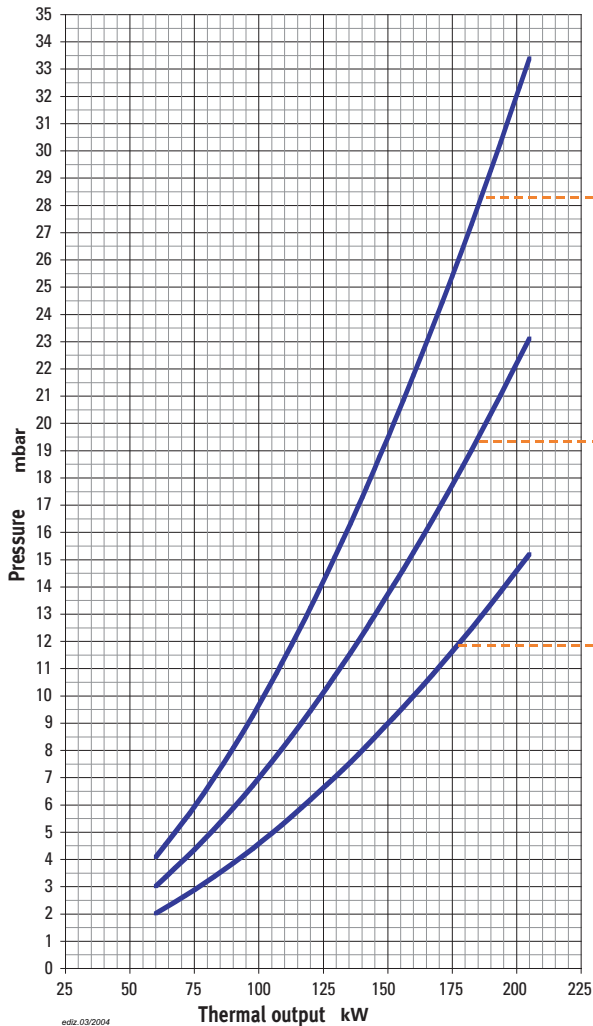
Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 20	NATURAL GAS	CE	43A		360	19990002	Included	–	–	M2	
				CTV	360	19990002	Included	–	98000100	M2	12)
			43B		360	19990005	Included	–	–	M2	
				CTV	360	19990005	Included	–	98000100	M2	12)
			43C		360	19990008	Included	96000031	–	M2	
				CTV	360	19990008	Included	96000031	98000100	M2	12)
		EXP	43A		360	19990002	Included	–	–	M2	
				CTV	360	19990002	Included	–	98000100	M2	
			43B		360	19990005	Included	–	–	M2	
				CTV	360	19990005	Included	–	98000100	M2	
			43C		360	19990008	Included	96000031	–	M2	
				CTV	360	19990008	Included	96000031	98000100	M2	
43J		40	19990004	–	–	–	ME1				

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 20	LPG	CE / EXP		30	19990002	Included	–	–	M2	
			CTV	30	19990002	Included	–	98000100	M2	12)

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.

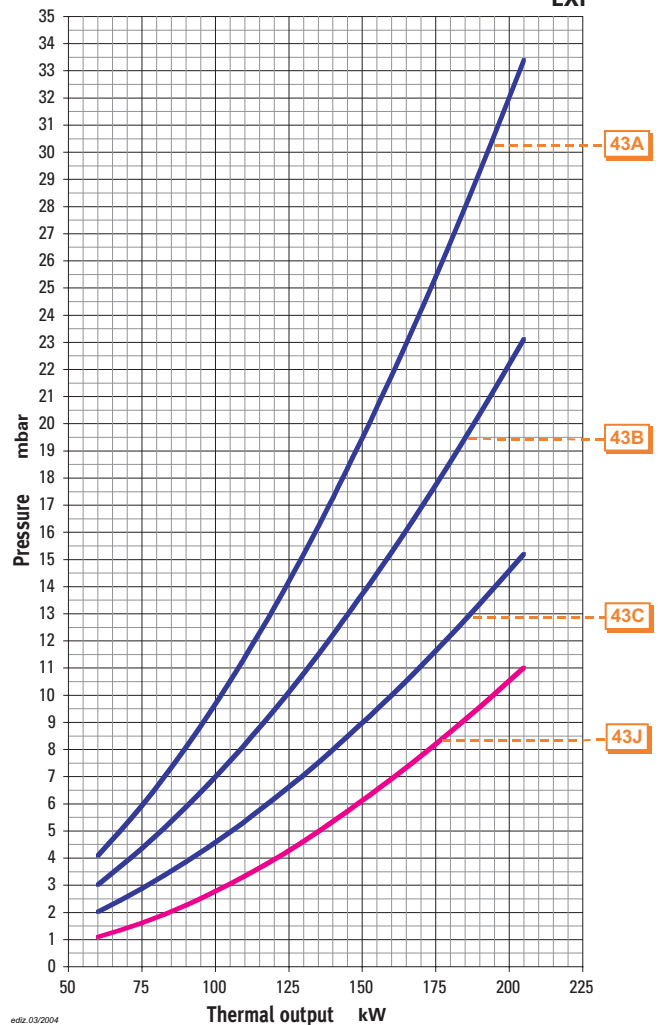
Pressure drop (combustion head + gas train + pressure regulator)

BTG 20 NATURAL GAS CE



Pressure drop (combustion head + gas train)

BTG 20 NATURAL GAS EXP



# Burner/gas train match

CE gas train version complies with EN676, EXP gas train version is for extra-European markets

Burner model	Gas type	Version	Curve on graph	Execution	P.Max** mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 28	NATURAL GAS	CE	61A		360	19990002	Included	–	–	M2	
				CTV	360	19990002	Included	–	98000100	M2	12)
			61B		360	19990005	Included	–	–	M2	
				CTV	360	19990005	Included	–	98000100	M2	12)
			61C		360	19990008	Included	96000031	–	M2	
				CTV	360	19990008	Included	96000031	98000100	M2	12)
		61D		360	19990166	Included	96000031	–	M2		
			CTV	360	19990166	Included	96000031	98000100	M2	12)	
		EXP	61A		360	19990002	Included	–	–	M2	
				CTV	360	19990002	Included	–	98000100	M2	
			61B		360	19990005	Included	–	–	M2	
				CTV	360	19990005	Included	–	98000100	M2	
61C			360	19990008	Included	96000031	–	M2			
	CTV		360	19990008	Included	96000031	98000100	M2			
61D		360	19990166	Included	96000031	–	M2				
	CTV	360	19990166	Included	96000031	98000100	M2				
		61J		40	19990134	–	96000028	–	ME1		

Burner model	Gas type	Version	Execution	P.Min* mbar	Gas train Part no.	Regulator with incorporated filter Part no.	Burner/gas train adapter Part no.	Valve tightness control kit Part no.	Pic.	Notes
BTG 28	LPG	CE / EXP		30	19990002	Included	–	–	M2	
			CTV	30	19990002	Included	–	98000100	M2	12)

To choose the correct gas train please refer to the information on page 10.  
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 234.

