



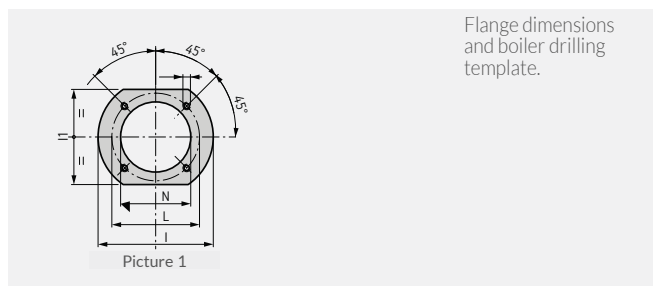
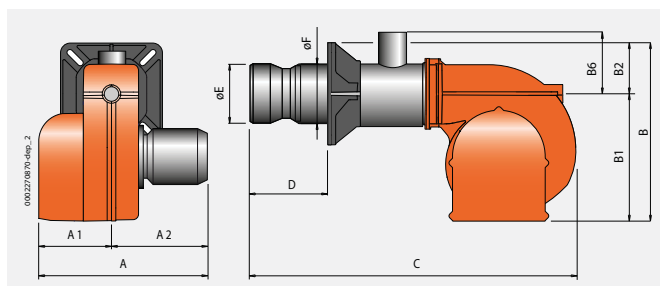
	BTG 3	BTG 3,6 P
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Gas burner compliant with European standard EN676. Operation:

single-stage

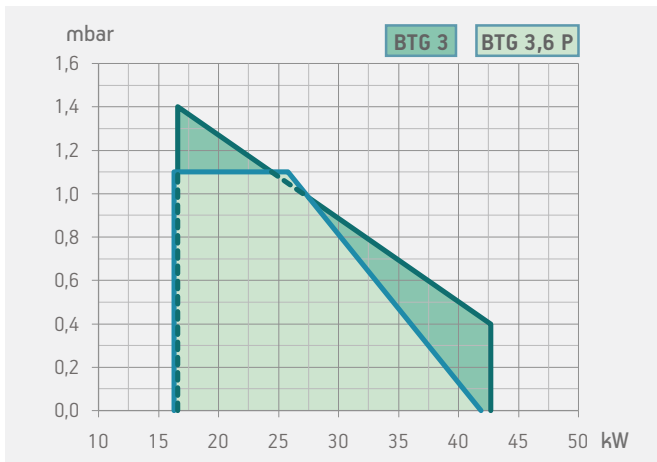
two-stage

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.	•	
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	up
Flame detection by ionisation electrode with connector for microamperometer.	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover.	•	•



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	I1 mm	L mm	M mm	N mm	Pic.
BTG 3	250	120	130	242	170	72	48	330	90	90	90	170	144	135 ÷ 161	M8	95	1
BTG 3,6 P	246	123	123	289	219	70	53	410	50 ÷ 105	90	90	170	140	130 ÷ 155	M8	95	1



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 3	400	300	280	9
BTG 3,6 P	540	300	320	12

Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz					
16,6 ÷ 42,7	BTG 3	17000010	1N AC 50Hz 230V	0,09	1)
16,3 ÷ 41,9	BTG 3,6 P	17030010	1N AC 50Hz 230V	0,10	1)
Frequency 60 Hz					
16,6 ÷ 42,7	BTG 3	17000010	1N AC 60Hz 220V	0,09	1)
16,3 ÷ 41,9	BTG 3,6 P	17030010	1N AC 60Hz 220V	0,10	1)

OPTIONALS

DESCRIPTION

BTG 3: 200 mm long combustion head

BTG 3,6 P: 300 mm long combustion head

GAS BURNER ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

1 Equipped with air closure device.

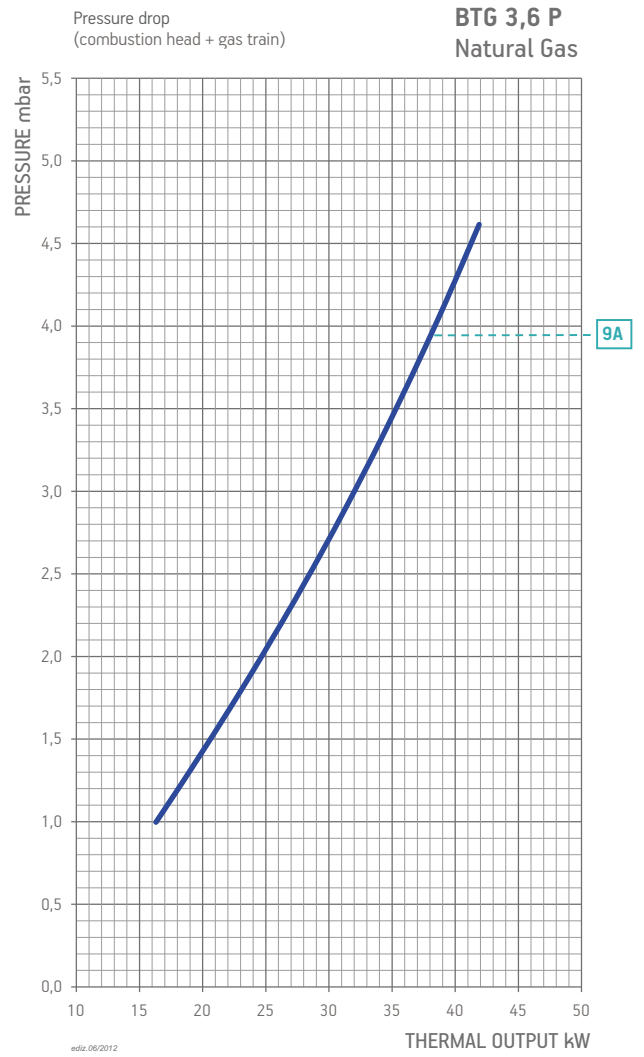
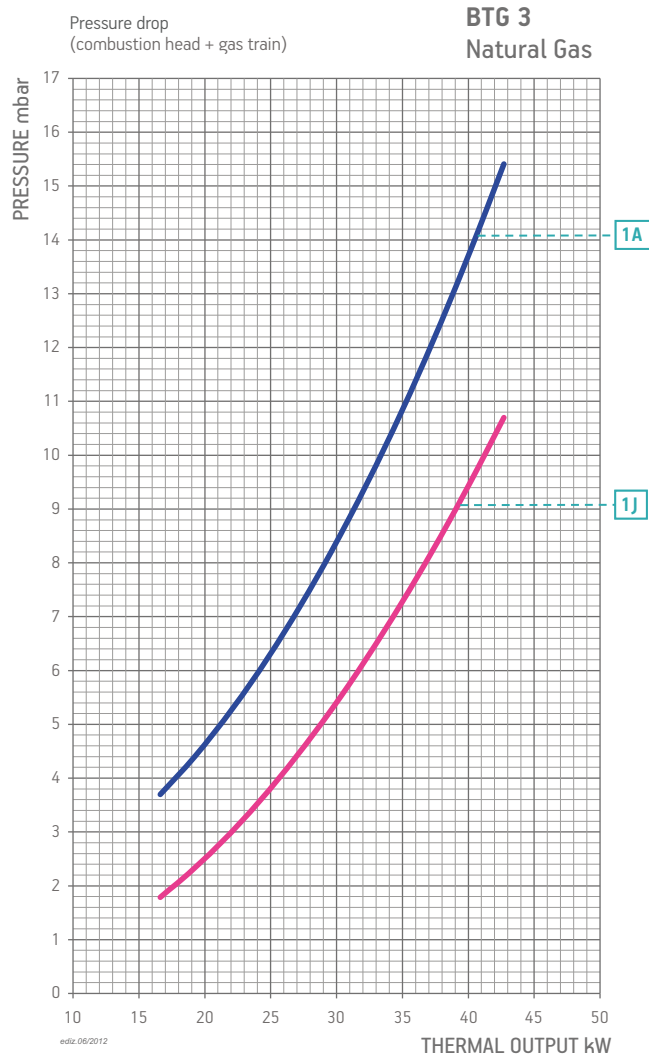
Net calorific value at reference conditions of 0°C, 1013mbar:

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



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.		
BTG 3	Natural gas	1A	CE/EXP	65		19990466	Included	-	-	M2	
		1J	EXP	40		19990235	-	96000030	-	ME1	
BTG 3,6 P	Natural gas	9A	CE/EXP	360		19990016	Included	-	-	B2	
					CTV	19990016	Included	-	98000100	B2	12)

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.		
BTG 3	LGP	CE	65		19990466	Included	-	-	M2	
		EXP	40		19990235	-	96000030	-	ME1	
BTG 3,6 P	LGP	CE/EXP	360		19990016	Included	-	-	B2	
				CTV	19990016	Included	-	98000100	B2	12)

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

NOTES

12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

**) Maximum gas inlet pressure at pressure regulator.

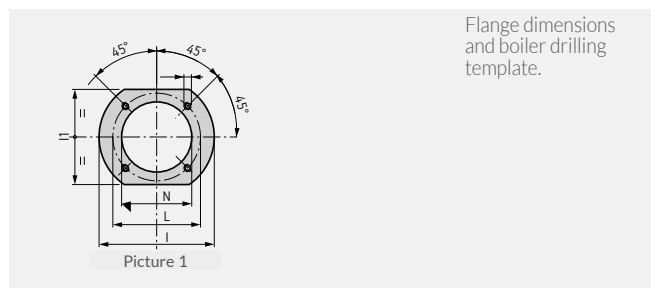
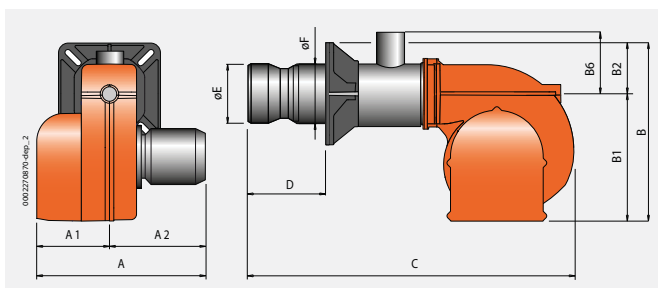


BTG 6	BTG 6 P
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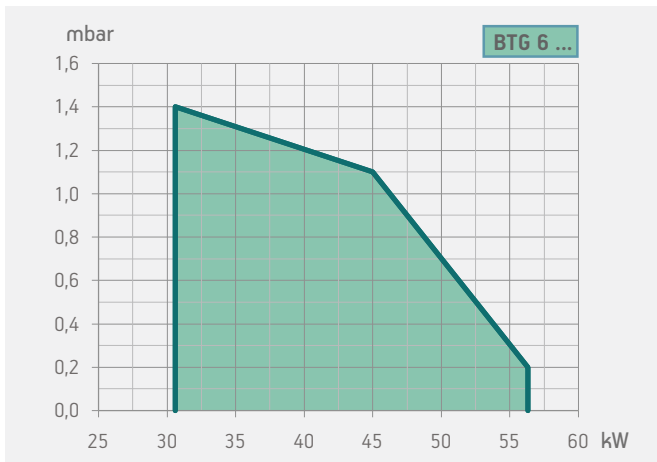
Gas burner compliant with European standard EN676. Operation:

	single-stage	two-stage
Adjusting the combustion head.	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler.	•	•
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	up
Flame detection by ionisation electrode with connector for microamperometer.	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover.	•	•

GAS



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	I1 mm	L mm	M mm	N mm	Pic.
BTG 6	246	123	123	289	219	70	53	410	50 ÷ 105	90	90	170	140	130 ÷ 155	M8	95	1
BTG 6 P	246	123	123	289	219	70	53	410	50 ÷ 105	90	90	170	140	130 ÷ 155	M8	95	1



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 6	540	300	320	12
BTG 6 P	540	300	320	12

Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz					
30,6 ÷ 56,3	BTG 6	17040010	1N AC 50Hz 230V	0,1	1)
30,6 ÷ 56,3	BTG 6 P	17050010	1N AC 50Hz 230V	0,1	1)
Frequency 60 Hz					
30,6 ÷ 56,3	BTG 6	17040010	1N AC 60Hz 220V	0,1	1)
30,6 ÷ 56,3	BTG 6 P	17050010	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION

300 mm long combustion head

GAS BURNER ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

1 Equipped with air closure device.

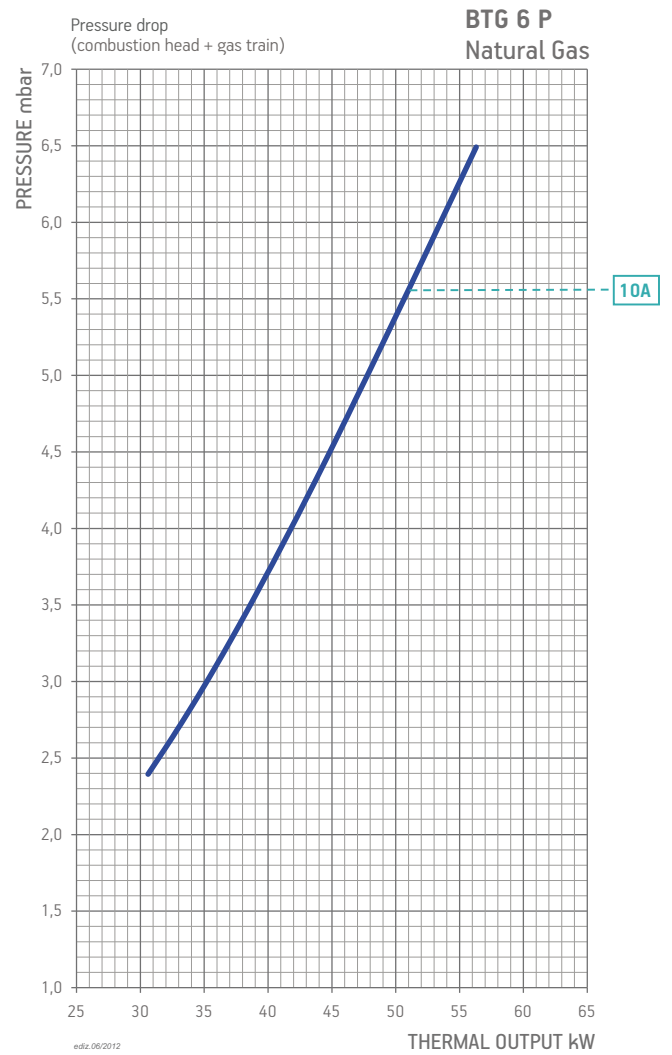
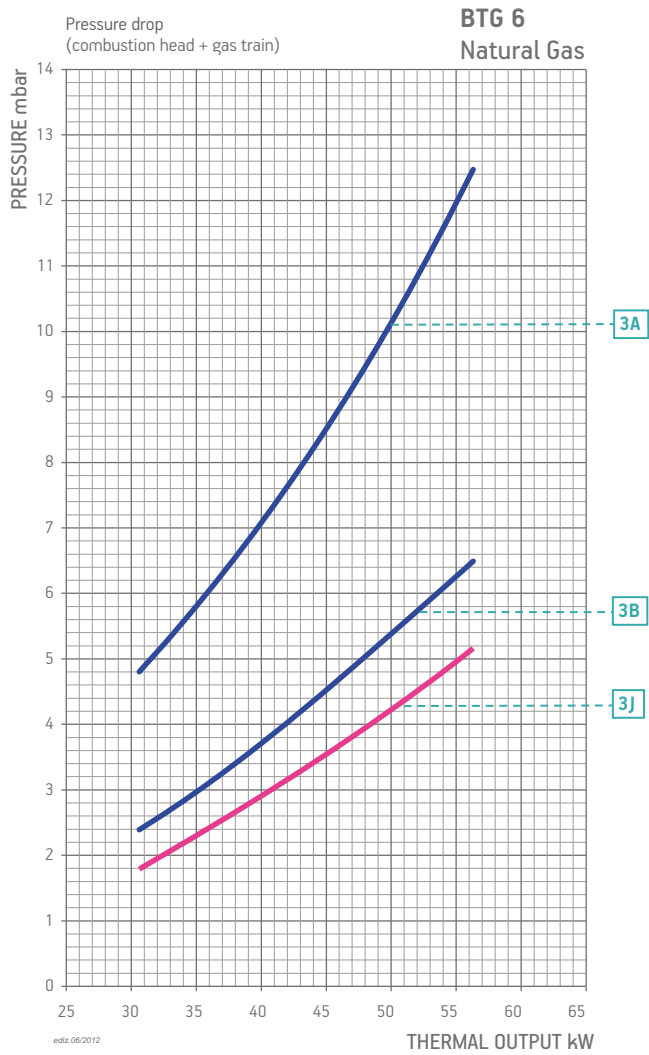
Net calorific value at reference conditions of 0°C, 1013mbar:

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



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.		
BTG 6	Natural gas	3A	CE/EXP	65		19990466	Included	96000001	-	M2	
		3B	CE/EXP	360		19990002	Included	-	-	M2	
					CTV	19990002	Included	-	98000100	M2	12)
3J	EXP	40		19990235	-	-	-	ME1			
BTG 6 P	Natural gas	10A	CE/EXP	360		19990016	Included	-	-	B2	
					CTV	19990016	Included	-	98000100	B2	12)

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.		
BTG 6	LPG	CE	65		19990466	Included	96000001	-	M2	
		EXP	40		19990235	-	-	-	ME1	
BTG 6 P	LPG	CE/EXP	360		19990016	Included	-	-	B2	
				CTV	19990016	Included	-	98000100	B2	12)

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

NOTES

12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

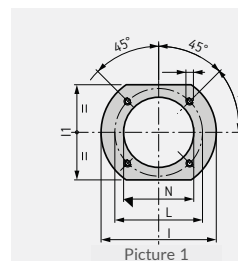
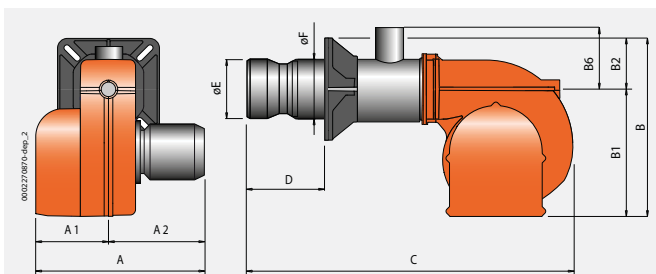
***) Maximum gas inlet pressure at pressure regulator.



	BTG 11	BTG 11 P	BTG 12
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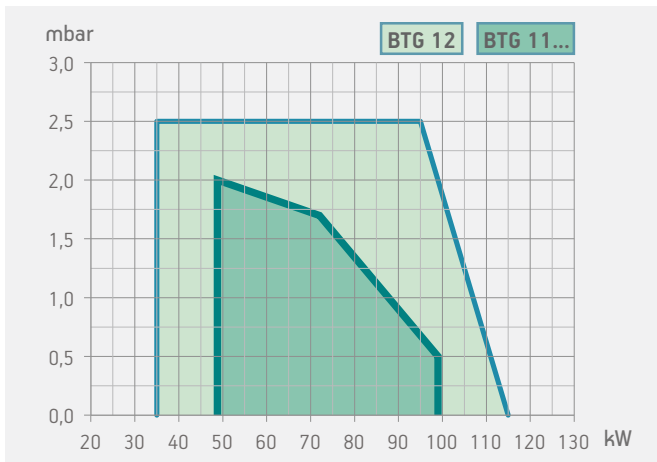
Gas burner compliant with European standard EN676. Operation:

	single-stage	two-stage	single-stage
Low NOx and CO emissions gas burner according to European standard EN676:			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.	•	•	•
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	manual
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	up	up
Flame detection by ionisation electrode with connector for microamperometer.	•	•	•
Electric protection rating:	IP40	IP40	IP40
Sound-proof plastic protective cover.	•	•	•



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	I1 mm	L mm	M mm	N mm	Pic.
BTG 11	246	123	123	289	219	70	53	475	90 ÷ 150	108	90	170	140	130 ÷ 155	M8	95	1
BTG 11 P	246	123	123	289	219	70	53	475	90 ÷ 150	108	90	170	140	130 ÷ 155	M8	95	1
BTG 12	246	123	123	289	219	70	53	450	70 ÷ 150	90	90	170	140	130 ÷ 155	M8	95	1



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 11	540	300	320	12
BTG 11 P	540	300	320	12
BTG 12	540	300	320	12

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz							
	class 2	48,8 ÷ 99,0	BTG 11	17060010	1N AC 50Hz 230V	0,1	1)
		48,8 ÷ 99,0	BTG 11 P	17070010	1N AC 50Hz 230V	0,1	1)
		35,0 ÷ 115,0	BTG 12	17170010	1N AC 50Hz 230V	0,1	1)
Frequency 60 Hz							
	class 2	48,8 ÷ 99,0	BTG 11	17060010	1N AC 60Hz 220V	0,1	1)
		48,8 ÷ 99,0	BTG 11 P	17070010	1N AC 60Hz 220V	0,1	1)
		35,0 ÷ 115,0	BTG 12	17170010	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION

300 mm long combustion head

GAS BURNER ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

1 Equipped with air closure device.

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

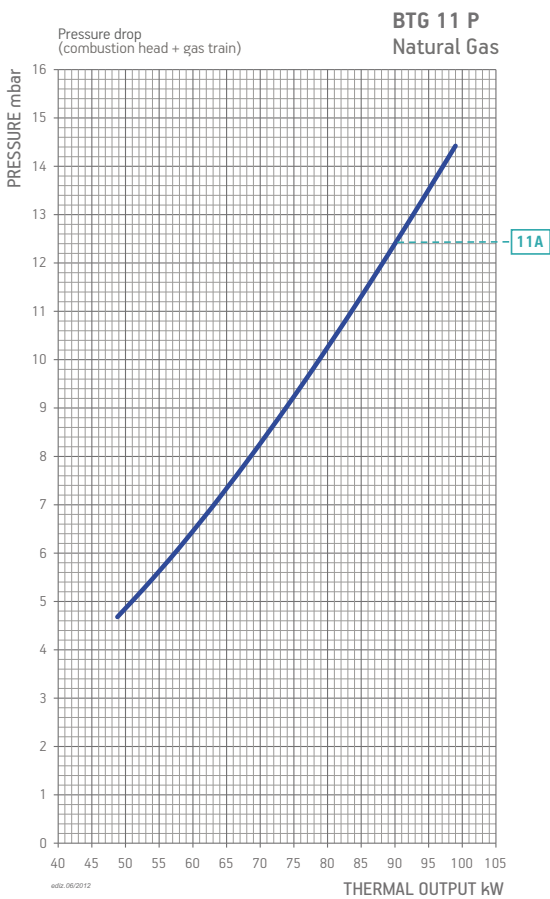
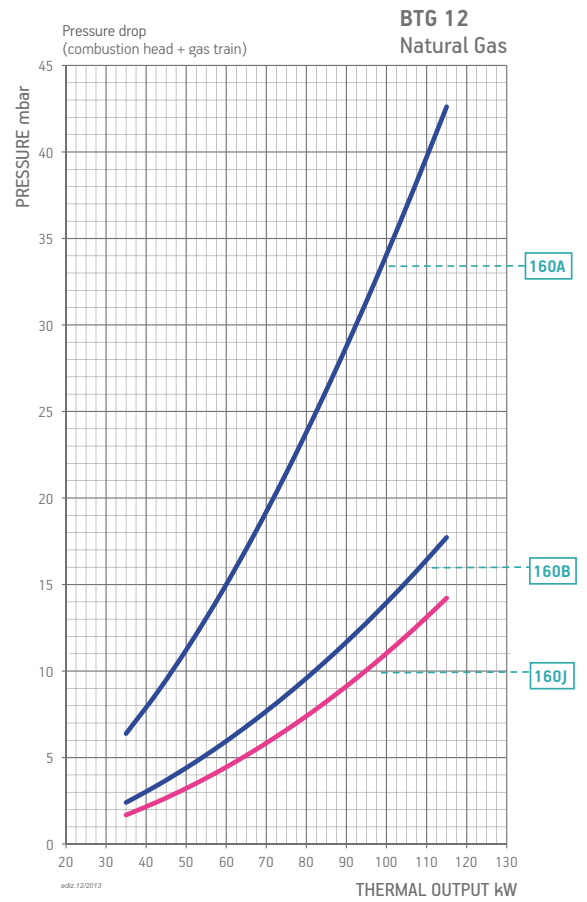
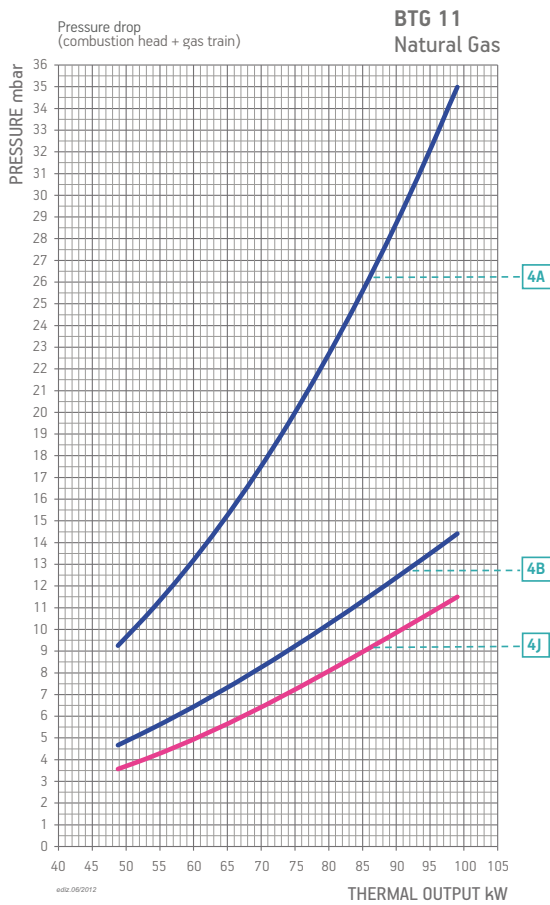
Natural Gas: $H_i = 35,80 \text{ MJ/m}^3 = 8550 \text{ kcal/m}^3$.

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.		
BTG 11	Natural gas	4A	CE/EXP	65		19990466	Included	96000001	-	M2	
		4B	CE/EXP	360		19990002	Included	-	-	M2	
		4J	EXP	40	CTV	19990002	Included	-	98000100	M2	12)
BTG 11 P	Natural gas	11A	CE/EXP	360		19990016	Included	-	-	B2	
					CTV	19990016	Included	-	98000100	B2	12)
		160A	CE/EXP	200		19990338	Included	96000001	-	M2	
BTG 12	Natural gas				CTV	19990338	Included	96000001	98000100	M2	12)
		160B	CE/EXP	360		19990002	Included	-	-	M2	
					CTV	19990002	Included	-	98000100	M2	12)
		160J	EXP	40		19990235	-	-	-	ME1	

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.		
BTG 11	LPG	CE	65		19990466	Included	96000001	-	M2	
		EXP	40		19990235	-	-	-	ME1	
BTG 11 P	LPG	CE/EXP	360		19990016	Included	-	-	B2	
				CTV	19990016	Included	-	98000100	B2	12)
BTG 12	LPG	CE	65		19990466	Included	96000001	-	M2	
		EXP	40		19990235	-	-	-	ME1	

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

NOTES

12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

***) Maximum gas inlet pressure at pressure regulator.



BTG 15 - 15 P



BTG 15 ME

BTG 15

BTG 15 P

BTG 15 ME

single-stage

two-stage

electronic
two-stage
progressive

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:

1:3

Low NOx and CO emissions gas burner according to European standard EN676:

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.

•

•

•

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

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.

•

•

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:

up

up

up

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:

IP40

IP40

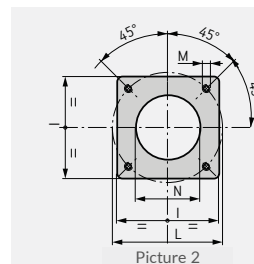
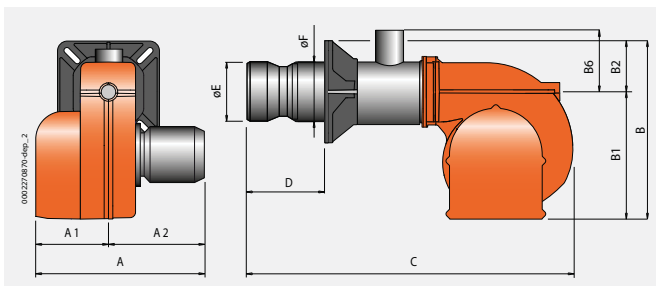
IP40

Sound-proof plastic protective cover.

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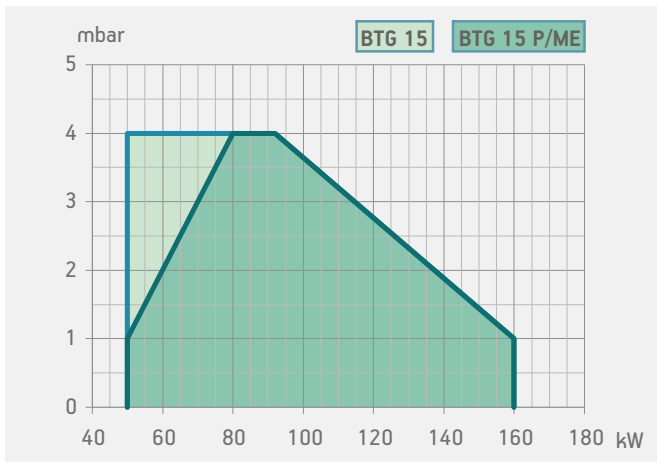
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Flange dimensions
and boiler drilling
template.

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.
BTG 15	303	158	145	368	275	93	70	680	150 ÷ 280	126	114	185	170 ÷ 210	M10	135	2
BTG 15 P	303	158	145	368	275	93	70	680	150 ÷ 280	126	114	185	170 ÷ 210	M10	135	2
BTG 15 ME	303	158	145	368	275	93	70	680	150 ÷ 280	126	114	185	170 ÷ 210	M10	135	2



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 15	780	370	410	18
BTG 15 P	780	370	410	18
BTG 15 ME	780	370	410	18

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz							
	class 2	50 ÷ 160	BTG 15	17080010	1N AC 50Hz 230V	0,18	1)
	class 2	50 ÷ 160	BTG 15 P	17090010	1N AC 50Hz 230V	0,18	1)
	class 2	50 ÷ 160	BTG 15 ME	17130020	1N AC 50Hz 230V	0,18	4)
Frequency 60 Hz							
	class 2	50 ÷ 160	BTG 15	17080010	1N AC 60Hz 220V	0,18	1)
	class 2	50 ÷ 160	BTG 15 P	17090010	1N AC 60Hz 220V	0,18	1)
	class 2	50 ÷ 160	BTG 15 ME	17130020	1N AC 60Hz 220V	0,18	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).

MODULATING MODE

DESCRIPTION	PART NO.
BTG 15 ME: modulation kit	98000059
BTG 15 ME: modulating probe kit (see page 288)	

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

- 1 Equipped with air closure device.
- 4 Equipped with air closure device.

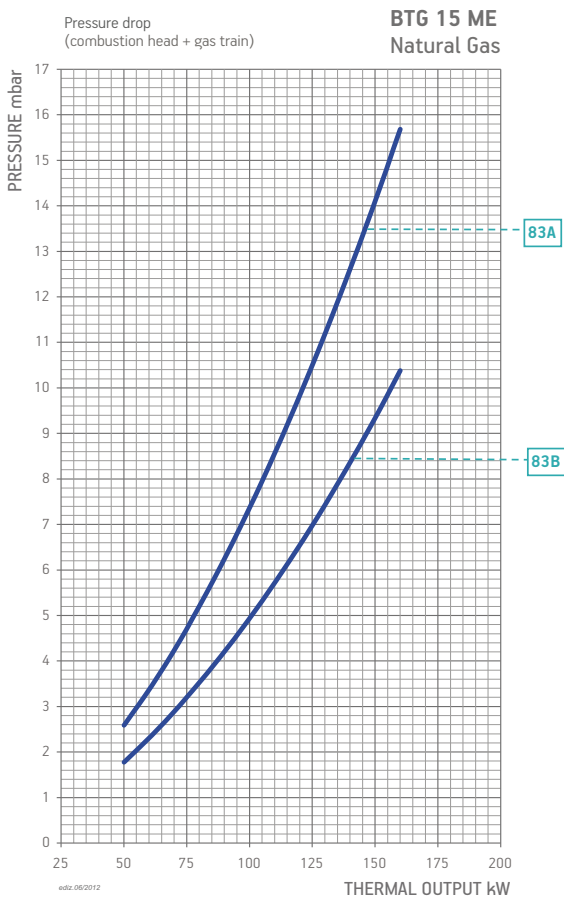
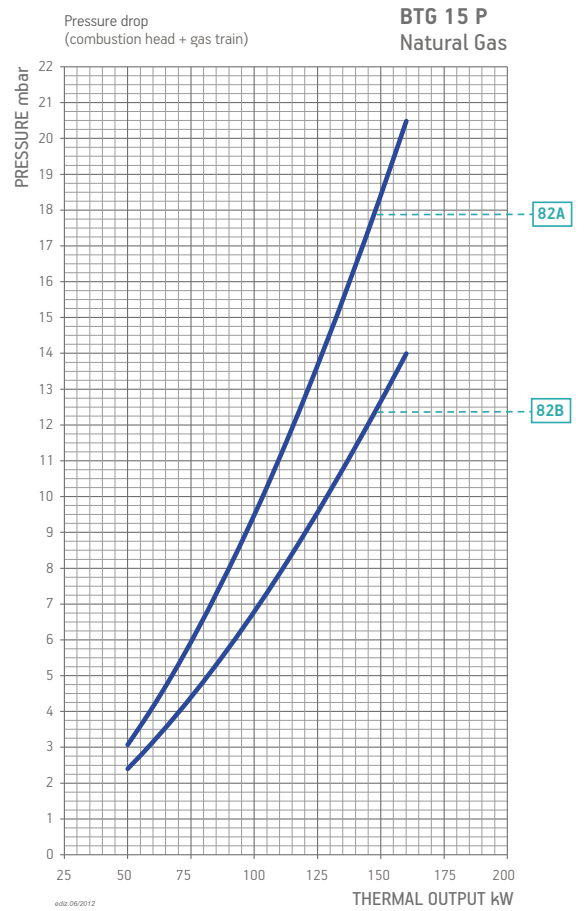
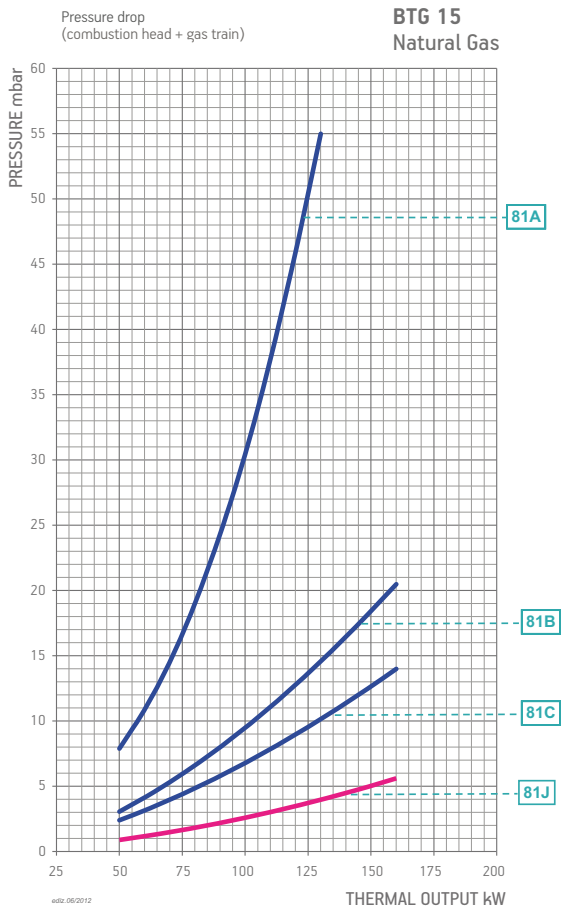
Net calorific value at reference conditions of 0°C, 1013mbar:

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

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.		
BTG 15	Natural gas	81A	CE/EXP	65		19990466	Included	96000001	-	M2	
		81B	CE/EXP	360		19990002	Included	-	-	M2	
					CTV	19990002	Included	-	98000100	M2	12)
		81C	CE/EXP	360		19990005	Included	-	-	M2	
					CTV	19990005	Included	-	98000100	M2	12)
		81J	EXP	40		19990004	-	-	-	ME1	
BTG 15 P	Natural gas	82A	CE/EXP	360		19990016	Included	-	-	B2	
					CTV	19990016	Included	-	98000100	B2	12)
		82B	CE/EXP	360		19990020	Included	-	-	B2	
					CTV	19990020	Included	-	98000100	B2	12)
BTG 15 ME	Natural gas	83A	CE/EXP	360	CTV	19990573	Included	-	Included	D2	
		83B	CE/EXP	360	CTV	19990574	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.		
BTG 15	LPG	CE/EXP	65		19990466	Included	96000001	-	M2	
BTG 15 P	LPG	CE/EXP	360		19990016	Included	-	-	B2	
				CTV	19990016	Included	-	98000100	B2	12)
BTG 15 ME	LPG	CE/EXP	360	CTV	19990573	Included	-	Included	D2	

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

NOTES

12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

***) Maximum gas inlet pressure at pressure regulator.



BTG 20 - 20 P



BTG 20 LX



BTG 20 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.

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.

CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter.

CE version gas train is complete with operation and safety valve with pneumatic 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:

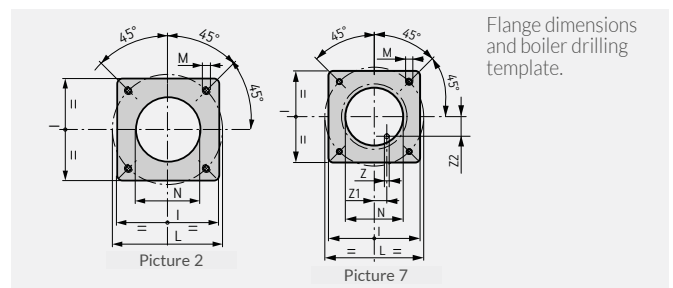
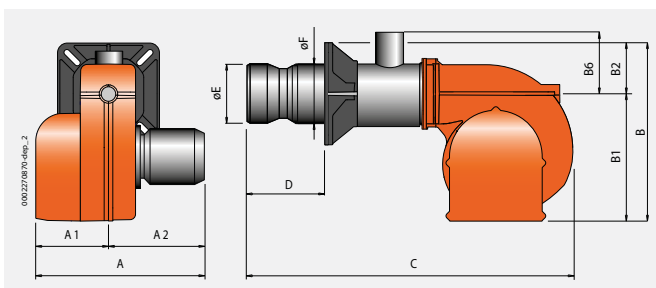
Flame detection by ionisation electrode with connector for microamperometer.

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

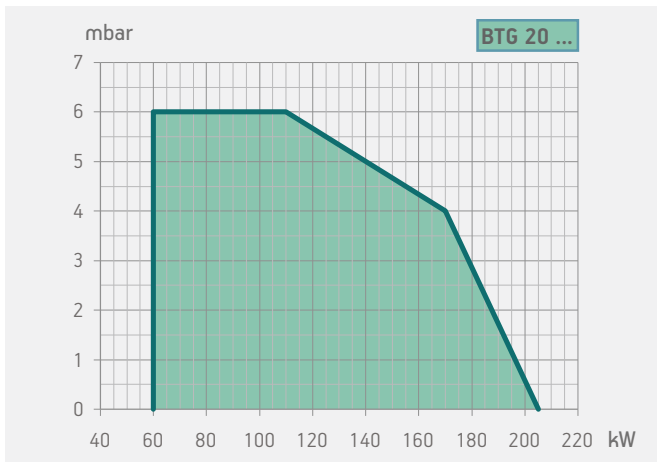
Electric protection rating:

Sound-proof plastic protective cover.

	BTG 20	BTG 20 P	BTG 20 LX	BTG 20 ME
	single-stage	two-stage	pneumatic two-stage progressive	electronic two-stage progressive
Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).			•	•
Modulation ratio:			1:3	1:3
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	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.	•	•	•	•
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	electric servomotor	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.	•	•		
CE version gas train is complete with operation and safety valve with pneumatic 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:	up	up	up	up
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:	IP40	IP40	IP40	IP40
Sound-proof plastic protective cover.	•	•	•	•



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	Z mm	Z1 mm	Z2 mm	Pic.
BTG 20	303	158	145	368	275	93	70	695	150 ÷ 300	127	114	185	170 ÷ 210	M10	135	-	-	-	2
BTG 20 P	303	158	145	368	275	93	70	695	150 ÷ 300	127	114	185	170 ÷ 210	M10	135	-	-	-	2
BTG 20 LX	303	158	145	368	275	93	70	695	150 ÷ 300	127	114	185	170 ÷ 210	M10	135	12	30,2	68,4	7
BTG 20 ME	303	158	145	368	275	93	70	695	150 ÷ 300	127	114	185	170 ÷ 210	M10	135	-	-	-	2



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 20	780	370	410	18
BTG 20 P	780	370	410	18
BTG 20 LX	780	370	410	18
BTG 20 ME	780	370	410	18

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz							
	class 3	60 ÷ 205	BTG 20	17100010	1N AC 50Hz 230V	0,18	1)
	class 3	60 ÷ 205	BTG 20 P	17110010	1N AC 50Hz 230V	0,18	1)
	class 3	60 ÷ 205	BTG 20 LX	15100010	1N AC 50Hz 230V	0,18	1)
	class 3	60 ÷ 205	BTG 20 ME	17120020	1N AC 50Hz 230V	0,18	4)
Frequency 60 Hz							
	class 3	60 ÷ 205	BTG 20	17100010	1N AC 60Hz 220V	0,18	1)
	class 3	60 ÷ 205	BTG 20 P	17110010	1N AC 60Hz 220V	0,18	1)
	class 3	60 ÷ 205	BTG 20 LX	15100010	1N AC 60Hz 220V	0,18	1)
	class 3	60 ÷ 205	BTG 20 ME	17120020	1N AC 60Hz 220V	0,18	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).

MODULATING MODE

DESCRIPTION	PART NO.
BTG 20 LX: modulation kit	98000056
BTG 20 ME: modulation kit	98000059
BTG 20 LX/20 ME: modulating probe kit (see page 288)	

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

- 1 Equipped with air closure device.
- 4 Equipped with air closure device.

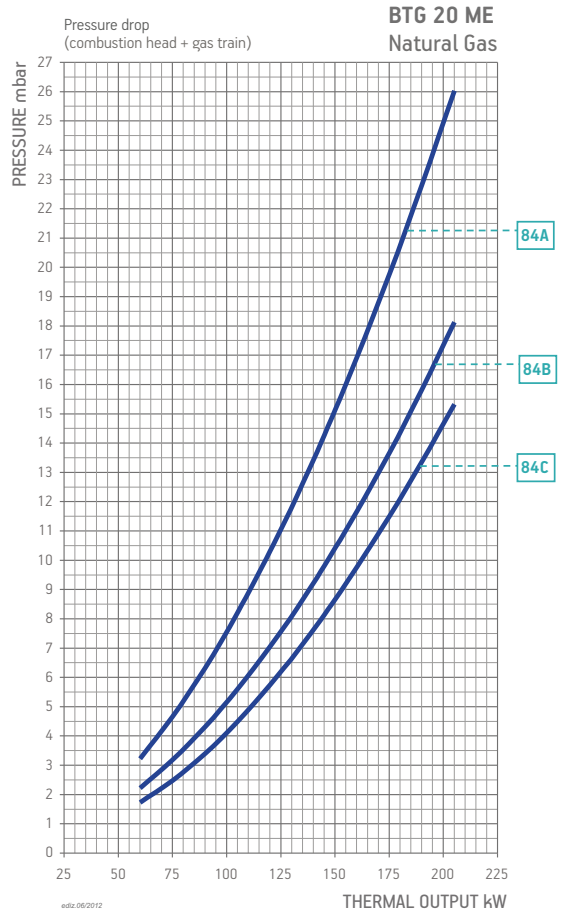
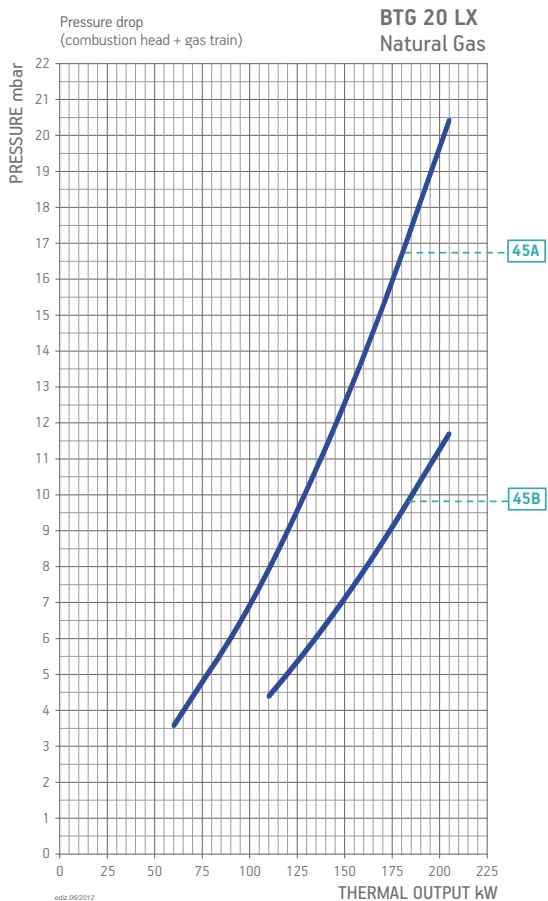
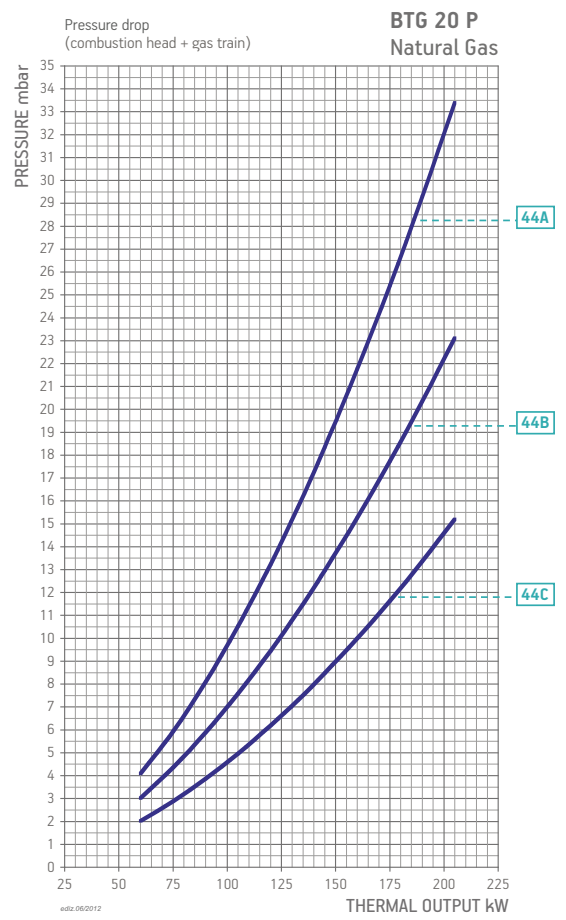
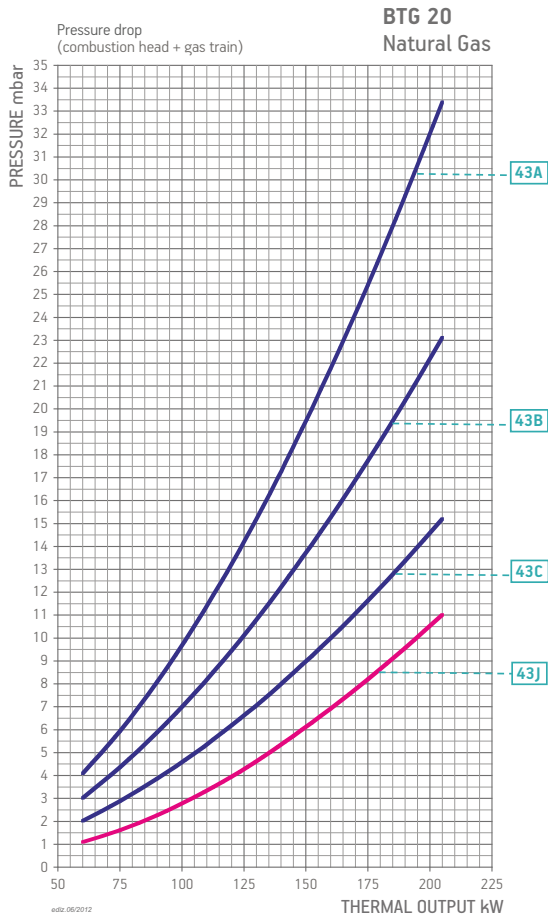
Net calorific value at reference conditions of 0°C, 1013mbar:

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



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.		
BTG 20	Natural gas	43A	CE/EXP	360		19990002	Included	-	-	M2	
					CTV	19990002	Included	-	98000100	M2	12)
		43B	CE/EXP	360		19990005	Included	-	-	M2	
					CTV	19990005	Included	-	98000100	M2	12)
		43C	CE/EXP	360		19990008	Included	96000031	-	M2	
CTV	19990008				Included	96000031	98000100	M2	12)		
		43J	EXP	40		19990004	-	-	-	ME1	
BTG 20 P	Natural gas	44A	CE/EXP	360		19990016	Included	-	-	B2	
					CTV	19990016	Included	-	98000100	B2	12)
		44B	CE/EXP	360		19990020	Included	-	-	B2	
					CTV	19990020	Included	-	98000100	B2	12)
44C	CE/EXP	360		19990024	Included	96000031	-	B2			
			CTV	19990024	Included	96000031	98000100	B2	12)		
BTG 20 LX	Natural gas	45A	CE/EXP	100		19990440	Included	-	-	D3	
				CTV	19990440	Included	-	98000100	D3	12)	
		360		19990447	Included	-	-	D3	9)		
			CTV	19990447	Included	-	98000100	D3	9) 12)		
		45B	CE/EXP	100		19990441	Included	96000031	-	D3	
CTV	19990441				Included	96000031	98000100	D3	12)		
BTG 20 ME	Natural gas	84A	CE/EXP	360	CTV	19990573	Included	-	Included	D2	
		84B	CE/EXP	360	CTV	19990574	Included	-	Included	D2	
		84C	CE/EXP	360	CTV	19990575	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.		
BTG 20	LPG	CE/EXP	360		19990002	Included	-	-	M2	
				CTV	19990002	Included	-	98000100	M2	12)
BTG 20 P	LPG	CE/EXP	360		19990016	Included	-	-	B2	
				CTV	19990016	Included	-	98000100	B2	12)
BTG 20 ME	LPG	CE/EXP	360	CTV	19990573	Included	-	Included	D2	

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

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.



BTG 28 - 28 P



BTG 28 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.

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.

CE version gas train is complete with 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:

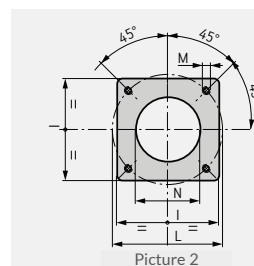
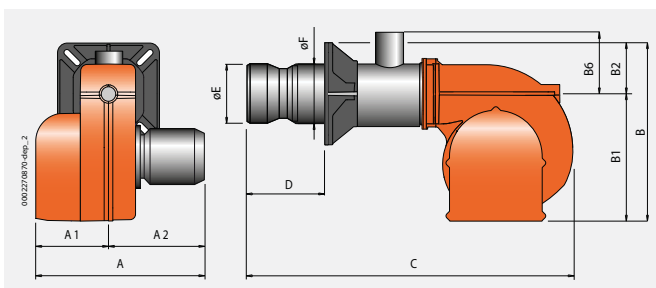
Flame detection by ionisation electrode with connector for microamperometer.

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

Electric protection rating:

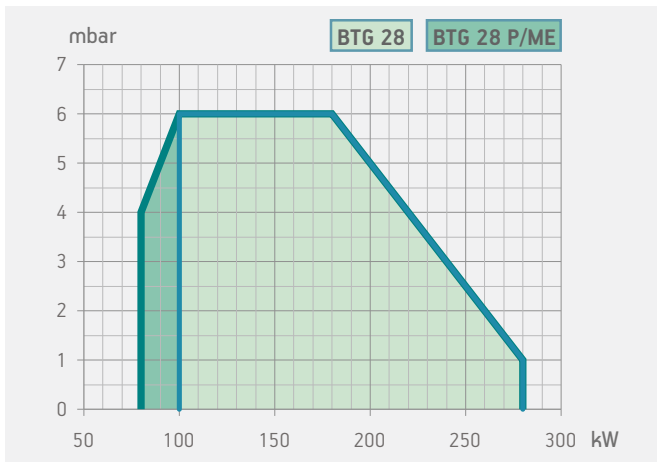
Sound-proof plastic protective cover.

	BTG 28	BTG 28 P	BTG 28 ME
	single-stage	two-stage	electronic two-stage progressive
Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).			•
Modulation ratio:			1:3
Low NOx and CO emissions gas burner according to European standard EN676:	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.	•	•	•
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	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.	•	•	
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:	up	up	up
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:	IP40	IP40	IP40
Sound-proof plastic protective cover.	•	•	•



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.
BTG 28	303	158	145	368	275	93	70	695	150 ÷ 300	135	114	185	170 ÷ 210	M10	145	2
BTG 28 P	303	158	145	368	275	93	70	695	150 ÷ 300	135	114	185	170 ÷ 210	M10	145	2
BTG 28 ME	303	158	145	368	275	93	70	695	150 ÷ 300	135	114	185	170 ÷ 210	M10	145	2



Model	Size of packaging			Weight kg
	L	P mm	H	
BTG 28	780	370	410	18
BTG 28 P	780	370	410	18
BTG 28 ME	780	370	410	18

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz							
	class 2	100 ÷ 280	BTG 28	17140010	1N AC 50Hz 230V	0,18	1)
	class 2	80 ÷ 280	BTG 28 P	17150010	1N AC 50Hz 230V	0,18	1)
	class 2	80 ÷ 280	BTG 28 ME	17160020	1N AC 50Hz 230V	0,18	4)
Frequency 60 Hz							
	class 2	100 ÷ 280	BTG 28	17145410	1N AC 60Hz 220V	0,25	1)
	class 2	80 ÷ 280	BTG 28 P	17155410	1N AC 60Hz 220V	0,25	1)
	class 2	80 ÷ 280	BTG 28 ME	17165420	1N AC 60Hz 220V	0,25	4)

MODULATING MODE

DESCRIPTION	PART NO.
BTG 28 ME: modulation kit	98000059
BTG 28 ME: modulating probe kit (see page 288)	

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTES

- 1 Equipped with air closure device.
- 4 Equipped with air closure device.

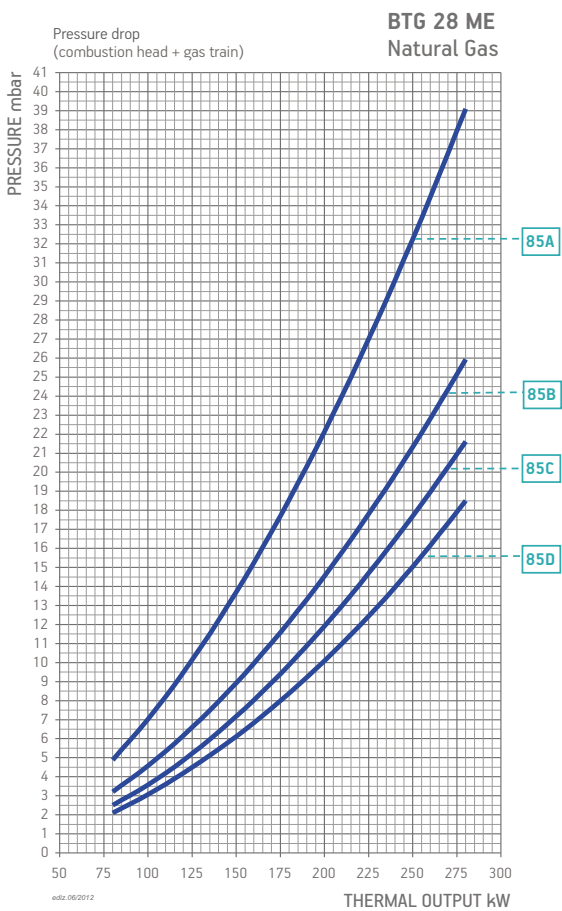
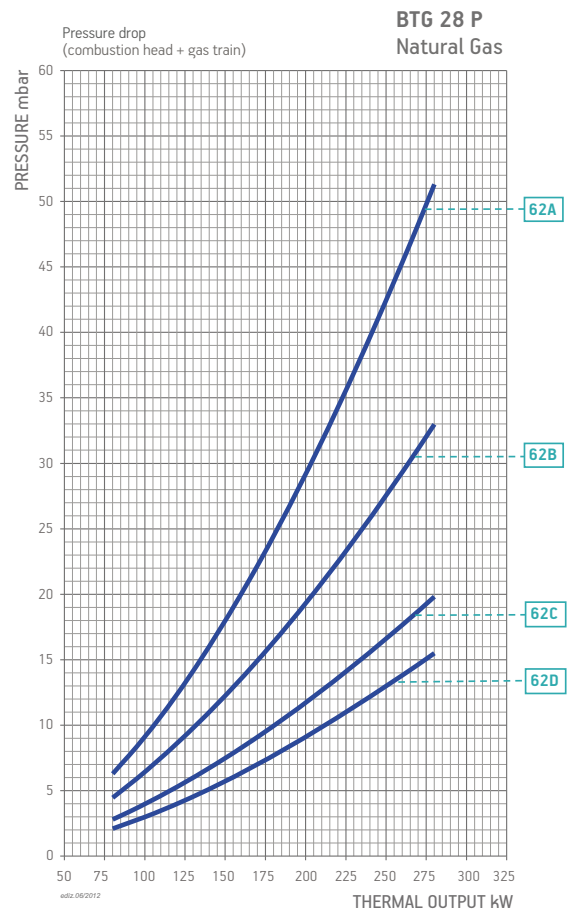
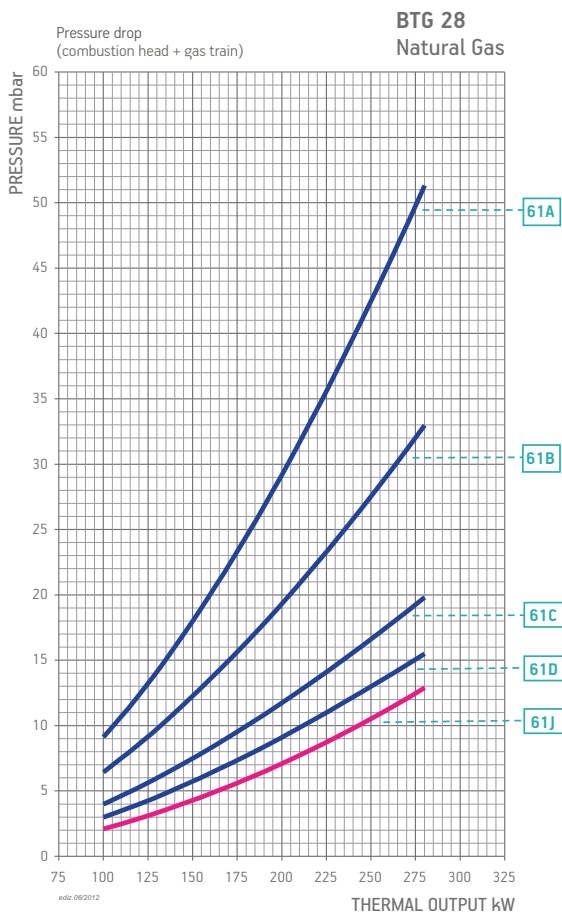
Net calorific value at reference conditions of 0°C, 1013mbar:

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



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.		
BTG 28	Natural gas	61A	CE/EXP	360	CTV	19990002	Included	-	-	M2	
						19990002	Included	-	98000100	M2	12)
		61B	CE/EXP	360	CTV	19990005	Included	-	-	M2	
						19990005	Included	-	98000100	M2	12)
		61C	CE/EXP	360	CTV	19990008	Included	96000031	-	M2	
						19990008	Included	96000031	98000100	M2	12)
61D	CE/EXP	360	CTV	19990166	Included	96000031	-	M2			
				19990166	Included	96000031	98000100	M2	12)		
61J	EXP	40		19990134	-	96000028	-	ME1			
BTG 28 P	Natural gas	62A	CE/EXP	360	CTV	19990016	Included	-	-	B2	
						19990016	Included	-	98000100	B2	12)
		62B	CE/EXP	360	CTV	19990020	Included	-	-	B2	
						19990020	Included	-	98000100	B2	12)
		62C	CE/EXP	360	CTV	19990024	Included	96000031	-	B2	
						19990024	Included	96000031	98000100	B2	12)
62D	CE/EXP	360	CTV	19990168	Included	96000031	-	B2			
				19990168	Included	96000031	98000100	B2	12)		
BTG 28 ME	Natural gas	85A	CE/EXP	360	CTV	19990573	Included	-	Included	D2	
		85B	CE/EXP	360	CTV	19990574	Included	-	Included	D2	
		85C	CE/EXP	360	CTV	19990575	Included	-	Included	D2	
		85D	CE/EXP	360	CTV	19990576	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.		
BTG 28	LPG	CE/EXP	360	CTV	19990002	Included	-	-	M2	
					19990002	Included	-	98000100	M2	12)
BTG 28 P	LPG	CE/EXP	360	CTV	19990016	Included	-	-	B2	
					19990016	Included	-	98000100	B2	12)
BTG 28 ME	LPG	CE/EXP	360	CTV	19990573	Included	-	Included	D2	

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

NOTES

12 Valve tightness control not required by EN676.

CTV Gas train with Valve Tightness Control.

***) Maximum gas inlet pressure at pressure regulator.

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.

CE 0085



TBG 35



TBG 35 P



TBG 35 PN



TBG 35 MC



TBG 35 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.

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.

CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter.

CE version gas train is complete with operation and safety valve with pneumatic 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, 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.

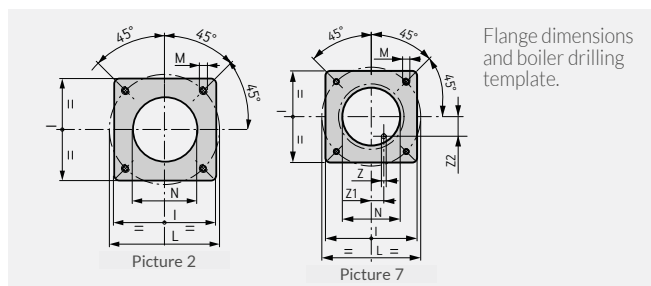
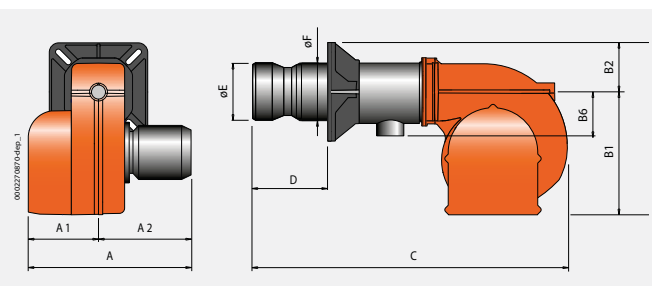
Fail proof connectors for burner/gas train connection.

Gas train outlet:

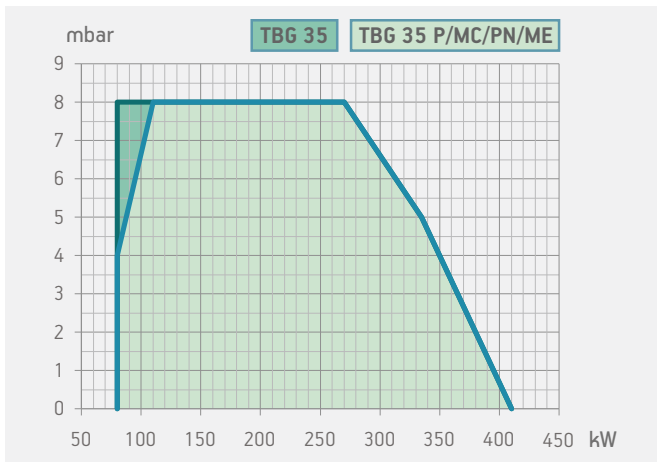
Flame detection by ionisation electrode with connector for microamperometer.

Electric protection rating:

	TBG 35	TBG 35 P	TBG 35 PN	TBG 35 MC	TBG 35 ME
	single-stage	two-stage	pneumatic two-stage progressive	mechanical two-stage progressive	electronic two-stage progressive
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
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	class 3	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.	•	•	•	•	•
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	electric servomotor	mechanical cam	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.	•				
CE version gas train is complete with operation and safety valve with pneumatic 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, 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:	up/down	down	up/down	down	up/down
Flame detection by ionisation electrode with connector for microamperometer.	•	•	•	•	•
Electric protection rating:	IP40	IP40	IP40	IP40	IP40



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	Z mm	Z1 mm	Z2 mm	Pic.
TBG 35	440	210	230	378	270	108	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2
TBG 35 P	440	210	230	378	270	108	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2
TBG 35 PN	490	260	230	378	270	108	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	12	42,5	73,6	7
TBG 35 MC	520	290	230	420	270	150	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2
TBG 35 ME	465	180	285	377	260	117	160	840	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2



Model	Size of packaging			Weight kg
	L	P mm	H	
TBG 35	1030	510	410	38
TBG 35 P	1030	510	410	38
TBG 35 PN	1030	510	410	38
TBG 35 MC	980	540	480	40
TBG 35 ME	980	540	480	40

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz							
	class 3	80 ÷ 410	TBG 35	17320010	1N AC 50Hz 230V	0,37	
	class 3	80 ÷ 410	TBG 35 P	17330010	1N AC 50Hz 230V	0,37	4)
	class 3	80 ÷ 410	TBG 35 PN	17340010	1N AC 50Hz 230V	0,37	4)
	class 3	80 ÷ 410	TBG 35 MC	17360010	1N AC 50Hz 230V	0,37	4)
NEW	class 3	80 ÷ 410	TBG 35 ME	17350010	1N AC 50Hz 230V	0,37	4)
Frequency 60 Hz							
	class 3	80 ÷ 410	TBG 35	17325410	1N AC 60Hz 220V	0,37	
	class 3	80 ÷ 410	TBG 35 P	17335410	1N AC 60Hz 220V	0,37	4)
	class 3	80 ÷ 410	TBG 35 PN	17345410	1N AC 60Hz 220V	0,37	4)
	class 3	80 ÷ 410	TBG 35 MC	17365410	1N AC 60Hz 220V	0,37	4)
NEW	class 3	80 ÷ 410	TBG 35 ME	17355410	1N AC 60Hz 220V	0,37	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).

MODULATING MODE

DESCRIPTION	PART NO.
TBG 35 PN/35 MC: modulation kit	98000056
TBG 35 ME: modulation kit	98000059
TBG 35 PN/35 MC/35 ME: modulating probe kit (see page 288)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 293)	97980054

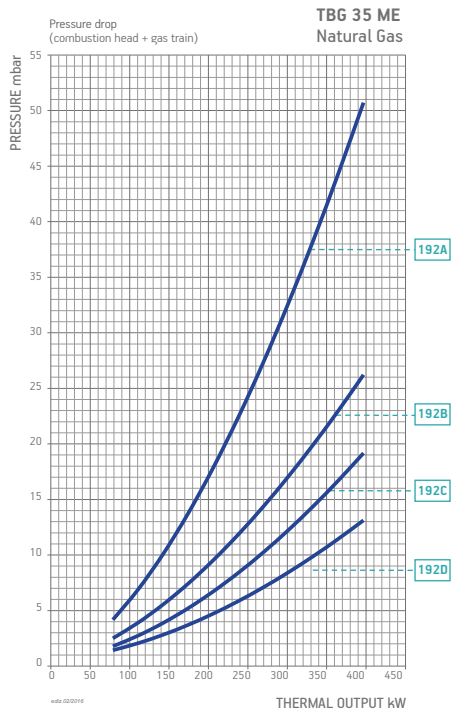
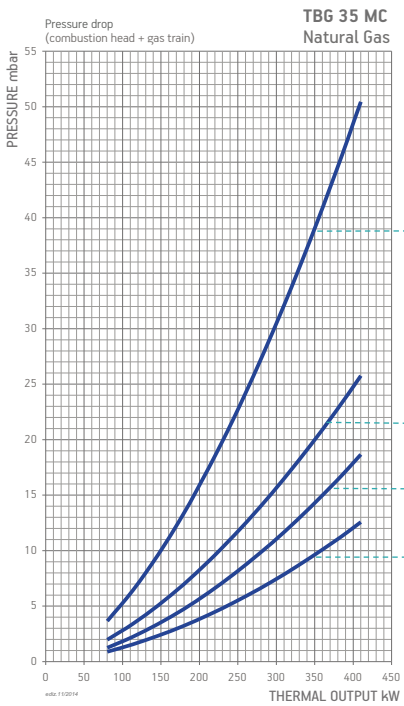
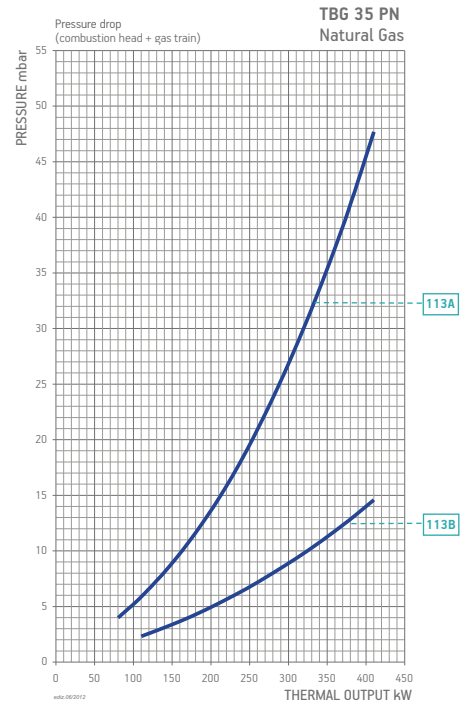
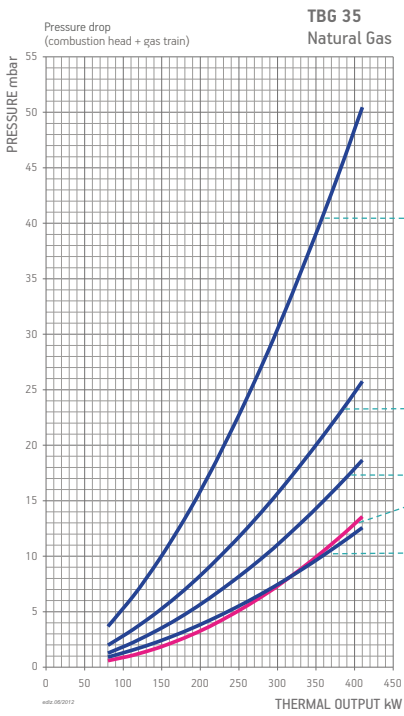
GAS BURNERS ACCESSORIES

TBG 35/35 P/35 PN/35 MC: boiler coupling kit, plug for wiring.
TBG 35 ME: 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



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 35	Natural gas	111A	CE/EXP	360	CTV	19990545	Included	96000005	-	M2	
						19990545	Included	96000005	98000100	M2	12)
		111B	CE/EXP	360	CTV	19990546	Included	96000004	-	M2	
						19990546	Included	96000004	98000100	M2	12)
		111C	CE/EXP	360	CTV	19990547	Included	96000004	-	M2	
						19990547	Included	96000004	98000100	M2	12)
111D	CE/EXP	360	CTV	19990548	Included	-	-	M2			
				19990548	Included	-	98000100	M2	12)		
111J	EXP	40		19990134	-	96000006	-	ME1			
TBG 35 P	Natural gas	112A	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	
						19990545	Included	96000005	98000100	B7	12)
		112B	CE/EXP	360	CTV	19990546	Included	96000004	-	B7	
						19990546	Included	96000004	98000100	B7	12)
		112C	CE/EXP	360	CTV	19990547	Included	96000004	-	B7	
						19990547	Included	96000004	98000100	B7	12)
112D	CE/EXP	360	CTV	19990548	Included	-	-	B7			
				19990548	Included	-	98000100	B7	12)		
TBG 35 PN	Natural gas	113A	CE/EXP	100	CTV	19990440	Included	96000005	-	D3	
				360	CTV	19990440	Included	96000005	98000100	D3	12)
		113A	CE/EXP	360	CTV	19990447	Included	96000005	-	D3	9)
						19990447	Included	96000005	98000100	D3	9) 12)
		113B	CE/EXP	100	CTV	19990441	Included	96000004	-	D3	
						19990441	Included	96000004	98000100	D3	12)
TBG 35 MC	Natural gas	177A	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	
						19990545	Included	96000005	98000101	B7	12)
		177B	CE/EXP	360	CTV	19990546	Included	96000004	-	B7	
						19990546	Included	96000004	98000101	B7	12)
		177C	CE/EXP	360	CTV	19990547	Included	96000004	-	B7	
						19990547	Included	96000004	98000101	B7	12)
177D	CE/EXP	360	CTV	19990548	Included	-	-	B7			
				19990548	Included	-	98000101	B7	12)		
TBG 35 ME	Natural gas	192A	CE/EXP	360	CTV	19990555	Included	96000005	Included	D2	
		192B	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2	
		192C	CE/EXP	360	CTV	19990557	Included	96000004	Included	D2	
		192D	CE/EXP	360	CTV	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 35	LPG	CE/EXP	360	CTV	19990545	Included	96000005	-	M2	
					19990545	Included	96000005	98000100	M2	12)
TBG 35 P	LPG	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	
					19990545	Included	96000005	98000100	B7	12)
TBG 35 PN	LPG	CE/EXP	360	CTV	19990440	Included	96000005	-	D3	
					19990440	Included	96000005	98000100	D3	12)
TBG 35 MC	LPG	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	
					19990545	Included	96000005	98000101	B7	12)
TBG 35 ME	LPG	CE/EXP	360	CTV	19990555	Included	96000005	Included	D2	

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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

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.



TBG 45

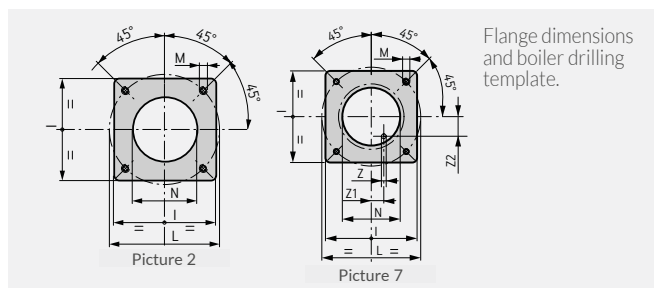
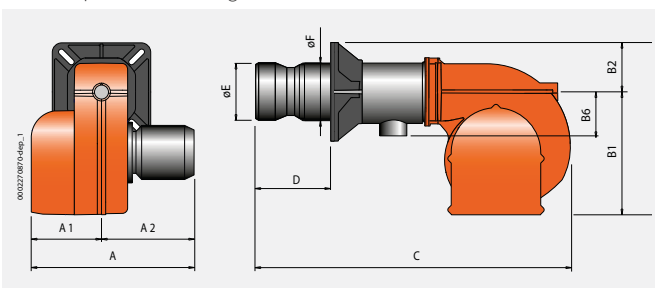


TBG 45 P

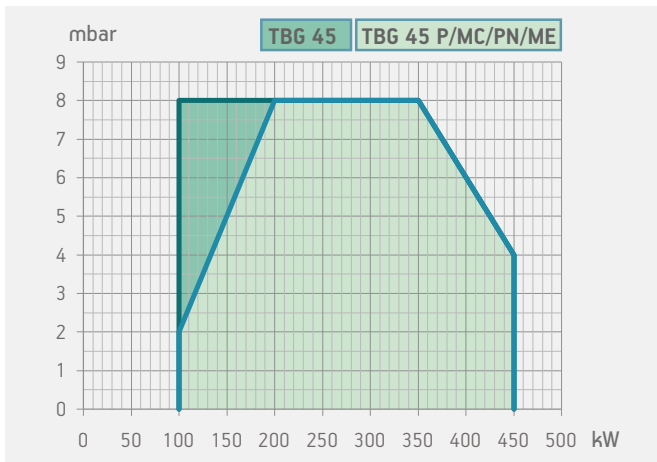


TBG 45 PN

	TBG 45	TBG 45 P	TBG 45 P V	TBG 45 PN
Gas burner compliant with European standard EN676. Operation:	single-stage	two-stage	two-stage	pneumatic two-stage progressive
Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).				•
Modulation ratio:				1:4
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	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	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.			•	
CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter.	•	•		
CE version gas train is complete with operation and safety with pneumatic 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, 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	down	up/down
Flame detection by ionisation electrode with connector for microamperometer.	•	•	•	•
Electric protection rating:	IP44	IP44	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 mm	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
TBG 45 P V	550	270	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	-	-	-	2
TBG 45 PN	500	220	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	145	12	42,5	73,6	7



Model	Size of packaging			Weight kg
	L	P mm	H	
TBG 45	970	570	480	40
TBG 45 P	970	570	480	40
TBG 45 P V	970	570	480	42
TBG 45 PN	970	570	480	40

		Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
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)
		class 3	100 ÷ 450	TBG 45 P V	17210020	1N AC 50Hz 230V	0,5	4)
		class 3	100 ÷ 450	TBG 45 PN	17220010	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)
		class 3	100 ÷ 450	TBG 45 P V	17210020	1N AC 60Hz 220V	0,5	4)
		class 3	100 ÷ 450	TBG 45 PN	17225410	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).

MODULATING MODE

DESCRIPTION	PART NO.
TBG 45 PN: modulation kit	98000058
TBG 45 PN: modulating probe kit (see page 288)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 293)	97980054

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

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.

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. 0085



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.

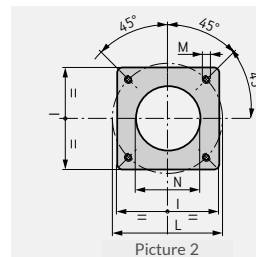
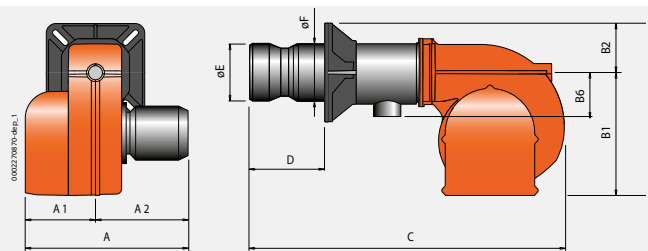
Gas train outlet:

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.

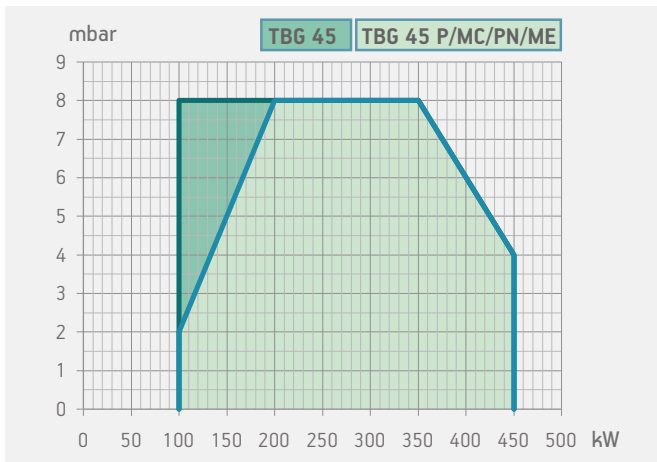
Electric protection rating:

	TBG 45 MC	TBG 45 ME	TBG 45 ME V	TBG 45 ME V O2	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 O2	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 mm	H	
TBG 45 MC	1070	800	700	49
TBG 45 ME	970	570	480	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 kit LCM 100 (see page 288)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 45 MC: modulation kit	98000058
TBG 45 ME: modulation kit	98000059
TBG 45 MC/45 ME: modulating probe kit (see page 288)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 293)	97980054

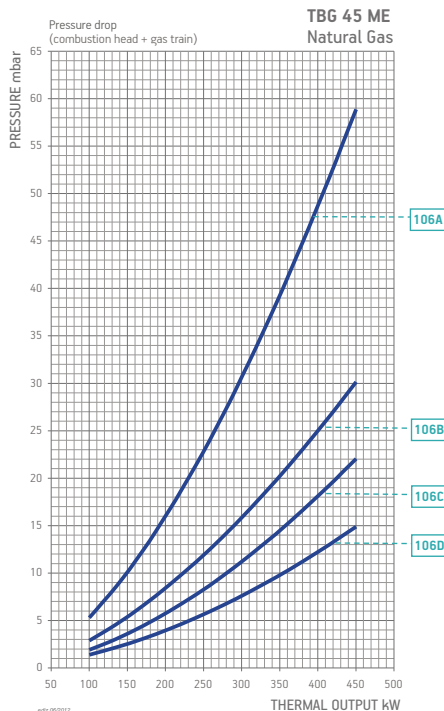
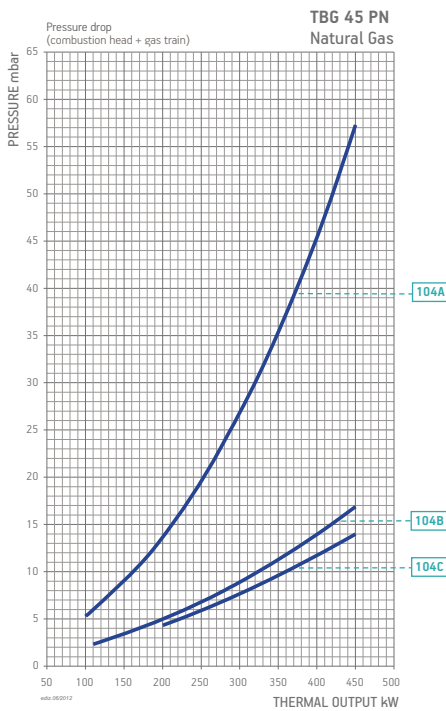
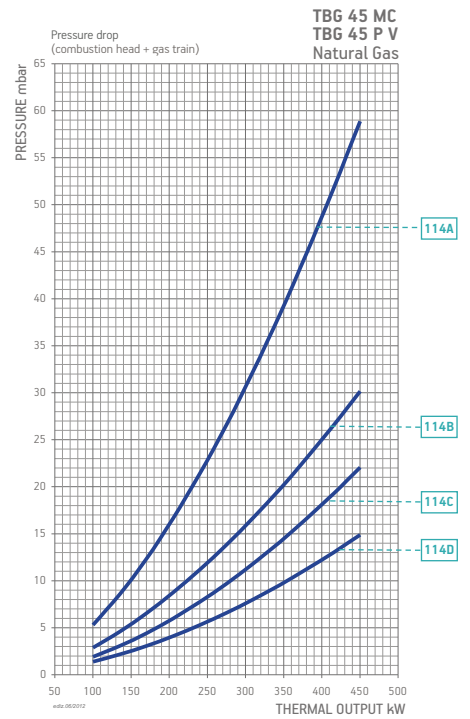
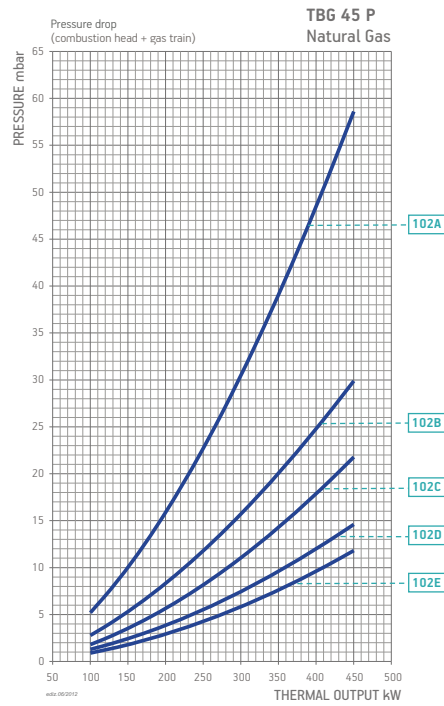
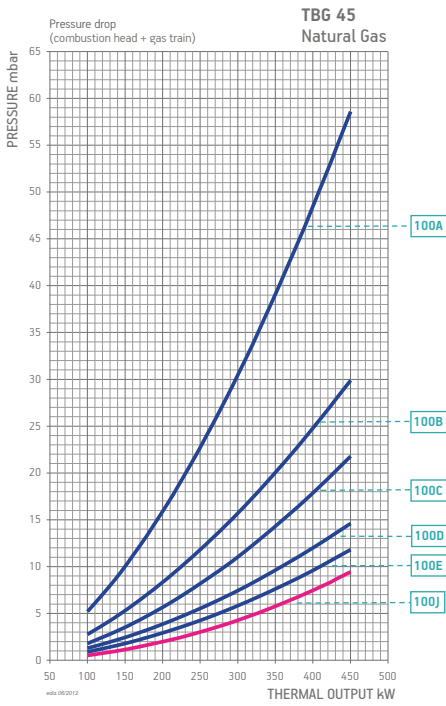
GAS BURNERS ACCESSORIES

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



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

For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

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.

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			
						19990510	Included	96000005	98000101	B2	12)		
			EXP	360	CTV	19990545	Included	96000005	-	M2			
						19990545	Included	96000005	98000101	M2			
			100B	CE/EXP	360	CTV	19990511	Included	96000004	-	B2		
							19990511	Included	96000004	98000101	B2	12)	
		EXP		360	CTV	19990546	Included	96000004	-	M2			
		100C	CE/EXP	360	CTV	19990512	Included	96000004	-	B2			
						19990512	Included	96000004	98000101	B2	12)		
			EXP	360	CTV	19990547	Included	96000004	-	M2			
		100D	CE/EXP	360	CTV	19990513	Included	-	98000101	B2	12)		
						19990548	Included	-	-	M2			
			EXP	360	CTV	19990548	Included	-	98000101	M2			
		100E	CE/EXP	360	CTV	19990514	Included	96000013	-	B2			
						19990514	Included	96000013	98000101	B2	12)		
			EXP	360	CTV	19990549	Included	96000013	98000101	M2			
		100J	EXP	140		19990471	-	-	-	ME4			
		TBG 45 P	Natural gas	102A	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	
								19990510	Included	96000005	98000101	B2	12)
				102B	CE/EXP	360	CTV	19990511	Included	96000004	-	B2	
19990511	Included							96000004	98000101	B2	12)		
102C	CE/EXP			360	CTV	19990512	Included	96000004	-	B2			
						19990512	Included	96000004	98000101	B2	12)		
102D	CE/EXP	360	CTV	19990513	Included	-	98000101	B2	12)				
				19990513	Included	-	-	B2					
102E	CE/EXP	360	CTV	19990514	Included	96000013	-	B2					
				19990514	Included	96000013	98000101	B2	12)				
TBG 45 P V TBG 45 MC	Natural gas	114A	CE/EXP	360	CTV	19990545	Included	96000005	-	B7			
						19990545	Included	96000005	98000101	B7	12)		
		114B	CE/EXP	360	CTV	19990546	Included	96000004	-	B7			
						19990546	Included	96000004	98000101	B7	12)		
		114C	CE/EXP	360	CTV	19990547	Included	96000004	-	B7			
19990547	Included					96000004	98000101	B7	12)				
114D	CE/EXP	360	CTV	19990548	Included	-	98000101	B7	12)				
TBG 45 PN	Natural gas	104A	CE/EXP	100	CTV	19990440	Included	96000005	-	D3			
						19990440	Included	96000005	98000101	D3	12)		
		360	CTV	19990447	Included	96000005	-	D3	9)				
				19990447	Included	96000005	98000101	D3	9) 12)				
		104B	CE/EXP	100	CTV	19990441	Included	96000004	-	D3			
						19990441	Included	96000004	98000101	D3	12)		
104C	CE/EXP	100	CTV	19990442	Included	-	98000101	D3	12)				
				19990442	Included	-	-	D3					
TBG 45 ME TBG 45 ME V TBG 45 ME V O2 TBG 45 ME V CO	Natural gas	106A	CE/EXP	360	CTV	19990555	Included	96000005	Included	D2			
		106B	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2			
		106C	CE/EXP	360	CTV	19990557	Included	96000004	Included	D2			
		106D	CE/EXP	360	CTV	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	LPG	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	
					19990510	Included	96000005	98000101	B2	12)
		EXP	360	CTV	19990545	Included	96000005	-	M2	
TBG 45 P	LPG	CE/EXP	360	CTV	19990510	Included	96000005	-	B2	
					19990510	Included	96000005	98000101	B2	12)
TBG 45 PV TBG 45 MC	LPG	CE/EXP	360	CTV	19990545	Included	96000005	-	B7	
					19990545	Included	96000005	98000101	B7	12)
TBG 45 PN	LPG	CE/EXP	360	CTV	19990440	Included	96000005	-	D3	
					19990440	Included	96000005	98000101	D3	12)
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	



TBG 60

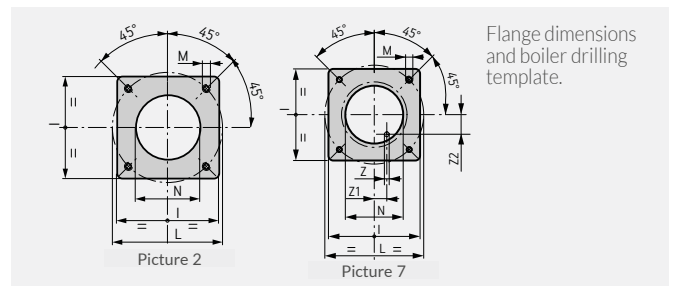
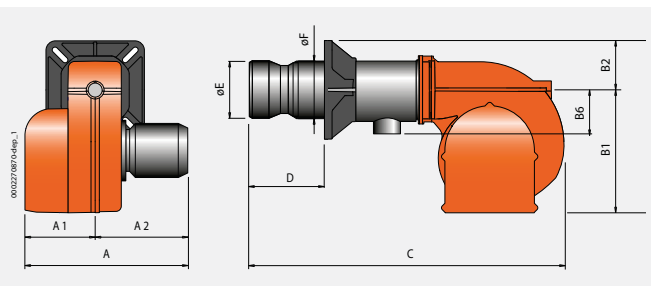


TBG 60 P

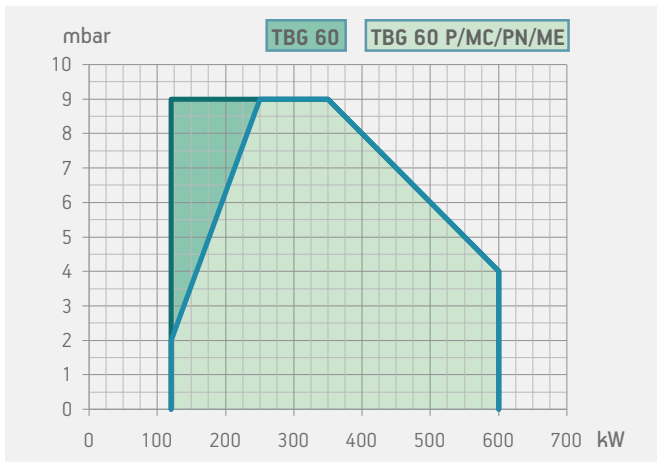


TBG 60 PN

	TBG 60	TBG 60 P	TBG 60 P V	TBG 60 PN
Gas burner compliant with European standard EN676. Operation:	single-stage	two-stage	two-stage	pneumatic two-stage progressive
Continuous modulation operation by installing P.I.D. controller in the control panel (to be ordered separately with modulation probe).				•
Modulation ratio:				1:4
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	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	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.			•	
CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter.	•	•		
CE version gas train is complete with operation and safety valve with pneumatic 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, 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	down	up/down
Flame detection by ionisation electrode with connector for microamperometer.	•	•	•	•
Electric protection rating:	IP44	IP44	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 mm	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 60	480	200	280	455	325	130	160	880	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	-	-	-	2
TBG 60 P	550	270	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	-	-	-	2
TBG 60 P V	550	270	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	-	-	-	2
TBG 60 PN	500	220	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	12	79	45,5	7



Model	Size of packaging			Weight kg
	L	P mm	H	
TBG 60	970	570	480	42
TBG 60 P	970	570	480	42
TBG 60 PV	970	570	480	44
TBG 60 PN	970	570	480	42

		Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz								
•		class 3	120 ÷ 600	TBG 60	17270010	3N AC 50Hz 400V	0,74	
		class 3	120 ÷ 600	TBG 60 P	17280010	3N AC 50Hz 400V	0,74	4)
		class 3	120 ÷ 600	TBG 60 P V	17280020	1N AC 50Hz 230V	0,74	4)
		class 3	120 ÷ 600	TBG 60 PN	17290010	3N AC 50Hz 400V	0,74	4)
Frequency 60 Hz								
•		class 3	120 ÷ 600	TBG 60	17275410	3N AC 60Hz 380V	0,65	
		class 3	120 ÷ 600	TBG 60 P	17285410	3N AC 60Hz 380V	0,65	4)
		class 3	120 ÷ 600	TBG 60 P V	17280020	1N AC 60Hz 220V	0,74	4)
		class 3	120 ÷ 600	TBG 60 PN	17295410	3N AC 60Hz 380V	0,65	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).

MODULATING MODE

DESCRIPTION	PART NO.
TBG 60 PN: modulation kit	98000058
TBG 60 PN: modulating probe kit (see page 288)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 293)	97980054

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

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.

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 60 MC



TBG 60 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.

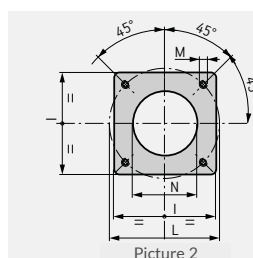
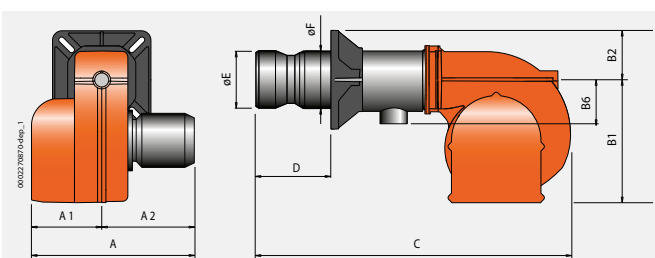
Gas train outlet:

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.

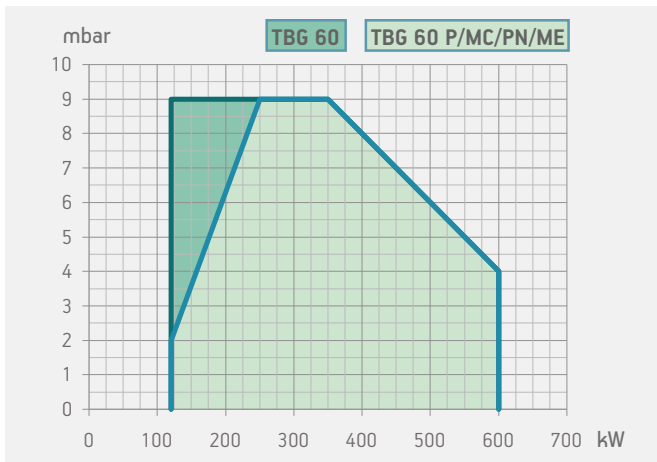
Electric protection rating:

	TBG 60 MC	TBG 60 ME	TBG 60 ME V	TBG 60 ME V O2	TBG 60 ME V CO
	mechanical two-stage progressive	electronic two-stage progressive	modulating electronic	modulating electronic	modulating electronic
	•	•			
Modulation ratio:	1:5	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	class 3	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:	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, 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 equipped either with display showing the working process and with the keyboard for the burner adjustment.		•	•	•	•
Electric protection rating:	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 60 MC	610	330	280	455	325	130	160	880	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	2
TBG 60 ME	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	2
TBG 60 ME V	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	2
TBG 60 ME V O2	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	2
TBG 60 ME V CO	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	160	2



Model	Size of packaging			Weight kg
	L	P mm	H	
TBG 60 MC	1070	800	700	51
TBG 60 ME	970	570	480	42
TBG 60 ME V	1050	750	480	44
TBG 60 ME V O2	1070	800	610	79
TBG 60 ME V CO	1070	800	610	93

		O ₂	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Notes
Frequency 50 Hz										
				class 3	120 ÷ 600	TBG 60 MC	17310010	3N AC 50Hz 400V	0,74	4)
				class 3	120 ÷ 600	TBG 60 ME	17300020	3N AC 50Hz 400V	0,74	4)
NEW	•			class 3	120 ÷ 600	TBG 60 ME V	17300025	1N AC 50Hz 230V	0,74	4)
NEW	•	•		class 3	120 ÷ 600	TBG 60 ME V O2	17300026	1N AC 50Hz 230V	0,74	4)
NEW	•	•	•	class 3	120 ÷ 600	TBG 60 ME V CO	17300027	1N AC 50Hz 230V	0,74	4)
Frequency 60 Hz										
				class 3	120 ÷ 600	TBG 60 MC	17315410	3N AC 60Hz 380V	0,65	4)
				class 3	120 ÷ 600	TBG 60 ME	17315420	3N AC 60Hz 380V	0,65	4)
NEW	•			class 3	120 ÷ 600	TBG 60 ME V	on request	1N AC 60Hz 220V	0,65	4)
NEW	•	•		class 3	120 ÷ 600	TBG 60 ME V O2	on request	1N AC 60Hz 220V	0,65	4)
NEW	•	•	•	class 3	120 ÷ 600	TBG 60 ME V CO	on request	1N AC 60Hz 220V	0,65	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 60 ME V: modulating probe kit LCM 100 (see page 288)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 60 MC: modulation kit	98000058
TBG 60 ME: modulation kit	98000059
TBG 60 MC/60 ME: modulating probe kit (see page 288)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 293)	97980054

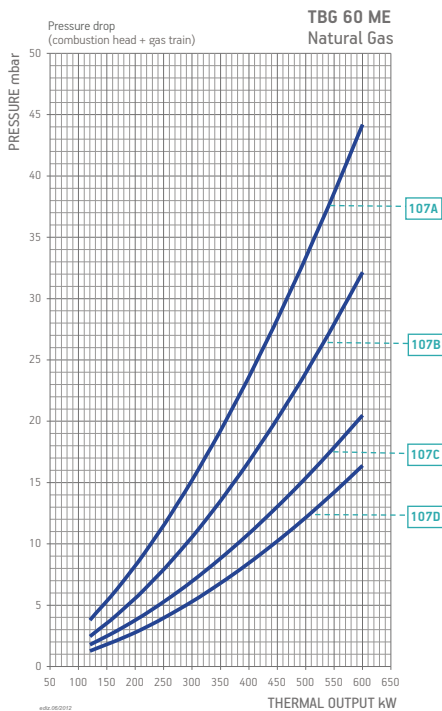
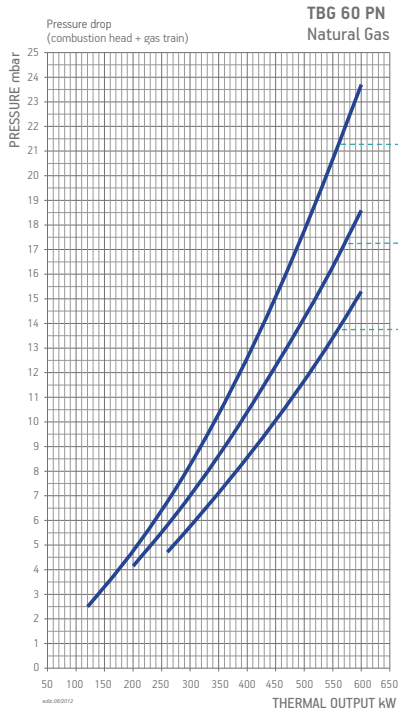
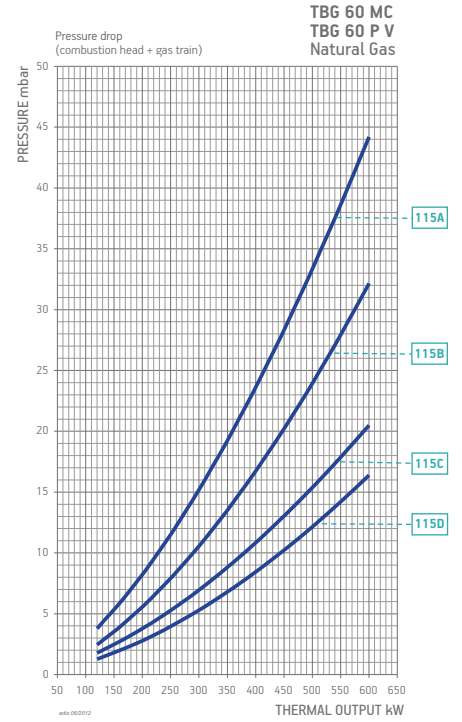
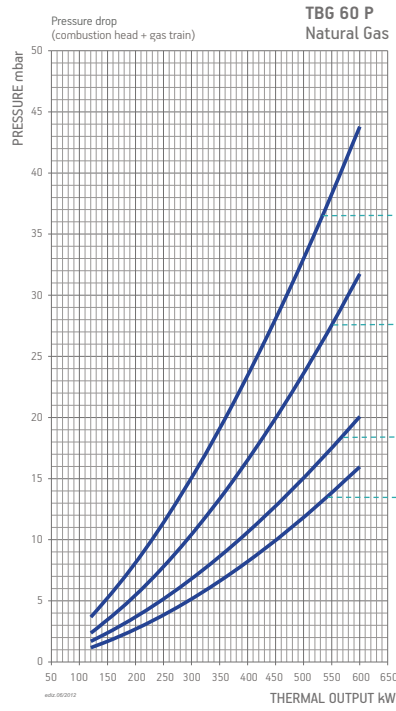
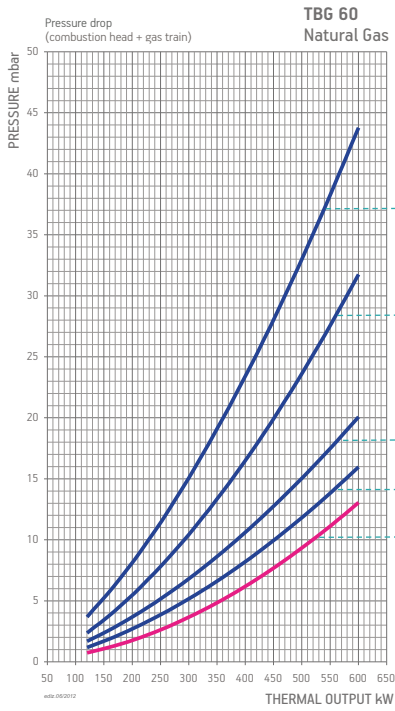
GAS BURNERS ACCESSORIES

TBG 60 MC: boiler coupling kit, plug for wiring.
TBG 60 ME/60 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



To choose the correct gas train please refer to the information on page 20.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 294.

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.

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 60	Natural gas	101A	CE/EXP	360	CTV	19990511	Included	96000004	-	B2		
						19990511	Included	96000004	98000101	B2	12)	
			EXP	360	CTV	19990546	Included	96000004	-	M2		
						19990546	Included	96000004	98000101	M2		
		101B	CE/EXP	360	CTV	19990512	Included	96000004	-	B2		
						19990512	Included	96000004	98000101	B2	12)	
			EXP	360	CTV	19990547	Included	96000004	-	M2		
						19990547	Included	96000004	98000101	M2		
		101C	CE/EXP	360	CTV	19990513	Included	-	-	B2		
						19990513	Included	-	98000101	B2	12)	
			EXP	360	CTV	19990548	Included	-	-	M2		
						19990548	Included	-	98000101	M2		
		101D	CE/EXP	360	CTV	19990514	Included	96000013	-	B2		
						19990514	Included	96000013	98000101	B2	12)	
	EXP	360	CTV	19990549	Included	96000013	-	M2				
				19990549	Included	96000013	98000101	M2				
101J	EXP	140		19990471	-	-	-	ME4				
TBG 60 P	Natural gas	103A	CE/EXP	360	CTV	19990511	Included	96000004	-	B2		
						19990511	Included	96000004	98000101	B2	12)	
		103B	CE/EXP	360	CTV	19990512	Included	96000004	-	B2		
						19990512	Included	96000004	98000101	B2	12)	
		103C	CE/EXP	360	CTV	19990513	Included	-	-	B2		
19990513	Included					-	98000101	B2	12)			
103D	CE/EXP	360	CTV	19990514	Included	96000013	98000101	B2	12)			
TBG 60 P V TBG 60 MC	Natural gas	115A	CE/EXP	360	CTV	19990546	Included	96000004	-	B7		
						19990546	Included	96000004	98000101	B7	12)	
		115B	CE/EXP	360	CTV	19990547	Included	96000004	-	B7		
						19990547	Included	96000004	98000101	B7	12)	
		115C	CE/EXP	360	CTV	19990548	Included	-	-	B7		
19990548	Included					-	98000101	B7	12)			
115D	CE/EXP	360	CTV	19990549	Included	96000013	98000101	B7	12)			
TBG 60 PN	Natural gas	105A	CE/EXP	100	CTV	19990441	Included	96000004	-	D3		
						19990441	Included	96000004	98000101	D3	12)	
			360	CTV	19990448	Included	96000004	-	D3	9)		
					19990448	Included	96000004	98000101	D3	9) 12)		
		105B	CE/EXP	100	CTV	19990442	Included	-	-	D3		
19990442	Included					-	98000101	D3	12)			
105C	CE/EXP	100	CTV	19990443	Included	96000013	98000101	D3	12)			
TBG 60 ME TBG 60 ME V TBG 60 ME V O2 TBG 60 ME V CO	Natural gas	107A	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2		
		107B	CE/EXP	360	CTV	19990557	Included	96000004	Included	D2		
		107C	CE/EXP	360	CTV	19990558	Included	-	Included	D2		
		107D	CE/EXP	360	CTV	19990559	Included	96000013	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 60	LPG	CE/EXP	360	CTV	19990511	Included	96000004	-	B2	
					19990511	Included	96000004	98000101	B2	12)
		EXP	360	CTV	19990546	Included	96000004	-	M2	
19990546	Included				96000004	98000101	M2			
TBG 60 P	LPG	CE/EXP	360	CTV	19990511	Included	96000004	-	B2	
					19990511	Included	96000004	98000101	B2	12)
TBG 60 PV TBG 60 MC	LPG	CE/EXP	360	CTV	19990546	Included	96000004	-	B7	
					19990546	Included	96000004	98000101	B7	
TBG 60 PN	LPG	CE/EXP	100	CTV	19990441	Included	96000004	-	D3	
					19990441	Included	96000004	98000101	D3	12)
TBG 60 ME/ME V TBG 60 ME V O2 TBG 60 ME V CO	LPG	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2	