BURNERS
CATALOGUE

03 | 2022

baltur
Energy for People


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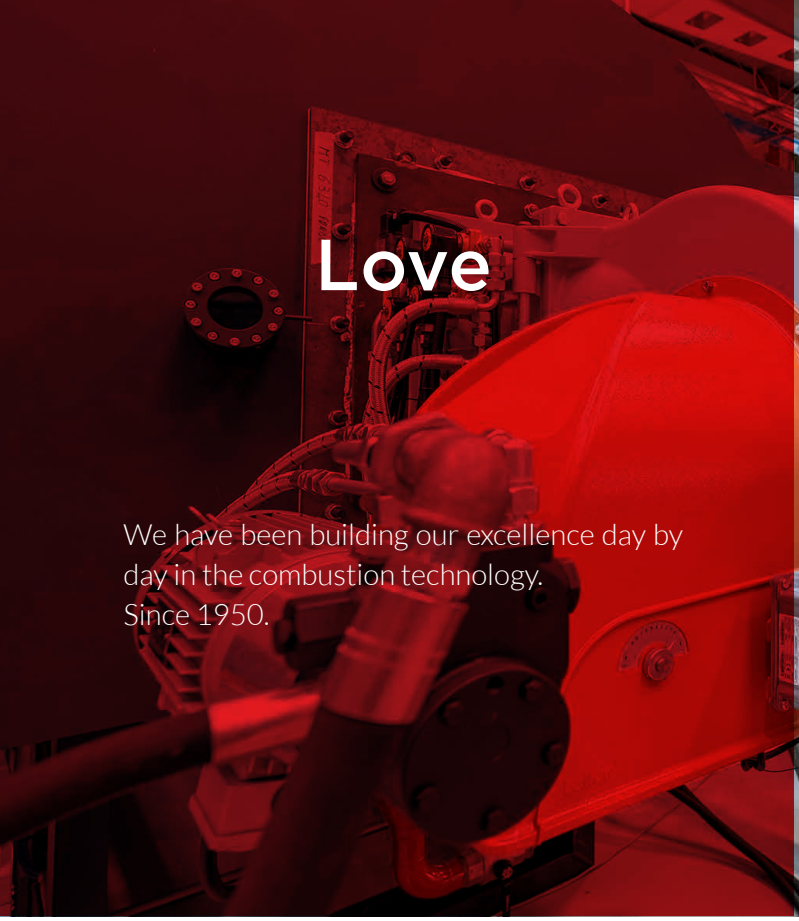


Love

We have been building our excellence day by day in the combustion technology.
Since 1950.

our values

Reliability

We employ the principles of Lean Management and Industry 4.0, our strenght in advanced controls and methods allow for the best performance of processes and quality of products.

Innovation

Every year we invest new resources in our ability to develop new technologies and machines. Our laboratories conducts continuous testing and experiments on burners up to 50 MW of power.

baltur

Energy for People

Accountability

We believe the wellbeing of humankind depend also on our effort. Baltur is committed in building a more efficient and innovative response to the world's challenges. Products that are increasingly ecological and environmentally friendly, complaint with the strictest national and international regulations

BALTUR BURNERS

HIGH PERFORMANCE AND EMISSIONS REDUCTION - A WINNING COMBINATION FOR BALTUR BURNERS

BALTUR BURNERS ARE GUARANTEED BY THE EXPERIENCE AND KNOW-HOW ACQUIRED DURING 71 YEARS OF PRODUCTION, RESEARCH AND CONTINUOUS INVESTMENT. THE LINE IS TESTED ACCORDING TO ESTABLISHED PROCESSES, WHICH ARE COMPLIANT WITH EU AND EXTRA-EU STANDARDS, AT THE RESEARCH AND TESTING ROOM - A STATE-OF-THE-ART FACILITY FOR THE DEVELOPMENT OF THE BEST TECHNOLOGIES IN THE FIELD OF ENERGY EFFICIENCY.

ENERGY SAVING

SAFETY

RESPECT FOR THE ENVIRONMENT

FEATURES THAT MAKE A DIFFERENCE

Electronic modulation burners

- Easy to regulate thanks to the user-friendly electronic cam software.
- The regulation of the burner is more precise, reliable and repeatable.
- Higher modulation ratio.
- Highly flexible burner configuration according to customer requirements thanks to the modularity of the components that can be used provided by the electronic cam.
- Possibility of using Combustion Control Systems CCS for combustion optimization and energy saving.

Low emissions gas burners

- The Baltur low emission burners have also been designed to be used in conjunction with combustion control systems.
- The Baltur low NOx emissions burners can also be used in industrial processing plants.

Burners with INVERTER frequency converter

- During normal operation, these allow a significant reduction in primary electrical energy consumption to be achieved, within the burner's modulation range.
- They guarantee a reduction in the amount of noise produced.
- The Baltur electronic cam burners can also use the inverter to manage combustion optimization in CCS combustion control systems.

Burners with O_2 and CO control

- Extensive experience in the configuration, management and installation of active CCS combustion control systems.
- High reliability and consistency in the measurement, control and processing of the monitored parameters.
- Possibility of subsequent CCS system installation; its modular design means that the CCS system can be installed even after the burner has been installed and is operational.

Burners with external recirculation of combustion gases FGR (Flue Gas Recirculation)

- The monoblock and dual block burners can be configured to use exhaust gases from the flue, to reduce nitrogen oxide NOx emissions.
- This system makes it possible to obtain a reduction of between 20% and 50% of nitrogen oxide, according to the amount of flue gas recirculated.
- Baltur provides engineering analysis for the FGR systems by providing technical support for the design of the flue gas systems.

BALTUR ACADEMY

EXCELLENCE IS ACHIEVED THROUGH CONTINUOUS TRAINING.

BALTUR ENSURES CUSTOMER'S SATISFACTION - CORRECT DIAGNOSIS, QUICK AND EFFECTIVE SERVICES - THROUGH THE TRAINING OF ITS TECHNICAL SUPPORT NETWORK TO PROMOTE NEW COMPETENCIES AND PROBLEM SOLVING SKILLS.

THE COURSES - FOCUSED ON THE OPERATING LOGIC OF THE PRODUCTS - ALLOW PERSONNEL TO QUALIFY AS SKILLED TECHNICIANS AND WORK ON BALTUR PRODUCTS - AN ADDITIONAL GUARANTEE OF EXCELLENCE AND THE ABILITY TO SOLVE PROBLEMS.

REMOTE TRAINING

SITE TRAINING

TECHNICAL TRAINING

CONTINUOUS INNOVATION

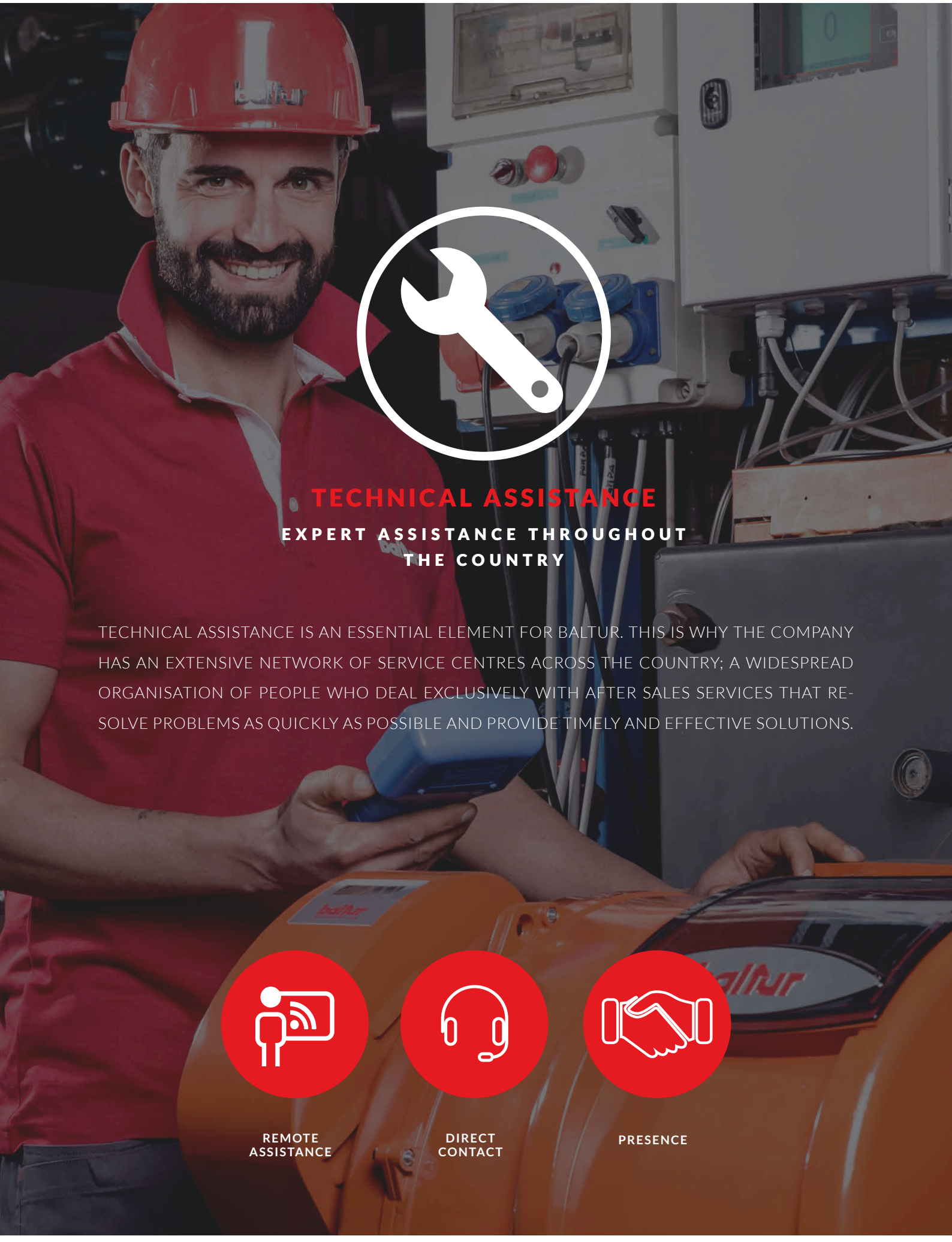
THE FUTURE IS NOW

NEW COMBUSTION TECHNOLOGIES, NEW MATERIALS, REMOTE OPERATIONAL PARAMETER MONITORING AND TRANSMISSION.

Every year we invest new resources in our **R&D laboratories** so that we can conduct continuous testing and experiments on burners up to **50 MW of power**, working to meet our customers' expectations with increasingly efficient products and the lowest environmental impact.

Continuous research

Respect for the environment



TECHNICAL ASSISTANCE

EXPERT ASSISTANCE THROUGHOUT THE COUNTRY

TECHNICAL ASSISTANCE IS AN ESSENTIAL ELEMENT FOR BALTUR. THIS IS WHY THE COMPANY HAS AN EXTENSIVE NETWORK OF SERVICE CENTRES ACROSS THE COUNTRY; A WIDESPREAD ORGANISATION OF PEOPLE WHO DEAL EXCLUSIVELY WITH AFTER SALES SERVICES THAT RESOLVE PROBLEMS AS QUICKLY AS POSSIBLE AND PROVIDE TIMELY AND EFFECTIVE SOLUTIONS.

REMOTE ASSISTANCE

DIRECT CONTACT

PRESENCE

APPLICATION ENGINEERING DEPARTMENT

CUSTOMISATION FOR SPECIFIED APPLICATIONS, ALWAYS ONE STEP AHEAD

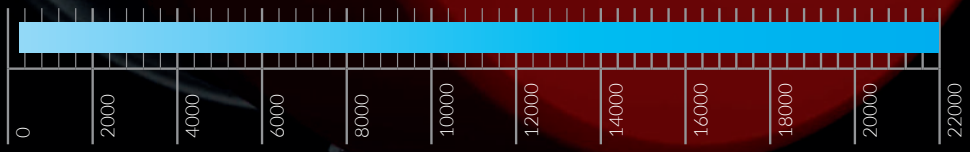
The Baltur Application Engineering Department supports customers by developing bespoke burners for specified applications, both for large industrial plants and for small thermal power generation systems.

The Baltur Application Engineering Department is the first and most important technical reference point for the entire sales force, both internal and external, at all stages of the process: pre-sales, feasibility studies, commissioning and start-up, directly in the field.

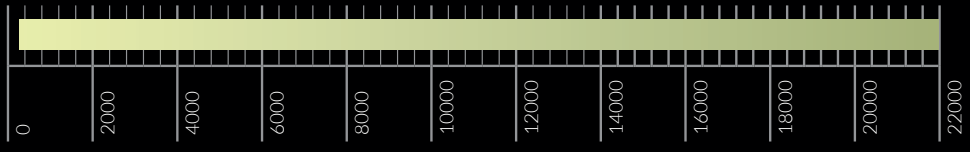
The Department proactively participates in the pre-sales stages of all burners, both standard and non-standard, irrespective of power output (**from 30 to 40 kilowatts up to 70 megawatts**) while also dealing with even the most complex requests.

BURNERS RANGE

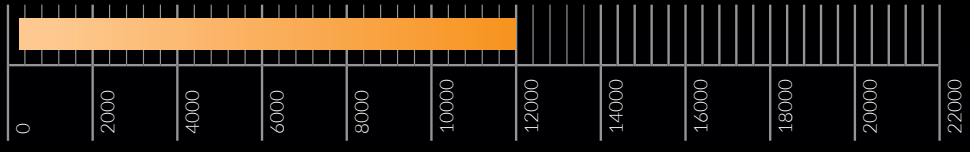
GAS MONOBLOCK BURNERS **form 16,6 to 22000 kW**



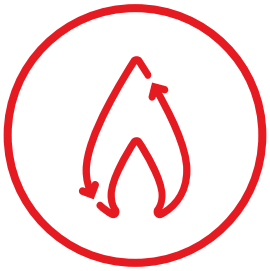
DUAL FUEL MONOBLOCK BURNERS **from 800 to 20000 kW**



LIGHT OIL MONOBLOCK BURNERS **from 16,6 to 12000 kW**



INDEX



WARNINGS

The following must be taken into account when choosing a burner:

1 COUPLING FLANGE

1.1 All burners up to 3600 kW capacity are equipped with a coupling sliding flange which allows the exact positioning of the combustion head inside the combustion chamber in compliance with the boiler manufacturer's rules.
This does not apply BTL 3, BTG 3 which can be supplied with a long head sliding on the coupling flange on request.

2 BLOWN AIR BURNERS

2.1 Blown air burners capacity is closely linked to the back-pressure in the combustion chamber as well as installation conditions like altitude. Please refer to the specific operating range reported for each model and to instruction on pages 18-19 to choose the correct machine for the intended application.

3 MODULATING BURNERS

3.1 In case modulating burner is required it's necessary to add the PID load controller and related probe modulating KIT to the two stage progressive burner. Please note that TBML ME models up to 3600 kW are provided with load regulator already Included.

4 GAS AND DUAL FUEL BURNERS

4.1 Gas and dual fuel burners comply with Directive 2009/142/EC and are manufactured according to EN676. This compliance is indicated by the CE mark on the burner itself.

4.2 Gas and dual fuel burners, must always be ordered with a gas train and an adapter (if required). These should be selected according to the gas pressure available. Please refer to instruction on page 17 for gas train selection.. ORDERS FOR BURNERS WITHOUT A GAS TRAIN WILL NOT BE ACCEPTED.

4.3 In the case of gas input pressures that exceed the application field of gas proposed trains, please contact our Sales Office for a dedicated solution.

5 DIESEL AND BIOFUEL BURNERS

5.1 Diesel burners are compatible with blends of diesel and biofuel.
Biofuel must meet the requirements of EN14213.
Diesel blends having a maximum biofuel content of 10%: all the components of the suction line of the system must be compatible with the type of fuel used and the line must be fitted with a filter 40µm rated.
Diesel blends having a maximum biofuel content of 30%: requires in addition to the above a kit for biodiesel operations. Please contact our Sales Office for more information.

6 60Hz BURNERS

6.1 The operating range of the burners reported in this document has been obtained in compliance with EN267 (Light oil burners) and EN676 (Gas burners) with frequency 50Hz.

7 IMPORTANT Note

7.1 Diagrams are indicative only and refer to test boilers as per the standards in force.
The performance of the overall thermal unit strongly depend on correct macthing between burner and boiler/combustion chamber.
In case of specific and mandatory requirements are in place please contact our Sales Office for a validation of the solution.

8 Note

8.1 For technical data and special products offers please refer to the local Baltur dealer or contact directly Baltur Head Office at tel. +39 0516843711, e-mail info@baltur.it

ALL DATA IS INDICATIVE ONLY; BALTUR RESERVES THE RIGHT TO MODIFY, CHANGE AND AMEND TECHNICAL DATA AND OTHER INFORMATION ON THE CATALOGUE WITHOUT GIVING PRIOR NOTICE.

SYMBOLOGY

GAS

BTG... • TBG...
Single-stage gas burners .

BTG...P • TBG...P • TBG...LX P
Two-stage gas burners.

TBG...MC • TBG... LX MC
Two-stage progressive/modulating gas burners with mechanical cam.

BTG...ME • TBG...ME • TBG...LX ME
Two-stage progressive / modulating gas burners with electronic cam.

TBG...ME V • TBG...LX ME V
Modulating gas burners with electronic modulation and frequency converter (inverter).

DUAL FUEL

TBML...P
Two-stage gas/light oil burners.
Dual operating mode.

TBML...MC
Two-stage progressive/modulating gas/light oil burners with mechanical cam on gas, two-stage on light oil.
Dual operating mode.

TBML 50/80/120/160/200/260/360 ME
Modulating gas/light oil burners with electronic modulation on gas, two-stage on light oil. Dual operating mode.

TBML from 450 to 2000 ME
Modulating gas/light oil burners with electronic modulation. Dual operating mode.

LIGHT OIL

BTL... • TBL...
Single-stage light oil burners.

BTL...P • TBL... P • TBL...LX
Two-stage light oil burners.

BT...DSPG
Two-stage progressive/modulating light oil burners with mechanical cam.

TBL... ME
Two-stage progressive/modulating light oil burners with electronic cam.

N.B. The letters indicate the model; burner power is indicated in the spaces.

...DACA Burner equipped with automatic air closure device.

...O2 Burner equipped with control O_2

...CO Burner equipped with control CO

...H Burner equipped with preheating.

GAS EMISSIONS:
Emissions classes defined according to EN676 directive.

Class	NOx Emissions [mg/kWh]	
	natural gas	GPL
1	*≤ 170*	*≤ 230*
2	*≤ 120*	*≤ 180*
3	*≤ 80*	*≤ 140*

LIGHT OIL EMISSIONS:
Emissions classes defined according to EN267 directive.

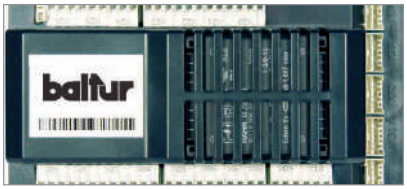
Class	NOx Emissions [mg/kWh]	CO Emissions [mg/kWh]
1	*≤ 250*	*≤ 110*
2	*≤ 185*	*≤ 110*
3	*≤ 120*	*≤ 60*

BURNERS WITH ELECTRONIC MODULATION (ME SERIES)

Traditional modulation systems (mechanical modulation) used in standard burners have a mechanical connection between the servomotors and the adjustment parts which use rods, drive levers and joints.
This implies mechanical play and hysteresis in the combustion air/fuel calibration system, which results to imprecision for the combustion adjustment, especially at the minimum loads.
This combustion adjustment imprecision translates as loss of efficiency in terms of energy yield.
With electronic modulation, there is absolutely no mechanical play and hysteresis as the servomotors are connected directly to the adjustment devices, without drive levers or rods.
This guarantees optimal combustion values at all the load points.
The correct position of the servomotors (stepping mode, with precision to one tenth of a degree) is guaranteed by the electronic cam, the new microprocessor "flame control", which is used to command and monitor all the burner functions.
The electronic cam has a built-in gas seal control. The PID temperature/pressure load adjuster is an optional for the BTG, TBG series and standard series. The combustion air/

BTGME e **TBG**ME **series**

BURNER OPERATION DISPLAY WITH PROGRAMMING KEYBOARD
Allows to display the running sequence of the position of the air servomotor and the control of the servomotors.
Backlit display for an accurate reading even in difficult lighting conditions. Lamp block and reset button built into the programming keypad.
In case of shut down it is possible to immediately recognize the cause through an error code. Storage of the last 10 block reports.
Allows to display the fuel consumption through a pulse signal coming from the gas flow meter. Simple navigation menu with icons for easy programming.



ELECTRONIC CAM
Modular electronic programmer with microprocessor for control and monitoring of the burner functions.
Version for continuous running on demand.
Modulating operation through the use of a thermoregulator (optional).
Gas valves tightness control integrated in the control box. Electrical connection via encoded plug connections to prevent wiring errors. Remote reset.
On demand the following expansion modules are available: PID module for modulating operation, inverter module, O2/CO control for automatic fuel optimization, Interface Bus (PROFIBUS, MODBUS).

SERVOMOTORS FOR AIR AND FUEL ADJUSTMENT
The air and gas flows are adjusted using stepping mode servomotors with precision to one tenth of a degree.
The considerable precision of the adjustments makes it possible to maintain the combustion at optimal values at all the load points.

fuel ratio adjustment curve (with configurable working points) is programmed using a programming keypad with display.
This curve is password-protected.
The display can be used to display a whole series of information.
For example, if the burner is blocked, an error code will be displayed for immediate recognition of the cause of the block and rapid solving of the problem.
The ME series burners comply with the ever increasingly demanding requirements of a market which requires combustion systems with high energy efficiency, reliable technological and cost cuts for installation and maintenance.

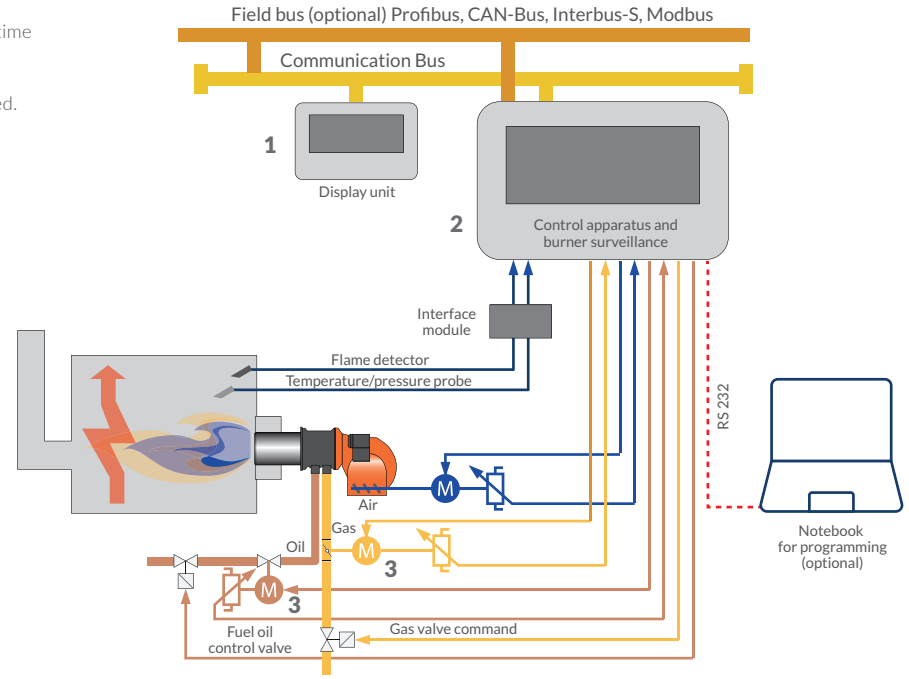
The ME burners serie has been designed to match also the most demanding installation requests hanks to several expansions module such as: PID module for modulating operation, inverer communication module, 02 and CO controls for automatic fuel optimization and digital interface BUS modules (PROFIBUS and MODBUS) for remote system monitoring.

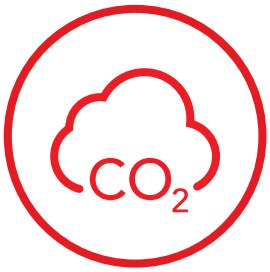
TBML series

1 - BURNER OPERATING DISPLAY WITH KEYPAD
Enables the sequence of the servo motors' working position and the loading value to be viewed.
Burner operating time and number of successful start-ups.
Set point display.
Also indicates the quality of the flame detected.
If the burner is blocked, an error code will be displayed for immediate recognition of the cause of the block.
Log of last ten lock-outs with date and time indicated.
Keypad for burner calibration.
These functions are password-protected.

2 - ELECTRONIC CAM
Electronic programmer with double fail safe microprocessor to control and monitor burner functions.
Built-in gas valve seal control.
PID integrated load adjuster.
TRD 604 certification.
Available on request, connections to Modbus, CAN-bus, Profibus and Interbus-s.

3 - SERVOMOTORS FOR AIR AND FUEL ADJUSTMENT
The adjustment of air and gas flow is by means of servo motors with potentiometer feedback.
The considerable precision of the adjustments makes it possible to maintain the combustion at optimal values at all the load points.





BURNERS WITH O_2 AND CO CONTROL

In thermal combustion processes it is best to make sure that all the fuel is completely burnt to prevent the appreciable quantities of unburnt fuel finding its way into the combustion products.
In theory, the complete combustion of fuel could also be obtained by using the stoichiometric amount of combustion air.
In practice, however, one has to use excess combustion air with respect to the minimum stoichiometric amount, to ensure the fuel is completely burnt.
If however, the excess air is higher than a certain amount, there is the risk of excessive flame cooling with a consequent increase in heat loss to the flue and an increase in pollution.
It is therefore evident that the air-fuel ratio has to be maintained within an appropriate range in order to ensure maximum combustion efficiency and minimum air pollution.
The amount of excess air is determined by measuring the percent of oxygen in the exhaust fumes.
The active oxygen control system consists of:
- a zirconium oxide probe, located at the outlet of the combustion chamber or in the flue
- monitoring and control equipment.

The regulator, via the probe, monitors and measures the amount of oxygen in the fumes and by controlling a servomotor, automatically modifies the amount of combustion air, thereby maintaining an optimum air / fuel ratio and ensuring increased performance with less pollution.
The advantage of this system can be better understood with an example:
- 6MW methane fuelled power plant.
- use of 50 weeks/year, for 5 days/week, 16 h/day.
- the O_2 monitoring in the system, where the oxygen percent can be reduced up to 2,5%, you can obtain energy savings of 52TOE (tonne of oil equivalent) and 142 tonnes/year of CO_2, equal to 2%.

The performance that can be obtained using CO_2 monitoring in gas burners becomes even better.
In this case the combustion air is further reduced, (using an inverter, if fitted), by means of an air servomotor until a few dozen of CO_2 ppm are detected at the flue.
With CO monitoring, the minimum air excess on the entire work range can be ensured so as to increase energy efficiency of a further 0.5% with respect to O_2 monitoring.

HOW TO CHOOSE THE RIGHT GAS TRAIN FOR THE BURNER

Using the specific diagrams, it is possible to select the gas train that is most suitable for the burner.
First of all it is necessary to identify:
- Burner's output Qi [kW], to be identified along the x-coordinate.
- Gas pressure available at the regulator Pg [mbar], to be identified along the y-coordinate.

The available gas pressure is determined by the formula: Pg=Pa-Pc where:
Pa = gas pressure provided by the mains supply;
Pc = the pressure in the boiler combustion chamber.
The intersection point of the two lines defines the operational parameters of the gas train.
The gas train characterised by the first curve underneath the intersection point must be chosen.

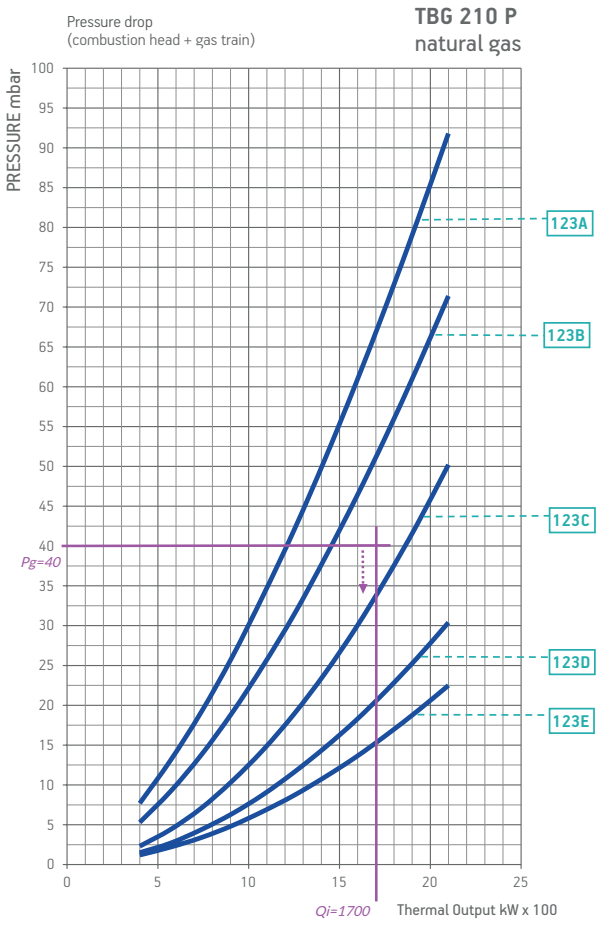
EXAMPLE:

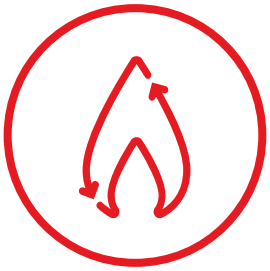
- Burner = TBG 210 P
- Qi = 1700 kW
- Pa = 45 mbar
- Pc = 5 mbar
- Pg = 45 – 5 = 40 mbar

Choose the indicated curve 123C.

To identify the codes for the gas train, pressure regulator and adapter to be ordered refer to the BURNER/GAS train match-up table relative to burner TBG 210 P and curve reference 123C.

Note:
In the graphs the curves of the losses of load have different colors.
The BLUE curve shows ramp with valve block.
The RED curve shows ramp dedicated to extra CE market.
The pressure reulator is provided with springs in the different setting adjustment. These will replace, possibly, one alreay installed depending on the pressure of the gas that serves to ramp in that particular flow condition and pressure.





COMBUSTION AIR FLOW CORRECTION FACTOR IN ACCORDANCE WITH THE TEMPERATURE AND ALTITUDE (ABOVE SEA LEVEL)

The burner operating ranges indicated in the various documentation refer to a temperature of 15°C and an altitude of 0 m above sea level.
It may occur that the burner has to operate with air at different temperatures and/or altitudes. Therefore, its operating features must be modified.
Heating of the air and/or increasing of the altitude reduce the density of the air, with a resulting reduction in the oxygen content. Therefore, burning the same quantity of fuel requires the same quantity of oxygen contained in a greater volume of air.
Given that the burner fan is not set up to increase the volume of air, it is necessary to reduce the quantity of the fuel to be burned, with a resulting reduction in the maximum thermal output.
This reduction leads to a reduction in the burner operating range obtained by multiplying the maximum thermal output of the burner by a coefficient (see Table) which accounts for the temperature of the combustion air and the altitude.
It is necessary, therefore, to check if the working point is still within the new operating range. If it is, the burner is still suitable for that application. If it is not, you must select a bigger burner.

EXAMPLE:
Combining a gas boiler burner with a boiler for an application with following characteristics:
- thermal power 1100 kW
- counter pressure 4.5 mbar
- ambient temperature 50°C
- altitude 1000 m above sea level

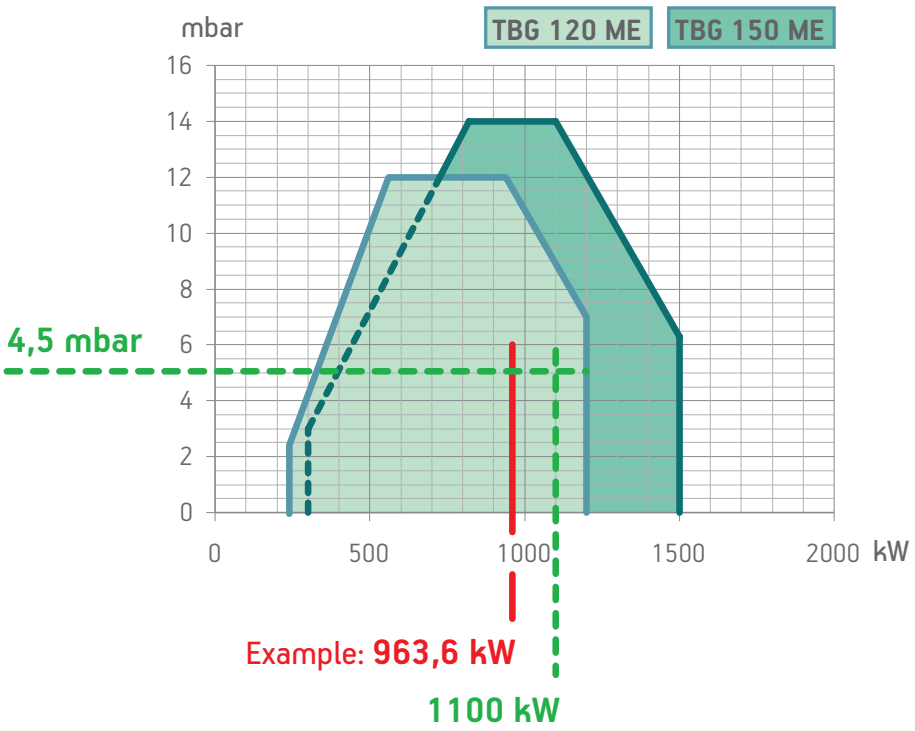
Considering normal operating conditions TBG 120ME is the correct choice. However it's necessary to consider the correction of operating range due to different operating conditions.

Using the formula
Qr = Qmax x f

Where:
Qr = reduced burner output
Qmax = max thermal output of burner TBG 120ME = 1200 kW
f = correction factor calculated using the table, by combining the 1000m column with the 50°C one.
f= 0.803
Qr = 1200 x 0.803 = 963.6 kW

Under these conditions TBG 120ME has a maximum output power of 963.6 kW which is insufficient for the application.

The correct choice is a TBG 150ME with maximum nominal power of 1500 kW, that after correction is reduced to 1500 x 0.803 = 1204 kW.
Which is suitable for the application.



Air temperature in °C	Height in meters above sea level												
	0	250	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
0	1,071	1,040	1,009	0,978	0,950	0,920	0,895	0,867	0,841	0,813	0,791	0,765	0,741
5	1,052	1,021	0,991	0,960	0,933	0,904	0,879	0,851	0,826	0,798	0,776	0,751	0,728
10	1,033	1,033	0,973	0,943	0,916	0,888	0,863	0,836	0,812	0,784	0,763	0,738	0,715
15	1,015	0,986	0,956	0,927	0,900	0,872	0,848	0,822	0,797	0,771	0,749	0,725	0,703
20	0,998	0,969	0,940	0,911	0,885	0,857	0,834	0,807	0,784	0,758	0,737	0,713	0,691
25	0,981	0,953	0,924	0,896	0,870	0,843	0,820	0,794	0,771	0,745	0,724	0,701	0,679
30	0,965	0,937	0,909	0,881	0,856	0,829	0,806	0,781	0,758	0,733	0,712	0,689	0,668
40	0,934	0,907	0,880	0,853	0,828	0,803	0,781	0,756	0,734	0,709	0,690	0,667	0,647
EXAMPLE 50	0,905	0,879	0,853	0,827	0,803	0,778	0,756	0,733	0,711	0,687	0,668	0,647	0,627
60	0,878	0,853	0,827	0,802	0,779	0,754	0,734	0,711	0,690	0,667	0,648	0,627	0608
80	0,828	0,804	0,780	0,756	0,735	0,712	0,692	0,670	0,651	0,629	0,611	0,592	0,573
100	0,784	0,761	0,739	0,716	0,695	0,674	0,655	0,634	0,616	0,595	0,579	0,560	0,543
150	0,691	0,671	0,651	0,631	0,613	0,594	0,578	0,559	0,543	0,525	0,510	0,494	0,478
200	0,618	0,600	0,582	0,565	0,548	0,531	0,517	0,500	0,486	0,469	0,456	0,442	0,428
250	0,559	0,543	0,527	0,511	0,496	0,480	0,467	0,452	0,439	0,425	0,413	0,400	0,387
300	0,510	0,496	0,481	0,466	0,453	0,439	0,426	0,413	0,401	0,387	0,377	0,365	0,353
	f												

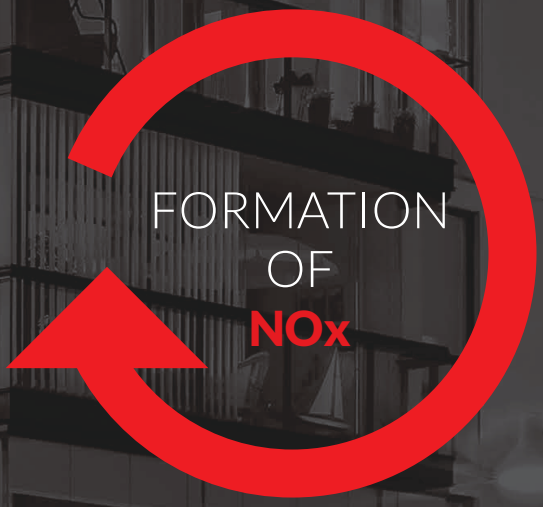
FGR

FLUE GAS RICIRCULATION

FOR NOx REDUCTION

NITROGEN OXIDES

During combustion, oxygen (O_2) and nitrogen (N_2) present in the air can combine with each other in a number of ways, generating nitrogen oxides (NOx). Among them, nitrogen monoxide (NO) and dioxide (NO_2) are the protagonists in many pollutant processes and have an impact on health. There are three main paths for the formation of NOx:



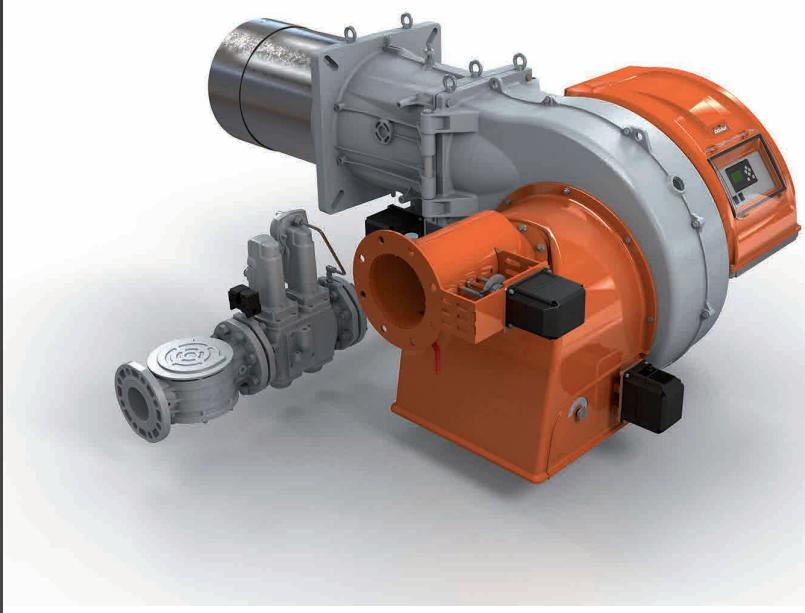
1 **Thermal NOx**
Related to flame temperature.

2 **Quick NOx**
Related to chemical reactions.

3 **NOx due to fuel**
Related to the amount of nitrogen in the fuel.

FLUE GAS RICIRCULATION (FGR)

Recirculation of combustion products is a technique to reduce the flame temperature. It consists in withdrawing a part of combustion fumes from the chimney and dilute them with combustion air, in order to reduce the concentration of oxygen and increase the concentration of inerts (N_2 and CO_2), which in turn will absorb a part of the energy developed during combustion, thus reducing the flame temperature.

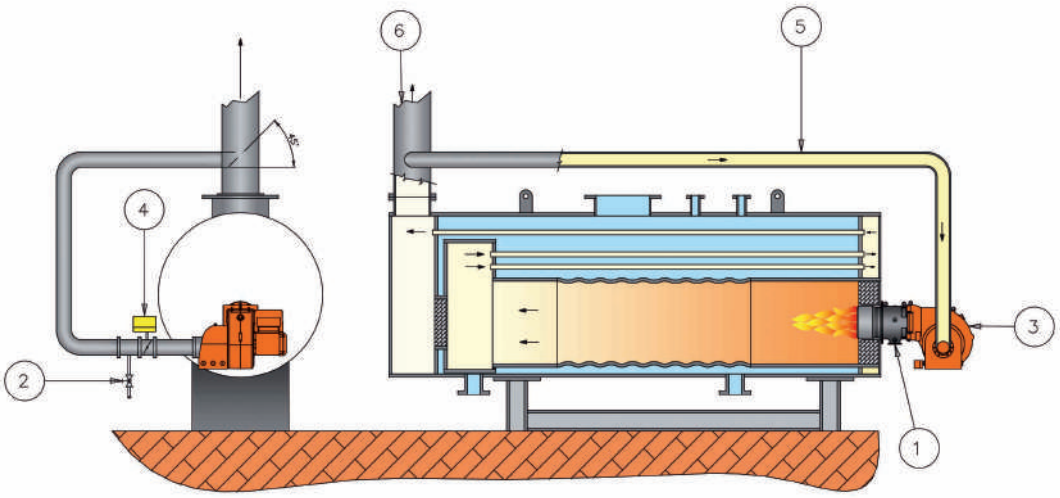


FGR FOR MONOBLOCK BURNERS

FGR systems are generally demanding in terms of installation and maintenance. A solution which does not take into accunt the combination of mechanical, thermal and chemical stresses will lead to early failure of system. Baltur has engineered its FGR solution with the aim to provide the highest level of reliability and long standing performances. OUr FGR systems are equipped with:

- double consensation drainage system,
- flue gas duct and ventilation made with special steel,
- full protection of UV sensor,
- additional UV sensor cleaning and cooling system for the most demanding application.

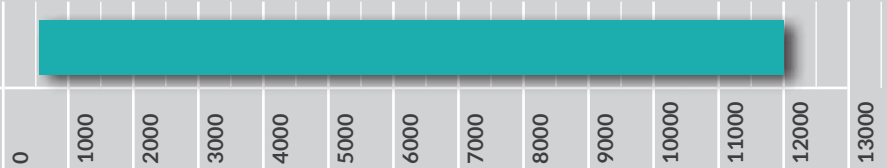
Diagram 1 - External gas recirculation for monoblock burners.



1 Gas inlet.
2 Condensate drainage valve.
3 Burner.
4 Flue gas damper with servomotor.
5 Duct for flue gas recirculation.
6 Chimney.

FGR RANGE

12 MODELS AVAILABLE
POWER FROM 600 TO 12000 KW



Gas burners series

RANGE

Symbology

BTG...
TBG...
Single-stage gas burners.

BTG...P
TBG...P
TBG...LX P
Two-stage gas burners.

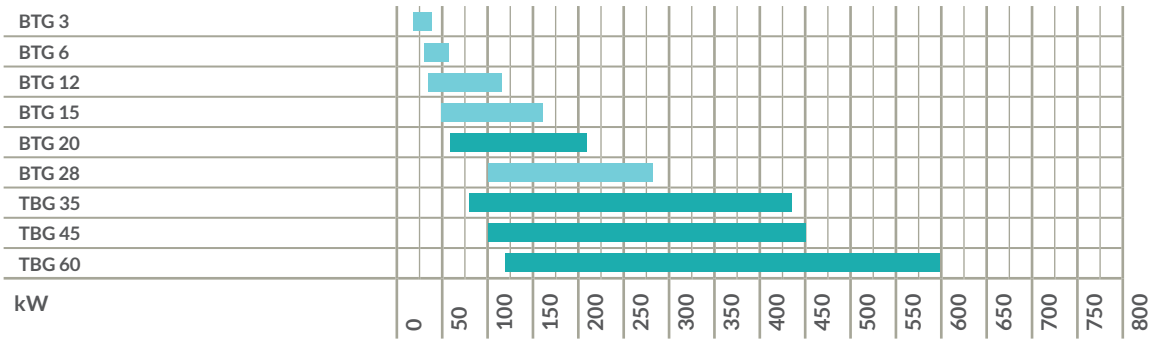
TBG...MC
TBG...LX MC
Two-stage progressive/ modulating gas burners with mechanical cam.

BTG...ME
TBG...ME
TBG...LX ME
Two-stage progressive/ modulating gas burners with electronic cam.

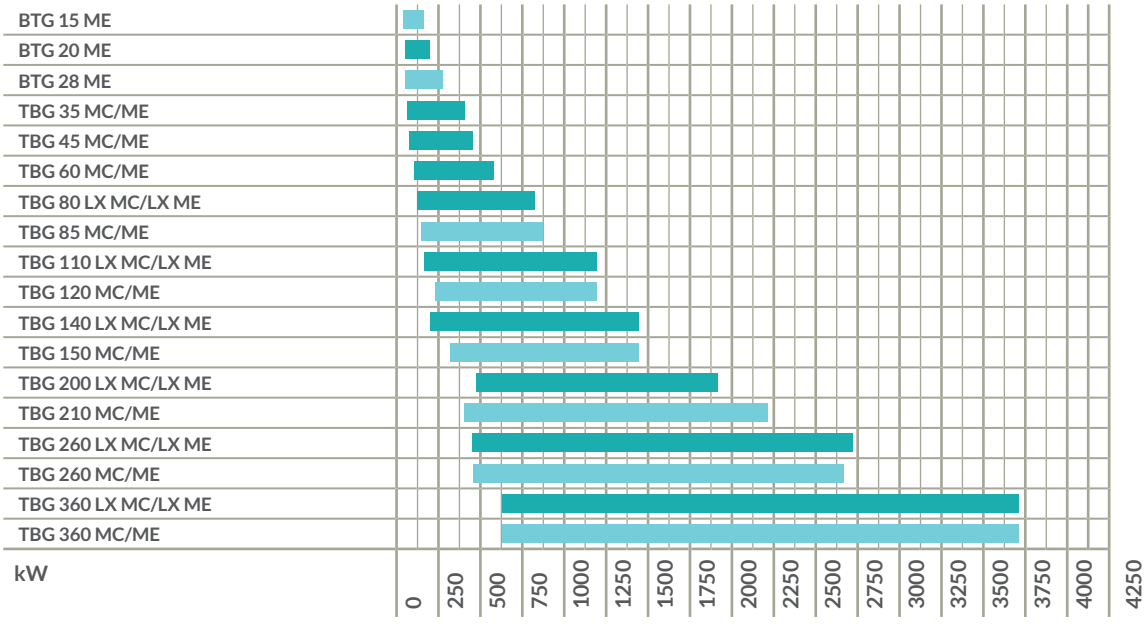
TBG...ME V
TBG...LX ME V
Modulating gas burners with electronic modulation and with frequency converter (inverter).

Low NOx

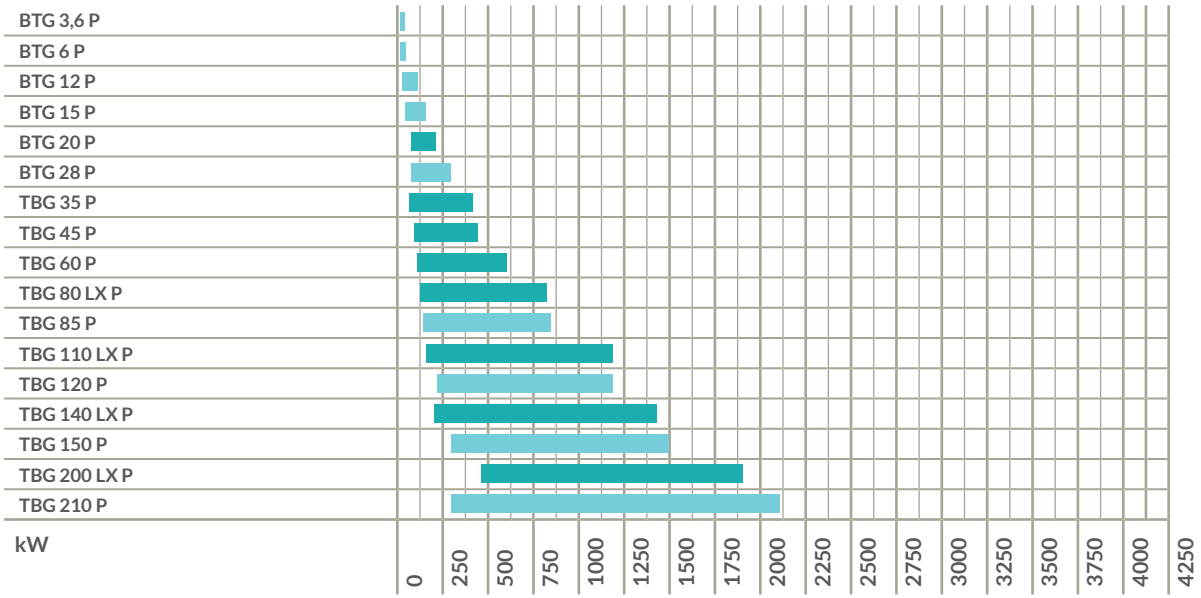
SINGLE - STAGE GAS BURNERS



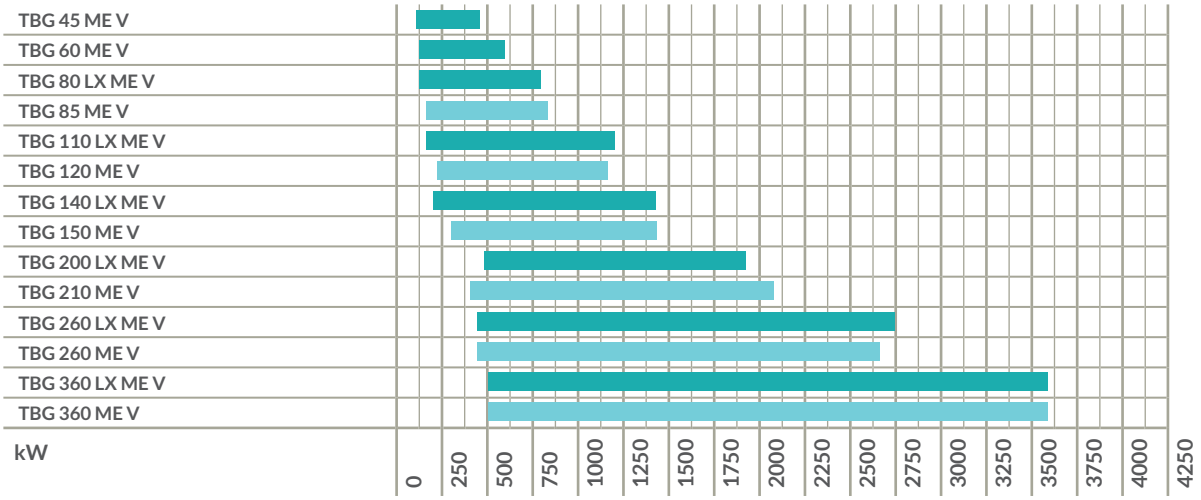
TWO - STAGE PROGRESSIVE GAS BURNERS



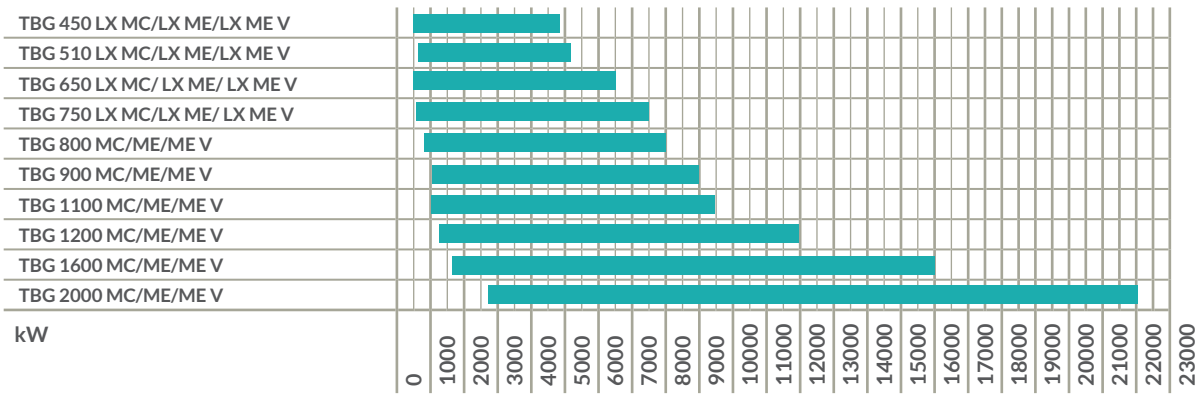
TWO-STAGE GAS BURNERS



MODULATING GAS BURNERS



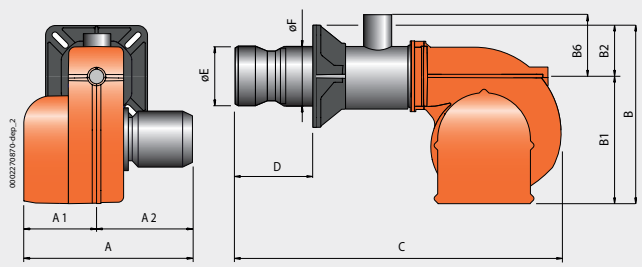
INDUSTRIAL GAS BURNERS

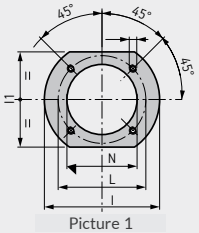


kW **16 - 42** | SERIES **BTG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN676. CE 0085

Gas burner compliant with European standard EN676. Operation:	BTG 3 single-stage	BTG 3,6 P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	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	•	•
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	•	•



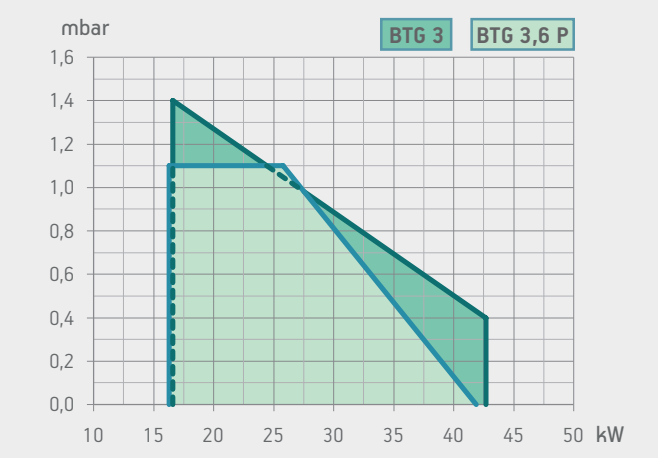


Picture 1

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	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

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
BTG 3	400	300	280	9
BTG 3,6 P	560	310	350	12

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	16,6 ÷ 42,7	**BTG 3**	**17000010**	1N AC 50Hz 230V	0,09	1)
	class 2	16,3 ÷ 41,9	**BTG 3,6 P**	**17030010**	1N AC 50Hz 230V	0,10	1)
			Frequency 60 Hz				
	class 2	16,6 ÷ 42,7	**BTG 3**	**17000010**	1N AC 60Hz 220V	0,09	1)
	class 2	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.

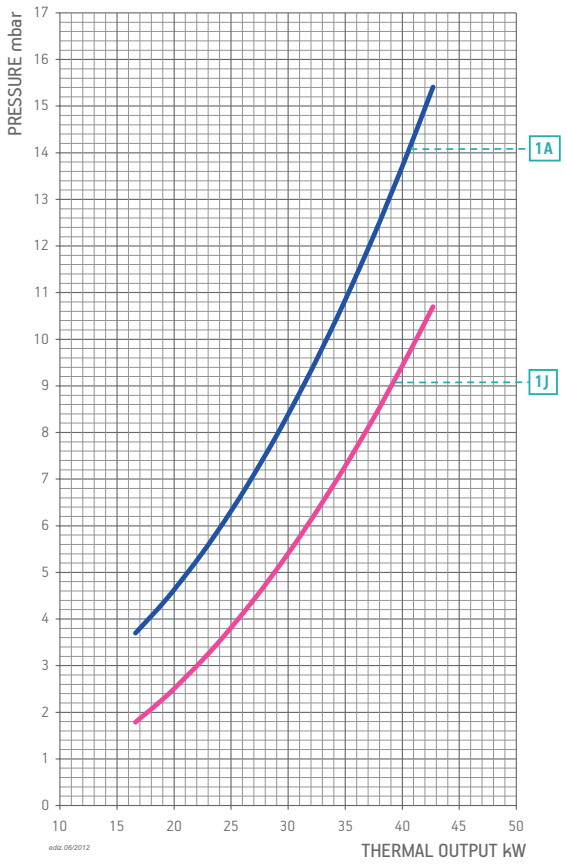
NOTE

1 Equipped with air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural Gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH

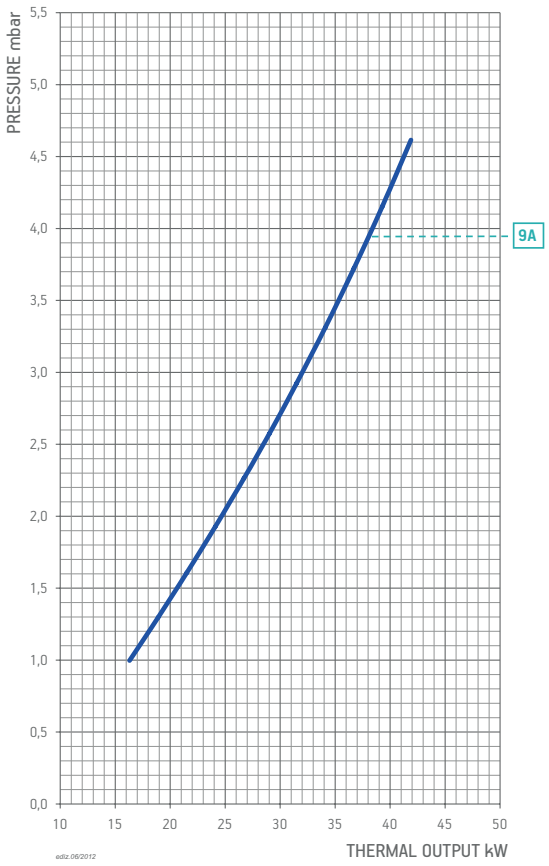
Pressure drop
(combustion head + gas train)

BTG 3
Natural Gas



Pressure drop
(combustion head + gas train)

BTG 3,6 P
Natural 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.	Note
						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.	Note
					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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

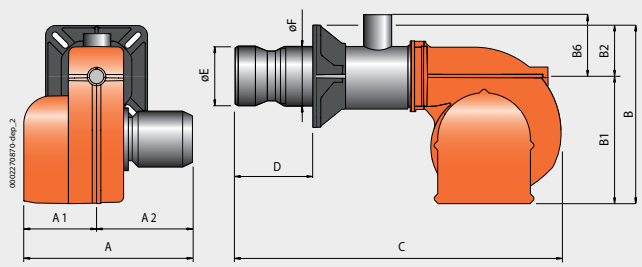
NOTE

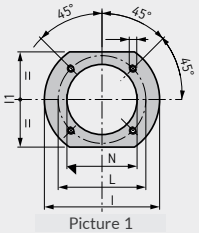
12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW **30 - 56** | SERIES **BTG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN676. CE 0085

Gas burner compliant with European standard EN676. Operation:	BTG 6 single-stage	BTG 6 P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	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
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	•	•



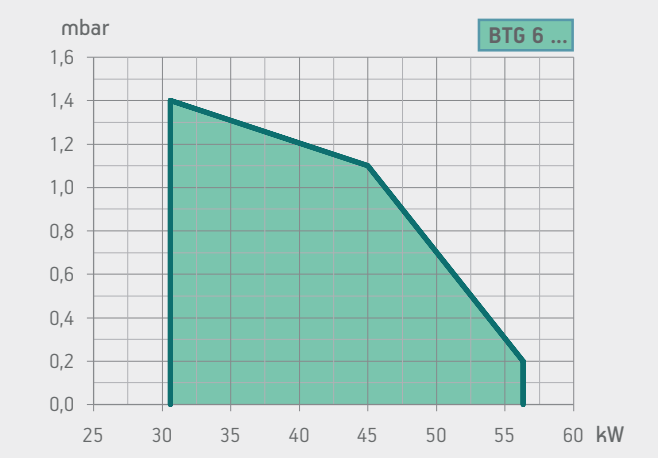


Picture 1

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	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

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
BTG 6	560	310	350	12
BTG 6 P	560	310	350	12

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	30,6 ÷ 56,3	**BTG 6**	**17040010**	1N AC 50Hz 230V	0,1	1)
	class 2	30,6 ÷ 56,3	**BTG 6 P**	**17050010**	1N AC 50Hz 230V	0,1	1)
			Frequency 60 Hz				
	class 2	30,6 ÷ 56,3	**BTG 6**	**17040010**	1N AC 60Hz 220V	0,1	1)
	class 2	30,6 ÷ 56,3	**BTG 6 P**	**17050010**	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION
300 mm long combustion head

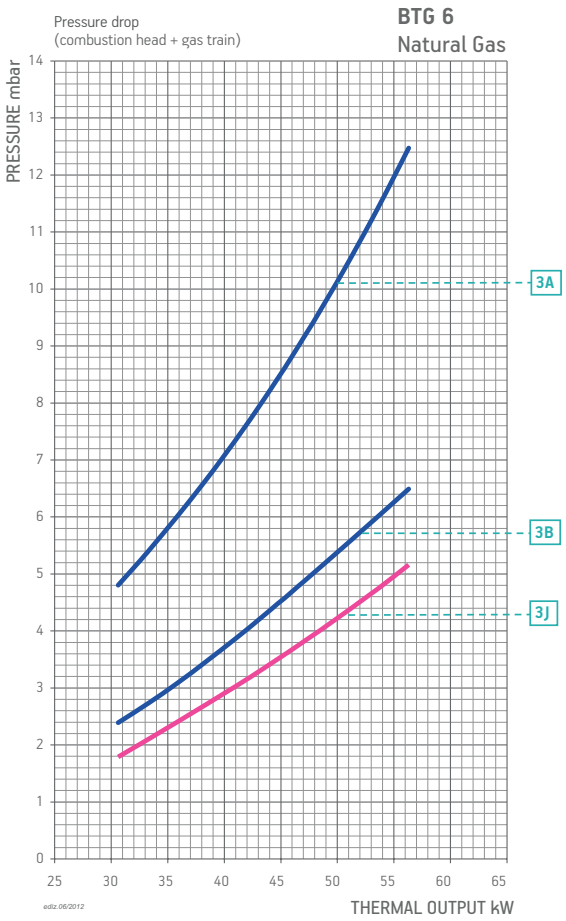
GAS BURNER ACCESSORIES

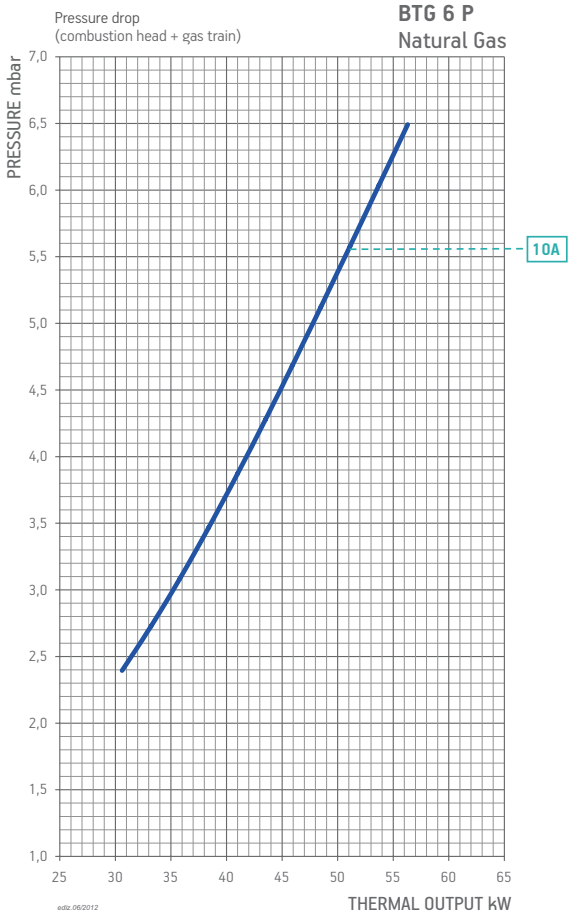
Boiler coupling kit, plug for wiring.

NOTE

1 Equipped with air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural Gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3.
LPG: Hi = 92 MJ/m^3 = 22000 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.	Note
						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.	Note
					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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

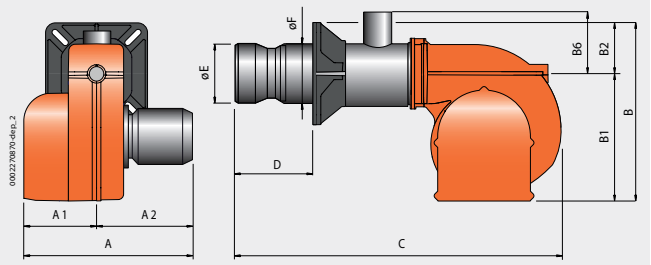
NOTE

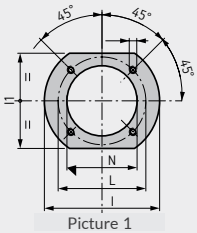
12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 35 - 115 | SERIES BTG

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN676. CE 0085

Gas burner compliant with European standard EN676. Operation:	BTG 12 single-stage	BTG 12 P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	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
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	•	•



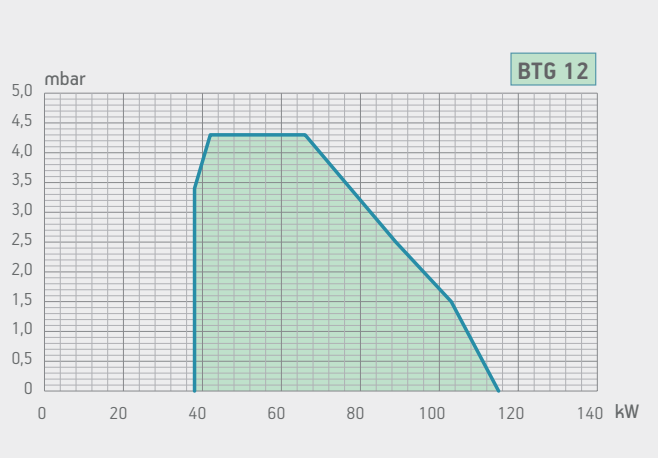


Picture 1

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

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
BTG 12	560	310	350	12
BTG 12 P	560	310	350	12

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	35,0 ÷ 115,0	**BTG 12**	**17170010**	1N AC 50Hz 230V	0,1	1)
	class 2	35,0 ÷ 115,0	**BTG 12 P**	**17180010**	1N AC 50Hz 230V	0,1	1)
			Frequency 60 Hz				
	class 2	35,0 ÷ 115,0	**BTG 12**	**17175410**	1N AC 60Hz 220V	0,1	1)
	class 2	35,0 ÷ 115,0	**BTG 12 P**	**17185410**	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION
300 mm long combustion head

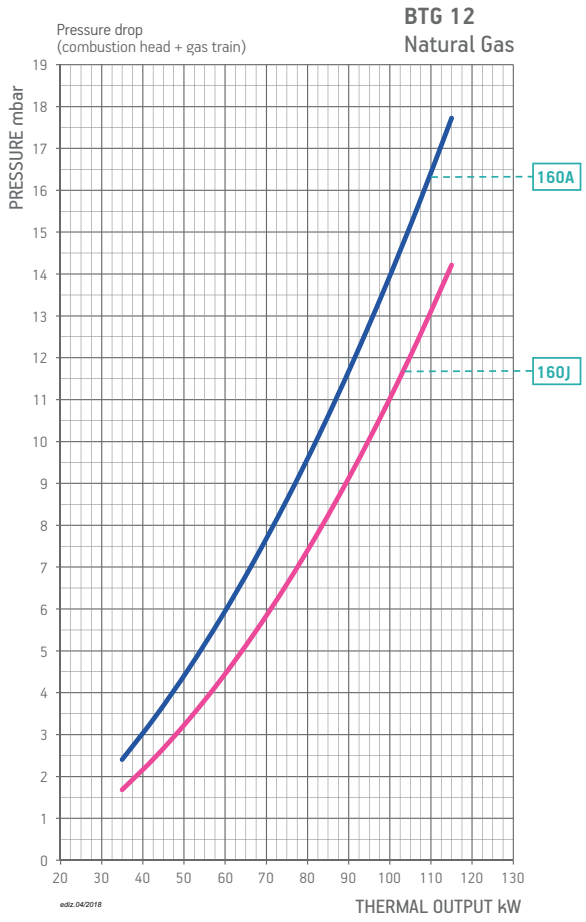
GAS BURNER ACCESSORIES

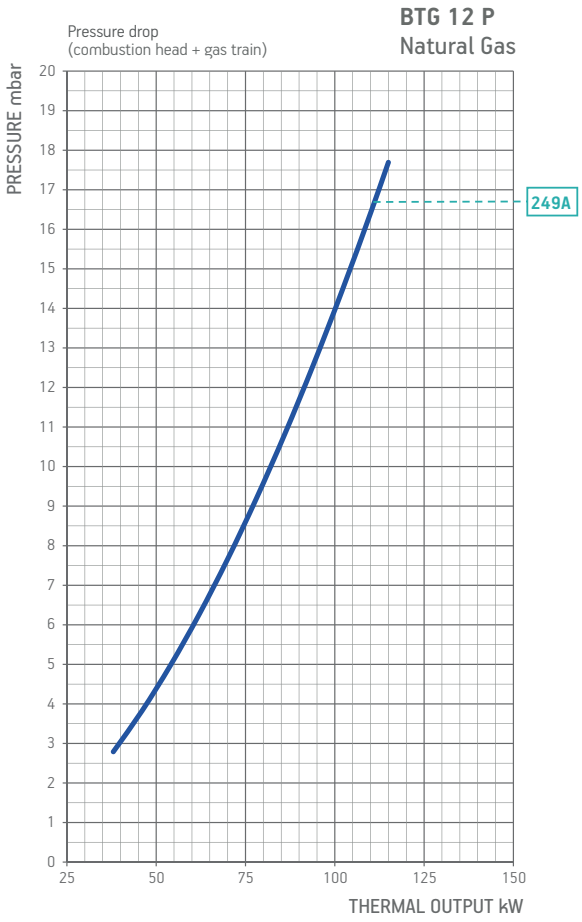
Boiler coupling kit, plug for wiring.

NOTE

1 Equipped with air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural Gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3.
LPG: Hi = 92 MJ/m^3 = 22000 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.	Note
						Part no.	Part no.	Part no.	Part no.		
BTG 12	Natural gas	160A	CE/EXP	360		19990002	Included	–	–	M2	
					CTV	19990002	Included	–	98000100	M2	12)
		160J	EXP	40		19990235	–	–	–	ME1	
BTG 12 P	Natural gas	249A	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.	Note
					Part no.	Part no.	Part no.	Part no.		
BTG 12	LPG	CE	65		19990466	Included	96000001	–	M2	
		EXP	40		19990235	–	–	–	ME1	
BTG 12 P	LPG	CE/EXP	360		19990016	Included	96000001	–	B2	
				CTV	19990016	–	–	98000100	B2	12)

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

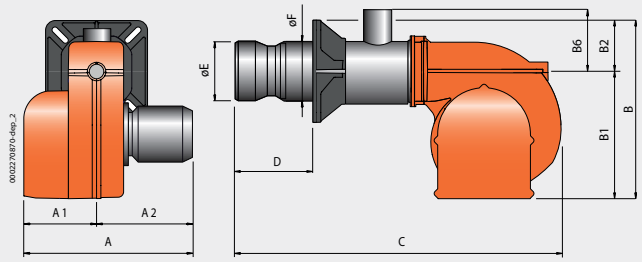
kW 50 - 160 | SERIES BTG

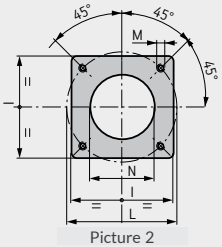
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

BTG 15 - 15 P

BTG 15 ME

Gas burner compliant with European standard EN676. Operation:	BTG 15 single-stage	BTG 15 P two-stage	BTG 15 ME electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel			optional
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	•	•	•



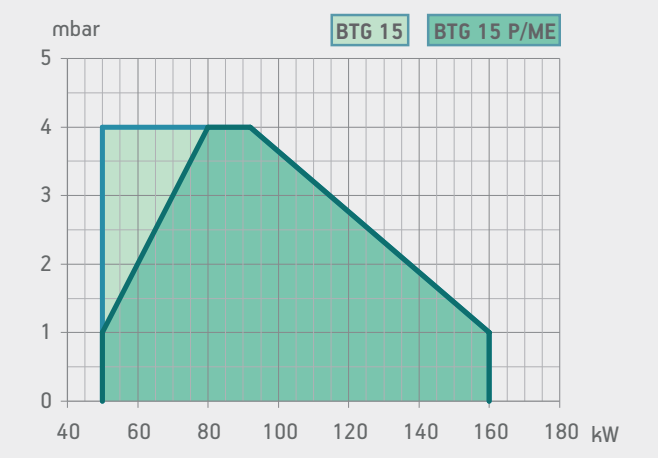


Picture 2

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	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

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
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	Note
			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 (see page 254)	

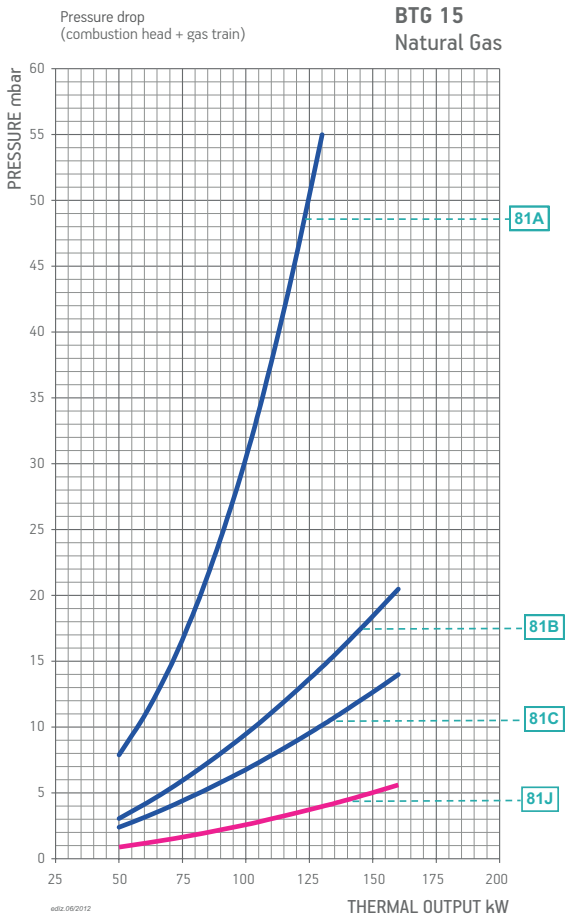
GAS BURNERS ACCESSORIES

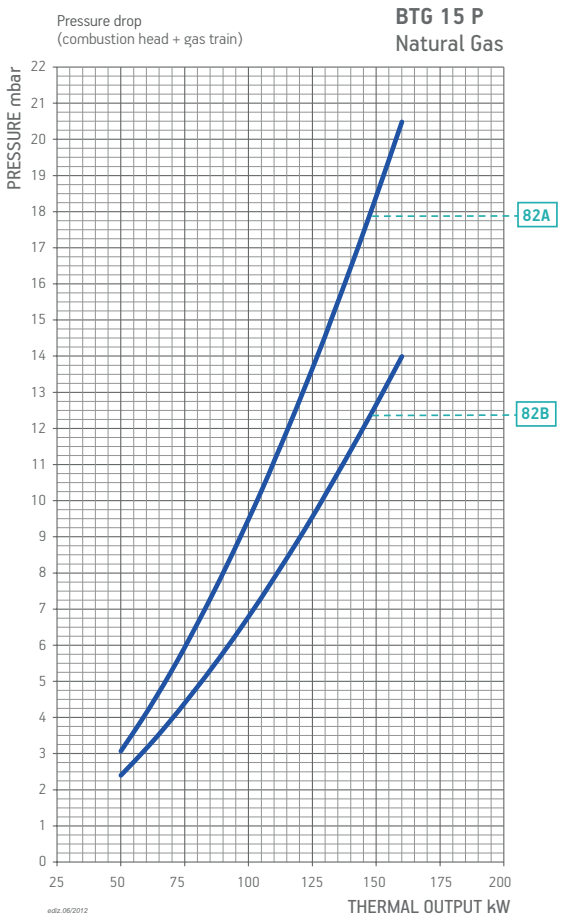
Boiler coupling kit, plug for wiring.

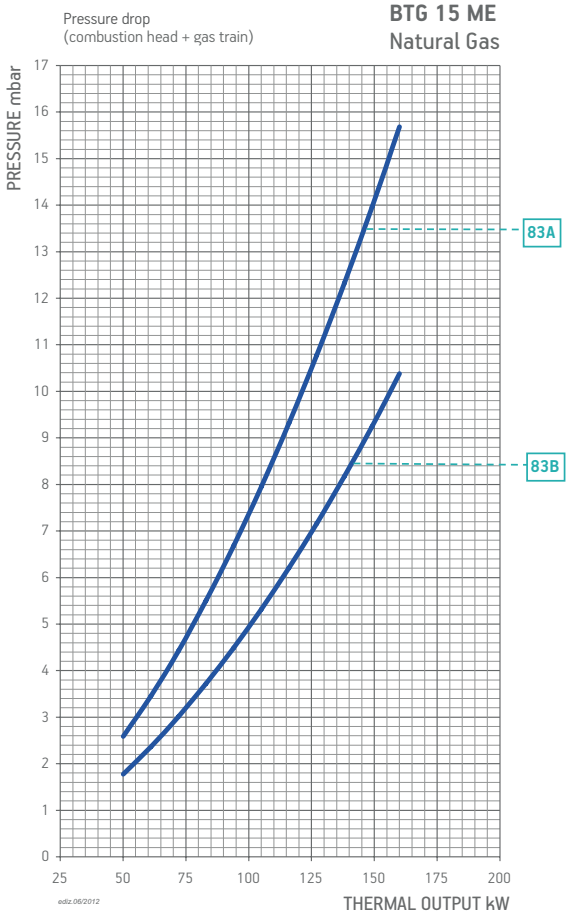
NOTE

1 Equipped with air closure device.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 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.	Note
						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		19990670	–	–	–	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.	Note
					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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 60 - 205 | SERIES BTG

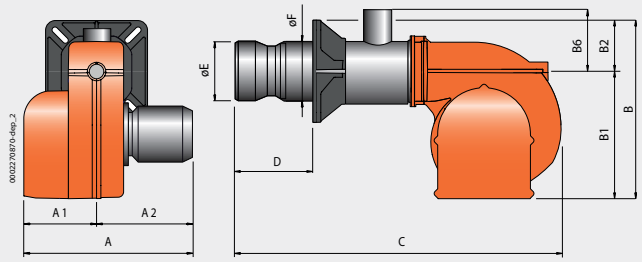
LOW NOX

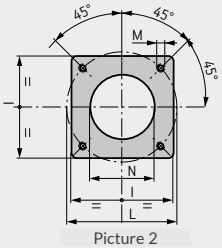
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

BTG 20 - 20 P

BTG 20 ME

Gas burner compliant with European standard EN676. Operation:	BTG 20 single-stage	BTG 20 P two-stage	BTG 20 ME electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel			optional
Modulation ratio:			1:3
Low NOx and CO emissions gas burner according to European standard EN676:	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
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	•	•	•





Picture 2

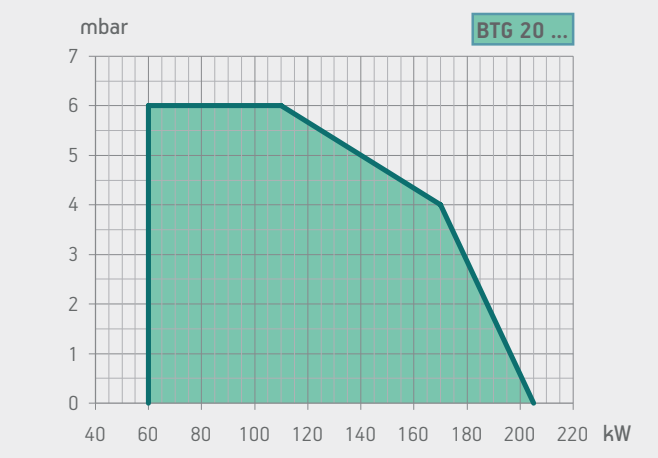
Flange dimensions and boiler drilling template.

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	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 ME	303	158	145	368	275	93	70	695	150 ÷ 300	127	114	185	170 ÷ 210	M10	135	-	-	-	2

kW 60 - 205

SERIES BTG

CE 0085



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

GAS BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			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 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 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 ME: modulation kit	98000059
BTG 20 ME: modulating probe (see page 254)	

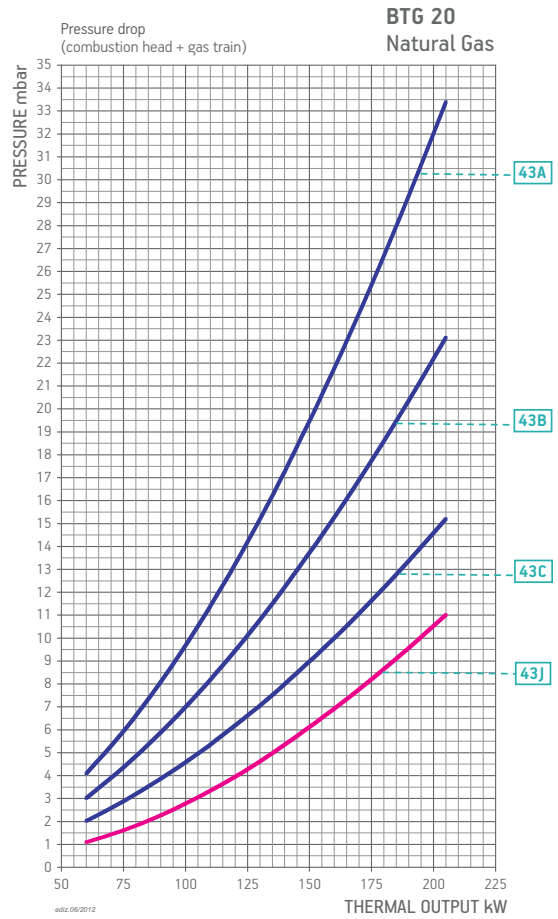
GAS BURNERS ACCESSORIES

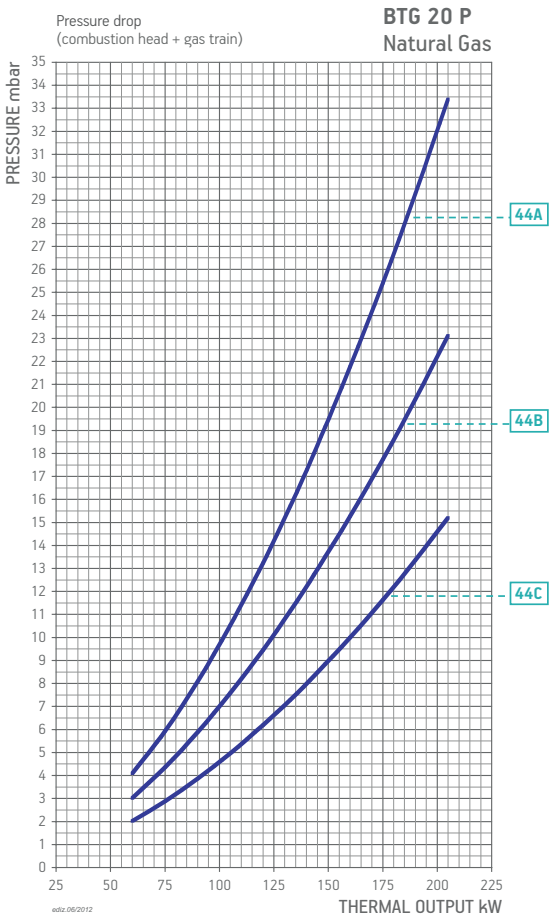
Boiler coupling kit, plug for wiring.

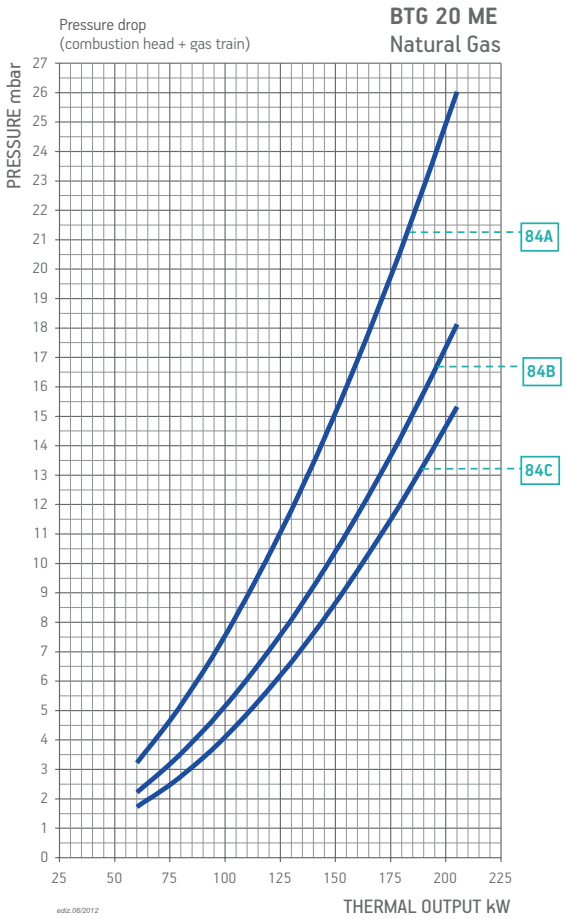
NOTE

1 Equipped with air closure device.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 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.	Note
						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		19990670	–	–	–	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 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.	Note
					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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

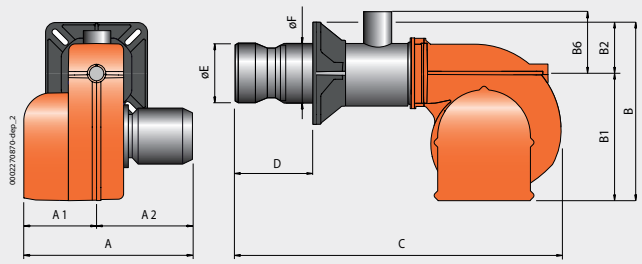
kW **80 - 280** | SERIES **BTG**

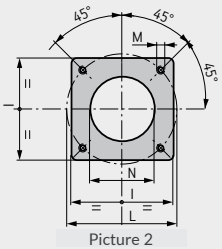
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

BTG 28 - 28 P

BTG 28 ME

Gas burner compliant with European standard EN676. Operation:	**BTG 28** single-stage	**BTG 28 P** two-stage	**BTG 28 ME** electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel			optional
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	•	•	•





Picture 2

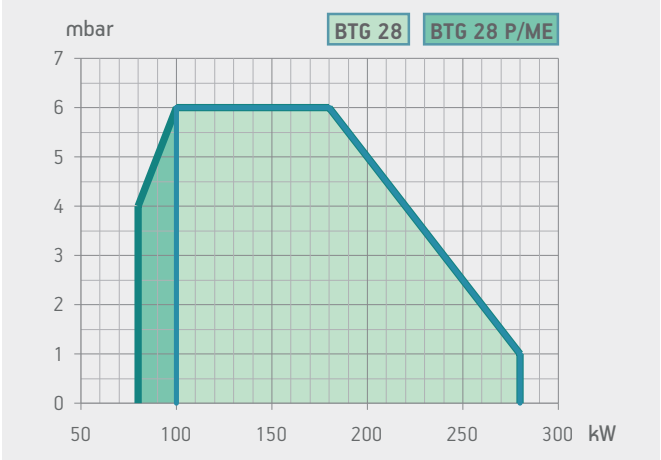
Flange dimensions and boiler drilling template.

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	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

kW 80 - 280

SERIES BTG

CE 0085



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

GAS BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			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 (see page 254)	

GAS BURNERS ACCESSORIES

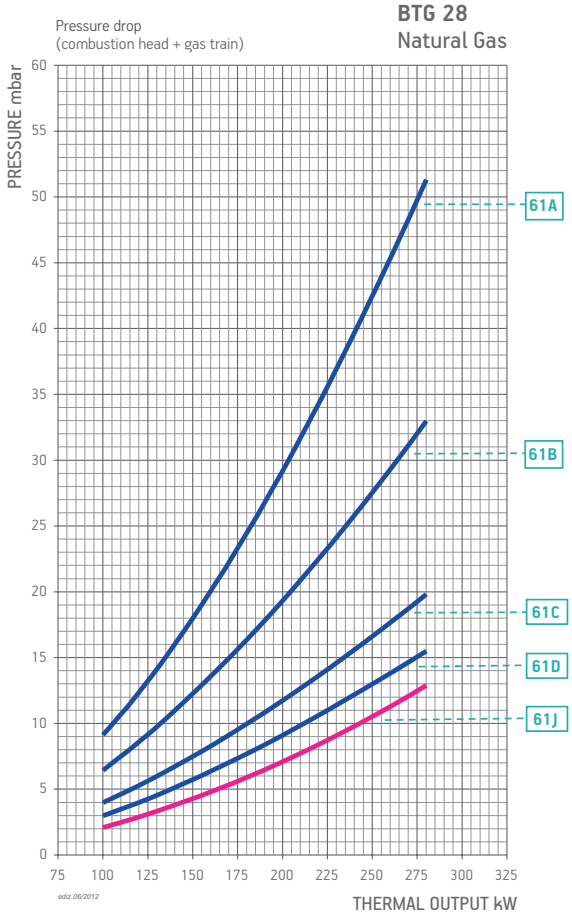
Boiler coupling kit, plug for wiring.

NOTE

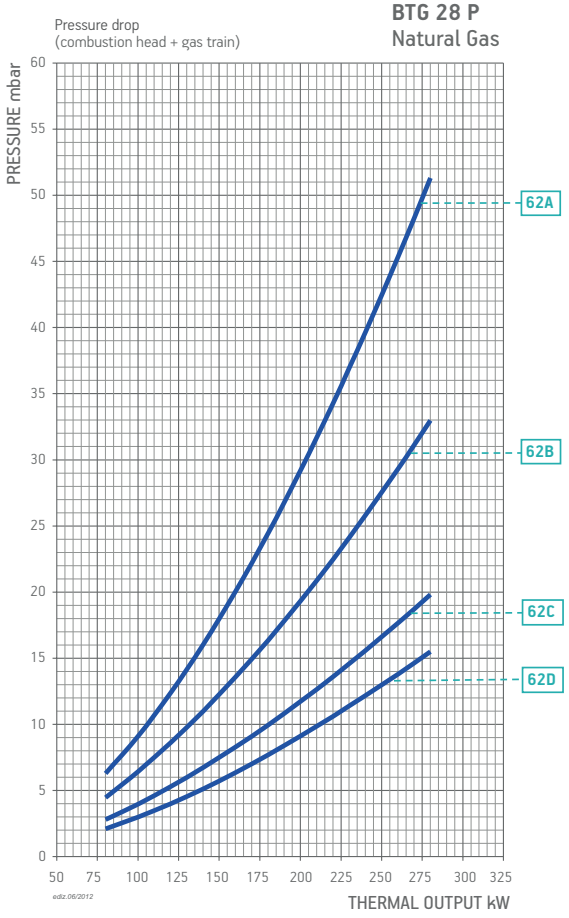
1 Equipped with air closure device.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH

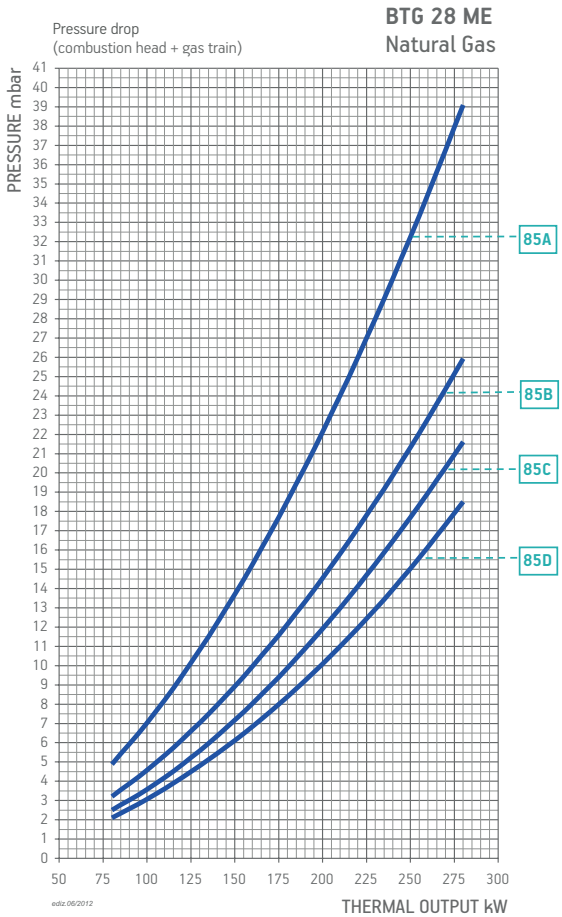
BTG 28
Natural Gas



BTG 28 P
Natural Gas



BTG 28 ME
Natural 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.	Note
						Part no.	Part no.	Part no.	Part no.		
BTG 28	Natural gas	61A	CE/EXP	360		19990002	Included	–	–	M2	
					CTV	19990002	Included	–	98000100	M2	12)
		61B	CE/EXP	360		19990005	Included	–	–	M2	
					CTV	19990005	Included	–	98000100	M2	12)
		61C	CE/EXP	360		19990008	Included	96000031	–	M2	
					CTV	19990008	Included	96000031	98000100	M2	12)
		61D	CE/EXP	360		19990166	Included	96000031	–	M2	
					CTV	19990166	Included	96000031	98000100	M2	12)
		61J	EXP	40		19990671	–	96000028	–	ME1	
BTG 28 P	Natural gas	62A	CE/EXP	360		19990016	Included	–	–	B2	
					CTV	19990016	Included	–	98000100	B2	12)
		62B	CE/EXP	360		19990020	Included	–	–	B2	
					CTV	19990020	Included	–	98000100	B2	12)
		62C	CE/EXP	360		19990024	Included	96000031	–	B2	
					CTV	19990024	Included	96000031	98000100	B2	12)
		62D	CE/EXP	360		19990168	Included	96000031	–	B2	
					CTV	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.	Note
					Part no.	Part no.	Part no.	Part no.		
BTG 28	LPG	CE/EXP	360		19990002	Included	–	–	M2	
				CTV	19990002	Included	–	98000100	M2	12)
BTG 28 P	LPG	CE/EXP	360		19990016	Included	–	–	B2	
				CTV	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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 80 - 410 | SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

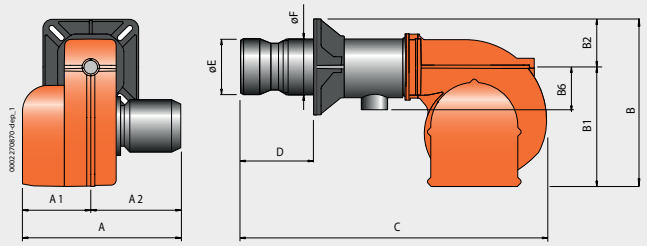
TBG 35

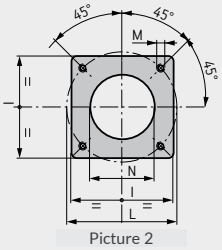
TBG 35 P

TBG 35 MC

TBG 35 ME

Gas burner compliant with European standard EN676. Operation:	TBG 35 single-stage	TBG 35 P two-stage	TBG 35 MC mechanical two-stage progressive	TBG 35 ME electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel			optional	optional
Modulation ratio:			1:5	1:5
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	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 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	down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•
Electric protection rating:	IP40	IP40	IP40	IP40



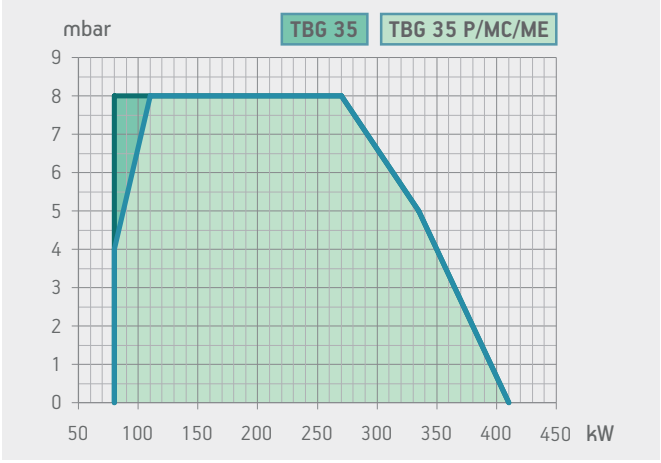


Picture 2

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	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	152	-	-	-	2
TBG 35 P	440	210	230	378	270	108	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	-	-	-	2
TBG 35 MC	520	290	230	420	270	150	160	860	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	-	-	-	2
TBG 35 ME	465	180	285	377	260	117	160	840	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	-	-	-	2

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 35	1000	600	510	38
TBG 35 P	1000	600	510	38
TBG 35 MC	1000	600	510	40
TBG 35 ME	1000	600	510	40

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			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 MC**	**17360010**	1N AC 50Hz 230V	0,37	4)
	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 MC**	**17365410**	1N AC 60Hz 220V	0,37	4)
	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 MC: modulation kit	98000056
TBG 35 ME: modulation kit	98000059
TBG 35 MC/35 ME: modulating probe (see page 254)	
TBG 35 MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

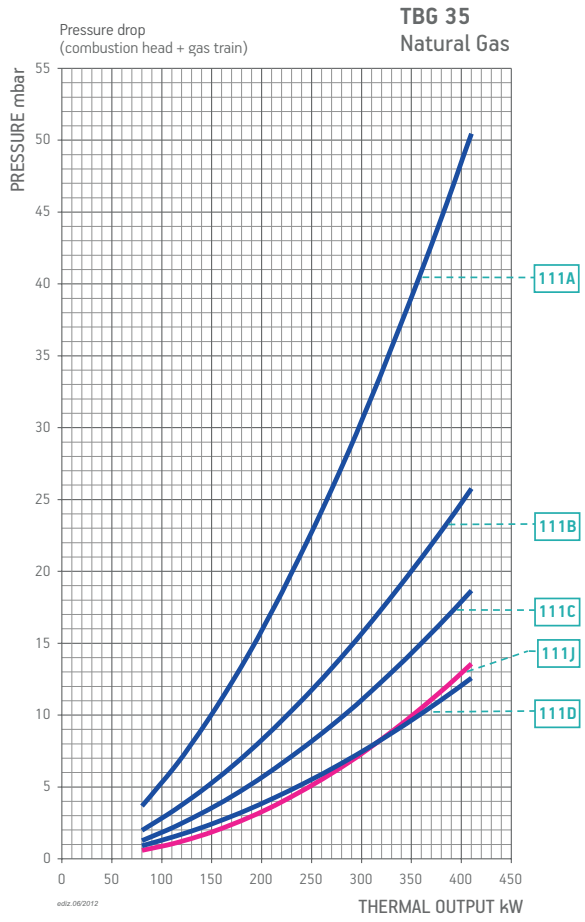
GAS BURNERS ACCESSORIES

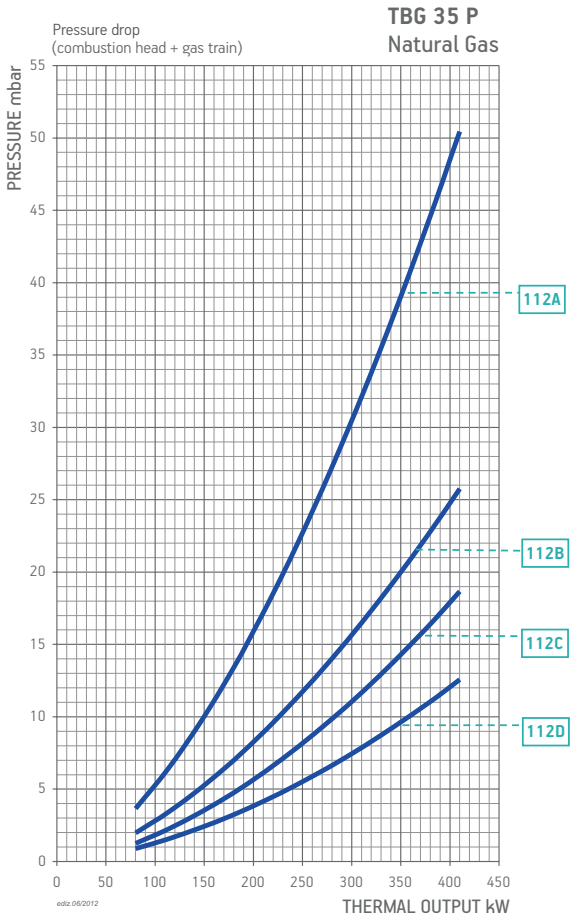
TBG 35/35 P/35 MC: boiler coupling kit, plug for wiring.
TBG 35 ME: boiler coupling kit.

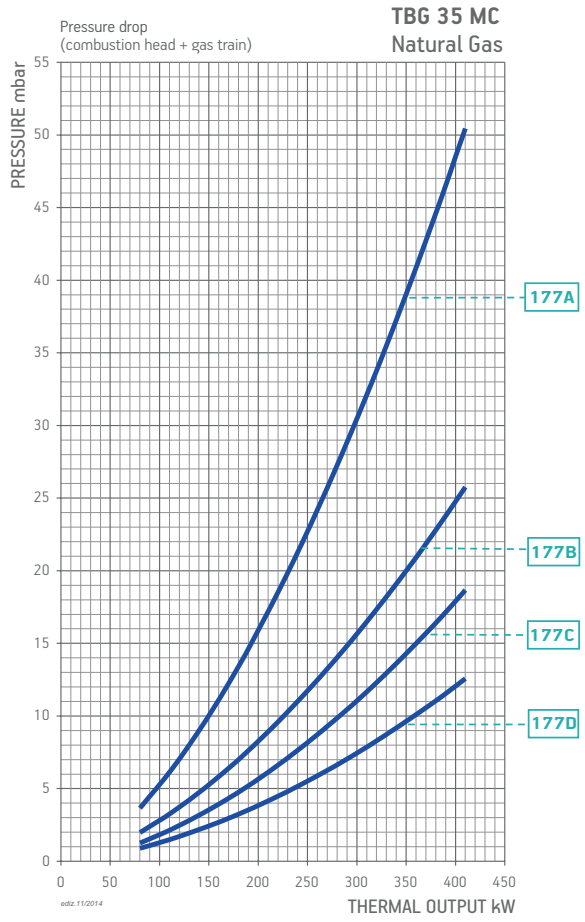
NOTE

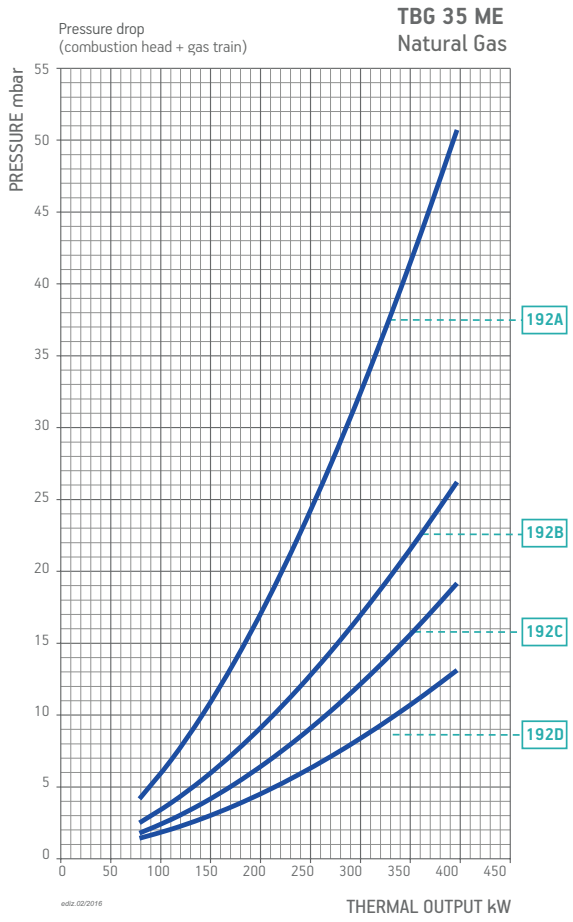
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 35	Natural gas	111A	CE/EXP	360		19990545	Included	96000005	–	M2	
					CTV	19990545	Included	96000005	98000100	M2	12)
		111B	CE/EXP	360		19990546	Included	96000004	–	M2	
					CTV	19990546	Included	96000004	98000100	M2	12)
		111C	CE/EXP	360		19990547	Included	96000004	–	M2	
					CTV	19990547	Included	96000004	98000100	M2	12)
		111D	CE/EXP	360		19990548	Included	–	–	M2	
					CTV	19990548	Included	–	98000100	M2	12)
		111J	EXP	40		19990671	–	96000006	–	ME1	
TBG 35 P	Natural gas	112A	CE/EXP	360		19990545	Included	96000005	–	B7	
					CTV	19990545	Included	96000005	98000100	B7	12)
		112B	CE/EXP	360		19990546	Included	96000004	–	B7	
					CTV	19990546	Included	96000004	98000100	B7	12)
		112C	CE/EXP	360		19990547	Included	96000004	–	B7	
					CTV	19990547	Included	96000004	98000100	B7	12)
		112D	CE/EXP	360		19990548	Included	–	–	B7	
					CTV	19990548	Included	–	98000100	B7	12)
TBG 35 MC	Natural gas	177A	CE/EXP	360		19990545	Included	96000005	–	B7	
					CTV	19990545	Included	96000005	98000101	B7	12)
		177B	CE/EXP	360		19990546	Included	96000004	–	B7	
					CTV	19990546	Included	96000004	98000101	B7	12)
		177C	CE/EXP	360		19990547	Included	96000004	–	B7	
					CTV	19990547	Included	96000004	98000101	B7	12)
		177D	CE/EXP	360		19990548	Included	–	–	B7	
					CTV	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBG 35	LPG	CE/EXP	360		19990545	Included	96000005	–	M2	
				CTV	19990545	Included	96000005	98000100	M2	12)
TBG 35 P	LPG	CE/EXP	360		19990545	Included	96000005	–	B7	
				CTV	19990545	Included	96000005	98000100	B7	12)
TBG 35 MC	LPG	CE/EXP	360		19990545	Included	96000005	–	B7	
				CTV	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 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 100 - 450 | SERIES TBG

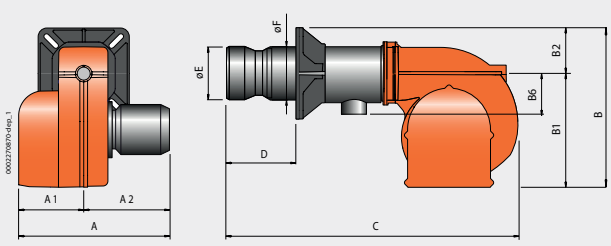
LOW NOX

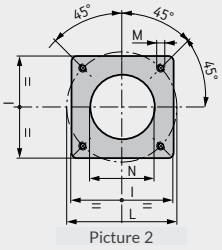
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

TBG 45

TBG 45 P

Gas burner compliant with European standard EN676. Operation:	TBG 45 single-stage	TBG 45 P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	manual	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•	•
Possibility to choose gas train with valve tightness control	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•
Electric protection rating:	IP44	IP44





Picture 2

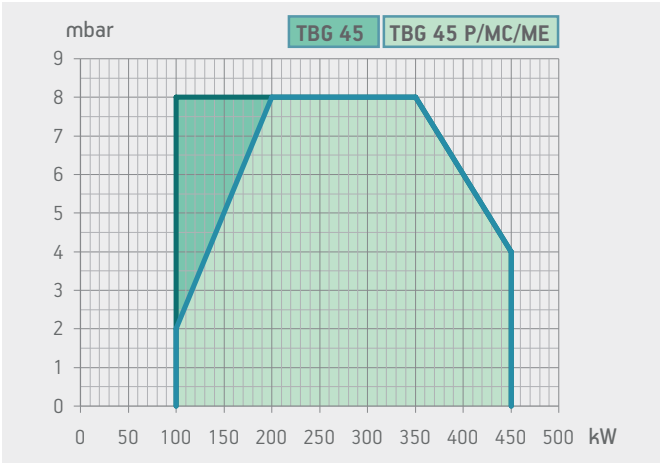
Flange dimensions and boiler drilling template.

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	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	152	-	-	-	2
TBG 45 P	550	270	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	-	-	-	2

kW **100 - 450**

SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 45	1000	600	510	40
TBG 45 P	1000	600	510	40

GAS BURNERS

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

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 100 - 450 | SERIES TBG

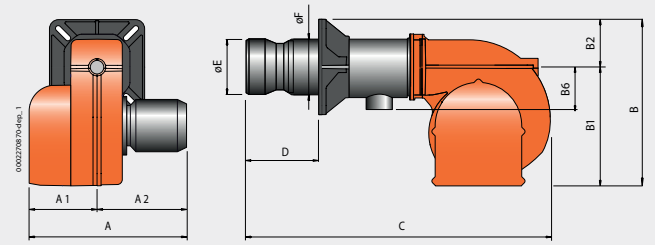
LOW NOX

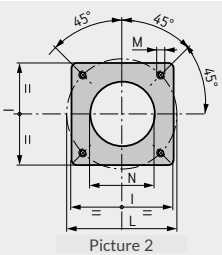
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

TBG 45 MC

TBG 45 ME

Gas burner compliant with European standard EN676. Operation:	TBG 45 MC mechanical two-stage progressive	TBG 45 ME electronic modulation	TBG 45 ME V electronic modulation	TBG 45 ME V O2 electronic modulation	TBG 45 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:4	1:4	1:4	1:4
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





Picture 2

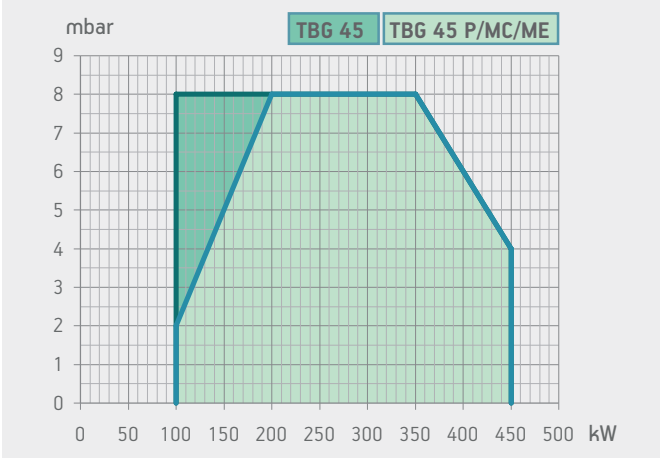
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 45 MC	610	330	280	455	325	130	160	880	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	2
TBG 45 ME	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	2
TBG 45 ME V	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	2
TBG 45 ME V O2	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	2
TBG 45 ME V CO	480	200	280	433	325	108	160	920	140 ÷ 300	137	133	215	200 ÷ 245	M12	152	2

kW 100 - 450

SERIES TBG

CE 0085



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

	Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
						Frequency 50 Hz				
				class 3	100 ÷ 450	**TBG 45 MC**	**17240010**	1N AC 50Hz 230V	0,5	4)
				class 3	100 ÷ 450	**TBG 45 ME**	**17230020**	1N AC 50Hz 230V	0,5	4)
	•			class 3	100 ÷ 450	**TBG 45 ME V**	**17230025**	1N AC 50Hz 230V	0,5	4)
	•	•		class 3	100 ÷ 450	**TBG 45 ME V O2**	**17230026**	1N AC 50Hz 230V	0,5	4)
	•	•	•	class 3	100 ÷ 450	**TBG 45 ME V CO**	**17230027**	1N AC 50Hz 230V	0,5	4)
						Frequency 60 Hz				
				class 3	100 ÷ 450	**TBG 45 MC**	**17245410**	1N AC 60Hz 220V	0,5	4)
				class 3	100 ÷ 450	**TBG 45 ME**	**17235420**	1N AC 60Hz 220V	0,5	4)
	•			class 3	100 ÷ 450	**TBG 45 ME V**	**on request**	1N AC 60Hz 220V	0,5	4)
	•	•		class 3	100 ÷ 450	**TBG 45 ME V O2**	**on request**	1N AC 60Hz 220V	0,5	4)
	•	•	•	class 3	100 ÷ 450	**TBG 45 ME V CO**	**on request**	1N AC 60Hz 220V	0,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 45 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 45 MC: modulation kit	98000058
TBG 45 ME: modulation kit	98000059
TBG 45 MC/45 ME: modulating probe (see page 254)	
TBG 45 MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

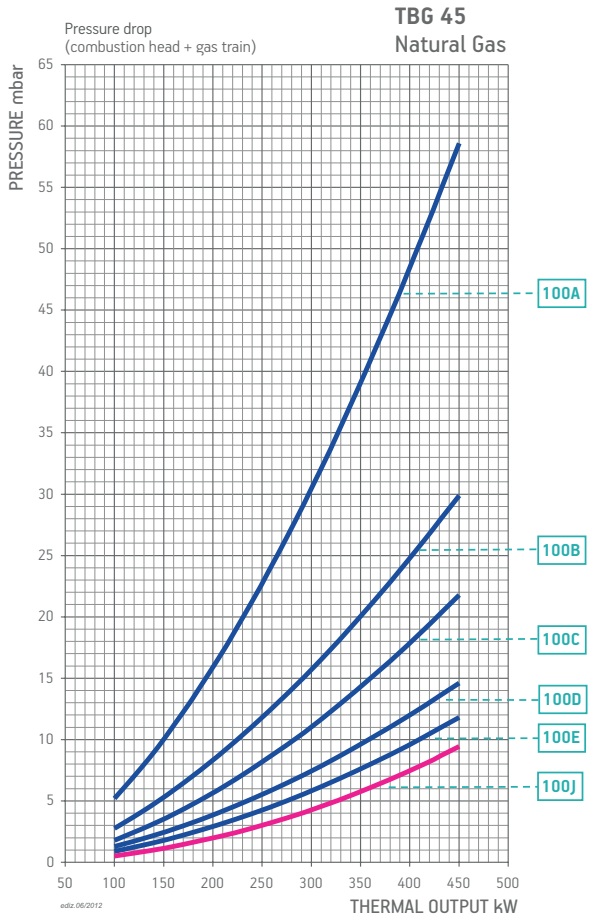
GAS BURNERS ACCESSORIES

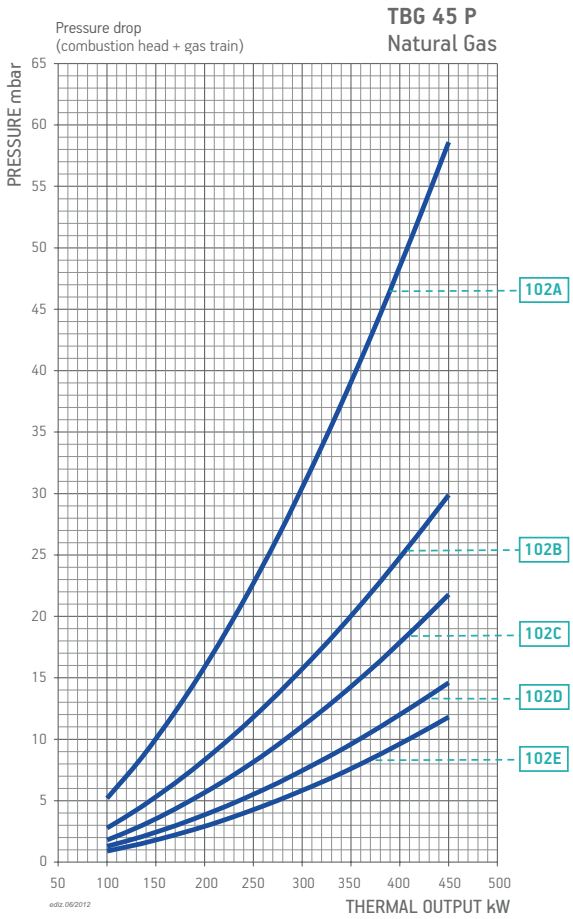
TBG 45 MC: boiler coupling kit, plug for wiring.
TBG 45 ME/45 ME V: boiler coupling kit.

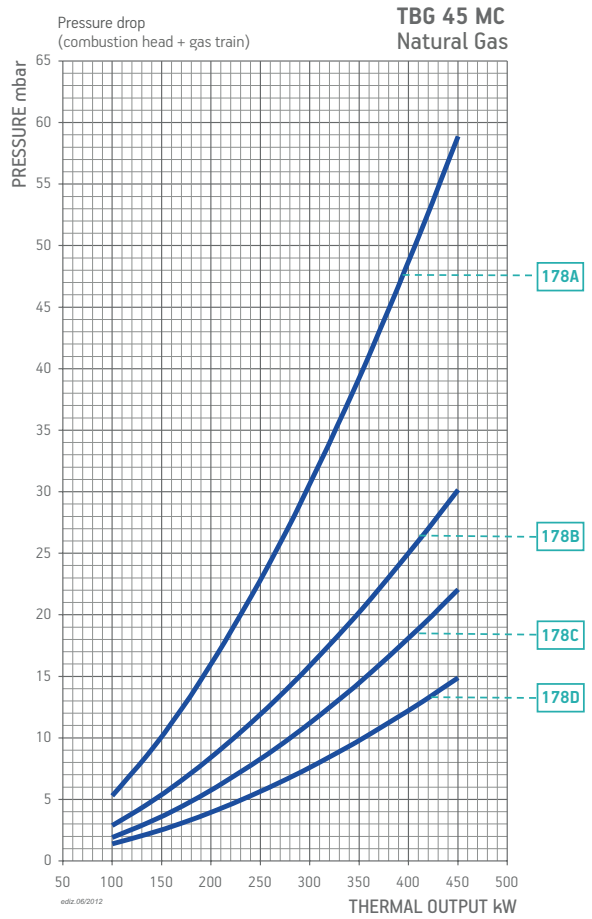
NOTE

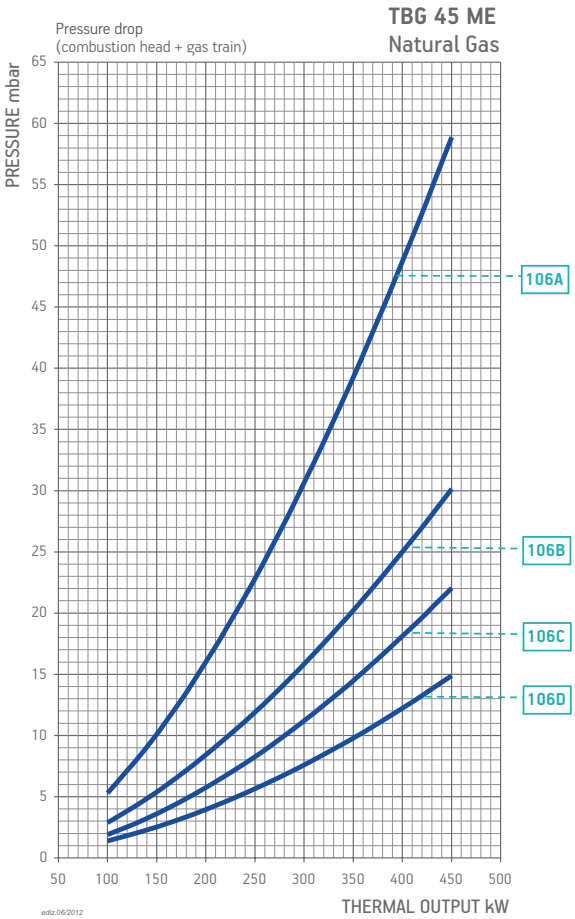
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 45	Natural gas	100A	CE/EXP	360		19990510	Included	96000005	–	B2	
					CTV	19990510	Included	96000005	98000101	B2	12)
			EXP	360		19990545	Included	96000005	–	M2	
					CTV	19990545	Included	96000005	98000101	M2	
		100B	CE/EXP	360		19990511	Included	96000004	–	B2	
					CTV	19990511	Included	96000004	98000101	B2	12)
			EXP	360		19990546	Included	96000004	–	M2	
					CTV	19990546	Included	96000004	98000101	M2	
		100C	CE/EXP	360		19990512	Included	96000004	–	B2	
					CTV	19990512	Included	96000004	98000101	B2	12)
			EXP	360		19990547	Included	96000004	–	M2	
					CTV	19990547	Included	96000004	98000101	M2	
		100D	CE/EXP	360		19990513	Included	–	–	B2	
					CTV	19990513	Included	–	98000101	B2	12)
			EXP	360		19990548	Included	–	–	M2	
					CTV	19990548	Included	–	98000101	M2	
		100E	CE/EXP	360		19990514	Included	96000013	–	B2	
					CTV	19990514	Included	96000013	98000101	B2	12)
			EXP	360		19990549	Included	96000013	–	M2	
					CTV	19990549	Included	96000013	98000101	M2	
		100J	EXP	140		19990471	–	–	–	ME4	
TBG 45 P	Natural gas	102A	CE/EXP	360		19990510	Included	96000005	–	B2	
					CTV	19990510	Included	96000005	98000101	B2	12)
		102B	CE/EXP	360		19990511	Included	96000004	–	B2	
					CTV	19990511	Included	96000004	98000101	B2	12)
		102C	CE/EXP	360		19990512	Included	96000004	–	B2	
					CTV	19990512	Included	96000004	98000101	B2	12)
		102D	CE/EXP	360		19990513	Included	–	–	B2	
					CTV	19990513	Included	–	98000101	B2	12)
		102E	CE/EXP	360		19990514	Included	96000013	–	B2	
					CTV	19990514	Included	96000013	98000101	B2	12)
TBG 45 MC	Natural gas	178A	CE/EXP	360		19990545	Included	96000005	–	B7	
					CTV	19990545	Included	96000005	98000101	B7	12)
		178B	CE/EXP	360		19990546	Included	96000004	–	B7	
					CTV	19990546	Included	96000004	98000101	B7	12)
		178C	CE/EXP	360		19990547	Included	96000004	–	B7	
					CTV	19990547	Included	96000004	98000101	B7	12)
		178D	CE/EXP	360		19990548	Included	–	–	B7	
					CTV	19990548	Included	–	98000101	B7	12)
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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBG 45	LPG	CE/EXP	360		19990510	Included	96000005	–	B2	
				CTV	19990510	Included	96000005	98000101	B2	12)
		EXP	360		19990545	Included	96000005	–	M2	
				CTV	19990545	Included	96000005	98000101	M2	
TBG 45 P	LPG	CE/EXP	360		19990510	Included	96000005	–	B2	
				CTV	19990510	Included	96000005	98000101	B2	12)
TBG 45 MC	LPG	CE/EXP	360		19990545	Included	96000005	–	B7	
				CTV	19990545	Included	96000005	98000101	B7	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	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 120 - 600

SERIES TBG

LOW NOX

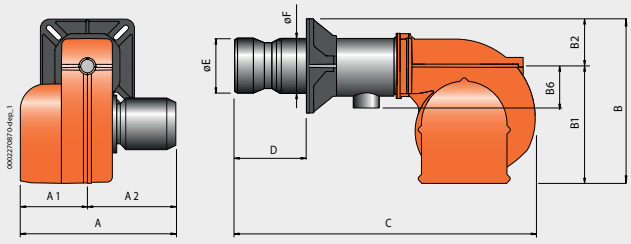
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

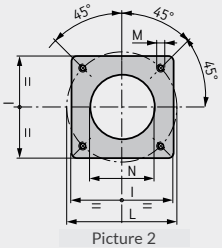
TBG 60

TBG 60 P

GAS BURNERS

Gas burner compliant with European standard EN676. Operation:	TBG 60 single-stage	TBG 60 P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	manual	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•	•
Possibility to choose gas train with valve tightness control	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•
Electric protection rating:	IP44	IP44





Picture 2

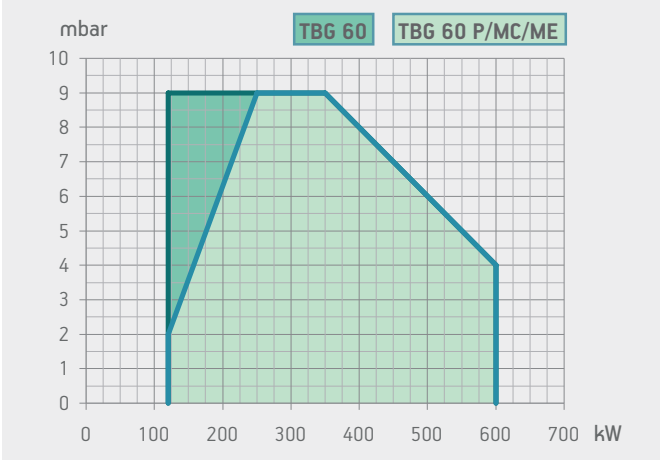
Flange dimensions and boiler drilling template.

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	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	171	-	-	-	2
TBG 60 P	550	270	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	-	-	-	2

kW 120 - 600

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 60	1000	600	510	42
TBG 60 P	1000	600	510	42

GAS BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			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)
			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)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 120 - 600 | SERIES TBG

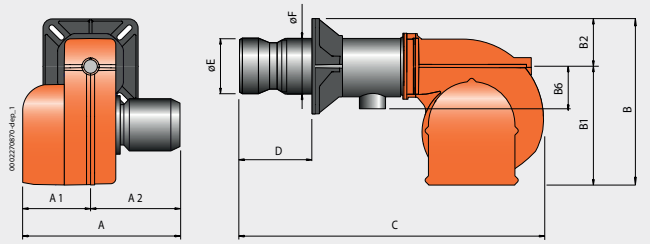
LOW NOX

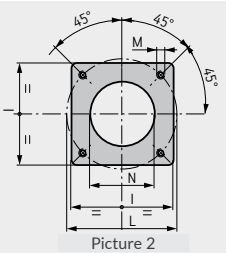
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676. CE 0085

TBG 60 MC

TBG 60 ME

Gas burner compliant with European standard EN676. Operation:	TBG 60 MC mechanical two-stage progressive	TBG 60 ME electronic modulation	TBG 60 ME V electronic modulation	TBG 60 ME V O2 electronic modulation	TBG 60 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
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





Picture 2

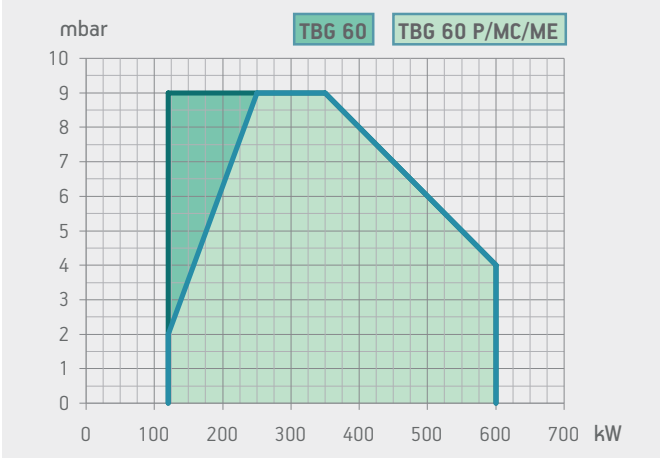
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 60 MC	610	330	280	455	325	130	160	880	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	2
TBG 60 ME	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	2
TBG 60 ME V	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	2
TBG 60 ME V O2	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	2
TBG 60 ME V CO	480	200	280	455	325	130	160	920	140 ÷ 300	156	152	260	225 ÷ 300	M12	171	2

kW 120 - 600

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 60 MC	1070	800	700	51
TBG 60 ME	1000	600	510	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

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					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)
	•		class 3	120 ÷ 600	**TBG 60 ME V**	**17300025**	1N AC 50Hz 230V	0,74	4)
	•	•	class 3	120 ÷ 600	**TBG 60 ME V O2**	**17300026**	1N AC 50Hz 230V	0,74	4)
	•	•	• 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**	**17305420**	3N AC 60Hz 380V	0,65	4)
	•		class 3	120 ÷ 600	**TBG 60 ME V**	**on request**	1N AC 60Hz 220V	0,65	4)
	•	•	class 3	120 ÷ 600	**TBG 60 ME V O2**	**on request**	1N AC 60Hz 220V	0,65	4)
	•	•	• 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 for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 60 MC: modulation kit	98000058
TBG 60 ME: modulation kit	98000059
TBG 60 MC/60 ME: modulating probe (see page 254)	
TBG 60 MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

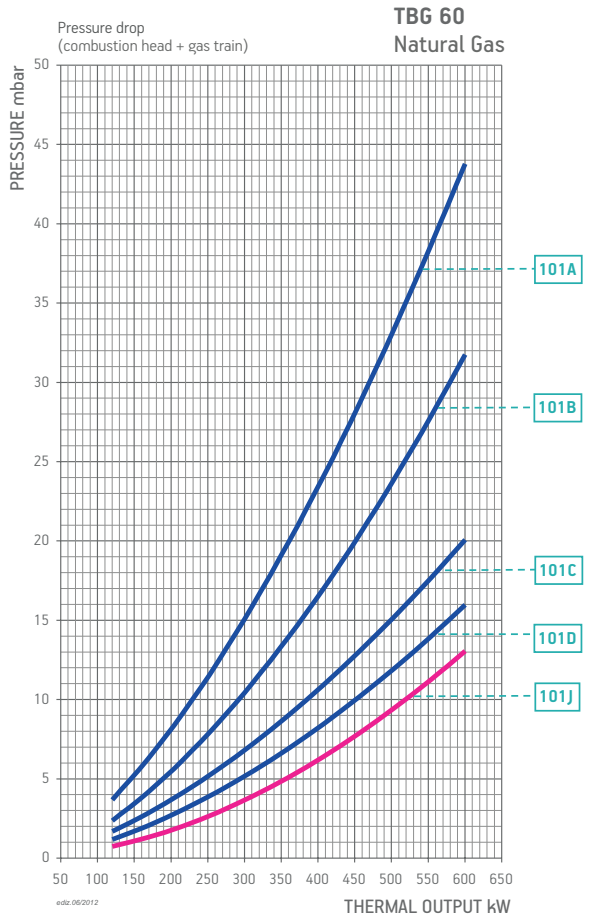
GAS BURNERS ACCESSORIES

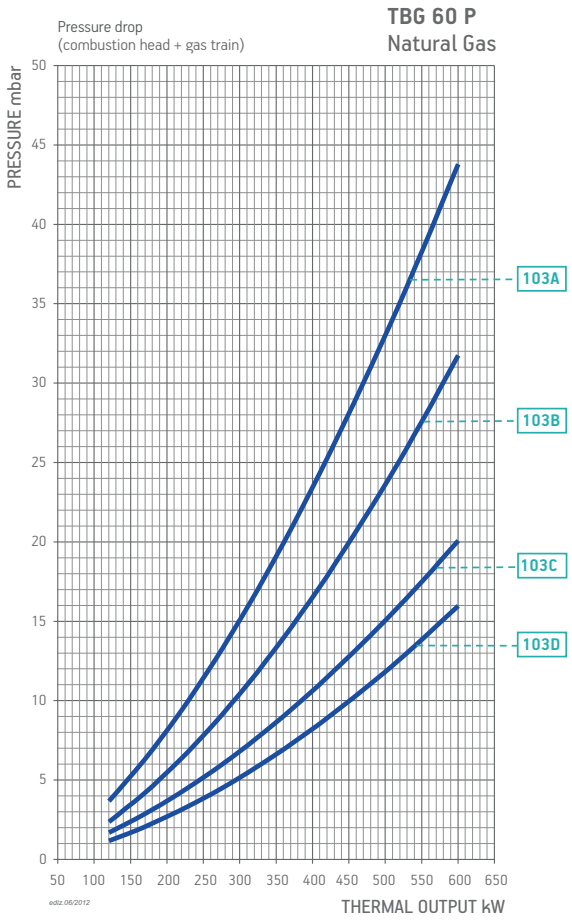
TBG 60 MC: boiler coupling kit, plug for wiring.
TBG 60 ME/60 ME V: boiler coupling kit.

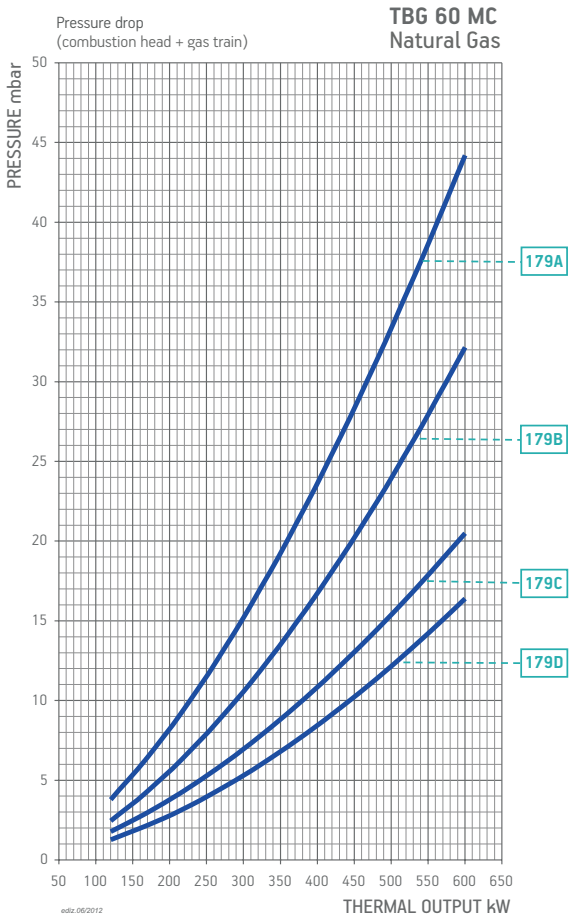
NOTE

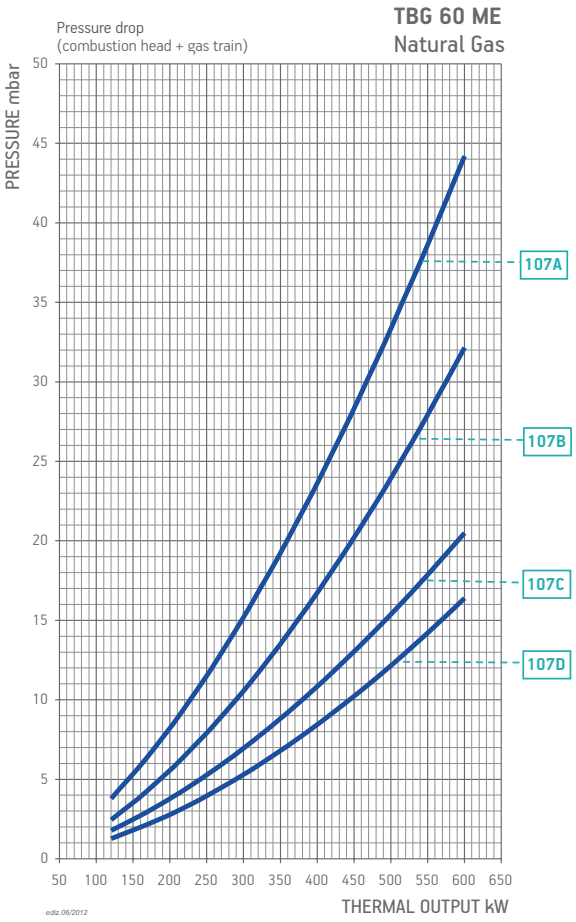
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 60	Natural gas	101A	CE/EXP	360		19990511	Included	96000004	–	B2	
					CTV	19990511	Included	96000004	98000101	B2	12)
			EXP	360		19990546	Included	96000004	–	M2	
					CTV	19990546	Included	96000004	98000101	M2	
		101B	CE/EXP	360		19990512	Included	96000004	–	B2	
					CTV	19990512	Included	96000004	98000101	B2	12)
			EXP	360		19990547	Included	96000004	–	M2	
					CTV	19990547	Included	96000004	98000101	M2	
		101C	CE/EXP	360		19990513	Included	–	–	B2	
					CTV	19990513	Included	–	98000101	B2	12)
			EXP	360		19990548	Included	–	–	M2	
					CTV	19990548	Included	–	98000101	M2	
		101D	CE/EXP	360		19990514	Included	96000013	–	B2	
					CTV	19990514	Included	96000013	98000101	B2	12)
			EXP	360		19990549	Included	96000013	–	M2	
					CTV	19990549	Included	96000013	98000101	M2	
		101J	EXP	140		19990471	–	–	–	ME4	
TBG 60 P	Natural gas	103A	CE/EXP	360		19990511	Included	96000004	–	B2	
					CTV	19990511	Included	96000004	98000101	B2	12)
		103B	CE/EXP	360		19990512	Included	96000004	–	B2	
					CTV	19990512	Included	96000004	98000101	B2	12)
		103C	CE/EXP	360		19990513	Included	–	–	B2	
					CTV	19990513	Included	–	98000101	B2	12)
		103D	CE/EXP	360		19990514	Included	96000013	–	B2	
					CTV	19990514	Included	96000013	98000101	B2	12)
TBG 60 MC	Natural gas	179A	CE/EXP	360		19990546	Included	96000004	–	B7	
					CTV	19990546	Included	96000004	98000101	B7	12)
		179B	CE/EXP	360		19990547	Included	96000004	–	B7	
					CTV	19990547	Included	96000004	98000101	B7	12)
		179C	CE/EXP	360		19990548	Included	–	–	B7	
					CTV	19990548	Included	–	98000101	B7	12)
		179D	CE/EXP	360		19990549	Included	96000013	–	B7	
					CTV	19990549	Included	96000013	98000101	B7	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBG 60	LPG	CE/EXP	360		19990511	Included	96000004	–	B2	
				CTV	19990511	Included	96000004	98000101	B2	12)
		EXP	360		19990546	Included	96000004	–	M2	
				CTV	19990546	Included	96000004	98000101	M2	
TBG 60 P	LPG	CE/EXP	360		19990511	Included	96000004	–	B2	
				CTV	19990511	Included	96000004	98000101	B2	12)
TBG 60 MC	LPG	CE/EXP	360		19990546	Included	96000004	–	B7	
				CTV	19990546	Included	96000004	98000101	B7	
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	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 130 - 800

SERIES TBG

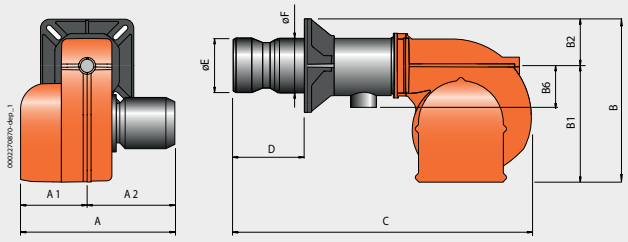
LOW NOX

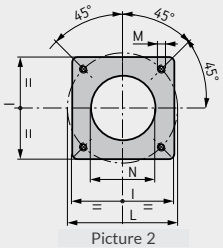
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 80 LX P

	TBG 80 LX P
Gas burner compliant with European standard EN676. Operation:	**two-stage**
Low NOx and CO emissions gas burner according to European standard EN676:	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	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44





Picture 2

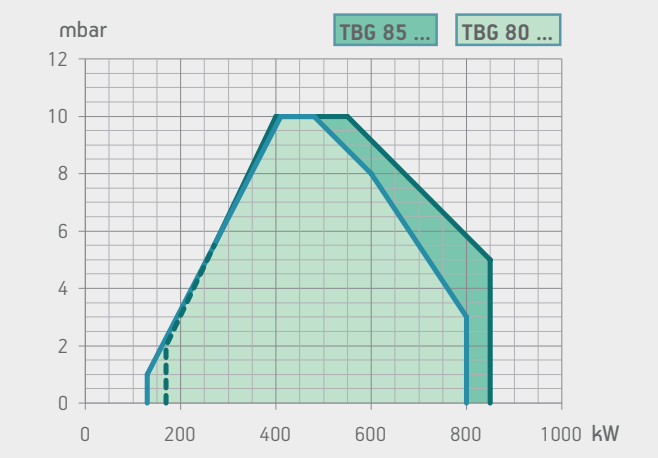
Flange dimensions and boiler drilling template.

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 80 LX P	690	320	370	520	380	140	200	1230	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	-	-	-	2

kW **130 - 800**

SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 80 LX P	1070	800	700	78

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 3	130 ÷ 800	**TBG 80 LX P**	**17830010**	3N AC 50Hz 400V	1,1	3) 4)
			Frequency 60 Hz				
	class 3	130 ÷ 800	**TBG 80 LX P**	**17835410**	3N AC 60Hz 380V	1,1	3) 4)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 130 - 850

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 80 LX MC

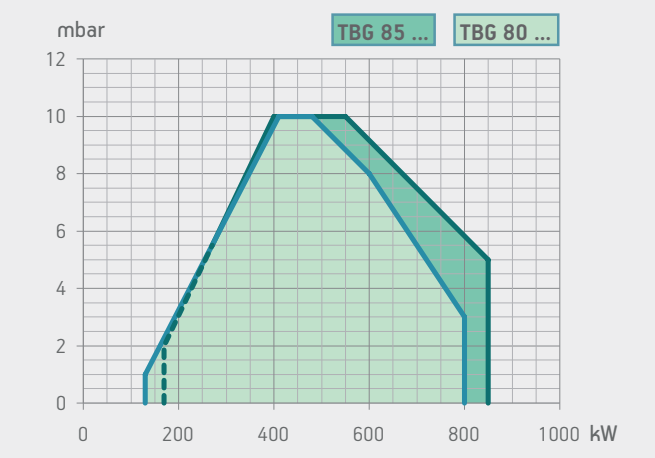
TBG 80 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 80 LX MC mechanical two-stage progressive	TBG 80 LX ME electronic modulation	TBG 80 LX ME V electronic modulation	TBG 80 LX ME V O2 electronic modulation	TBG 80 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:6	1:6	1:6	1:6	1:6
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•				
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter		•	•	•	•
Possibility to choose gas train with valve tightness control	•				
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

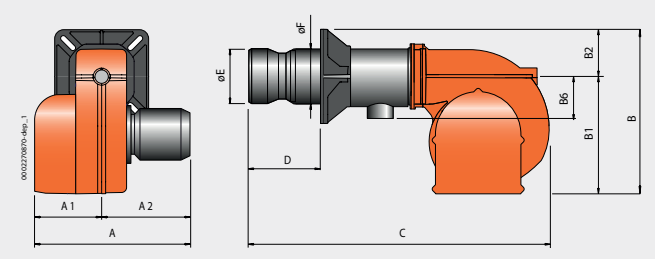
kW 130 - 850

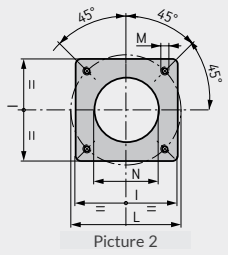
SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 80 LX MC	1070	800	700	78
TBG 80 LX ME	1070	800	700	78
TBG 80 LX ME V	1070	800	700	81
TBG 80 LX ME V O2	1530	760	700	103
TBG 80 LX ME V CO	1530	760	700	115





Picture 2

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	N mm	Pic.
TBG 80 LX MC	690	320	370	550	380	170	200	1230	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 80 LX ME	610	240	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 80 LX ME V	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 80 LX ME V O2	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 80 LX ME V CO	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2

	inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
						Frequency 50 Hz				
				class 3	130 ÷ 800	**TBG 80 LX MC**	**17840010**	3N AC 50Hz 400V	1,1	3) 4)
				class 3	130 ÷ 800	**TBG 80 LX ME**	**17530020**	3N AC 50Hz 400V	1,1	3) 4)
	•			class 3	130 ÷ 800	**TBG 80 LX ME V**	**17530025**	1N AC 50Hz 230V	1,1	3) 4)
	•	•		class 3	130 ÷ 800	**TBG 80 LX ME V O2**	**17530026**	1N AC 50Hz 230V	1,1	3) 4)
	•	•	•	class 3	130 ÷ 800	**TBG 80 LX ME V CO**	**17530027**	1N AC 50Hz 230V	1,1	3) 4)
						Frequency 60 Hz				
				class 3	130 ÷ 800	**TBG 80 LX MC**	**17845410**	3N AC 60Hz 380V	1,1	3) 4)
				class 3	130 ÷ 800	**TBG 80 LX ME**	**17535420**	3N AC 60Hz 380V	1,1	3) 4)
	•			class 3	130 ÷ 800	**TBG 80 LX ME V**	**on request**	1N AC 60Hz 220V	1,1	3) 4)
	•	•		class 3	130 ÷ 800	**TBG 80 LX ME V O2**	**on request**	1N AC 60Hz 220V	1,1	3) 4)
	•	•	•	class 3	130 ÷ 800	**TBG 80 LX ME V CO**	**on request**	1N AC 60Hz 220V	1,1	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 80 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 80 LX MC: modulation kit	98000057
TBG 80 LX ME: modulation kit	98000059
TBG 80 LX MC/80 LX ME: modulating probe (see page 254)	
TBG 80 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

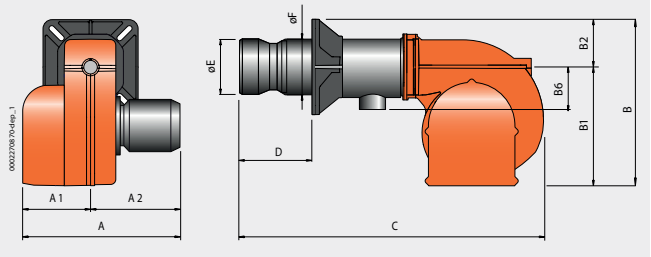
kW **130 - 850** | SERIES **TBG**

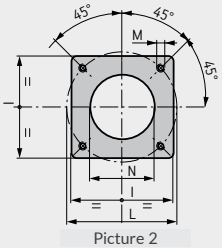
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 85 P

	TBG 85 P
Gas burner compliant with European standard EN676. Operation:	**two-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	•
High ventilation efficiency, low electrical input, low noise	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
CE version gas train is complete with operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•
Possibility to choose gas train with valve tightness control	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	up/down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights.	•
Electric protection rating:	IP44





Picture 2

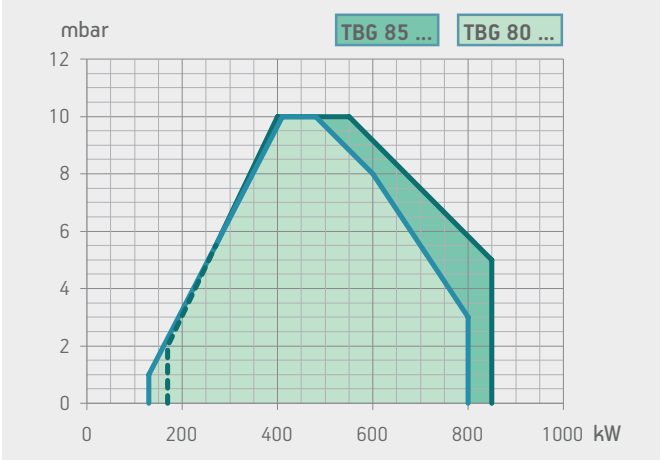
Flange dimensions and boiler drilling template.

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 85 P	645	275	370	520	380	140	160	1230	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	-	-	-	2

kW **130 - 850**

SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 85 P	1070	800	700	78

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	170 ÷ 850	**TBG 85 P**	**17480010**	3N AC 50Hz 400V	1,1	3) 4)
			Frequency 60 Hz				
	class 2	170 ÷ 850	**TBG 85 P**	**17485410**	3N AC 60Hz 380V	1,1	3) 4)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW **130 - 850** | SERIES **TBG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 85 MC

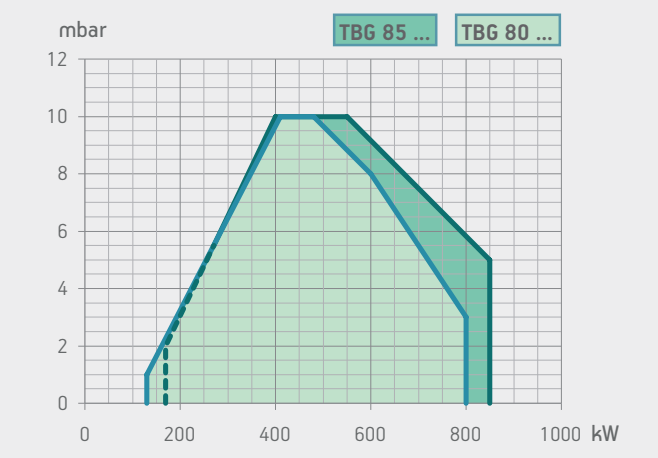
TBG 85 ME

Gas burner compliant with European standard EN676. Operation:	**TBG 85 MC** mechanical two-stage progressive	**TBG 85 ME** electronic modulation	**TBG 85 ME V** electronic modulation	**TBG 85 ME V O2** electronic modulation	**TBG 85 ME V CO** electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•				
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter		•	•	•	•
Possibility to choose gas train with valve tightness control	•				
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

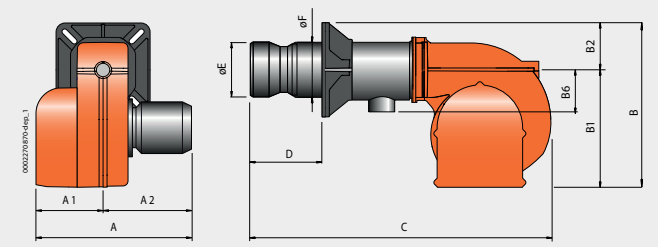
kW 130 - 850

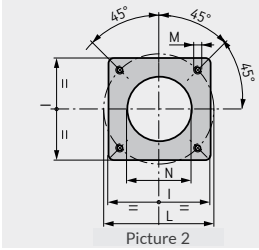
SERIES TBG

CE 0085



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





Picture 2

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	N mm	Pic.
TBG 85 MC	690	320	370	550	380	170	200	1230	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 85 ME	610	240	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 85 ME V	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 85 ME V O2	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBG 85 ME V CO	670	300	370	520	380	140	200	1265	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
				Frequency 50 Hz					
			class 2	170 ÷ 850	**TBG 85 MC**	**17540010**	3N AC 50Hz 400V	1,1	3) 4)
			class 2	170 ÷ 850	**TBG 85 ME**	**17500020**	3N AC 50Hz 400V	1,1	3) 4)
	•		class 2	170 ÷ 850	**TBG 85 ME V**	**17500025**	1N AC 50Hz 230V	1,1	3) 4)
	•	•	class 2	170 ÷ 850	**TBG 85 ME V O2**	**17500026**	1N AC 50Hz 230V	1,1	3) 4)
	•	•	• class 2	170 ÷ 850	**TBG 85 ME V CO**	**17500027**	1N AC 50Hz 230V	1,1	3) 4)
				Frequency 60 Hz					
			class 2	170 ÷ 850	**TBG 85 MC**	**17545410**	3N AC 60Hz 380V	1,1	3) 4)
			class 2	170 ÷ 850	**TBG 85 ME**	**17505420**	3N AC 60Hz 380V	1,1	3) 4)
	•		class 2	170 ÷ 850	**TBG 85 ME V**	**on request**	1N AC 60Hz 220V	1,1	3) 4)
	•	•	class 2	170 ÷ 850	**TBG 85 ME V O2**	**on request**	1N AC 60Hz 220V	1,1	3) 4)
	•	•	• class 2	170 ÷ 850	**TBG 85 ME V CO**	**on request**	1N AC 60Hz 220V	1,1	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 85 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 85 MC: modulation kit	98000057
TBG 85 ME: modulation kit	98000059
TBG 85 MC/ 85 ME: modulating probe (see page 254)	
TBG 85 MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

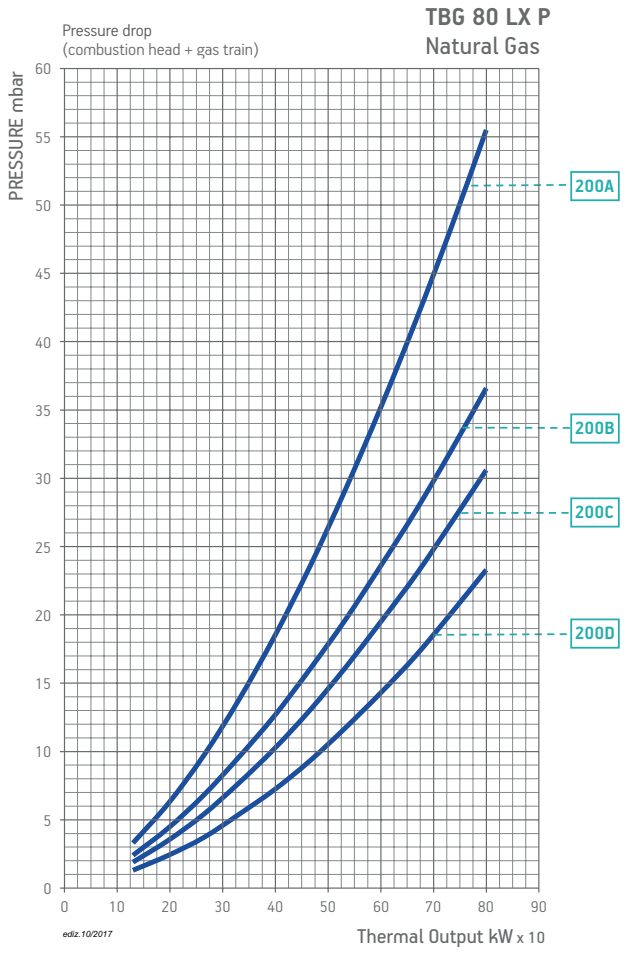
GAS BURNERS ACCESSORIES

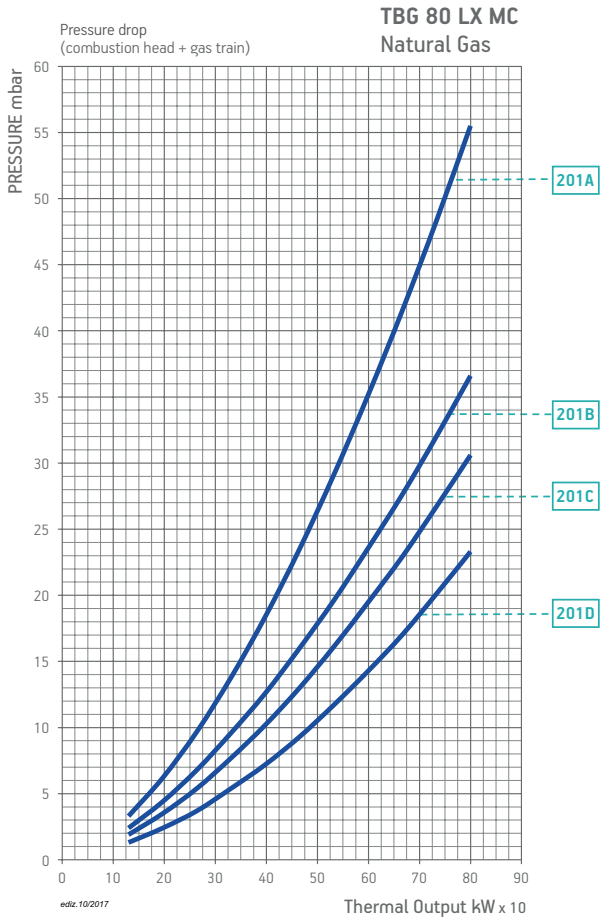
Boiler coupling kit, plug for wiring.

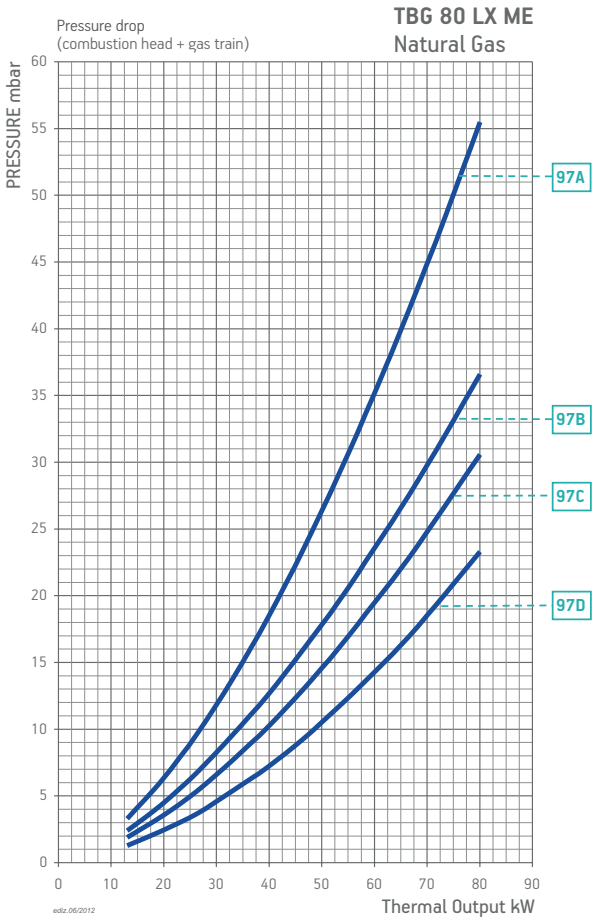
NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 80 LX P	Natural gas	200A	CE/EXP	360		19990547	Included	96000032	–	B7	
					CTV	19990547	Included	96000032	98000101	B7	12)
		200B	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		200C	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		200D	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
TBG 80 LX MC	Natural gas	201A	CE/EXP	360		19990547	Included	96000032	–	B7	
					CTV	19990547	Included	96000032	98000101	B7	12)
		201B	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		201C	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		201D	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
TBG 80 LX ME **TBG 80 LX ME V** **TBG 80 LX ME V O2** **TBG 80 LX ME V CO**	Natural gas	97A	CE/EXP	360	CTV	19990557	Included	96000032	Included	D2	
		97B	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		97C	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		97D	CE/EXP	500	CTV	19990524	Included	–	Included	D2	

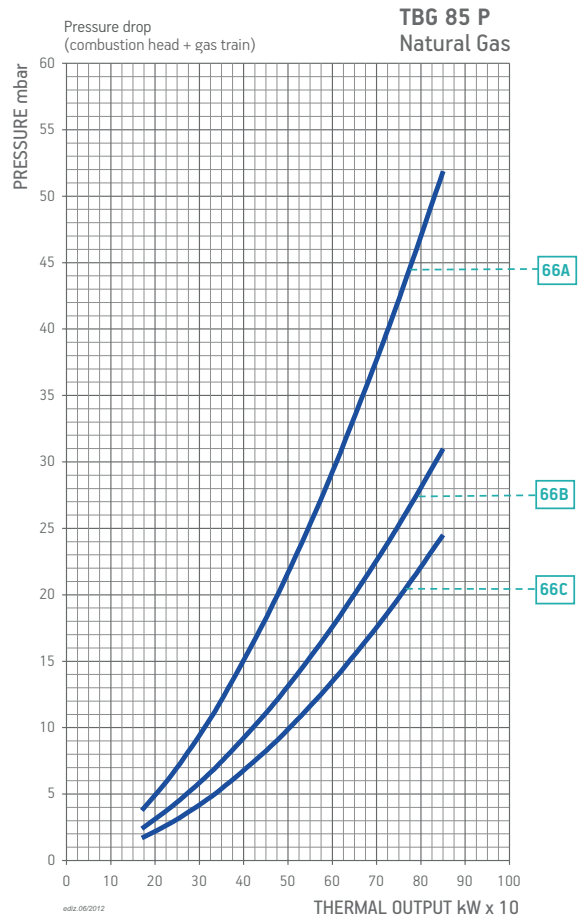
Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 80 LX P	LPG	CE/EXP	360		19990547	Included	96000032	–	98000383	B7	
TBG 80 LX MC	LPG	CE/EXP	360		19990547	Included	96000032	–	98000383	B7	
			360	CTV	19990547	Included	96000032	98000101	98000383	B7	12)
TBG 80 LX ME	LPG	CE/EXP	360	CTV	19990557	Included	96000032	Included	98000383	B7	

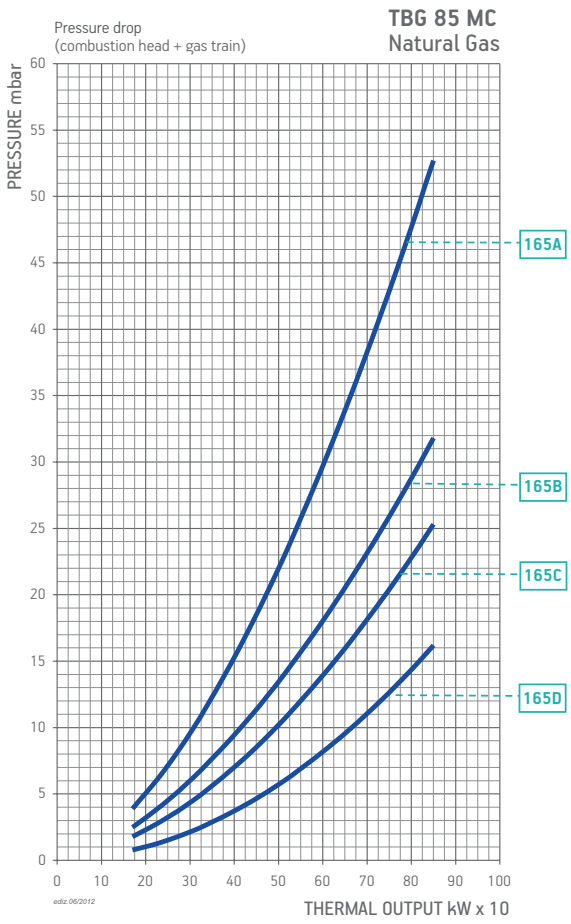
To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

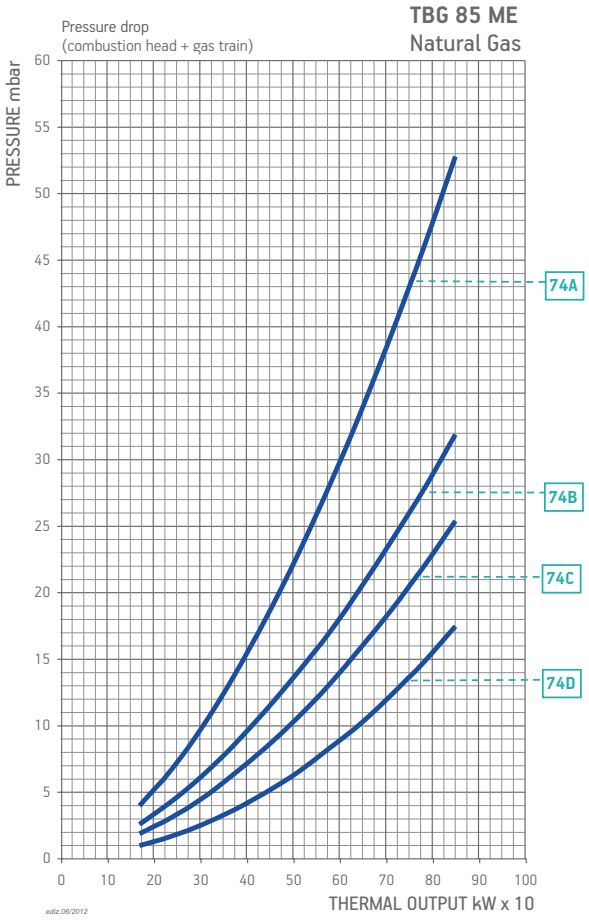
NOTE

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







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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 85 P	Natural gas	66A	CE/EXP	360		19990512	Included	96000032	–	B2	
					CTV	19990512	Included	96000032	98000101	B2	12)
		66B	CE/EXP	360		19990513	Included	96000007	–	B2	
					CTV	19990513	Included	96000007	98000101	B2	12)
		66C	CE/EXP	360		19990514	Included	–	–	B2	
					CTV	19990514	Included	–	98000101	B2	12)
TBG 85 MC	Natural gas	165A	CE/EXP	360		19990547	Included	96000032	–	B7	
					CTV	19990547	Included	96000032	98000101	B7	12)
		165B	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		165C	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		165D	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
TBG 85 ME **TBG 85 ME V** **TBG 85 ME V O2** **TBG 85 ME V CO**	Natural gas	74A	CE/EXP	360	CTV	19990557	Included	96000032	Included	D2	
		74B	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		74C	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		74D	CE/EXP	500	CTV	19990524	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 85 P	LPG	CE/EXP	360		19990513	Included	96000007	–	98000357	B2	
				CTV	19990513	Included	96000007	98000101	98000357	B2	12)
TBG 85 MC	LPG	CE/EXP	360		19990548	Included	96000007	–	98000357	B7	
				CTV	19990548	Included	96000007	98000101	98000357	B7	12)
TBG 85 ME/ME V **TBG 85 ME V O2** **TBG 85 ME V CO**	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	98000357	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

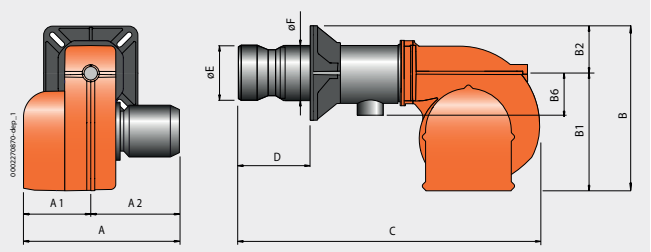
12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

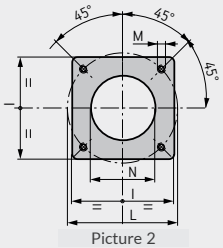
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 110 LX P

	TBG 110 LX P
Gas burner compliant with European standard EN676. Operation:	**two-stage**
Low NOx and CO emissions gas burner according to European standard EN676:	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	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights.	•
Electric protection rating:	IP44



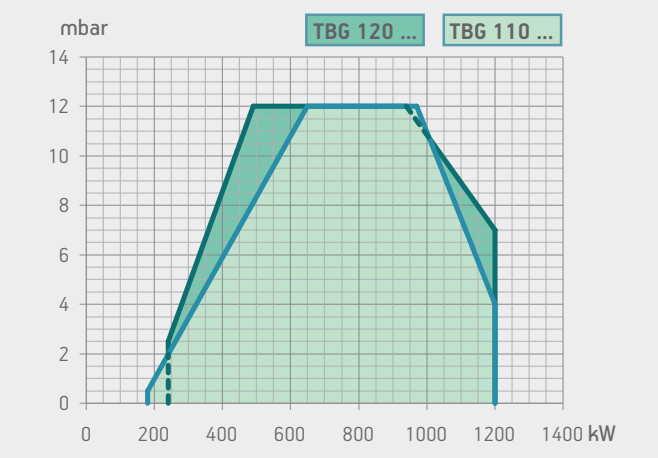


Picture 2

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 110 LX P	690	320	370	550	380	170	200	1280	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	-	-	-	2

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 110 LX P	1070	800	700	87

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 3	180 ÷ 1200	**TBG 110 LX P**	**17860010**	3N AC 50Hz 400V	1,5	3) 4)
			Frequency 60 Hz				
	class 3	180 ÷ 1200	**TBG 110 LX P**	**17865410**	3N AC 60Hz 380V	1,5	3) 4)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 180 - 1200

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 110 LX MC

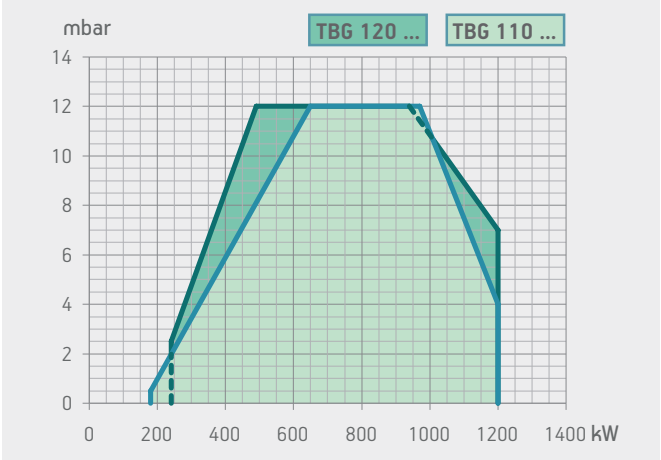
TBG 110 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 110 LX MC mechanical two-stage progressive	TBG 110 LX ME electronic modulation	TBG 110 LX ME V electronic modulation	TBG 110 LX ME V O2 electronic modulation	TBG 110 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:6	1:6	1:6	1:6	1:6
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•				
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter		•	•	•	•
Possibility to choose gas train with valve tightness control	•				
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

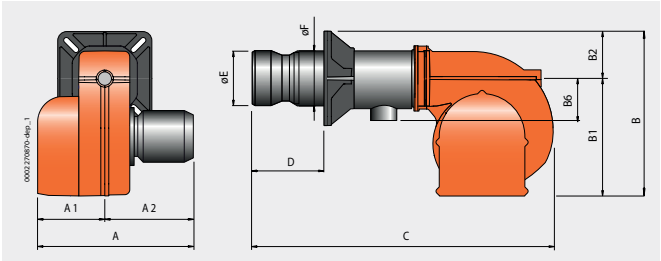
kW **180 - 1200**

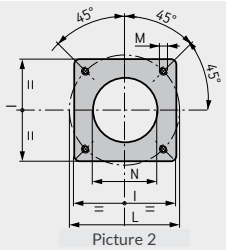
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 110 LX MC	1070	800	700	87
TBG 110 LX ME	1070	800	700	87
TBG 110 LX ME V	1530	760	700	101
TBG 110 LX ME V O2	1530	760	700	113
TBG 110 LX ME V CO	1530	760	700	125





Picture 2

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	N mm	Pic.
TBG 110 LX MC	690	320	370	550	380	170	200	1280	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 110 LX ME	610	240	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 110 LX ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 110 LX ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 110 LX ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2

inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	180 ÷ 1200	**TBG 110 LX MC**	**17870010**	3N AC 50Hz 400V	1,5	3) 4)
			class 3	180 ÷ 1200	**TBG 110 LX ME**	**17600020**	3N AC 50Hz 400V	1,5	3) 4)
	•		class 3	180 ÷ 1200	**TBG 110 LX ME V**	**17600025**	3N AC 50Hz 400V	1,5	3) 4)
	•	•	class 3	180 ÷ 1200	**TBG 110 LX ME V O2**	**17600026**	3N AC 50Hz 400V	1,5	3) 4)
	•	•	•	class 3	180 ÷ 1200	**TBG 110 LX ME V CO**	**17600027**	3N AC 50Hz 400V	1,5	3) 4)
					Frequency 60 Hz				
			class 3	180 ÷ 1200	**TBG 110 LX MC**	**17875410**	3N AC 60Hz 380V	1,5	3) 4)
			class 3	180 ÷ 1200	**TBG 110 LX ME**	**17605420**	3N AC 60Hz 380V	1,5	3) 4)
	•		class 3	180 ÷ 1200	**TBG 110 LX ME V**	**on request**	3N AC 60Hz 380V	1,5	3) 4)
	•	•	class 3	180 ÷ 1200	**TBG 110 LX ME V O2**	**on request**	3N AC 60Hz 380V	1,5	3) 4)
	•	•	•	class 3	180 ÷ 1200	**TBG 110 LX ME V CO**	**on request**	3N AC 60Hz 380V	1,5	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION	
TBG 110 LX ME V: modulating probe for LCM 100 (see page 254)	

MODULATING MODE

DESCRIPTION	PART NO.
TBG 110 LX MC: modulation kit	98000057
TBG 110 LX ME: modulation kit	98000059
TBG 110 LX MC/110 LX ME: modulating probe (see page 254)	
TBG 110 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,
For different type of gas and pressure values, please get in contact with our commercial department.

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

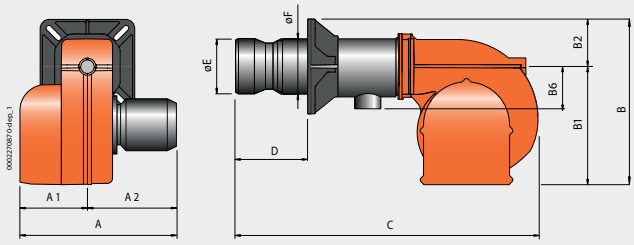
kW **240 - 1200** | SERIES **TBG**

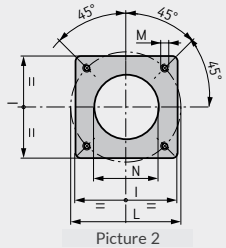
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 120 P

	TBG 120 P
Gas burner compliant with European standard EN676. Operation:	**two-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	•
High ventilation efficiency, low electrical input, low noise	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44





Picture 2

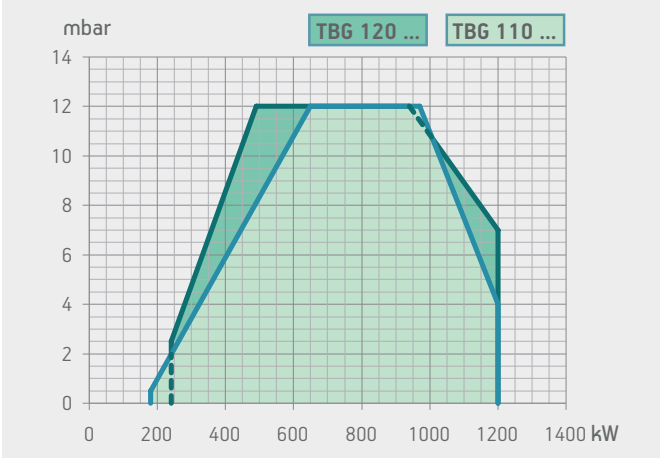
Flange dimensions and boiler drilling template.

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 120 P	690	320	370	550	380	170	200	1280	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	-	-	-	2

kW 240 - 1200

SERIE TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 120 P	1070	800	700	87

GAS BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	240 ÷ 1200	**TBG 120 P**	**17550030**	3N AC 50Hz 400V	1,5	3) 4)
			Frequency 60 Hz				
	class 2	240 ÷ 1200	**TBG 120 P**	**17555430**	3N AC 60Hz 380V	1,5	3) 4)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 240 - 1200 | SERIES TBG

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676. CE 0085

TBG 120 MC

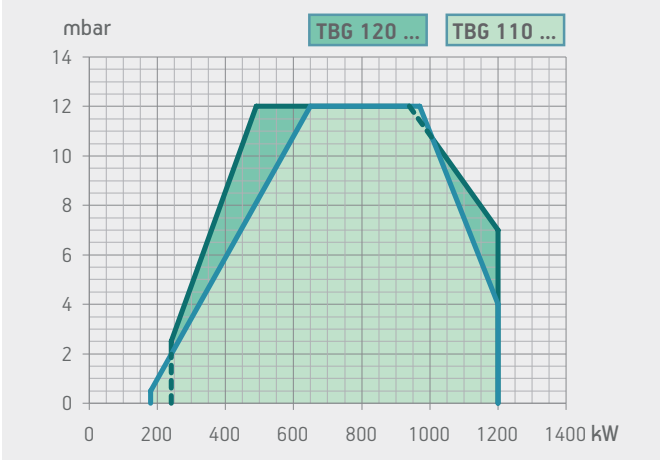
TBG 120 ME

Gas burner compliant with European standard EN676. Operation:	TBG 120 MC mechanical two-stage progressive	TBG 120 ME electronic modulation	TBG 120 ME V electronic modulation	TBG 120 ME V O2 electronic modulation	TBG 120 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, minimum pressure switch, pressure regulator and gas filter	•				
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter		•	•	•	•
Possibility to choose gas train with valve tightness control	•				
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

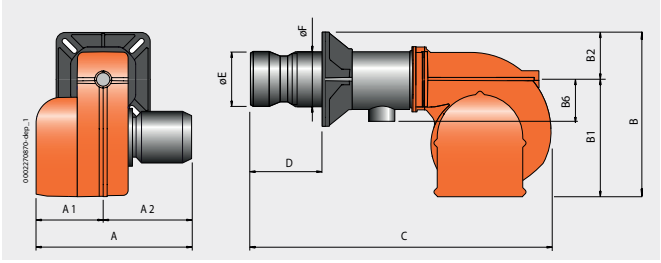
kW 240 - 1200

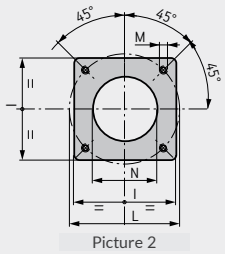
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 120 MC	1070	800	700	87
TBG 120 ME	1070	800	700	87
TBG 120 ME V	1530	760	700	101
TBG 120 ME V O2	1530	760	700	113
TBG 120 ME V CO	1530	760	700	125





Picture 2

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	N mm	Pic.
TBG 120 MC	690	320	370	550	380	170	200	1280	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 120 ME	610	240	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 120 ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 120 ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBG 120 ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2

	inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
						Frequency 50 Hz				
				class 2	240 ÷ 1200	**TBG 120 MC**	**17610010**	3N AC 50Hz 400V	1,5	3) 4)
				class 2	240 ÷ 1200	**TBG 120 ME**	**17570020**	3N AC 50Hz 400V	1,5	3) 4)
	•			class 2	240 ÷ 1200	**TBG 120 ME V**	**17570025**	3N AC 50Hz 400V	1,5	3) 4)
	•	•		class 2	240 ÷ 1200	**TBG 120 ME V O2**	**17570026**	3N AC 50Hz 400V	1,5	3) 4)
	•	•	•	class 2	240 ÷ 1200	**TBG 120 ME V CO**	**17570027**	3N AC 50Hz 400V	1,5	3) 4)
						Frequency 60 Hz				
				class 2	240 ÷ 1200	**TBG 120 MC**	**17615410**	3N AC 60Hz 380V	1,5	3) 4)
				class 2	240 ÷ 1200	**TBG 120 ME**	**17575420**	3N AC 60Hz 380V	1,5	3) 4)
	•			class 2	240 ÷ 1200	**TBG 120 ME V**	**on request**	3N AC 60Hz 380V	1,5	3) 4)
	•	•		class 2	240 ÷ 1200	**TBG 120 ME V O2**	**on request**	3N AC 60Hz 380V	1,5	3) 4)
	•	•	•	class 2	240 ÷ 1200	**TBG 120 ME V CO**	**on request**	3N AC 60Hz 380V	1,5	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION	
TBG 120 ME V: modulating probe for LCM 100 (see page 254)	

MODULATING MODE

DESCRIPTION	PART NO.
TBG 120 MC: modulation kit	98000057
TBG 120 ME: modulation kit	98000059
TBG 120 MC/120 ME: modulating probe (see page 254)	
TBG 120 MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

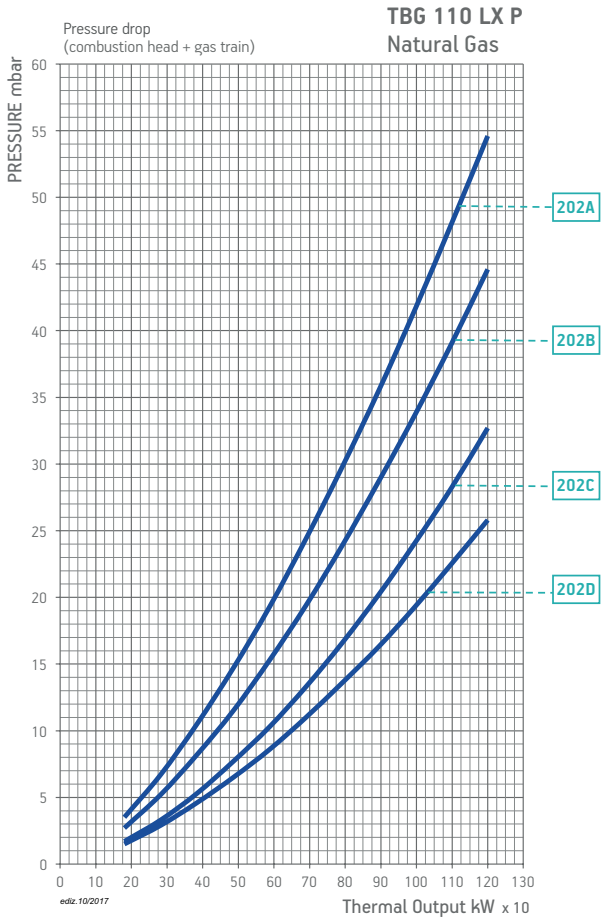
ACCESSORIES AVAILABLE ON REQUEST

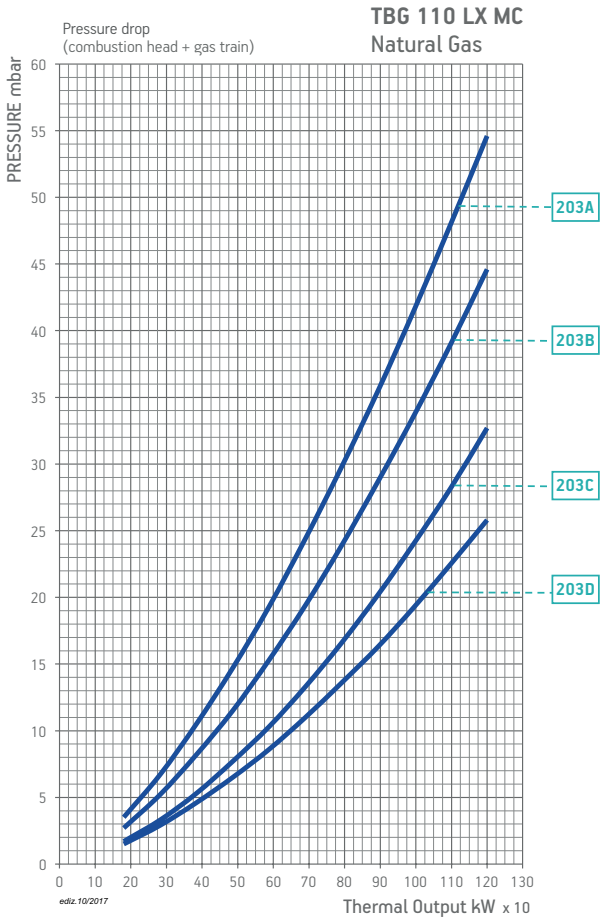
DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

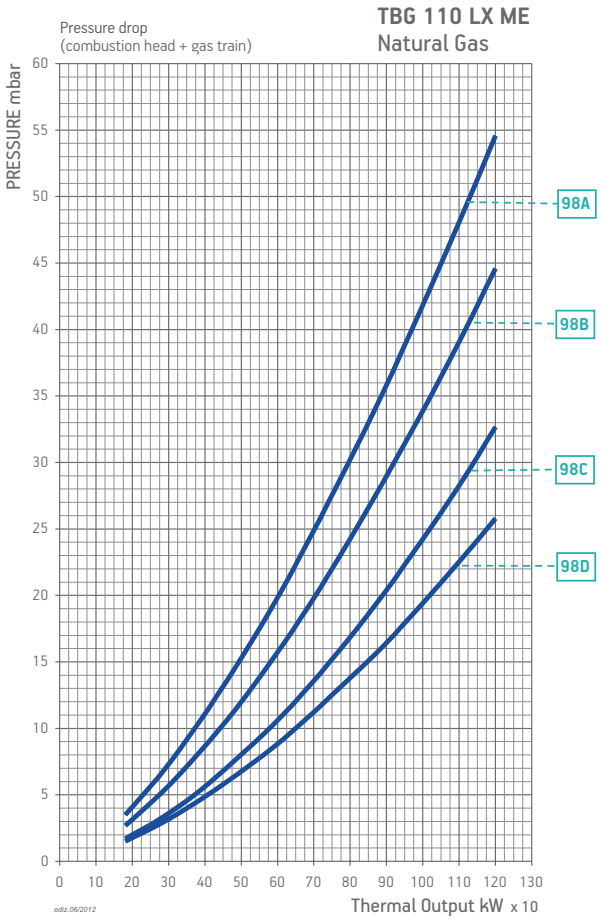
GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 110 LX P	Natural gas	202A	CE/EXP	360		19990628	Included	96000007	–	B7	
					CTV	19990628	Included	96000007	98000101	B7	12)
		202B	CE/EXP	360		19990609	Included	–	–	B7	
					CTV	19990609	Included	–	98000101	B7	12)
		202C	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
		202D	CE/EXP	500		19990563	Included	–	–	B7	
					CTV	19990563	Included	–	98000101	B7	12)
TBG 110 LX MC	Natural gas	203A	CE/EXP	360		19990628	Included	96000007	–	B7	
					CTV	19990628	Included	96000007	98000101	B7	12)
		203B	CE/EXP	360		19990609	Included	–	–	B7	
					CTV	19990609	Included	–	98000101	B7	12)
		203C	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
		203D	CE/EXP	500		19990563	Included	–	–	B7	
					CTV	19990563	Included	–	98000101	B7	12)
TBG 110 LX ME **TBG 110 LX ME V** **TBG 110 LX ME V O2** **TBG 110 LX ME V CO**	Natural gas	98A	CE/EXP	360	CTV	19990561	Included	96000007	Included	D2	
		98B	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		98C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		98D	CE/EXP	500	CTV	19990525	Included	–	Included	D2	

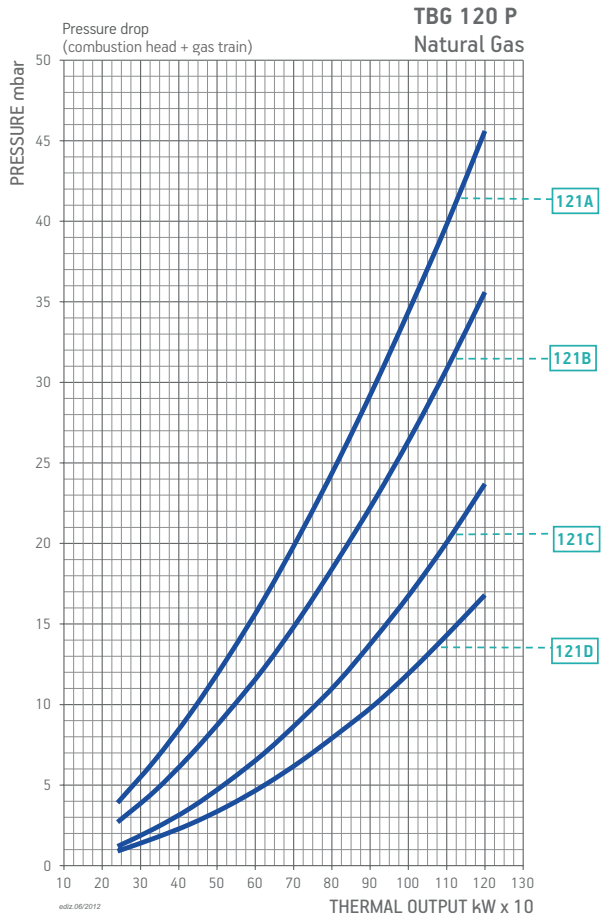
Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 110 LX P	LPG	CE/EXP	360		19990548	Included	96000007	–	98000383	D2	
TBG 110 LX MC	LPG	CE/EXP	360		19990548	Included	96000007	–	98000383	D2	
			360	CTV	19990548	Included	96000007	98000101	–	D2	12)
TBG 110 LX ME	LPG	CE/EXP	360	CTV	19990548	Included	96000007	Included	98000383	D2	

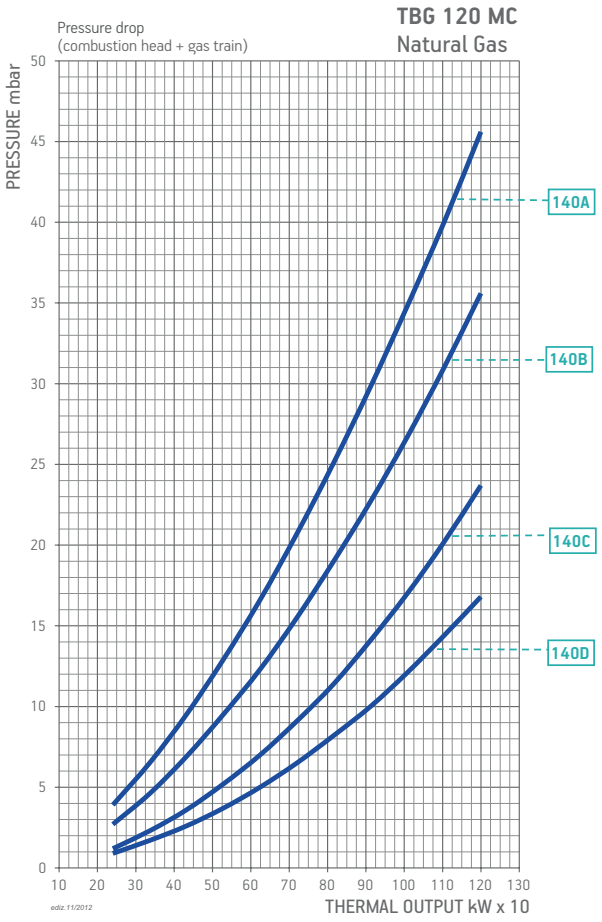
To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

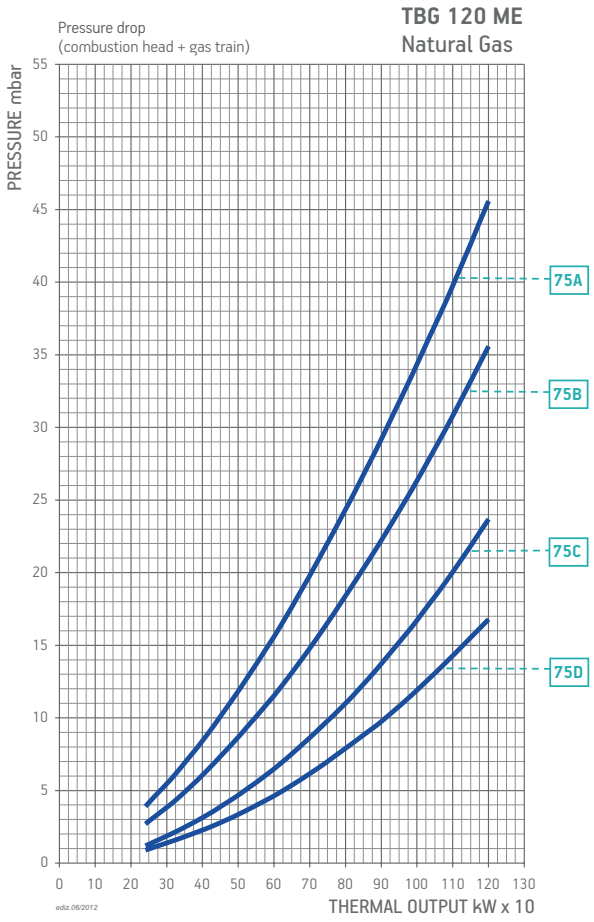
NOTE

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







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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 120 P	Natural gas	121A	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		121B	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		121C	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
		121D	CE/EXP	500		19990563	Included	–	–	B7	
					CTV	19990563	Included	–	98000101	B7	12)
TBG 120 MC	Natural gas	140A	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		140B	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		140C	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	12)
		140D	CE/EXP	500		19990563	Included	–	–	B7	
					CTV	19990563	Included	–	98000101	B7	12)
TBG 120 ME TBG 120 ME V TBG 120 ME V O2 TBG 120 ME V CO	Natural gas	75A	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		75B	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		75C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		75D	CE/EXP	500	CTV	19990525	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 120 P	LPG	CE/EXP	360		19990548	Included	96000007	–	98000358	B7	
				CTV	19990548	Included	96000007	98000101	98000358	B7	12)
TBG 120 MC	LPG	CE/EXP	360		19990548	Included	96000007	–	98000358	B7	
				CTV	19990548	Included	96000007	98000101	98000358	B7	12)
TBG 120 ME/ME V TBG 120 ME V O2 TBG 120 ME V CO	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	98000358	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 200 - 1450 | SERIES TBG

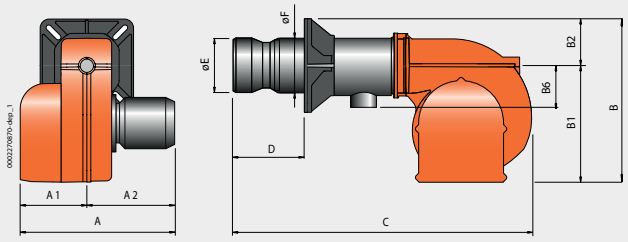
LOW NOX

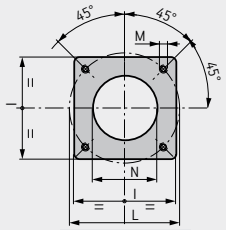
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 140 LX P

	TBG 140 LX P
Gas burner compliant with European standard EN676. Operation:	**two-stage**
Low NOx and CO emissions gas burner according to European standard EN676:	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	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44





Picture 2

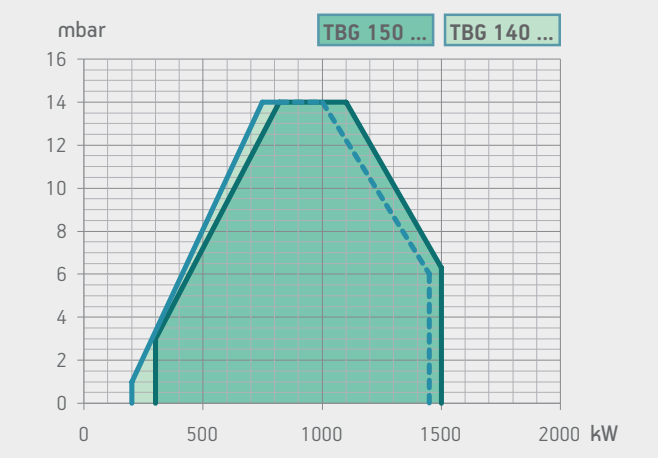
Flange dimensions and boiler drilling template.

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 140 LX P	690	320	370	550	380	170	200	1280	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	-	-	-	2

kW **200 - 1450**

SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 140 LX P	1070	800	700	91

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 3	200 ÷ 1450	**TBG 140 LX P**	**17890010**	3N AC 50Hz 400V	2,2	3) 4)
			Frequency 60 Hz				
	class 3	200 ÷ 1450	**TBG 140 LX P**	**17895410**	3N AC 60Hz 380V	2,6	3) 4)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 200 - 1450

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 140 LX MC

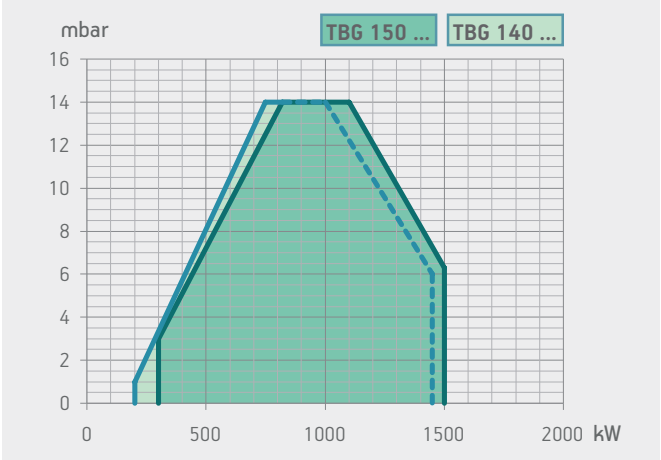
TBG 140 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 140 LX MC mechanical two-stage progressive	TBG 140 LX ME electronic modulation	TBG 140 LX ME V electronic modulation	TBG 140 LX ME V O2 electronic modulation	TBG 140 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:7	1:7	1:7	1:7	1:7
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

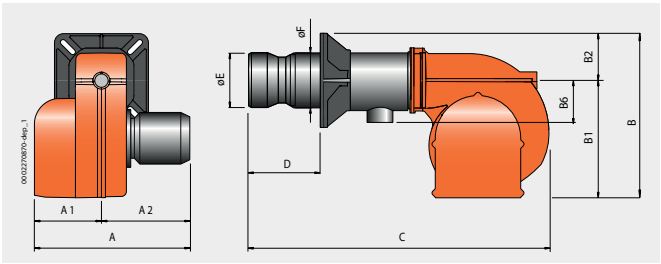
kW 200 - 1450

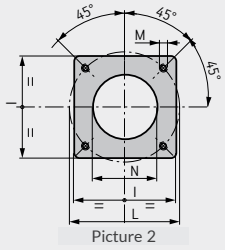
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 140 LX MC	1070	800	700	91
TBG 140 LX ME	1070	800	700	91
TBG 140 LX ME V	1530	760	700	107
TBG 140 LX ME V O2	1530	760	700	119
TBG 140 LX ME V CO	1530	760	700	131





Picture 2

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	N mm	Pic.
TBG 140 LX MC	690	320	370	550	380	170	200	1280	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 140 LX ME	610	240	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 140 LX ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 140 LX ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 140 LX ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	200 ÷ 1450	**TBG 140 LX MC**	**17900010**	3N AC 50Hz 400V	2,2	3) 4)
			class 3	200 ÷ 1450	**TBG 140 LX ME**	**17670020**	3N AC 50Hz 400V	2,2	3) 4)
	•		class 3	200 ÷ 1450	**TBG 140 LX ME V**	**17670025**	3N AC 50Hz 400V	2,2	3) 4)
	•	•	class 3	200 ÷ 1450	**TBG 140 LX ME V O2**	**17670026**	3N AC 50Hz 400V	2,2	3) 4)
	•	•	class 3	200 ÷ 1450	**TBG 140 LX ME V CO**	**17670027**	3N AC 50Hz 400V	2,2	3) 4)
					Frequency 60 Hz				
			class 3	200 ÷ 1450	**TBG 140 LX MC**	**17905410**	3N AC 60Hz 380V	2,6	3) 4)
			class 3	200 ÷ 1450	**TBG 140 LX ME**	**17675420**	3N AC 60Hz 380V	2,6	3) 4)
	•		class 3	200 ÷ 1450	**TBG 140 LX ME V**	**on request**	3N AC 60Hz 380V	2,6	3) 4)
	•	•	class 3	200 ÷ 1450	**TBG 140 LX ME V O2**	**on request**	3N AC 60Hz 380V	2,6	3) 4)
	•	•	class 3	200 ÷ 1450	**TBG 140 LX ME V CO**	**on request**	3N AC 60Hz 380V	2,6	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION	
TBG 140 LX ME V: modulating probe for LCM 100 (see page 254)	

MODULATING MODE

DESCRIPTION	PART NO.
TBG 140 LX MC: modulation kit	98000057
TBG 140 LX ME: modulation kit	98000059
TBG 140 LX MC/140 LX ME: modulating probe (see page 254)	
TBG 140 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,
For different type of gas and pressure values, please get in contact with our commercial department.

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

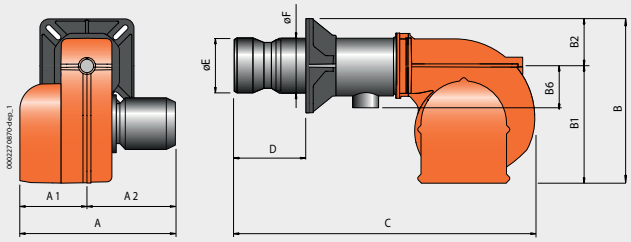
kW **300 - 1500** | SERIES **TBG**

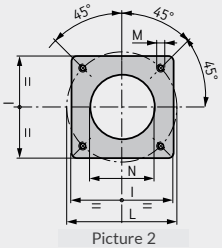
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 150 P

	TBG 150 P
Gas burner compliant with European standard EN676. Operation:	**two-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	•
High ventilation efficiency, low electrical input, low noise	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44



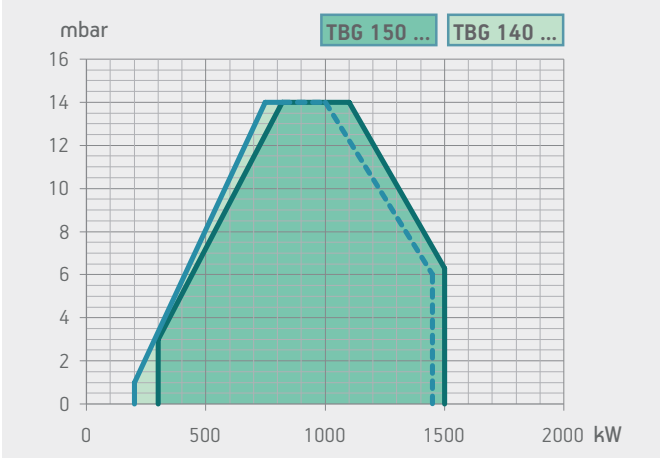


Picture 2

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 150 P	690	320	370	550	380	170	200	1280	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	-	-	-	2

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 150 P	1070	800	700	91

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	300 ÷ 1500	**TBG 150 P**	**17620030**	3N AC 50Hz 400V	2,2	3) 4)
			Frequency 60 Hz				
	class 2	300 ÷ 1500	**TBG 150 P**	**17625430**	3N AC 60Hz 380V	2,6	3) 4)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIZIONE	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW **300 - 1500** | SERIES **TBG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 150 MC

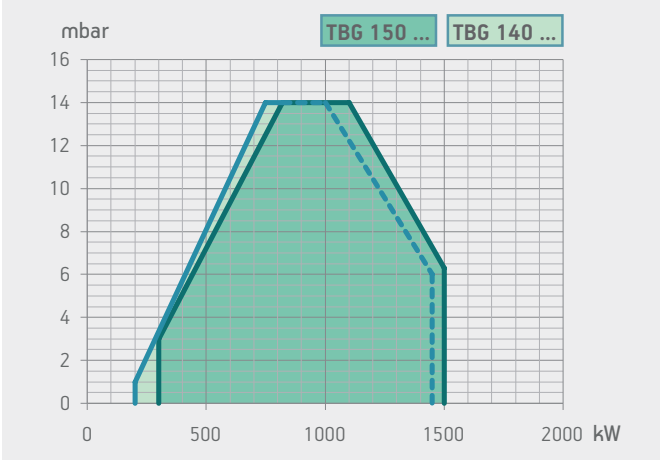
TBG 150 ME

Gas burner compliant with European standard EN676. Operation:	TBG 150 MC mechanical two-stage progressive	TBG 150 ME electronic modulation	TBG 150 ME V electronic modulation	TBG 150 ME V O2 electronic modulation	TBG 150 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

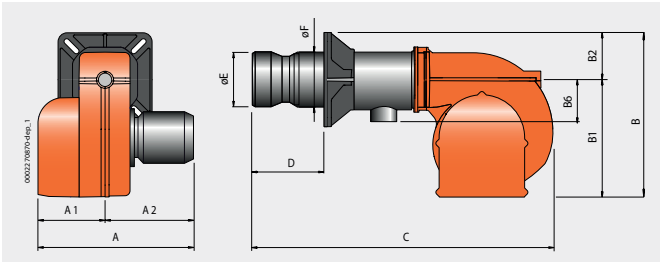
kW 300 - 1500

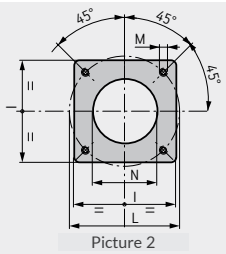
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 150 MC	1070	800	700	91
TBG 150 ME	1070	800	700	91
TBG 150 ME V	1530	760	700	107
TBG 150 ME V O2	1530	760	700	119
TBG 150 ME V CO	1530	760	700	131





Picture 2

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	N mm	Pic.
TBG 150 MC	690	320	370	550	380	170	200	1280	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 150 ME	610	240	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 150 ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 150 ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2
TBG 150 ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	240	219	320	280 ÷ 370	M12	255	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	300 ÷ 1500	**TBG 150 MC**	**17680010**	3N AC 50Hz 400V	2,2	3) 4)
			class 2	300 ÷ 1500	**TBG 150 ME**	**17640020**	3N AC 50Hz 400V	2,2	3) 4)
	•		class 2	300 ÷ 1500	**TBG 150 ME V**	**17640025**	3N AC 50Hz 400V	2,2	3) 4)
	•	•	class 2	300 ÷ 1500	**TBG 150 ME V O2**	**17640026**	3N AC 50Hz 400V	2,2	3) 4)
	•	•	• class 2	300 ÷ 1500	**TBG 150 ME V CO**	**17640027**	3N AC 50Hz 400V	2,2	3) 4)
					Frequency 60 Hz				
			class 2	300 ÷ 1500	**TBG 150 MC**	**17685410**	3N AC 60Hz 380V	2,6	3) 4)
			class 2	300 ÷ 1500	**TBG 150 ME**	**17645420**	3N AC 60Hz 380V	2,6	3) 4)
	•		class 2	300 ÷ 1500	**TBG 150 ME V**	**on request**	3N AC 60Hz 380V	2,6	3) 4)
	•	•	class 2	300 ÷ 1500	**TBG 150 ME V O2**	**on request**	3N AC 60Hz 380V	2,6	3) 4)
	•	•	• class 2	300 ÷ 1500	**TBG 150 ME V CO**	**on request**	3N AC 60Hz 380V	2,6	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
TBG 150 ME V: modulating probe for LCM 100 (see page 254)	

MODULATING MODE

DESCRIPTION	PART NO.
TBG 150 MC: modulation kit	98000057
TBG 150 ME: modulation kit	98000059
TBG 150 MC/150 ME: modulating probe (see page 254)	
TBG 150 MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

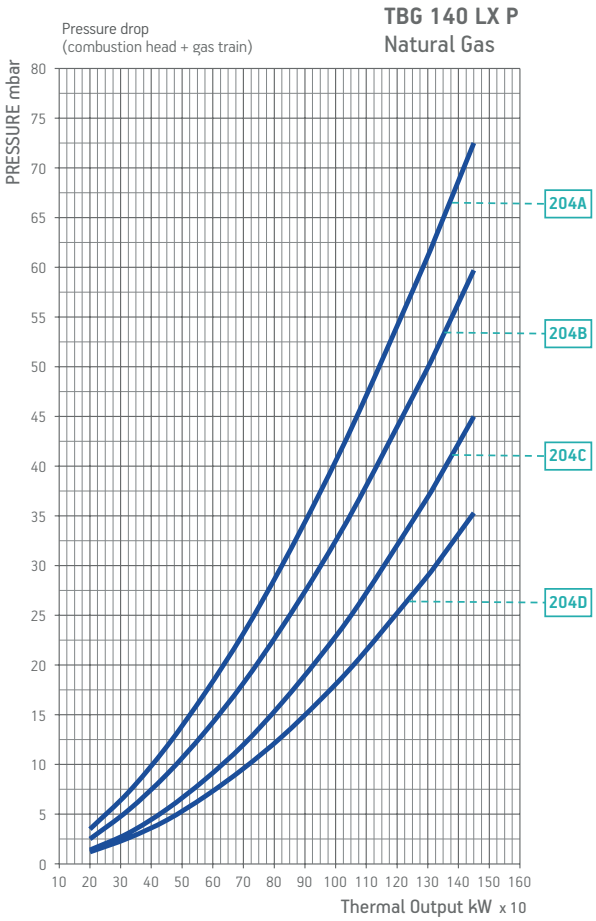
ACCESSORIES AVAILABLE ON REQUEST

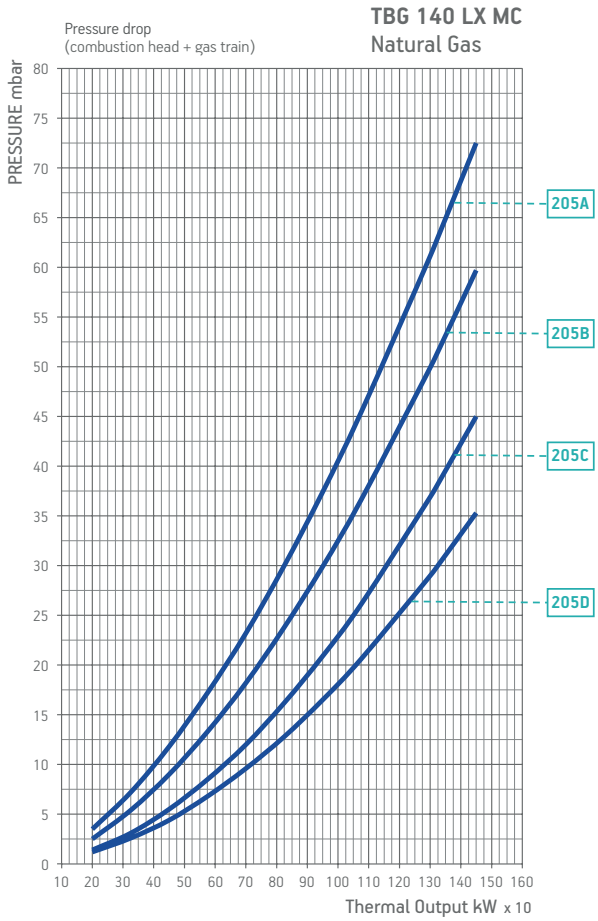
DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

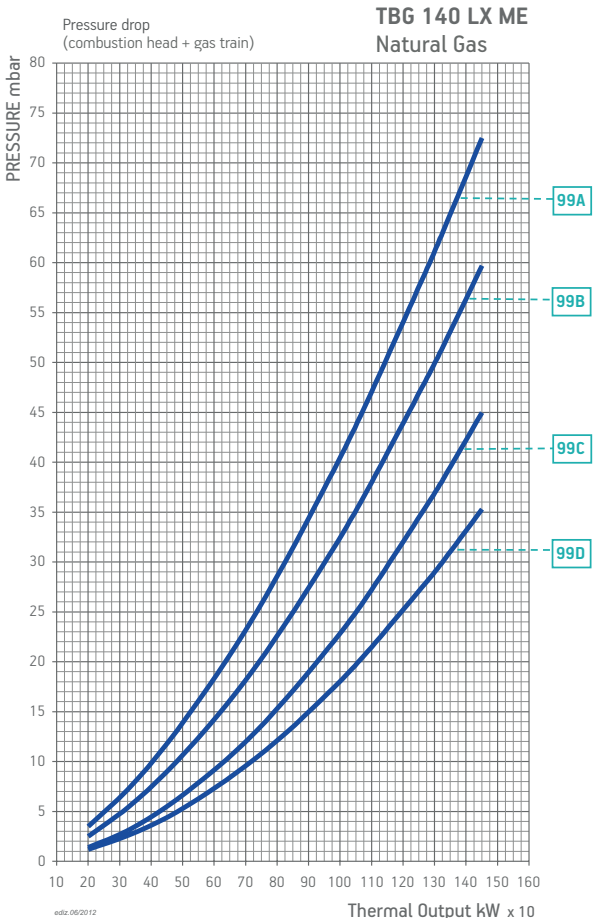
GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 140 LX P	Natural gas	204A	CE	360	CTV	19990628	Included	96000007	98000101	B7	11)
			EXP	360		19990628	Included	96000007	–	BE7	
					CTV	19990628	Included	96000007	98000101	BE7	
		204B	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		204C	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		204D	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
TBG 140 LX MC	Natural gas	205A	CE	360	CTV	19990628	Included	96000007	98000101	B7	11)
			EXP	360		19990628	Included	96000007	–	BE7	
					CTV	19990628	Included	96000007	98000101	BE7	
		205B	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		205C	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		205D	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
TBG 140 LX ME	Natural gas	99A	CE/EXP	360	CTV	19990561	Included	96000007	Included	D2	
TBG 140 LX ME V		99B	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
TBG 140 LX ME V O2		99C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
TBG 140 LX ME V CO		99D	CE/EXP	500	CTV	19990525	Included	–	Included	D2	

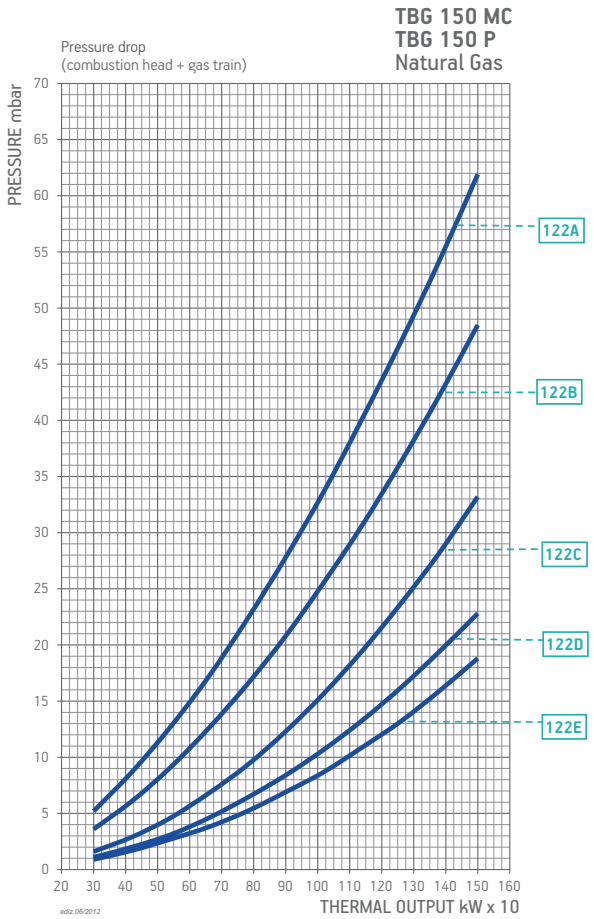
Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 140 LX P	LPG	CE/EXP	360	CTV	19990628	Included	96000007	98000101	–	B7	11)
TBG 140 LX MC	LPG	CE/EXP	360	CTV	19990628	Included	96000007	98000101	–	B7	11)
TBG 140 LX ME	LPG	CE/EXP	360	CTV	19990561	Included	96000007	Included	–	D2	

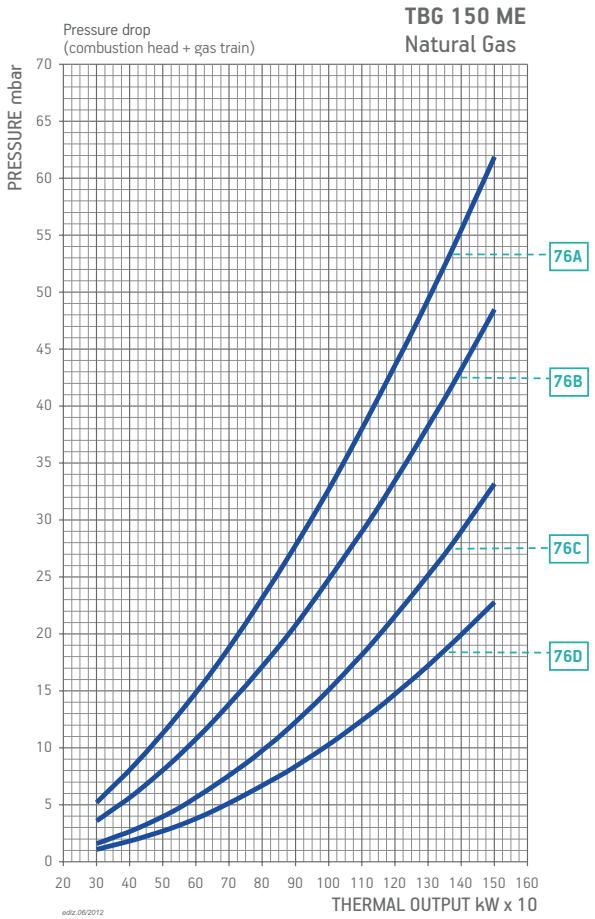
To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 150 P **TBG 150 MC**	Natural gas	122A	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
			EXP	360		19990548	Included	96000007	–	BE7	
					CTV	19990548	Included	96000007	98000101	BE7	
		122B	CE	360	CTV	19990549	Included	–	98000101	B7	11)
			EXP	360		19990549	Included	–	–	BE7	
					CTV	19990549	Included	–	98000101	BE7	
		122C	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		122D	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		122E	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 150 ME **TBG 150 ME V** **TBG 150 ME V O2** **TBG 150 ME V CO**	Natural gas	76A	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		76B	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		76C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		76D	CE/EXP	500	CTV	19990525	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBG 150 P **TBG 150 MC**	LPG	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
		EXP	360		19990548	Included	96000007	–	BE7	
				CTV	19990548	Included	96000007	98000101	BE7	
TBG 150 ME/ME V **TBG 150 ME V O2** **TBG 150 ME V CO**	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 475 - 1900 | SERIES TBG

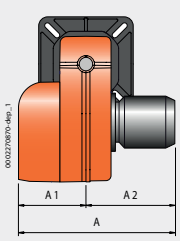
LOW NOX

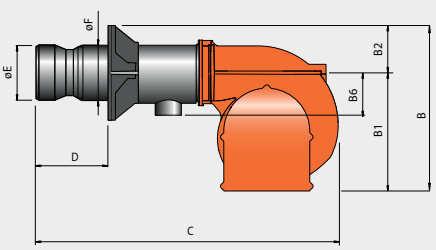
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

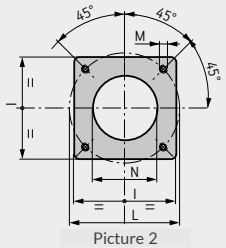
CE 0085

TBG 200 LX P

Gas burner compliant with European standard EN676. Operation:	TBG 200 LX P two-stage
Low NOx and CO emissions gas burner according to European standard EN676:	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	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44







Picture 2

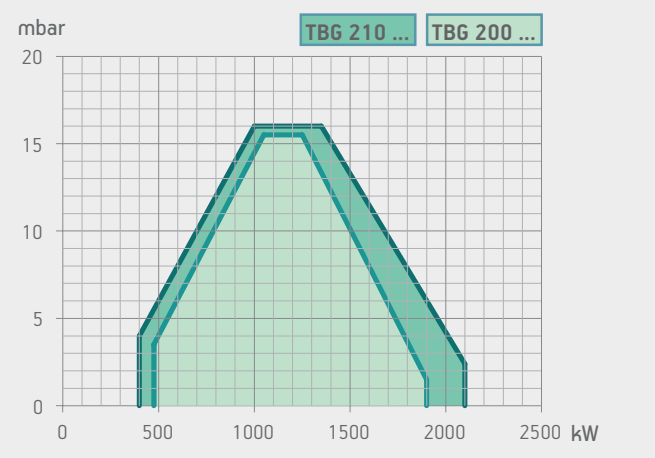
Flange dimensions and boiler drilling template.

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 200 LX P	690	320	370	550	380	170	200	1280	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	-	-	-	2

kW 475 - 1900

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 200 LX P	1070	800	700	94

GAS BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 3	475 ÷ 1900	**TBG 200 LX P**	**17920010**	3N AC 50Hz 400V	3,0	3) 4)
			Frequency 60 Hz				
	class 3	475 ÷ 1900	**TBG 200 LX P**	**17925410**	3N AC 60Hz 380V	3,5	3) 4)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW **475 - 1900** | SERIES **TBG**

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 200 LX MC

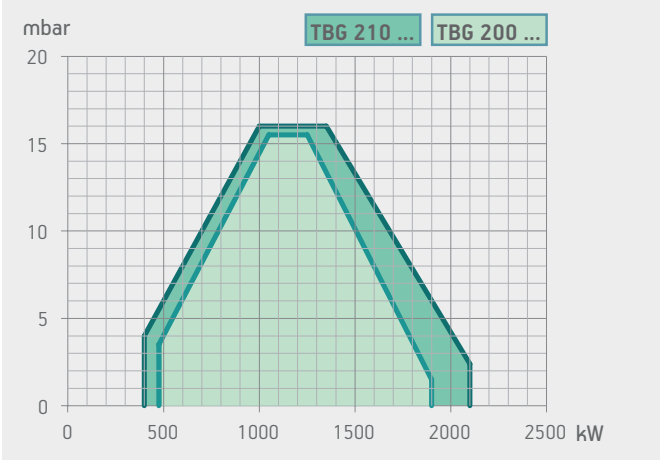
TBG 200 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 200 LX MC mechanical two-stage progressive	TBG 200 LX ME electronic modulation	TBG 200 LX ME V electronic modulation	TBG 200 LX ME V O2 electronic modulation	TBG 200 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:4	1:4	1:4	1:4
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

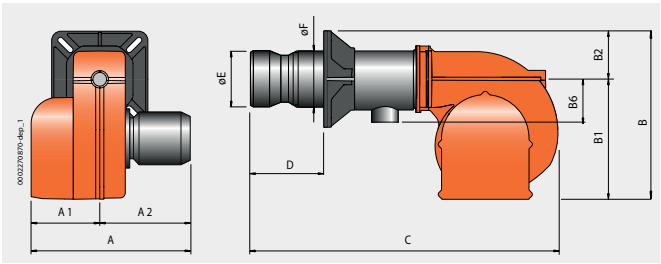
kW **475 - 1900**

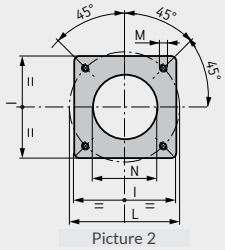
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 200 LX MC	1070	800	700	94
TBG 200 LX ME	1070	800	700	94
TBG 200 LX ME V	1530	760	700	110
TBG 200 LX ME V O2	1530	760	700	122
TBG 200 LX ME V CO	1530	760	700	134





Picture 2

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	N mm	Pic.
TBG 200 LX MC	690	320	370	550	380	170	200	1280	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 200 LX ME	610	240	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 200 LX ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 200 LX ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 200 LX ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	475 ÷ 1900	**TBG 200 LX MC**	**17930010**	3N AC 50Hz 400V	3,0	3) 4)
			class 3	475 ÷ 1900	**TBG 200 LX ME**	**17740020**	3N AC 50Hz 400V	3,0	3) 4)
	•		class 3	475 ÷ 1900	**TBG 200 LX ME V**	**17740025**	3N AC 50Hz 400V	3,0	3) 4)
	•	•	class 3	475 ÷ 1900	**TBG 200 LX ME V O2**	**17740026**	3N AC 50Hz 400V	3,0	3) 4)
	•	•	class 3	475 ÷ 1900	**TBG 200 LX ME V CO**	**17740027**	3N AC 50Hz 400V	3,0	3) 4)
					Frequency 60 Hz				
			class 3	475 ÷ 1900	**TBG 200 LX MC**	**17935410**	3N AC 60Hz 380V	3,5	3) 4)
			class 3	475 ÷ 1900	**TBG 200 LX ME**	**17745420**	3N AC 60Hz 380V	3,5	3) 4)
	•		class 3	475 ÷ 1900	**TBG 200 LX ME V**	**on request**	3N AC 60Hz 380V	3,5	3) 4)
	•	•	class 3	475 ÷ 1900	**TBG 200 LX ME V O2**	**on request**	3N AC 60Hz 380V	3,5	3) 4)
	•	•	class 3	475 ÷ 1900	**TBG 200 LX ME V CO**	**on request**	3N AC 60Hz 380V	3,5	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 200 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 200 LX MC: modulation kit	98000057
TBG 200 LX ME: modulation kit	98000059
TBG 200 LX MC/200 LX ME: modulating probe (see page 254)	
TBG 200 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,
For different type of gas and pressure values, please get in contact with our commercial department.

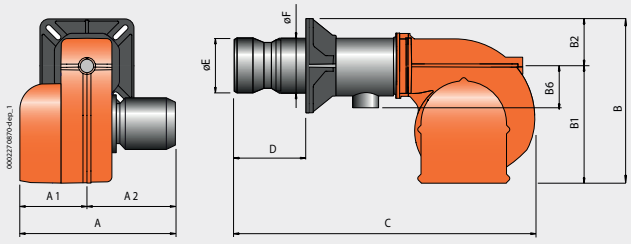
kW **400 - 2100** | SERIES **TBG**

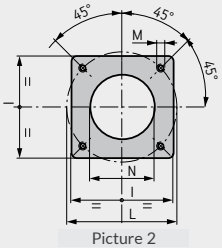
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 210 P

	TBG 210 P
Gas burner compliant with European standard EN676. Operation:	**two-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	•
High ventilation efficiency, low electrical input, low noise	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•
Device made of sound-absorbing material to reduce fan noise	•
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	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Flame detection by ionisation electrode with connector for microamperometer	•
Control panel with display diagram for working mode with indication lights	•
Electric protection rating:	IP44



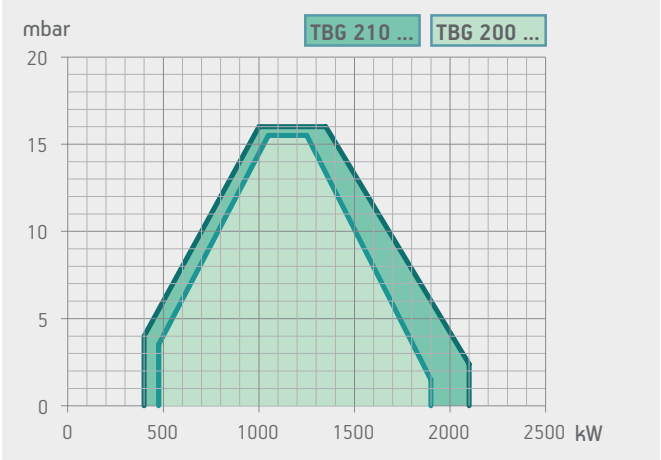


Picture 2

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	N mm	Z mm	Z1 mm	Z2 mm	Pic.
TBG 210 P	690	320	370	550	380	170	200	1280	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	-	-	-	2

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 210 P	1070	800	700	94

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
			Frequency 50 Hz				
	class 2	400 ÷ 2100	**TBG 210 P**	**17690030**	3N AC 50Hz 400V	3,0	3) 4)
			Frequency 60 Hz				
	class 2	400 ÷ 2100	**TBG 210 P**	**17695430**	3N AC 60Hz 380V	3,5	3) 4)

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

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 400 - 2100 | SERIES TBG

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 210 MC

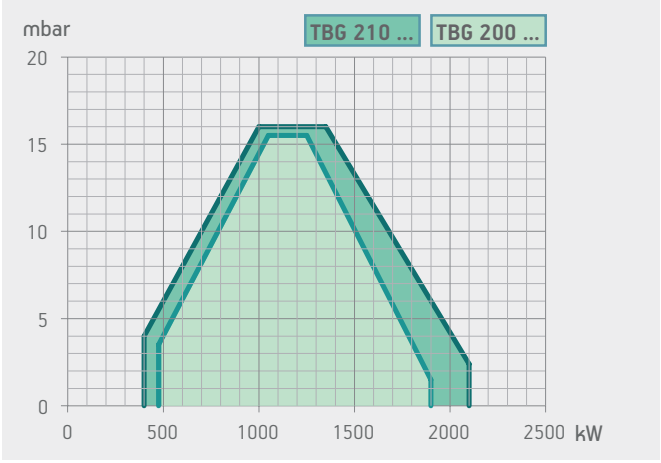
TBG 210 ME

Gas burner compliant with European standard EN676. Operation:	TBG 210 MC mechanical two-stage progressive	TBG 210 ME electronic modulation	TBG 210 ME V electronic modulation	TBG 210 ME V O2 electronic modulation	TBG 210 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

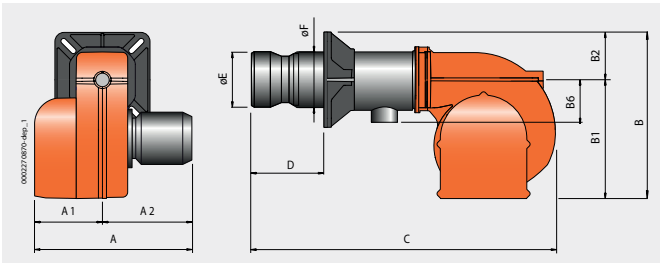
kW **400 - 2100**

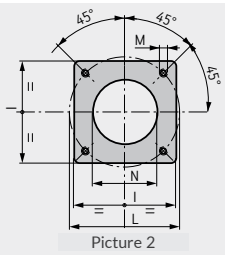
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 210 MC	1070	800	700	94
TBG 210 ME	1070	800	700	94
TBG 210 ME V	1530	760	700	110
TBG 210 ME V O2	1530	760	700	122
TBG 210 ME V CO	1530	760	700	134





Picture 2

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	N mm	Pic.
TBG 210 MC	690	320	370	550	380	170	200	1280	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 210 ME	610	240	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 210 ME V	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 210 ME V O2	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 210 ME V CO	670	300	370	540	380	160	200	1315	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	400 ÷ 2100	**TBG 210 MC**	**17750010**	3N AC 50Hz 400V	3,0	3) 4)
			class 2	400 ÷ 2100	**TBG 210 ME**	**17710020**	3N AC 50Hz 400V	3,0	3) 4)
•			class 2	400 ÷ 2100	**TBG 210 ME V**	**17710025**	3N AC 50Hz 400V	3,0	3) 4)
•	•		class 2	400 ÷ 2100	**TBG 210 ME V O2**	**17710026**	3N AC 50Hz 400V	3,0	3) 4)
•	•	•	class 2	400 ÷ 2100	**TBG 210 ME V CO**	**17710027**	3N AC 50Hz 400V	3,0	3) 4)
					Frequency 60 Hz				
			class 2	400 ÷ 2100	**TBG 210 MC**	**17755410**	3N AC 60Hz 380V	3,5	3) 4)
			class 2	400 ÷ 2100	**TBG 210 ME**	**17715420**	3N AC 60Hz 380V	3,5	3) 4)
•			class 2	400 ÷ 2100	**TBG 210 ME V**	**on request**	3N AC 60Hz 380V	3,5	3) 4)
•	•		class 2	400 ÷ 2100	**TBG 210 ME V O2**	**on request**	3N AC 60Hz 380V	3,5	3) 4)
•	•	•	class 2	400 ÷ 2100	**TBG 210 ME V CO**	**on request**	3N AC 60Hz 380V	3,5	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 210 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 210 MC: modulation kit	98000057
TBG 210 ME: modulation kit	98000059
TBG 210 MC/210 ME: modulating probe (see page 254)	
TBG 210 MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

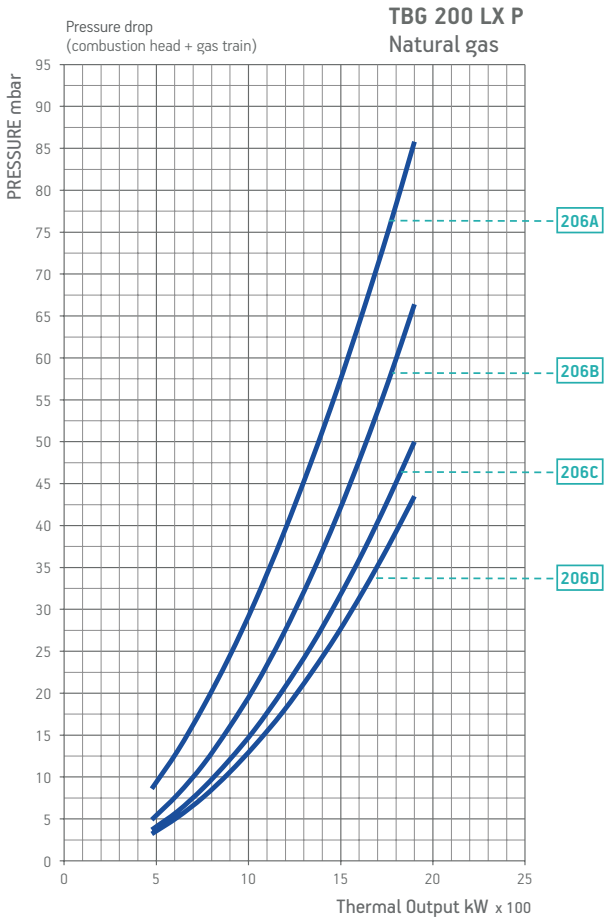
ACCESSORIES AVAILABLE ON REQUEST

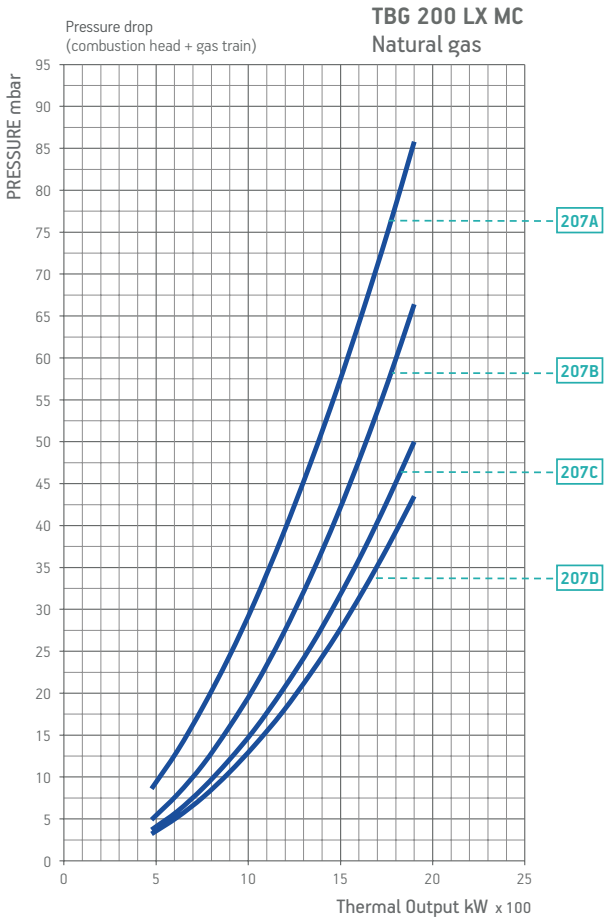
DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

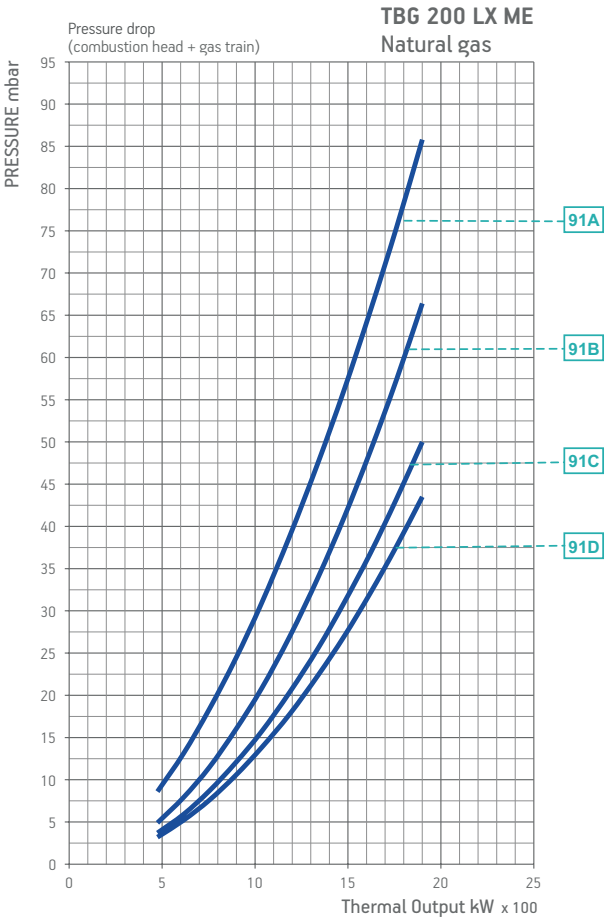
GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 200 LX P	Natural gas	206A	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		206B	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		206C	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		206D	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 200 LX MC	Natural gas	207A	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		207B	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		207C	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		207D	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 200 LX ME **TBG 200 LX ME V** **TBG 200 LX ME V O2** **TBG 200 LX ME V CO**	Natural gas	91A	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		91B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		91C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		91D	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

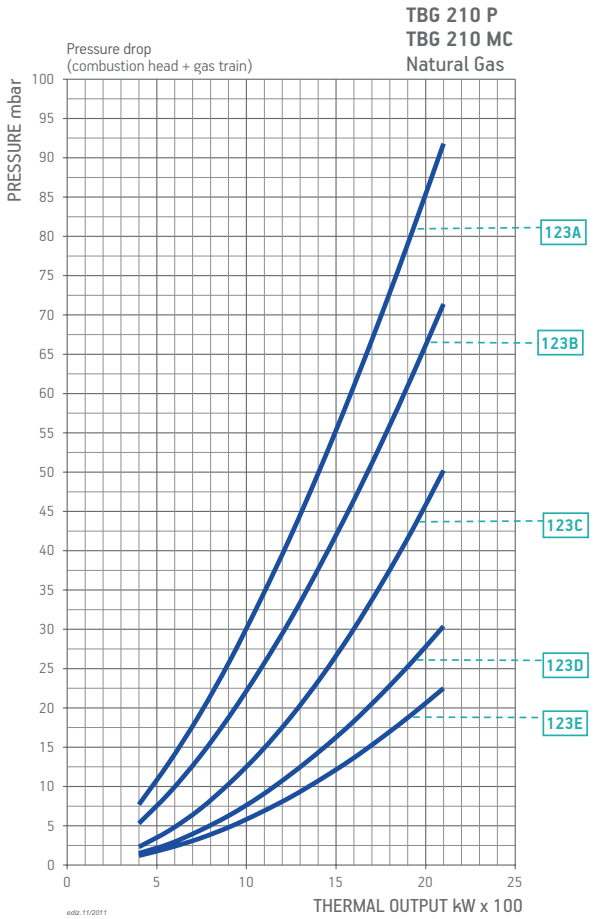
Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 200 LX P	LPG	CE/EXP	360	CTV	19990609	Included	–	98000101	98000366	BE7	11)
TBG 200 LX MC	LPG	CE/EXP	360	CTV	19990609	Included	–	98000101	98000366	B7	11)
TBG 200 LX ME	LPG	CE/EXP	360	CTV	19990562	Included	–	Included	98000366	D2	

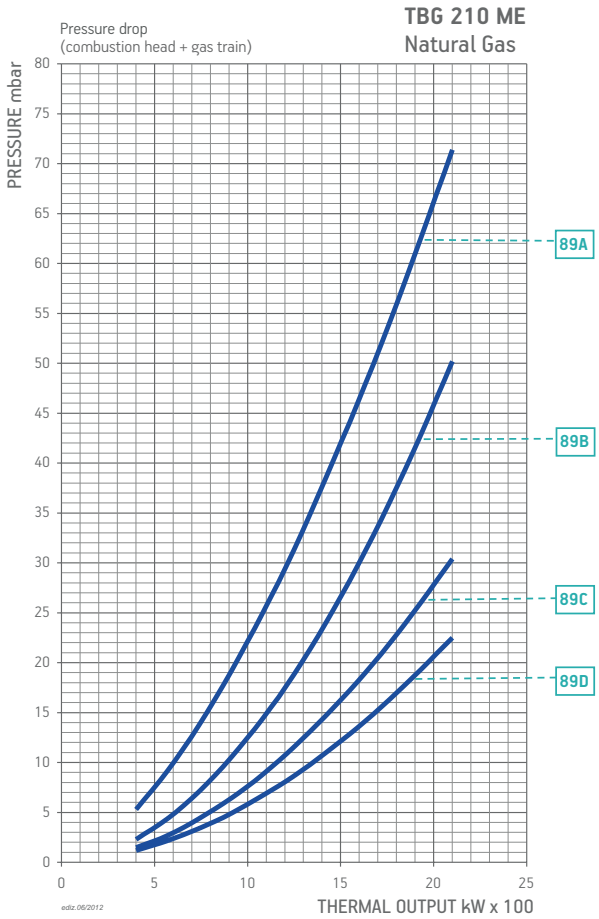
To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 210 P TBG 210 MC	Natural gas	123A	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
			EXP	360		19990548	Included	96000007	–	BE7	
					CTV	19990548	Included	96000007	98000101	BE7	
		123B	CE	360	CTV	19990549	Included	–	98000101	B7	11)
			EXP	360		19990549	Included	–	–	BE7	
					CTV	19990549	Included	–	98000101	BE7	
		123C	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		123D	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		123E	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 210 ME TBG 210 ME V TBG 210 ME V O2 TBG 210 ME V CO	Natural gas	89A	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		89B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		89C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		89D	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 210 P TBG 210 MC	LPG	CE	360	CTV	19990549	Included	–	98000101	98000359	B7	11)
		EXP	360		19990549	Included	–	–	98000359	BE7	
				CTV	19990549	Included	–	98000101	98000359	BE7	
TBG 210 ME/ME V TBG 210 ME V O2 TBG 210 ME V CO	LPG	CE/EXP	360	CTV	19990559	Included	–	Included	98000359	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 450 - 2700

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 260 LX MC

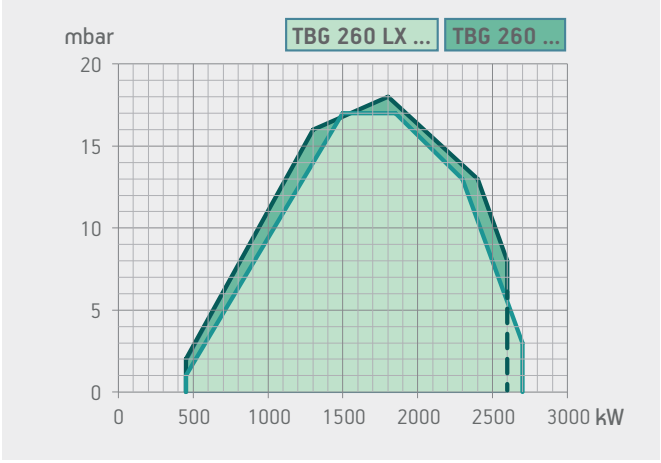
TBG 260 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 260 LX MC mechanical two-stage progressive	TBG 260 LX ME electronic modulation	TBG 260 LX ME V electronic modulation	TBG 260 LX ME V O2 electronic modulation	TBG 260 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:6	1:6	1:6	1:6	1:6
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
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, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

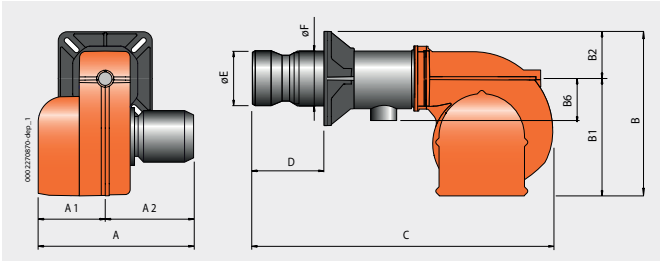
kW 450 - 2700

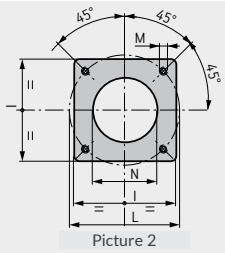
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 260 LX MC	1070	870	720	108
TBG 260 LX ME	1070	870	720	108
TBG 260 LX ME V	1730	1030	880	125
TBG 260 LX ME V O2	1730	1030	880	137
TBG 260 LX ME V CO	1730	1030	880	149





Picture 2

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	N mm	Pic.
TBG 260 LX MC	795	375	420	570	400	170	200	1250	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 LX ME	700	280	420	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 LX ME V	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 LX ME V O2	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 LX ME V CO	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	450 ÷ 2700	**TBG 260 LX MC**	**17810010**	3N AC 50Hz 400V	5,5	4)
			class 3	450 ÷ 2700	**TBG 260 LX ME**	**17780010**	3N AC 50Hz 400V	5,5	4)
	•		class 3	450 ÷ 2700	**TBG 260 LX ME V**	**17780015**	3N AC 50Hz 400V	5,5	4)
	•	•	class 3	450 ÷ 2700	**TBG 260 LX ME V O2**	**17780016**	3N AC 50Hz 400V	5,5	4)
	•	•	class 3	450 ÷ 2700	**TBG 260 LX ME V CO**	**17780017**	3N AC 50Hz 400V	5,5	4)
					Frequency 60 Hz				
			class 3	450 ÷ 2700	**TBG 260 LX MC**	**17815410**	3N AC 60Hz 380V	7,5	4)
			class 3	450 ÷ 2700	**TBG 260 LX ME**	**17785410**	3N AC 60Hz 380V	7,5	4)
	•		class 3	450 ÷ 2700	**TBG 260 LX ME V**	**on request**	3N AC 60Hz 380V	7,5	4)
	•	•	class 3	450 ÷ 2700	**TBG 260 LX ME V O2**	**on request**	3N AC 60Hz 380V	7,5	4)
	•	•	class 3	450 ÷ 2700	**TBG 260 LX ME V CO**	**on request**	3N AC 60Hz 380V	7,5	4)

TO COMPLETE THE BURNER

DESCRIPTION	
TBG 260 LX ME V: modulating probe for LCM 100 (see page 254)	

MODULATING MODE

DESCRIPTION	PART NO.
TBG 260 LX MC: modulation kit	98000057
TBG 260 LX ME: modulation kit	98000059
TBG 260 LX MC/260 LX ME: modulating probe (see page 254)	
TBG 260 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

kW 450 - 2600 | SERIES TBG

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 260 MC

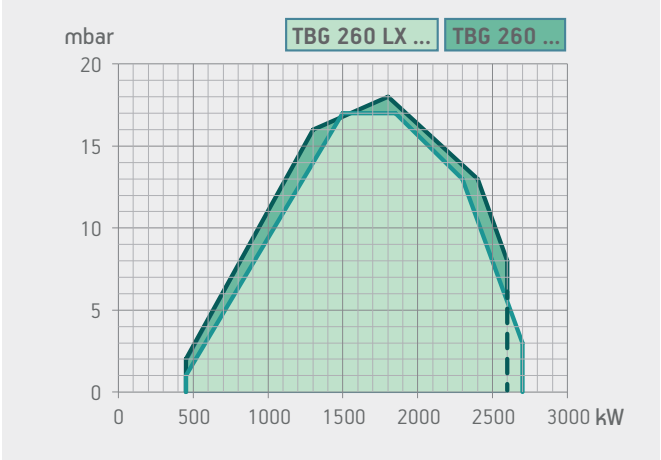
TBG 260 ME

Gas burner compliant with European standard EN676. Operation:	TBG 260 MC mechanical two-stage progressive	TBG 260 ME electronic modulation	TBG 260 ME V electronic modulation	TBG 260 ME V O2 electronic modulation	TBG 260 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:4	1:5	1:5	1:5	1:5
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
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, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

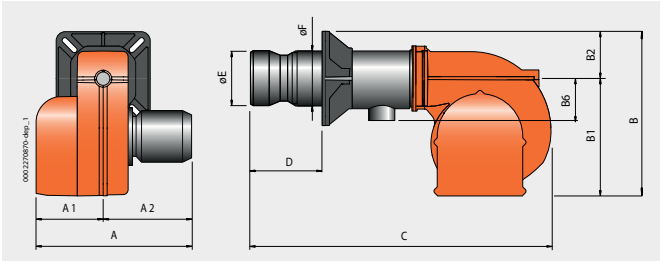
kW 450 - 2600

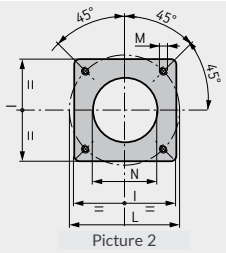
SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 260 MC	1070	870	720	108
TBG 260 ME	1070	870	720	108
TBG 260 ME V	1730	1030	880	125
TBG 260 ME V O2	1730	1030	880	137
TBG 260 ME V CO	1730	1030	880	149





Picture 2

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	N mm	Pic.
TBG 260 MC	795	375	420	570	400	170	200	1250	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 ME	700	280	420	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 ME V	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 ME V O2	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBG 260 ME V CO	730	280	450	560	400	160	200	1320	200 ÷ 450	250	219	320	280 ÷ 370	M12	265	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	450 ÷ 2600	**TBG 260 MC**	**17760010**	3N AC 50Hz 400V	5,5	4)
			class 2	450 ÷ 2600	**TBG 260 ME**	**17770010**	3N AC 50Hz 400V	5,5	4)
	•		class 2	450 ÷ 2600	**TBG 260 ME V**	**17770015**	3N AC 50Hz 400V	5,5	4)
	•	•	class 2	450 ÷ 2600	**TBG 260 ME V O2**	**17770016**	3N AC 50Hz 400V	5,5	4)
	•	•	class 2	450 ÷ 2600	**TBG 260 ME V CO**	**17770017**	3N AC 50Hz 400V	5,5	4)
					Frequency 60 Hz				
			class 2	450 ÷ 2600	**TBG 260 MC**	**17765410**	3N AC 60Hz 380V	7,5	4)
			class 2	450 ÷ 2600	**TBG 260 ME**	**17775410**	3N AC 60Hz 380V	7,5	4)
	•		class 2	450 ÷ 2600	**TBG 260 ME V**	**on request**	3N AC 60Hz 380V	7,5	4)
	•	•	class 2	450 ÷ 2600	**TBG 260 ME V O2**	**on request**	3N AC 60Hz 380V	7,5	4)
	•	•	class 2	450 ÷ 2600	**TBG 260 ME V CO**	**on request**	3N AC 60Hz 380V	7,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 260 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 260 MC: modulation kit	98000057
TBG 260 ME: modulation kit	98000059
TBG 260 MC/260 ME: modulating probe (see page 254)	
TBG 260 MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

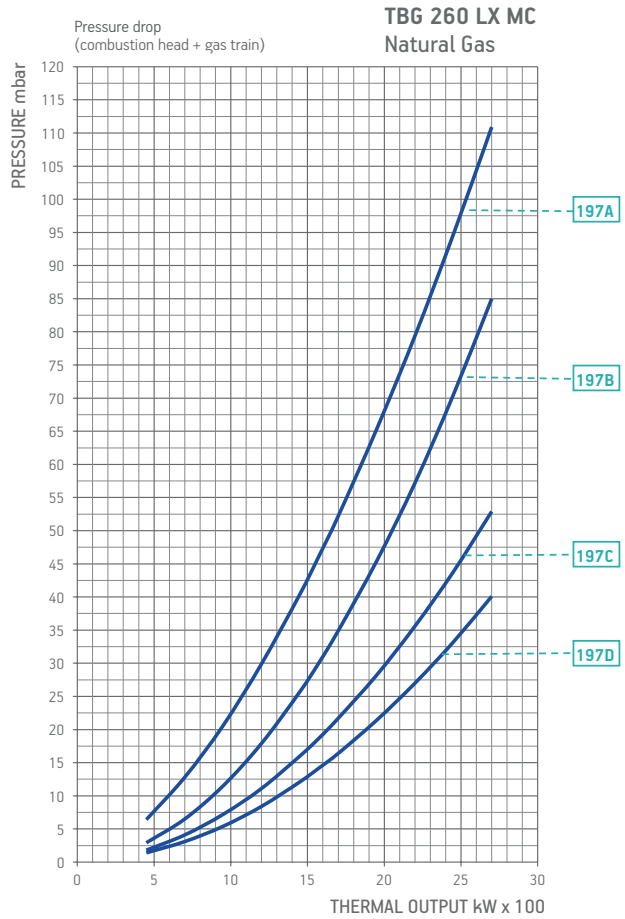
ACCESSORIES AVAILABLE ON REQUEST

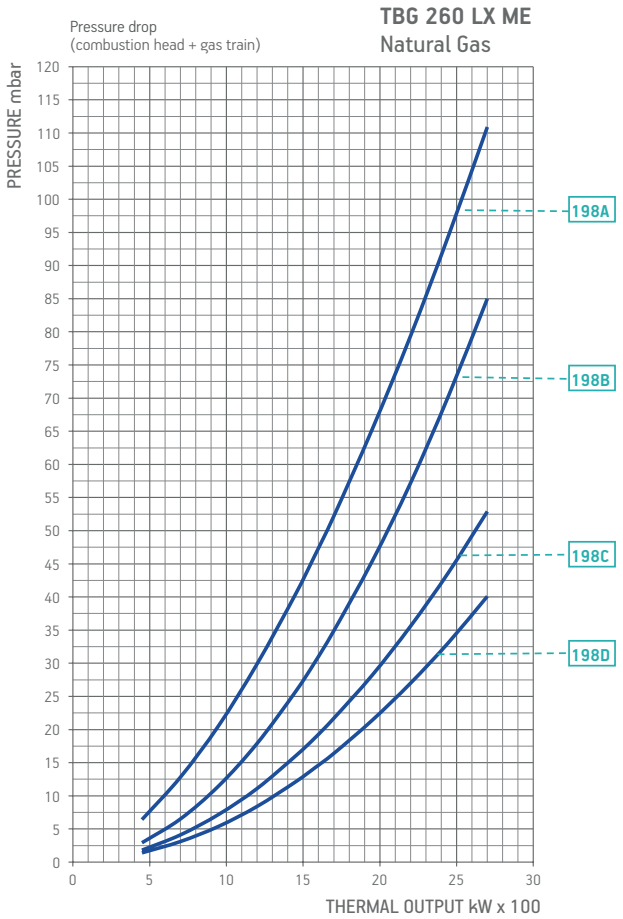
DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

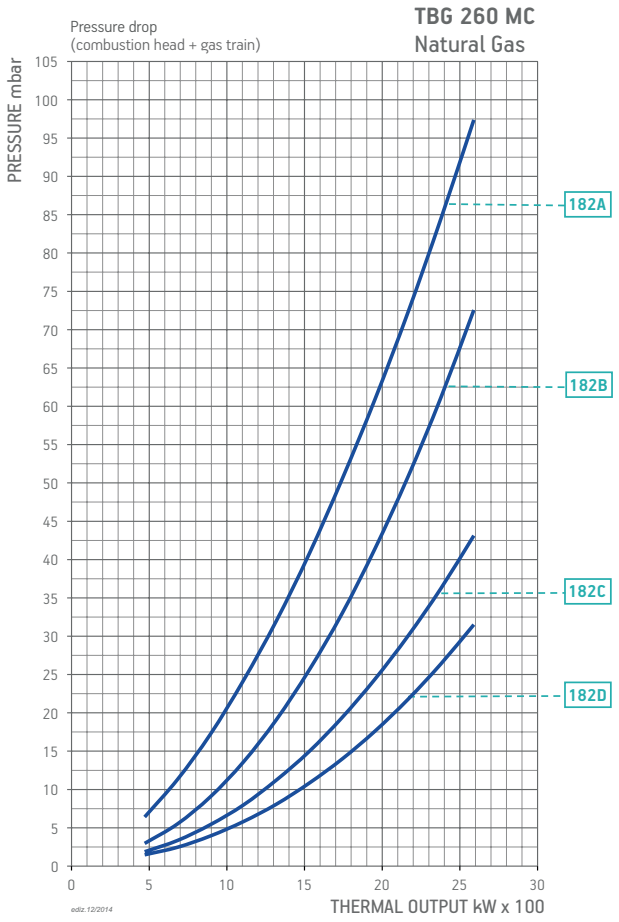
GAS BURNERS ACCESSORIES

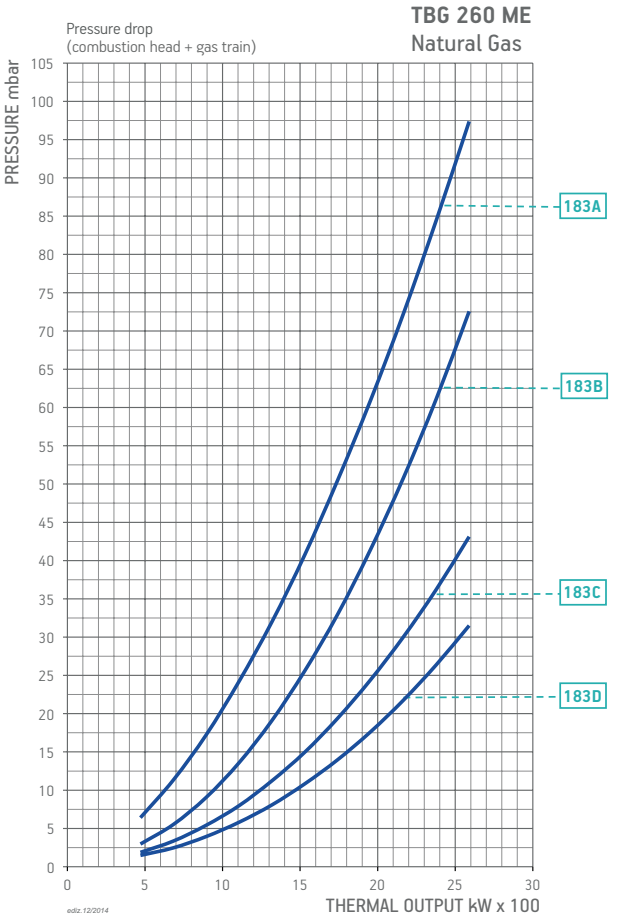
Boiler coupling kit, plug for wiring.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 260 LX MC	Natural gas	197A	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		197B	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		197C	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		197D	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 260 LX ME TBG 260 LX ME V TBG 260 LX ME V O2 TBG 260 LX ME V CO	Natural gas	198A	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		198B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		198C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		198D	CE/EXP	500	CTV	19990526	Included	–	Included	D2	
TBG 260 MC	Natural gas	182A	CE	360	CTV	19990609	Included	–	98000101	B7	11)
			EXP	360		19990609	Included	–	–	BE7	
					CTV	19990609	Included	–	98000101	BE7	
		182B	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		182C	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		182D	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 260 ME TBG 260 ME V TBG 260 ME V O2 TBG 260 ME V CO	Natural gas	183A	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		183B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		183C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		183D	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 260 LX MC	LPG	CE	500	CTV	19990550	Included	–	98000102	98000380	B7	11)
		EXP	500		19990550	Included	–	–	98000380	BE7	
				CTV	19990550	Included	–	98000102	98000380	BE7	
TBG 260 LX ME/ME V TBG 260 LX ME V O2 TBG 260 LX ME CO	LPG	CE/EXP	500	CTV	19990524	Included	–	Included	98000380	D2	
TBG 260 MC	LPG	CE	500	CTV	19990550	Included	–	98000102	98000366	B7	11)
		EXP	500		19990550	Included	–	–	98000366	BE7	
				CTV	19990550	Included	–	98000102	98000366	BE7	
TBG 260 ME/ME V TBG 260 ME V O2 TBG 260 ME CO	LPG	CE/EXP	500	CTV	19990524	Included	–	Included	98000366	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 500 - 3600

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 360 LX MC

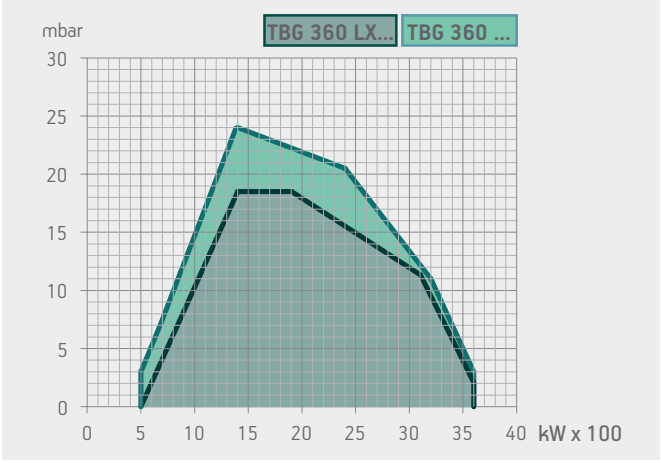
TBG 360 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 360 LX MC mechanical two-stage progressive	TBG 360 LX ME electronic modulation	TBG 360 LX ME V electronic modulation	TBG 360 LX ME V O2 electronic modulation	TBG 360 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:7	1:7	1:7	1:7	1:7
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	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

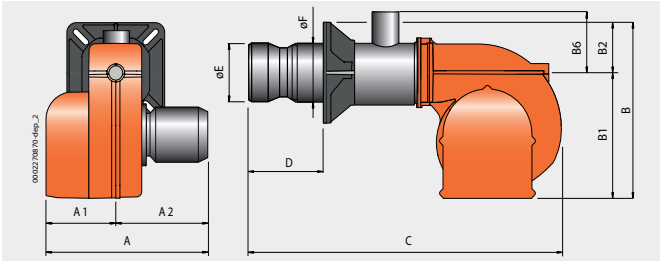
kW 500 - 3600

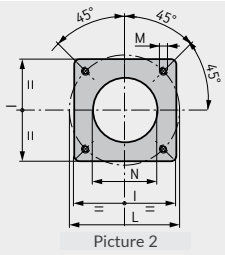
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 360 LX MC	1070	870	810	119
TBG 360 LX ME	1070	870	810	119
TBG 360 LX ME V	1730	1030	880	136
TBG 360 LX ME V O2	1730	1030	880	148
TBG 360 LX ME V CO	1730	1030	880	160





Picture 2

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	N mm	Pic.
TBG 360 LX MC	820	400	420	610	390	220	235	1250	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 LX ME	820	400	420	590	390	160	235	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 LX ME V	850	400	450	590	390	160	235	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 LX ME V O2	850	400	450	590	390	160	235	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 LX ME V CO	850	400	450	590	390	160	235	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2

inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	500 ÷ 3600	**TBG 360 LX MC**	**17960010**	3N AC 50Hz 400V	7,5	3) 4)
			class 3	500 ÷ 3600	**TBG 360 LX ME**	**17950010**	3N AC 50Hz 400V	7,5	3) 4)
	•		class 3	500 ÷ 3600	**TBG 360 LX ME V**	**17950015**	3N AC 50Hz 400V	7,5	3) 4)
	•	•	class 3	500 ÷ 3600	**TBG 360 LX ME V O2**	**17950016**	3N AC 50Hz 400V	7,5	3) 4)
	•	•	class 3	500 ÷ 3600	**TBG 360 LX ME V CO**	**17950017**	3N AC 50Hz 400V	7,5	3) 4)
					Frequency 60 Hz				
			class 3	500 ÷ 3600	**TBG 360 LX MC**	**17965410**	3N AC 60Hz 380V	9,0	3) 4)
			class 3	500 ÷ 3600	**TBG 360 LX ME**	**17955410**	3N AC 60Hz 380V	9,0	3) 4)
	•		class 3	500 ÷ 3600	**TBG 360 LX ME V**	**on request**	3N AC 60Hz 380V	9,0	3) 4)
	•	•	class 3	500 ÷ 3600	**TBG 360 LX ME V O2**	**on request**	3N AC 60Hz 380V	9,0	3) 4)
	•	•	class 3	500 ÷ 3600	**TBG 360 LX ME V CO**	**on request**	3N AC 60Hz 380V	9,0	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 360 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 360 LX MC: modulation kit	98000057
TBG 360 LX ME: modulation kit	98000059
TBG 360 LX MC/360 LX ME: modulating probe (see page 254)	
TBG 360 LX MC: converter kit 0÷10V / 4÷20 mA	98000063

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

GAS BURNERS ACCESSORIES

Boiler coupling kit, plug for wiring.

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic 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.

kW **500 - 3600** | SERIES **TBG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676. CE 0085

TBG 360 MC

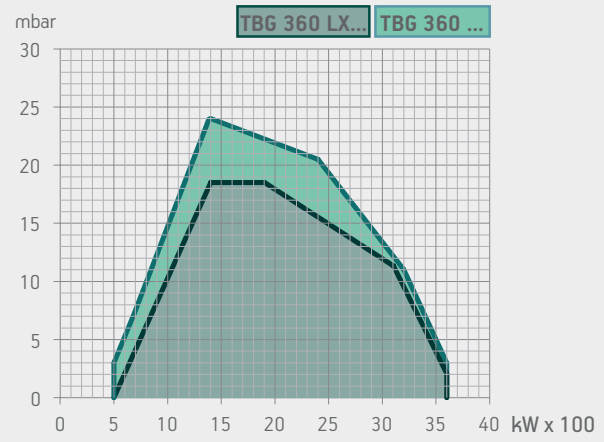
TBG 360 ME

Gas burner compliant with European standard EN676. Operation:	TBG 360 MC mechanical two-stage progressive	TBG 360 ME electronic modulation	TBG 360 ME V electronic modulation	TBG 360 ME V O2 electronic modulation	TBG 360 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:7	1:7	1:7	1:7	1:7
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights.	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP44	IP40	IP40	IP40	IP40

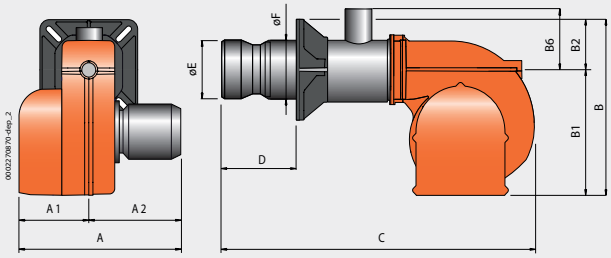
kW 500 - 3600

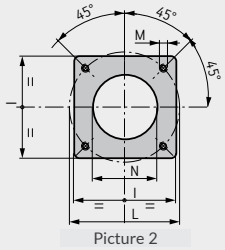
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 360 MC	1070	870	810	118
TBG 360 ME	1070	870	810	118
TBG 360 ME V	1730	1030	880	135
TBG 360 ME V O2	1730	1030	880	147
TBG 360 ME V CO	1730	1030	880	159





Picture 2

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	N mm	Pic.
TBG 360 MC	820	400	420	610	390	220	200	1250	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 ME	820	400	420	590	390	160	200	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 ME V	850	400	450	590	390	160	200	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 ME V O2	850	400	450	590	390	160	200	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2
TBG 360 ME V CO	850	400	450	590	390	160	200	1350	200 ÷ 450	270	219	320	310 ÷ 370	M12	290	2

inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	500 ÷ 3600	**TBG 360 MC**	**17790010**	3N AC 50Hz 400V	7,5	3) 4)
			class 2	500 ÷ 3600	**TBG 360 ME**	**17800010**	3N AC 50Hz 400V	7,5	3) 4)
	•		class 2	500 ÷ 3600	**TBG 360 ME V**	**17800015**	3N AC 50Hz 400V	7,5	3) 4)
	•	•	class 2	500 ÷ 3600	**TBG 360 ME V O2**	**17800016**	3N AC 50Hz 400V	7,5	3) 4)
	•	•	class 2	500 ÷ 3600	**TBG 360 ME V CO**	**17800017**	3N AC 50Hz 400V	7,5	3) 4)
					Frequency 60 Hz				
			class 2	500 ÷ 3600	**TBG 360 MC**	**17795410**	3N AC 60Hz 380V	9,0	3) 4)
			class 2	500 ÷ 3600	**TBG 360 ME**	**17805410**	3N AC 60Hz 380V	9,0	3) 4)
	•		class 2	500 ÷ 3600	**TBG 360 ME V**	**on request**	3N AC 60Hz 380V	9,0	3) 4)
	•	•	class 2	500 ÷ 3600	**TBG 360 ME V O2**	**on request**	3N AC 60Hz 380V	9,0	3) 4)
	•	•	class 2	500 ÷ 3600	**TBG 360 ME V CO**	**on request**	3N AC 60Hz 380V	9,0	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 360 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 360 MC: modulation kit	98000057
TBG 360 ME: modulation kit	98000059
TBG 360 MC/360 ME: modulating probe (see page 254)	
TBG 360 MC: converter kit 0÷10V / 4÷20 mA	98000063

NOTE

3 Sound proof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3.
For different type of gas and pressure values, please get in contact with our commercial department.

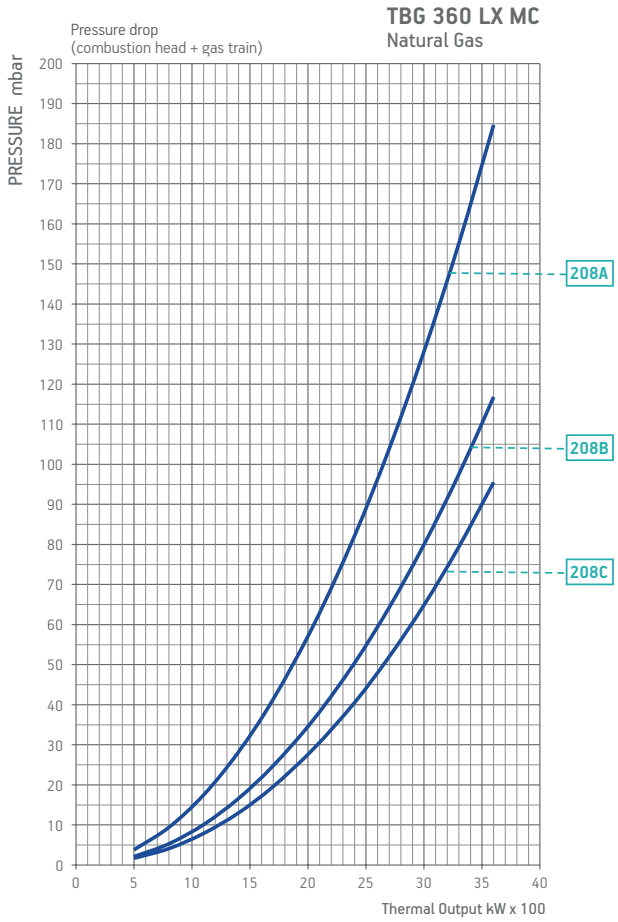
ACCESSORIES AVAILABLE ON REQUEST

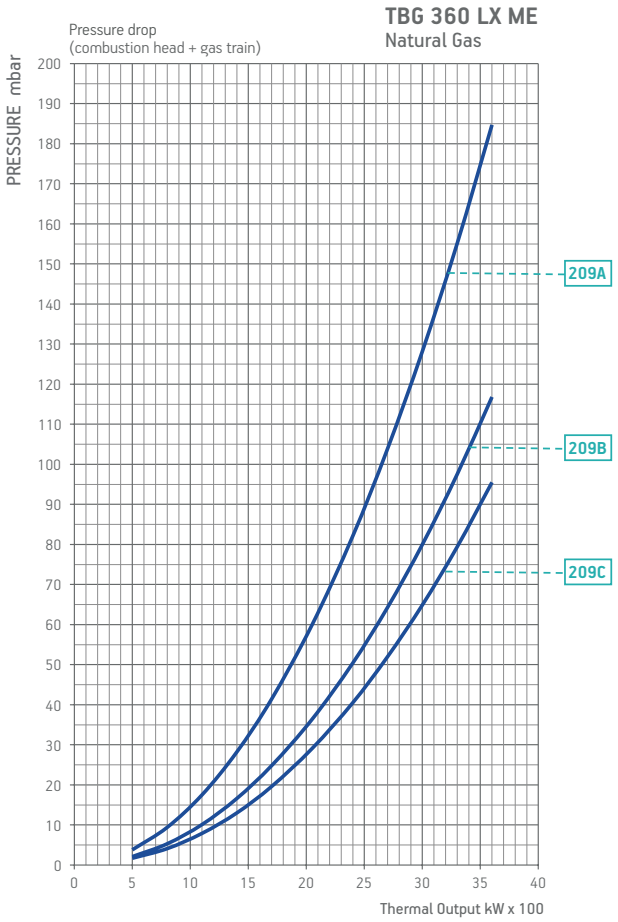
DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

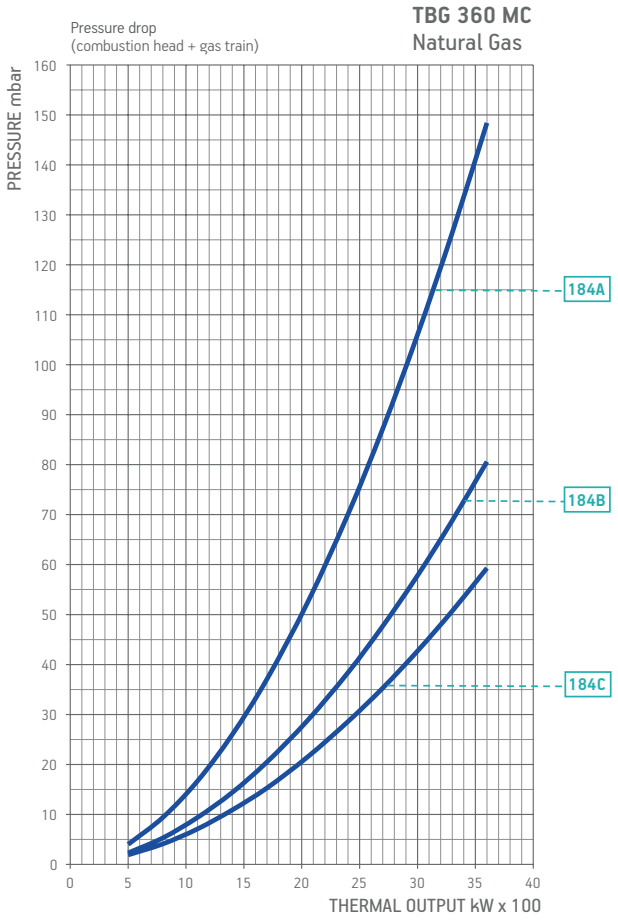
GAS BURNERS ACCESSORIES

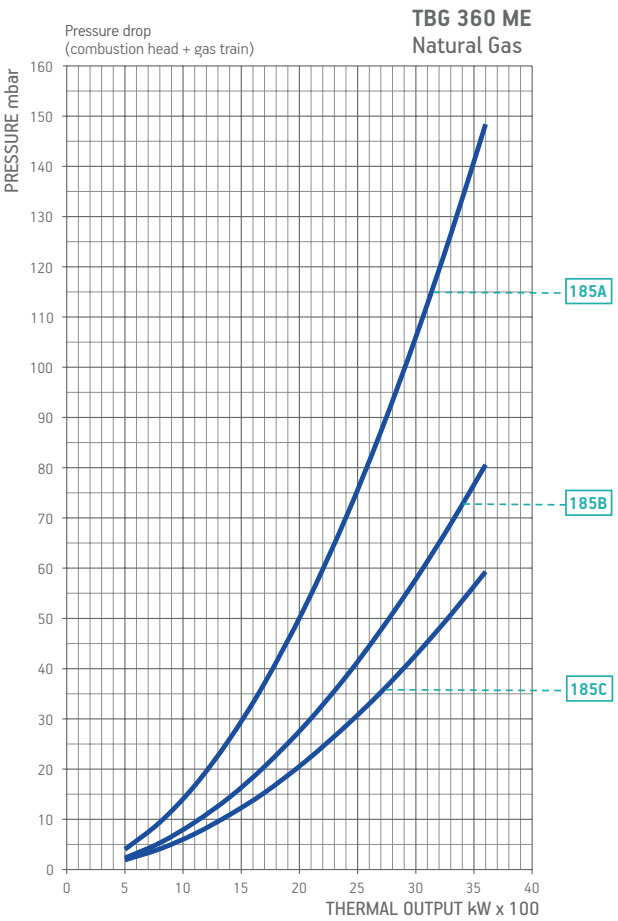
Boiler coupling kit, plug for wiring.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 360 LX MC	Natural gas	208A	CE	500	CTV	19990550	Included	96000035	98000102	B7	11)
			EXP	500		19990550	Included	96000035	–	BE7	
					CTV	19990550	Included	96000035	98000102	BE7	
		208B	CE	500	CTV	19990629	Included	–	98000101	B7	11)
			EXP	500		19990629	Included	–	–	BE7	
					CTV	19990629	Included	–	98000101	BE7	
		208C	CE	500	CTV	19990630	Included	–	98000101	B7	11)
			EXP	500		19990630	Included	–	–	BE7	
					CTV	19990630	Included	–	98000101	BE7	
TBG 360 LX ME/ME V TBG 360 LX ME V O2 TBG 360 LX ME V CO	Natural gas	209A	CE/EXP	500	CTV	19990524	Included	96000035	Included	D2	
		209B	CE/EXP	500	CTV	19990577	Included	–	Included	D2	
		209C	CE/EXP	500	CTV	19990578	Included	–	Included	D2	
TBG 360 MC	Natural gas	184A	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		184B	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		184C	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBG 360 ME/ME V TBG 360 ME V O2 TBG 360 ME V CO	Natural gas	185A	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		185B	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		185C	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBG 360 LX MC	LPG	CE	500	CTV	19990550	Included	96000035	98000102	–	B7	11)
		EXP	500		19990550	Included	96000035	–	–	BE7	
				CTV	19990550	Included	96000035	98000102	–	BE7	
TBG 360 LX ME/ME V TBG 360 LX ME V O2 TBG 360 LX ME V CO	LPG	CE/EXP	500	CTV	19990524	Included	96000035	Included	–	D2	
TBG 360 MC	LPG	CE	500	CTV	19990550	Included	–	98000102	98000366	B7	11)
		EXP	500		19990550	Included	–	–	98000366	BE7	
				CTV	19990550	Included	–	98000102	98000366	BE7	
TBG 360 ME/ME V TBG 360 ME V O2 TBG 360 ME V CO	LPG	CE/EXP	500	CTV	19990524	Included	–	Included	98000366	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The train must be always completed with the VPS kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 600 - 4800

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 450 LX MC

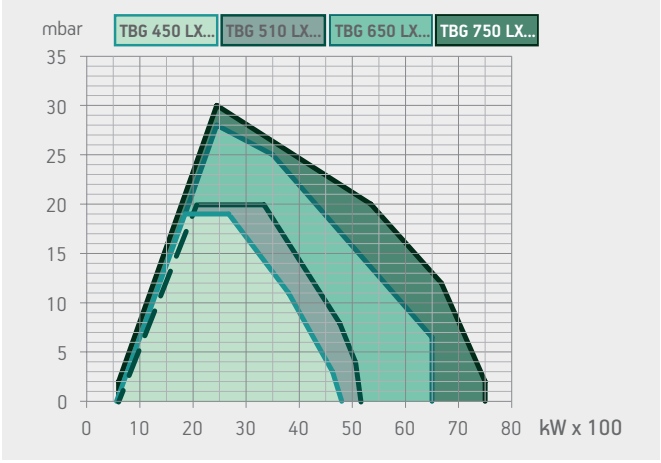
TBG 450 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 450 LX MC mechanical two-stage progressive	TBG 450 LX ME electronic modulation	TBG 450 LX ME V electronic modulation	TBG 450 LX ME V O2 electronic modulation	TBG 450 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:8	1:8	1:8	1:8	1:8
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	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up/down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights.	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54

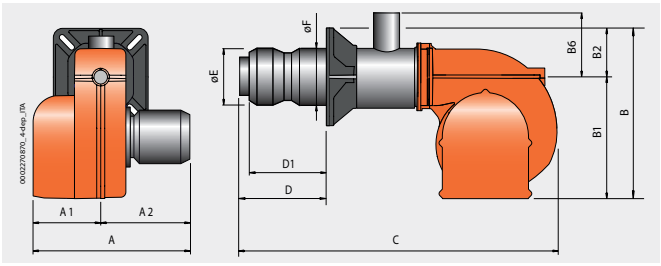
kW 600 - 4800

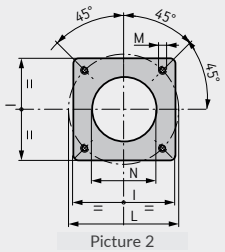
SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 450 LX MC	1500	1150	970	260
TBG 450 LX ME	1500	1150	970	260
TBG 450 LX ME V	1950	1510	1210	275
TBG 450 LX ME V O2	1950	1510	1210	287
TBG 450 LX ME V CO	1950	1510	1210	299





Picture 2

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	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBG 450 LX MC	1060	530	530	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 450 LX ME	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 450 LX ME V	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 450 LX ME V O2	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 450 LX ME V CO	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	600 ÷ 4800	**TBG 450 LX MC**	**18100010**	3N AC 50Hz 400V	9,2	4)
			class 3	600 ÷ 4800	**TBG 450 LX ME**	**18110010**	3N AC 50Hz 400V	9,2	4)
•			class 3	600 ÷ 4800	**TBG 450 LX ME V**	**18110015**	3N AC 50Hz 400V	9,2	4) 10)
•	•		class 3	600 ÷ 4800	**TBG 450 LX ME V O2**	**18110016**	3N AC 50Hz 400V	9,2	4) 10)
•	•	•	class 3	600 ÷ 4800	**TBG 450 LX ME V CO**	**18110017**	3N AC 50Hz 400V	9,2	4) 10)
					Frequency 60 Hz				
			class 3	600 ÷ 4800	**TBG 450 LX MC**	**on request**	3N AC 60Hz 380V	11,0	4)
			class 3	600 ÷ 4800	**TBG 450 LX ME**	**on request**	3N AC 60Hz 380V	11,0	4)
•			class 3	600 ÷ 4800	**TBG 450 LX ME V**	**on request**	3N AC 60Hz 380V	11,0	4) 10)
•	•		class 3	600 ÷ 4800	**TBG 450 LX ME V O2**	**on request**	3N AC 60Hz 380V	11,0	4) 10)
•	•	•	class 3	600 ÷ 4800	**TBG 450 LX ME V CO**	**on request**	3N AC 60Hz 380V	11,0	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 450 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 450 LX MC: modulation kit	98000055
TBG 450 LX ME: modulation kit	98000059
TBG 450 LX MC/450 LX ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Reversing nozzle kit 19)	98000437

GAS BURNERS ACCESSORIES

Boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 600 - 5100

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 510 LX MC

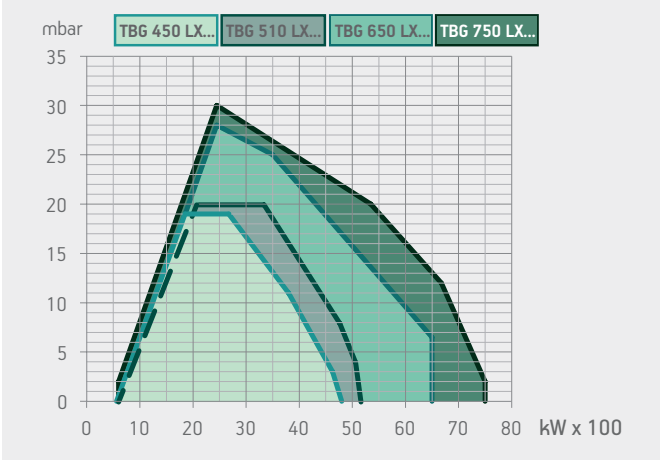
TBG 510 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 510 LX MC mechanical two-stage progressive	TBG 510 LX ME electronic modulation	TBG 510 LX ME V electronic modulation	TBG 510 LX ME V O2 electronic modulation	TBG 510 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:8	1:8	1:8	1:8	1:8
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	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up/down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights.	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54

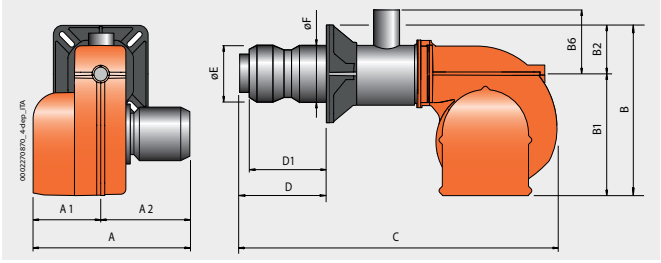
kW 600 - 5100

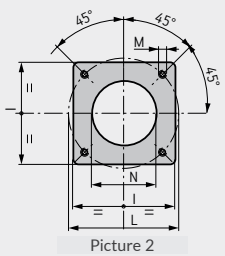
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 510 LX MC	1500	1150	970	265
TBG 510 LX ME	1500	1150	970	265
TBG 510 LX ME V	1950	1510	1210	280
TBG 510 LX ME V O2	1950	1510	1210	292
TBG 510 LX ME V CO	1950	1510	1210	304





Picture 2

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	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBG 510 LX MC	1060	530	530	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 510 LX ME	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 510 LX ME V	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 510 LX ME V O2	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 510 LX ME V CO	1060	530	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	600 ÷ 5100	**TBG 510 LX MC**	**18130010**	3N AC 50Hz 400V	11	4)
			class 3	600 ÷ 5100	**TBG 510 LX ME**	**18140010**	3N AC 50Hz 400V	11	4)
•			class 3	600 ÷ 5100	**TBG 510 LX ME V**	**18140015**	3N AC 50Hz 400V	11	4) 10)
•	•		class 3	600 ÷ 5100	**TBG 510 LX ME V O2**	**18140016**	3N AC 50Hz 400V	11	4) 10)
•	•	•	class 3	600 ÷ 5100	**TBG 510 LX ME V CO**	**18140017**	3N AC 50Hz 400V	11	4) 10)
					Frequency 60 Hz				
			class 3	600 ÷ 5100	**TBG 510 LX MC**	**on request**	3N AC 60Hz 380V	13	4)
			class 3	600 ÷ 5100	**TBG 510 LX ME**	**on request**	3N AC 60Hz 380V	13	4)
•			class 3	600 ÷ 5100	**TBG 510 LX ME V**	**on request**	3N AC 60Hz 380V	13	4) 10)
•	•		class 3	600 ÷ 5100	**TBG 510 LX ME V O2**	**on request**	3N AC 60Hz 380V	13	4) 10)
•	•	•	class 3	600 ÷ 5100	**TBG 510 LX ME V CO**	**on request**	3N AC 60Hz 380V	13	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 510 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 510 LX MC: modulation kit	98000055
TBG 510 LX ME: modulation kit	98000059
TBG 510 LX MC/510 LX ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Reversing nozzle kit 19)	98000437

GAS BURNERS ACCESSORIES

Boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 600 - 6500

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 650 LX MC

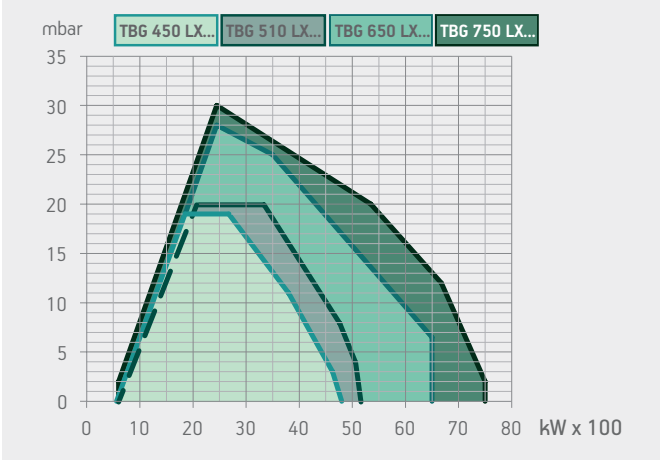
TBG 650 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 650 LX MC mechanical two-stage progressive	TBG 650 LX ME electronic modulation	TBG 650 LX ME V electronic modulation	TBG 650 LX ME V O2 electronic modulation	TBG 650 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:11	1:11	1:11	1:11	1:11
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	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up/down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights.	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54

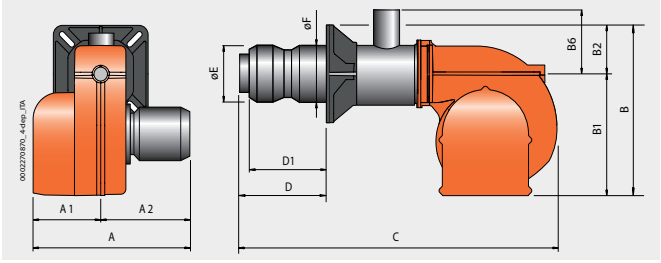
kW 600 - 6500

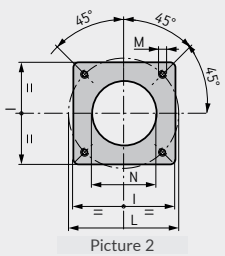
SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 650 LX MC	1500	1320	970	275
TBG 650 LX ME	1500	1320	970	275
TBG 650 LX ME V	1950	1510	1210	295
TBG 650 LX ME V O2	1950	1510	1210	307
TBG 650 LX ME V CO	1950	1510	1210	319





Picture 2

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	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBG 650 LX MC	1110	580	530	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 650 LX ME	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 650 LX ME V	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 650 LX ME V O2	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 650 LX ME V CO	1110	580	530	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	600 ÷ 6500	**TBG 650 LX MC**	**18160010**	3N AC 50Hz 400V	15	4)
			class 3	600 ÷ 6500	**TBG 650 LX ME**	**18170010**	3N AC 50Hz 400V	15	4)
•			class 3	600 ÷ 6500	**TBG 650 LX ME V**	**18170015**	3N AC 50Hz 400V	15	4) 10)
•	•		class 3	600 ÷ 6500	**TBG 650 LX ME V O2**	**18170016**	3N AC 50Hz 400V	15	4) 10)
•	•	•	class 3	600 ÷ 6500	**TBG 650 LX ME V CO**	**18170017**	3N AC 50Hz 400V	15	4) 10)
					Frequency 60 Hz				
			class 3	600 ÷ 6500	**TBG 650 LX MC**	**on request**	3N AC 60Hz 380V	15	4)
			class 3	600 ÷ 6500	**TBG 650 LX ME**	**on request**	3N AC 60Hz 380V	15	4)
•			class 3	600 ÷ 6500	**TBG 650 LX ME V**	**on request**	3N AC 60Hz 380V	15	4) 10)
•	•		class 3	600 ÷ 6500	**TBG 650 LX ME V O2**	**on request**	3N AC 60Hz 380V	15	4) 10)
•	•	•	class 3	600 ÷ 6500	**TBG 650 LX ME V CO**	**on request**	3N AC 60Hz 380V	15	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 650 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 650 LX MC: modulation kit	98000055
TBG 650 LX ME: modulation kit	98000059
TBG 650 LX MC/650 LX ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Reversing nozzle kit 19)	98000436

GAS BURNERS ACCESSORIES

Boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,
For different type of gas and pressure values, please get in contact with our commercial department.

kW 650 - 7500

SERIES TBG

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

TBG 750 LX MC

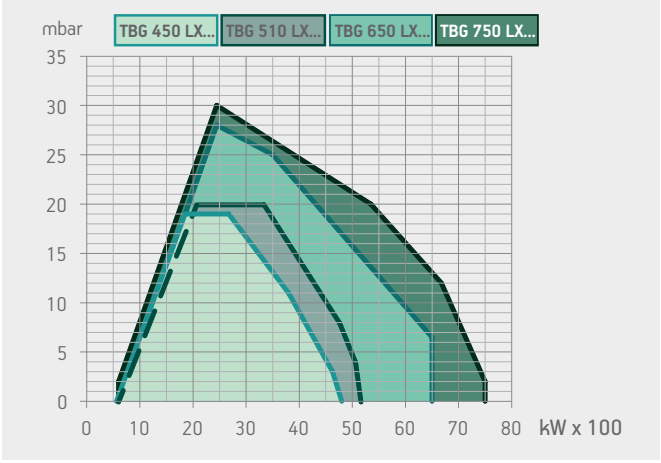
TBG 750 LX ME

Gas burner compliant with European standard EN676. Operation:	TBG 750 LX MC mechanical two-stage progressive	TBG 750 LX ME electronic modulation	TBG 750 LX ME V electronic modulation	TBG 750 LX ME V O2 electronic modulation	TBG 750 LX ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:11	1:11	1:11	1:11	1:11
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	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	up/down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54

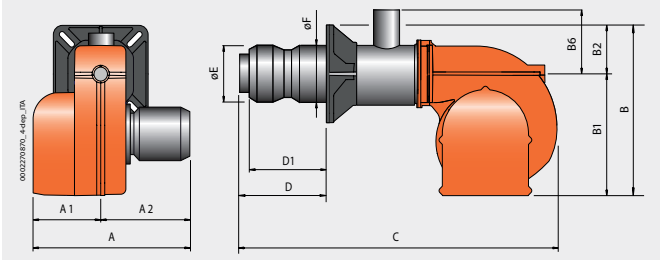
kW 650 - 7500

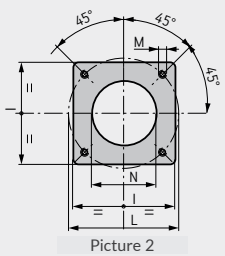
SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 750 LX MC	1500	1320	970	310
TBG 750 LX ME	1500	1320	970	310
TBG 750 LX ME V	1950	1510	1210	330
TBG 750 LX ME V O2	1950	1510	1210	342
TBG 750 LX ME V CO	1950	1510	1210	354





Picture 2

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	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBG 750 LX MC	1180	530	650	810	525	285	295	1800	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 750 LX ME	1180	530	650	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 750 LX ME V	1180	530	650	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 750 LX ME V O2	1180	530	650	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2
TBG 750 LX ME V CO	1180	530	650	810	525	285	295	1850	650	547 ÷ 597	397	410	480	520 ÷ 600	M20	430	2

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	650 ÷ 7500	**TBG 750 LX MC**	**18190010**	3N AC 50Hz 400V	18,5	4)
			class 3	650 ÷ 7500	**TBG 750 LX ME**	**18200010**	3N AC 50Hz 400V	18,5	4)
•			class 3	650 ÷ 7500	**TBG 750 LX ME V**	**18200015**	3N AC 50Hz 400V	18,5	4) 10)
•	•		class 3	650 ÷ 7500	**TBG 750 LX ME V O2**	**18200016**	3N AC 50Hz 400V	18,5	4) 10)
•	•	•	class 3	650 ÷ 7500	**TBG 750 LX ME V CO**	**18200017**	3N AC 50Hz 400V	18,5	4) 10)
					Frequency 60 Hz				
			class 3	650 ÷ 7500	**TBG 750 LX MC**	**on request**	3N AC 60Hz 380V	18,5	4)
			class 3	650 ÷ 7500	**TBG 750 LX ME**	**on request**	3N AC 60Hz 380V	18,5	4)
•			class 3	650 ÷ 7500	**TBG 750 LX ME V**	**on request**	3N AC 60Hz 380V	18,5	4) 10)
•	•		class 3	650 ÷ 7500	**TBG 750 LX ME V O2**	**on request**	3N AC 60Hz 380V	18,5	4) 10)
•	•	•	class 3	650 ÷ 7500	**TBG 750 LX ME V CO**	**on request**	3N AC 60Hz 380V	18,5	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 750 LX ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 750 LX MC: modulation kit	98000055
TBG 750 LX ME: modulation kit	98000059
TBG 750 LX MC/750 LX ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Reversing nozzle kit 19)	98000436

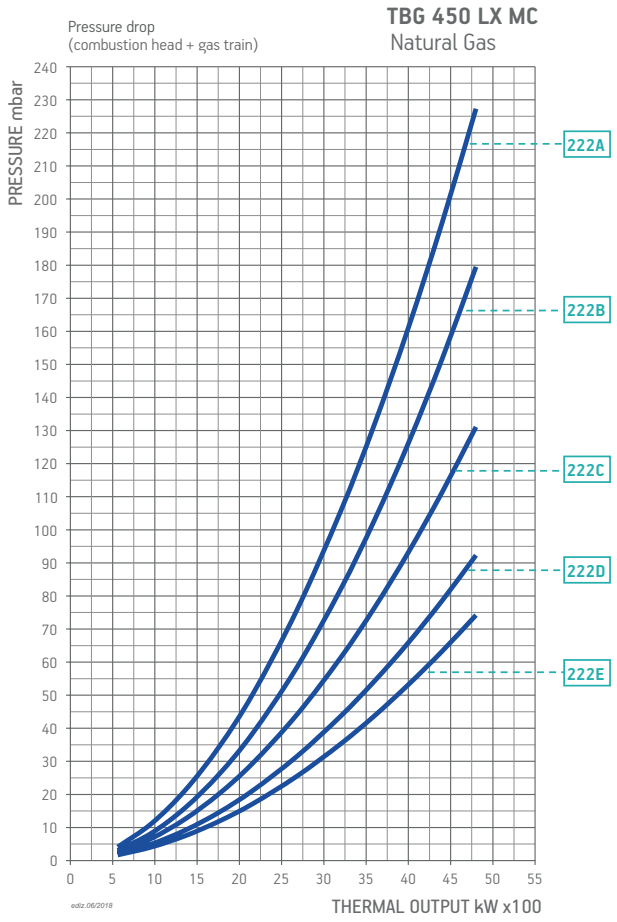
GAS BURNERS ACCESSORIES

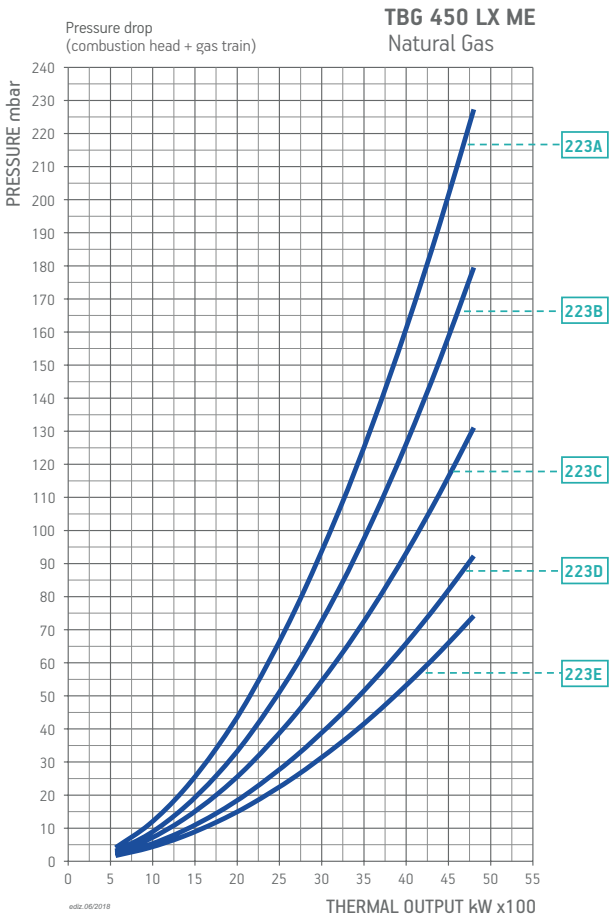
Boiler coupling kit.

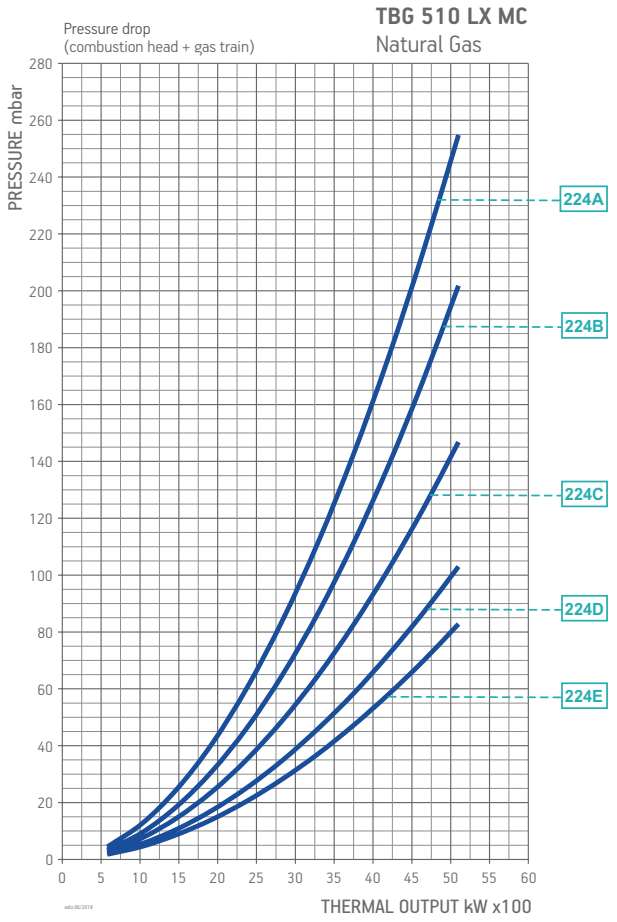
NOTE

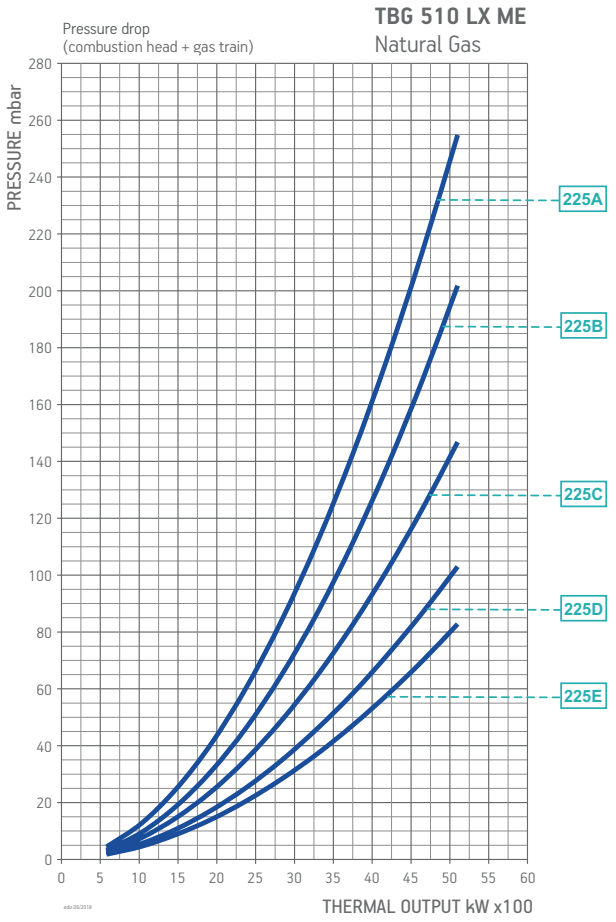
4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 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

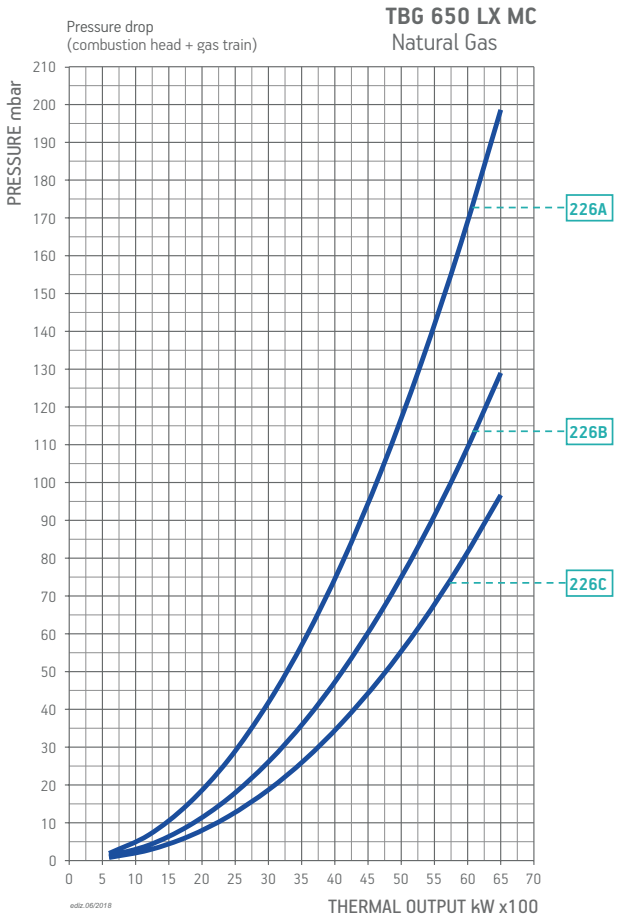
Burner model	Gas type	Curve on graph	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Pic.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 450 LX MC	Natural gas	222A	CE/EXP	500	CTV	19990599	Included	–	Included	D8	
		222B	CE/EXP	500	CTV	19990665	Included	–	Included	D8	
		222C	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		222D	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		222E	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 450 LX ME **TBG 450 LX ME V** **TBG 450 LX ME V O2** **TBG 450 LX ME V CO**	Natural gas	223A	CE/EXP	500	CTV	19990541	Included	–	Included	D4	
		223B	CE/EXP	500	CTV	19990666	Included	–	Included	D4	
		223C	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		223D	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		223E	CE/EXP	500	CTV	19990544	Included	–	Included	D4	
TBG 510 LX MC	Natural gas	224A	CE/EXP	500	CTV	19990599	Included	–	Included	D8	
		224B	CE/EXP	500	CTV	19990665	Included	–	Included	D8	
		224C	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		224D	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		224E	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 510 LX ME **TBG 510 LX ME V** **TBG 510 LX ME V O2** **TBG 510 LX ME V CO**	Natural gas	225A	CE/EXP	500	CTV	19990541	Included	–	Included	D4	
		225B	CE/EXP	500	CTV	19990666	Included	–	Included	D4	
		225C	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		225D	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		225E	CE/EXP	500	CTV	19990544	Included	–	Included	D4	

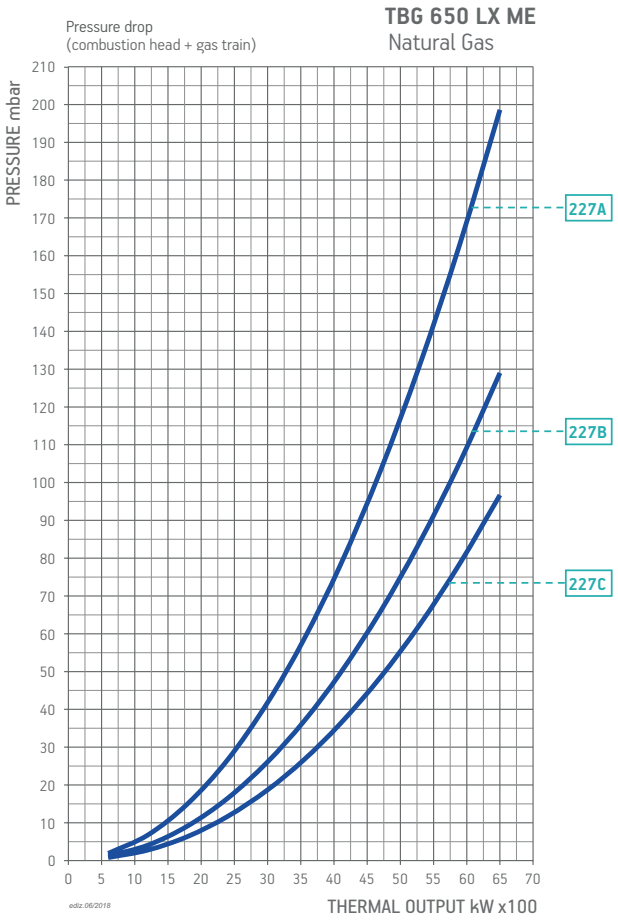
To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

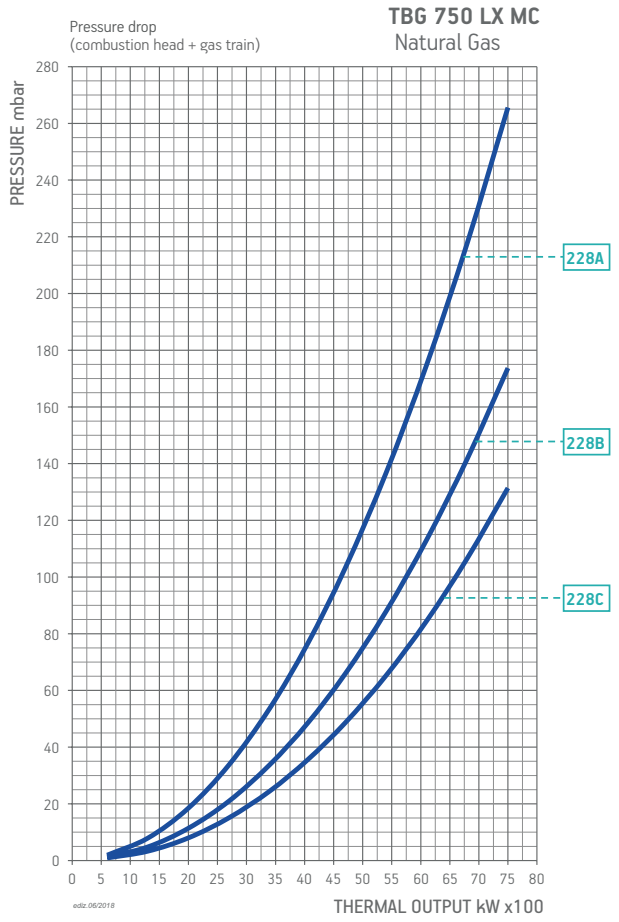
NOTE

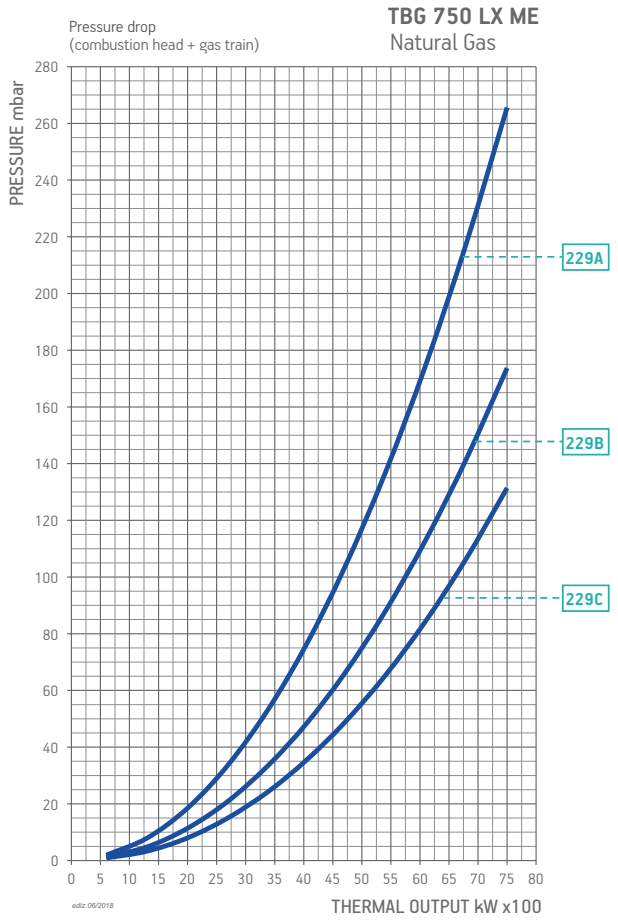
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 650 LX MC	Natural gas	226A	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		226B	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		226C	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 650 LX ME/ME V **TBG 650 LX ME V O2** **TBG 650 LX ME V CO**	Natural gas	227A	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		227B	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		227C	CE/EXP	500	CTV	19990544	Included	–	Included	D4	
TBG 750 LX MC	Natural gas	228A	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		228B	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		228C	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 750 LX ME/ME V **TBG 750 LX ME V O2** **TBG 750 LX ME V CO**	Natural gas	229A	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		229B	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		229C	CE/EXP	500	CTV	19990544	Included	–	Included	D4	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

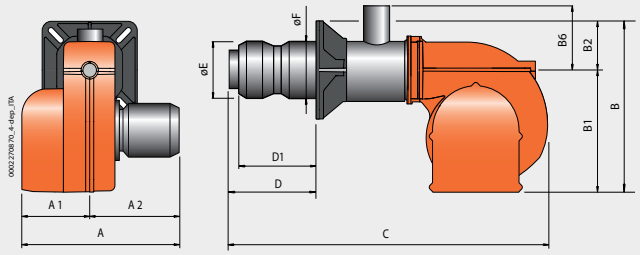
kW 800 - 8000 | SERIES TBG

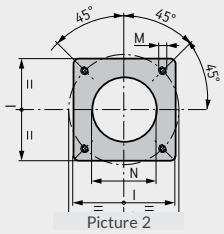
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

Gas burner compliant with European standard EN676. Operation:	TBG 800 MC mechanical two-stage progressive	TBG 800 ME electronic modulation	TBG 800 ME V electronic modulation	TBG 800 ME V O2 electronic modulation	TBG 800 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:10	1:10	1:10	1:10	1:10
Low NOx and CO emissions gas burner according to European standard EN676:	class 3	class 3	class 3	class 3	class 3
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54





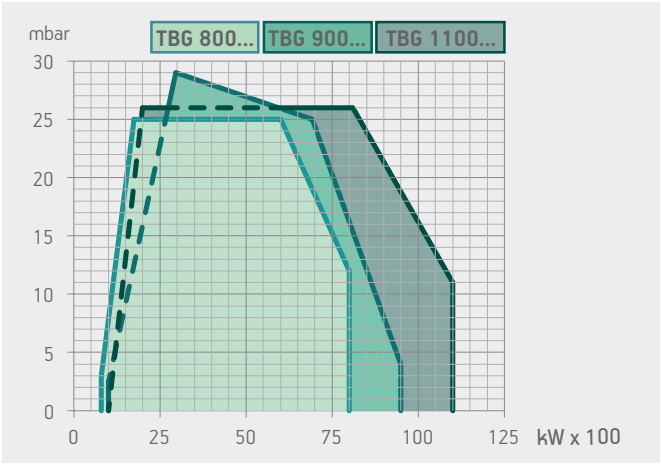
Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	D mm	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBG 800 MC	1230	570	660	1030	740	290	310	2020	720	570	418	432	520	594	M20	452	2
TBG 800 ME	1230	570	660	1030	740	290	310	2020	720	570	418	432	520	594	M20	452	2
TBG 800 ME V	1230	570	660	1030	740	290	310	2020	720	570	418	432	520	594	M20	452	2
TBG 800 ME V O2	1230	570	660	1030	740	290	310	2020	720	570	418	432	520	594	M20	452	2
TBG 800 ME V CO	1230	570	660	1030	740	290	310	2020	720	570	418	432	520	594	M20	452	2

kW 800 - 8000

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 800 MC	1950	1510	1210	460
TBG 800 ME	1950	1510	1210	460
TBG 800 ME V	1950	1510	1210	480
TBG 800 ME V O2	1950	1510	1210	492
TBG 800 ME V CO	1950	1510	1210	504

GAS BURNERS

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 3	800 ÷ 8000	**TBG 800 MC**	**67230020**	3N AC 50Hz 400V	15,0	4) 19)
			class 3	800 ÷ 8000	**TBG 800 ME**	**67220010**	3N AC 50Hz 400V	15,0	4) 19)
•			class 3	800 ÷ 8000	**TBG 800 ME V**	**67220015**	3N AC 50Hz 400V	15,0	4) 10) 19)
•	•		class 3	800 ÷ 8000	**TBG 800 ME V O2**	**67220016**	3N AC 50Hz 400V	15,0	4) 10) 19)
•	•	•	class 3	800 ÷ 8000	**TBG 800 ME V CO**	**67220017**	3N AC 50Hz 400V	15,0	4) 10) 19)
					Frequency 60 Hz				
			class 3	800 ÷ 8000	**TBG 800 MC**	**67235420**	3N AC 60Hz 380V	18,5	4) 19)
			class 3	800 ÷ 8000	**TBG 800 ME**	**67225410**	3N AC 60Hz 380V	18,5	4) 19)
•			class 3	800 ÷ 8000	**TBG 800 ME V**	**on request**	3N AC 60Hz 380V	18,5	4) 10) 19)
•	•		class 3	800 ÷ 8000	**TBG 800 ME V O2**	**on request**	3N AC 60Hz 380V	18,5	4) 10) 19)
•	•	•	class 3	800 ÷ 8000	**TBG 800 ME V CO**	**on request**	3N AC 60Hz 380V	18,5	4) 10) 19)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 800 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 800 MC: modulation kit	98000055
TBG 800 ME: modulation kit	98000059
TBG 800 MC/800 ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Reversing nozzle kit 19)	98000361

GAS BURNERS ACCESSORIES

Boiler coupling kit.

NOTE

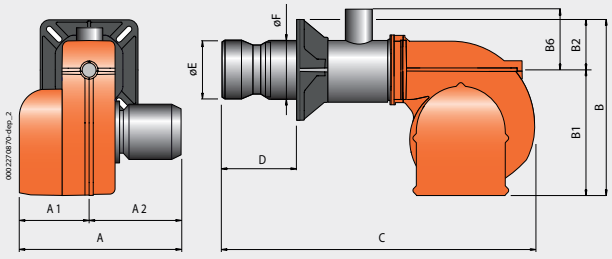
4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³,
For different type of gas and pressure values, please get in contact with our commercial department.

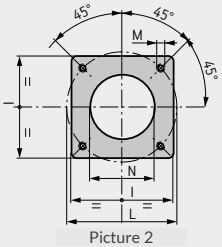
kW **1000 - 9500** | SERIES **TBG**

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

GAS BURNERS

Gas burner compliant with European standard EN676. Operation:	TBG 900 MC mechanical two-stage progressive	TBG 900 ME electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional
Modulation ratio:	1:9	1:9
Low NOx and CO emissions gas burner according to European standard EN676:	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	•	•
Fixed boiler coupling flange.	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Device made of sound-absorbing material to reduce fan noise.	•	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	down	up/down
Flame detection by ionisation electrode with connector for microamperometer.	•	•
Control panel with display diagram for working mode with indication lights.	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.		•
Electric protection rating:	IP54	IP54

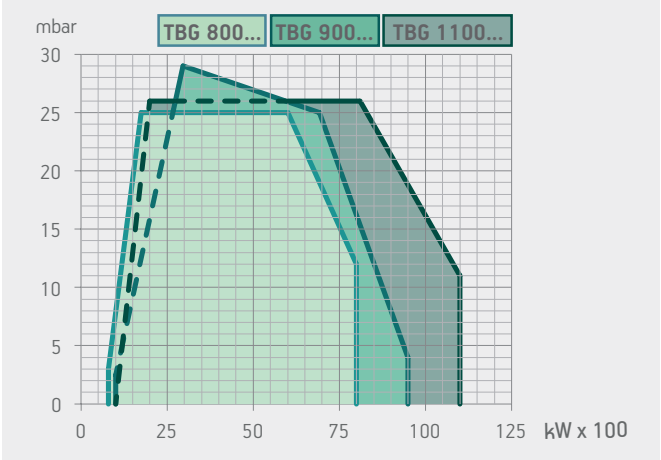




Picture 2

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 900 MC	1230	570	660	1030	740	290	310	1950	640	426	432	520	594	M20	462	2
TBG 900 ME	1230	570	660	1030	740	290	310	1950	640	426	432	520	594	M20	462	2



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 900 MC	1950	1510	1210	460
TBG 900 ME	1950	1510	1210	460

	Emissions class	Thermal output kW	Model	Part no.	Electrical supply kW	Motor	Note
			Frequency 50 Hz				
	class 2	1000 ÷ 9500	**TBG 900 MC**	**67430010**	3N AC 50Hz 400V	15,0	4)
	class 2	1000 ÷ 9500	**TBG 900 ME**	**67420010**	3N AC 50Hz 400V	15,0	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V**	**67420015**	3N AC 50Hz 400V	15,0	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V O2**	**67420016**	3N AC 50Hz 400V	15,0	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V CO**	**67420017**	3N AC 50Hz 400V	15,0	4)
			Frequency 60 Hz				
	class 2	1000 ÷ 9500	**TBG 900 MC**	**67435410**	3N AC 60Hz 380V	18,5	4)
	class 2	1000 ÷ 9500	**TBG 900 ME**	**67425410**	3N AC 60Hz 380V	18,5	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V**	**67425415**	3N AC 60Hz 380V	18,5	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V O2**	**on request**	3N AC 60Hz 380V	18,5	4)
	class 2	1000 ÷ 9500	**TBG 900 ME V CO**	**on request**	3N AC 60Hz 380V	18,5	4)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 900 MC: modulation kit	98000055
TBG 900 ME: modulation kit	98000059
Modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058

GAS BURNERS ACCESSORIES

Boiler coupling kit.

NOTES

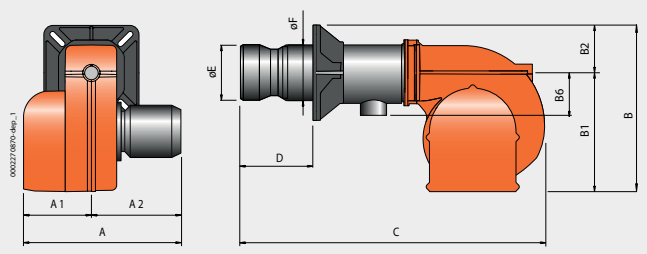
4 Equipped with automatic air closure device.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

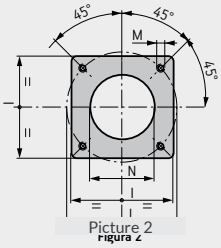
kW **1000 - 11000** | SERIES **TBG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

Gas burner compliant with European standard EN676. Operation:	TBG 1100 MC mechanical two-stage progressive	TBG 1100 ME electronic modulation	TBG 1100 ME V electronic modulation	TBG 1100 ME V O2 electronic modulation	TBG 1100 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:11	1:11	1:11	1:11	1:11
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54





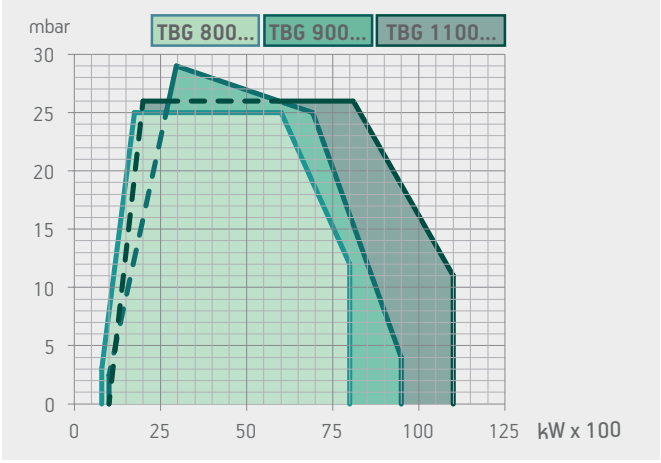
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 1100 MC	1230	570	660	1030	740	290	310	2030	720	451	418	520	594	M20	481	2
TBG 1100 ME	1230	570	660	1030	740	290	310	2030	720	451	418	520	594	M20	481	2
TBG 1100 ME V	1230	570	660	1030	740	290	310	2030	720	451	418	520	594	M20	481	2
TBG 1100 ME V O2	1230	570	660	1030	740	290	310	2030	720	451	418	520	594	M20	481	2
TBG 1100 ME V CO	1230	570	660	1030	740	290	310	2030	720	451	418	520	594	M20	481	2

kW 1000 - 11000

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 1100 MC	1950	1510	1210	490
TBG 1100 ME	1950	1510	1210	490
TBG 1100 ME V	1950	1510	1210	500
TBG 1100 ME V O2	1950	1510	1210	512
TBG 1100 ME V CO	1950	1510	1210	524

GAS BURNERS

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	1000 ÷ 11000	**TBG 1100 MC**	**67450020**	3N AC 50Hz 400V	22	4)
			class 2	1000 ÷ 11000	**TBG 1100 ME**	**67440010**	3N AC 50Hz 400V	22	4)
•			class 2	1000 ÷ 11000	**TBG 1100 ME V**	**67440015**	3N AC 50Hz 400V	22	4) 10)
•	•		class 2	1000 ÷ 11000	**TBG 1100 ME V O2**	**67440016**	3N AC 50Hz 400V	22	4) 10)
•	•	•	class 2	1000 ÷ 11000	**TBG 1100 ME V CO**	**67440017**	3N AC 50Hz 400V	22	4) 10)
					Frequency 60 Hz				
			class 2	1000 ÷ 11000	**TBG 1100 MC**	**67455420**	3N AC 60Hz 380V	30	4)
			class 2	1000 ÷ 11000	**TBG 1100 ME**	**67445410**	3N AC 60Hz 380V	30	4)
•			class 2	1000 ÷ 11000	**TBG 1100 ME V**	**on request**	3N AC 60Hz 380V	30	4) 10)
•	•		class 2	1000 ÷ 11000	**TBG 1100 ME V O2**	**on request**	3N AC 60Hz 380V	30	4) 10)
•	•	•	class 2	1000 ÷ 11000	**TBG 1100 ME V CO**	**on request**	3N AC 60Hz 380V	30	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 1100 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 1100 MC: modulation kit	98000055
TBG 1100 ME: modulation kit	98000059
TBG 1100 MC/1100 ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058

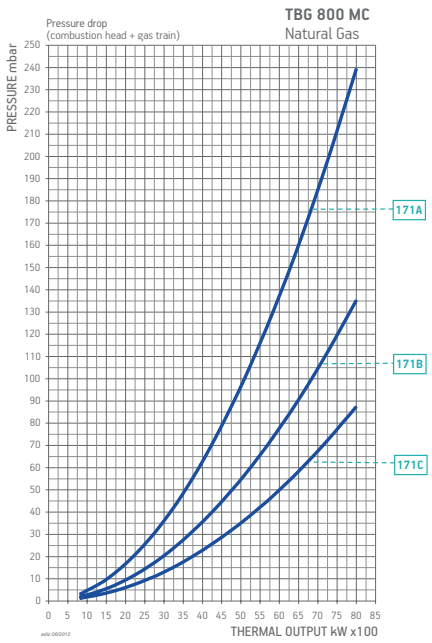
GAS BURNERS ACCESSORIES

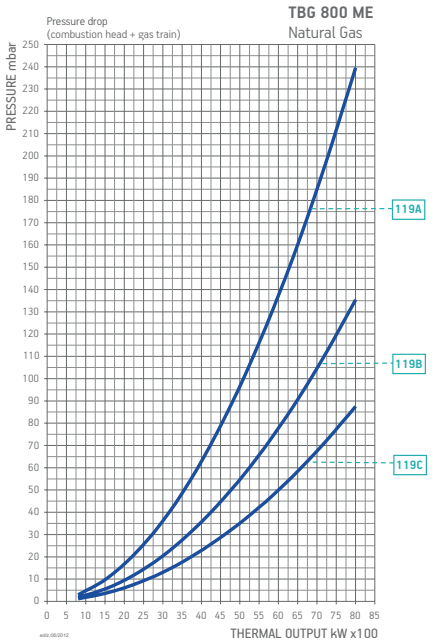
Boiler coupling kit.

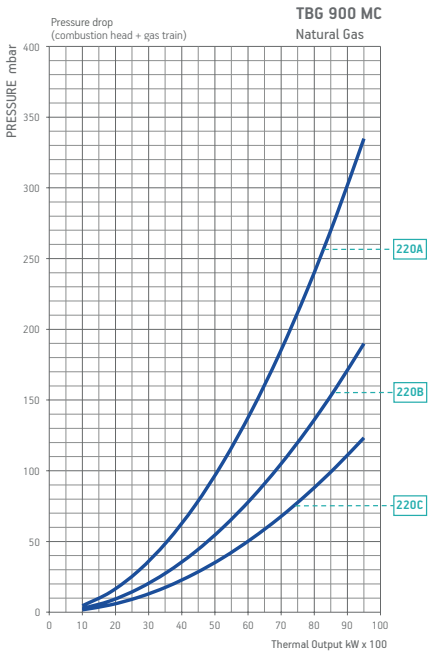
NOTE

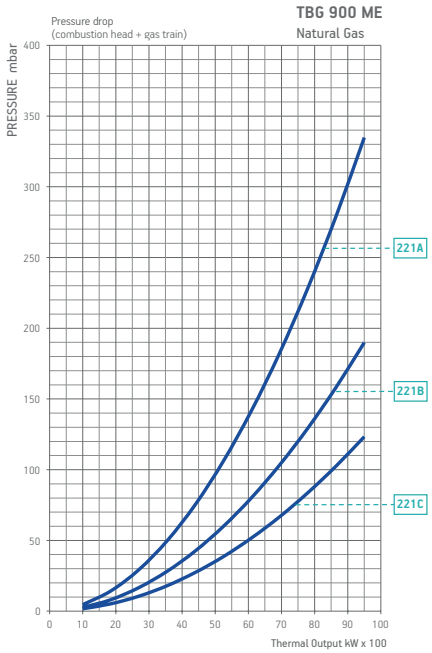
4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

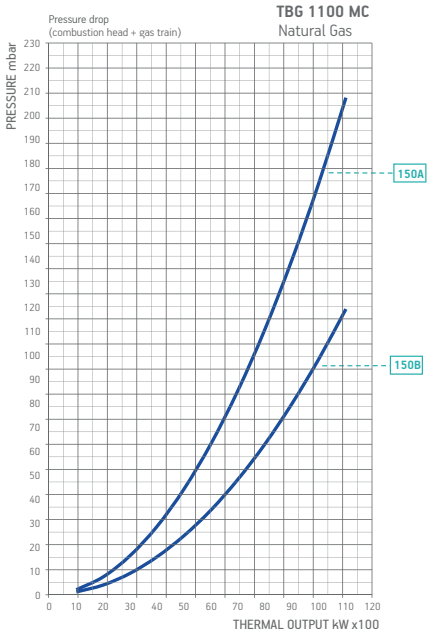
BURNER/GAS TRAIN MATCH

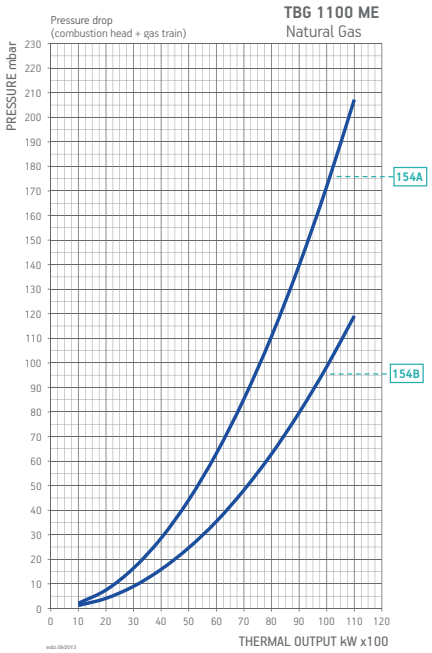












BURNER/GAS TRAIN MATCH

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 800 MC	Natural gas	171A	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		171B	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		171C	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 800 ME/ME V **TBG 800 ME V O2** **TBG 800 ME V CO**	Natural gas	119A	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		119B	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		119C	CE/EXP	500	CTV	19990544	Included	–	Included	D4	
TBG 900 MC	Natural gas	220A	CE/EXP	500	CTV	19990600	Included	–	Included	D8	
		220B	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		220C	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 900 ME/ME V **TBG 900 ME V O2** **TBG 900 ME V CO**	Natural gas	221A	CE/EXP	500	CTV	19990542	Included	–	Included	D4	
		221B	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		221C	CE/EXP	500	CTV	19990544	Included	–	Included	D4	
TBG 1100 MC	Natural gas	150A	CE/EXP	500	CTV	19990601	Included	–	Included	D8	
		150B	CE/EXP	500	CTV	19990602	Included	–	Included	D8	
TBG 1100 ME **TBG 1100 ME V** **TBG 1100 ME V O2** **TBG 1100 ME V CO**	Natural gas	154A	CE/EXP	500	CTV	19990543	Included	–	Included	D4	
		154B	CE/EXP	500	CTV	19990544	Included	–	Included	D4	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
** Maximum gas inlet pressure at pressure regulator.

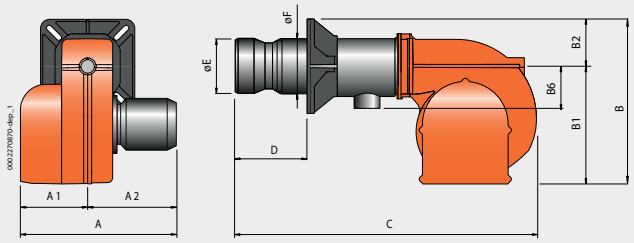
kW 1200 - 12000 | SERIES TBG

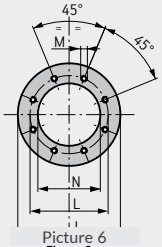
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE 0085

Gas burner compliant with European standard EN676. Operation:	TBG 1200 MC mechanical two-stage progressive	TBG 1200 ME electronic modulation	TBG 1200 ME V electronic modulation	TBG 1200 ME V O2 electronic modulation	TBG 1200 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:10	1:10	1:10	1:10	1:10
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	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
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, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54





Picture 6
Figura 6

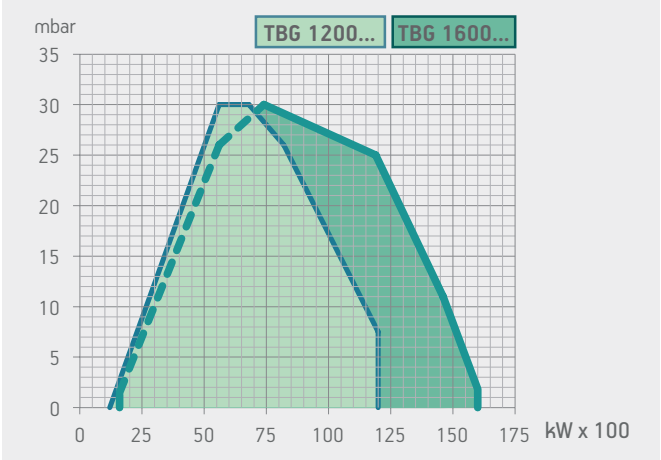
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 1200 MC	1470	700	770	1130	780	350	360	2290	745	485	503	685	630	M20	533	6
TBG 1200 ME	1470	700	770	1130	780	350	360	2290	745	485	503	685	630	M20	533	6
TBG 1200 ME V	1470	700	770	1130	780	350	360	2290	745	485	503	685	630	M20	533	6
TBG 1200 ME V O2	1470	700	770	1130	780	350	360	2290	745	485	503	685	630	M20	533	6
TBG 1200 ME V CO	1470	700	770	1130	780	350	360	2290	745	485	503	685	630	M20	533	6

kW 1200 - 12000

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 1200 MC	1950	1680	1300	650
TBG 1200 ME	1950	1680	1300	650
TBG 1200 ME V	1950	1680	1300	665
TBG 1200 ME V O2	1950	1680	1300	677
TBG 1200 ME V CO	1950	1680	1300	689

	inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
						Frequency 50 Hz				
				class 3	1200 ÷ 12000	**TBG 1200 MC**	**67270020**	3N AC 50Hz 400V	22	4)
				class 3	1200 ÷ 12000	**TBG 1200 ME**	**67260010**	3N AC 50Hz 400V	22	4)
	•			class 3	1200 ÷ 12000	**TBG 1200 ME V**	**67260015**	3N AC 50Hz 400V	22	4) 10)
	•	•		class 3	1200 ÷ 12000	**TBG 1200 ME V O2**	**67260016**	3N AC 50Hz 400V	22	4) 10)
	•	•	•	class 3	1200 ÷ 12000	**TBG 1200 ME V CO**	**67260017**	3N AC 50Hz 400V	22	4) 10)
						Frequency 60 Hz				
				class 3	1200 ÷ 12000	**TBG 1200 MC**	**67275420**	3N AC 60Hz 380V	22	4)
				class 3	1200 ÷ 12000	**TBG 1200 ME**	**67265410**	3N AC 60Hz 380V	22	4)
	•			class 3	1200 ÷ 12000	**TBG 1200 ME V**	**on request**	3N AC 60Hz 380V	22	4) 10)
	•	•		class 3	1200 ÷ 12000	**TBG 1200 ME V O2**	**on request**	3N AC 60Hz 380V	22	4) 10)
	•	•	•	class 3	1200 ÷ 12000	**TBG 1200 ME V CO**	**on request**	3N AC 60Hz 380V	22	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 1200 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 1200 MC: modulation kit	98000055
TBG 1200 ME: modulation kit	98000059
TBG 1200 MC/1200 ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980061

GAS BURNERS ACCESSORIES

Boiler coupling kit.

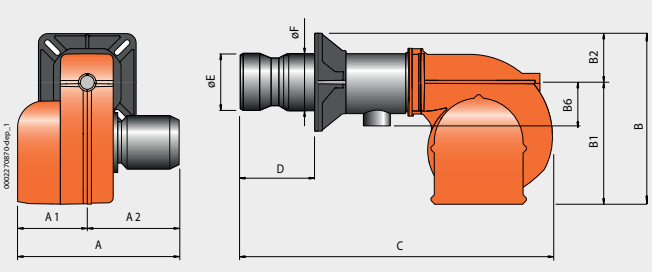
NOTE

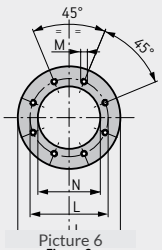
4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

kW **1600 - 16000** | SERIES **TBG**

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676. CE 0085

Gas burner compliant with European standard EN676. Operation:	TBG 1600 MC mechanical two-stage progressive	TBG 1600 ME electronic modulation	TBG 1600 ME V electronic modulation	TBG 1600 ME V O2 electronic modulation	TBG 1600 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:10	1:10	1:10	1:10	1:10
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
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, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54





Picture 6
Figura 6

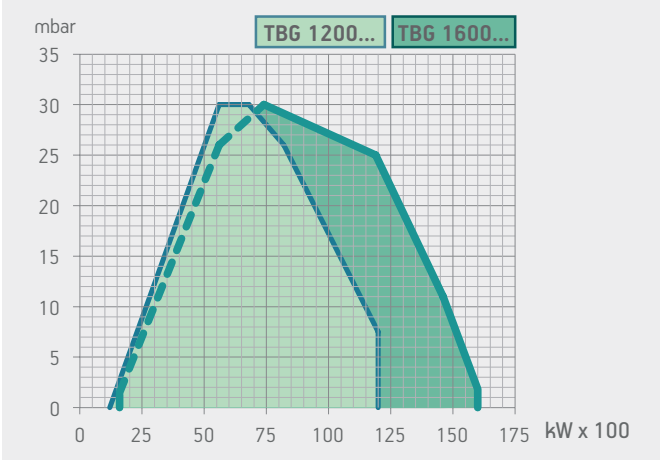
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 1600 MC	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	575	6
TBG 1600 ME	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	575	6
TBG 1600 ME V	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	575	6
TBG 1600 ME V O2	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	575	6
TBG 1600 ME V CO	1470	700	770	1130	780	350	360	2290	735	545	503	685	630	M20	575	6

kW 1600 - 16000

SERIES **TBG**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 1600 MC	1950	1680	1300	704
TBG 1600 ME	1950	1680	1300	704
TBG 1600 ME V	1950	1680	1300	730
TBG 1600 ME V O2	1950	1680	1300	742
TBG 1600 ME V CO	1950	1680	1300	754

Inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
					Frequency 50 Hz				
			class 2	1600 ÷ 16000	**TBG 1600 MC**	**67490020**	3N AC 50Hz 400V	30	4)
			class 2	1600 ÷ 16000	**TBG 1600 ME**	**67480010**	3N AC 50Hz 400V	30	4)
•			class 2	1600 ÷ 16000	**TBG 1600 ME V**	**67480015**	3N AC 50Hz 400V	30	4) 10)
•	•		class 2	1600 ÷ 16000	**TBG 1600 ME V O2**	**67480016**	3N AC 50Hz 400V	30	4) 10)
•	•	•	class 2	1600 ÷ 16000	**TBG 1600 ME V CO**	**67480017**	3N AC 50Hz 400V	30	4) 10)
					Frequency 60 Hz				
			class 2	1600 ÷ 16000	**TBG 1600 MC**	**67495420**	3N AC 60Hz 380V	30	4)
			class 2	1600 ÷ 16000	**TBG 1600 ME**	**67485410**	3N AC 60Hz 380V	30	4)
•			class 2	1600 ÷ 16000	**TBG 1600 ME V**	**on request**	3N AC 60Hz 380V	30	4) 10)
•	•		class 2	1600 ÷ 16000	**TBG 1600 ME V O2**	**on request**	3N AC 60Hz 380V	30	4) 10)
•	•	•	class 2	1600 ÷ 16000	**TBG 1600 ME V CO**	**on request**	3N AC 60Hz 380V	30	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 1600 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 1600 MC: modulation kit	98000055
TBG 1600 ME: modulation kit	98000059
TBG 1600 MC/1600 ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980061

GAS BURNERS ACCESSORIES

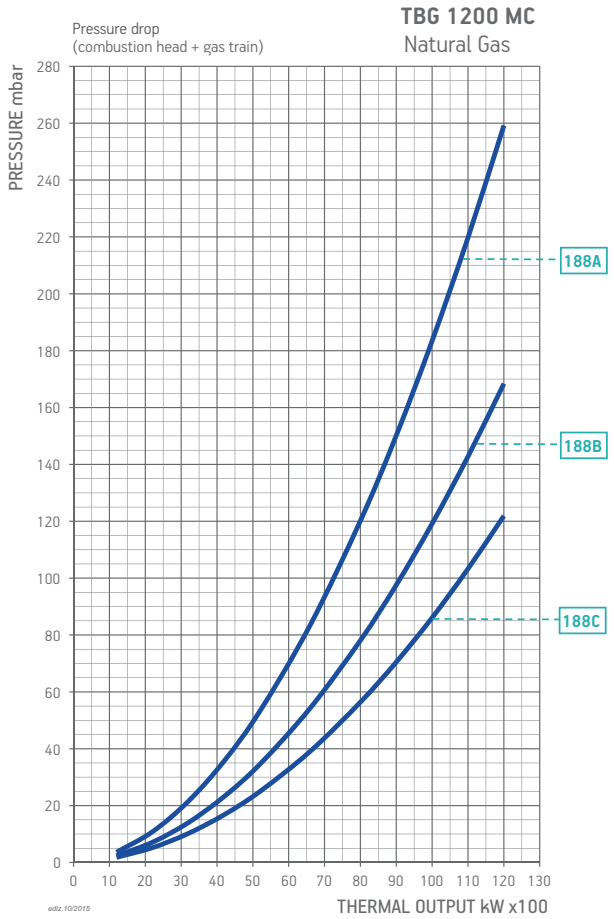
Boiler coupling kit.

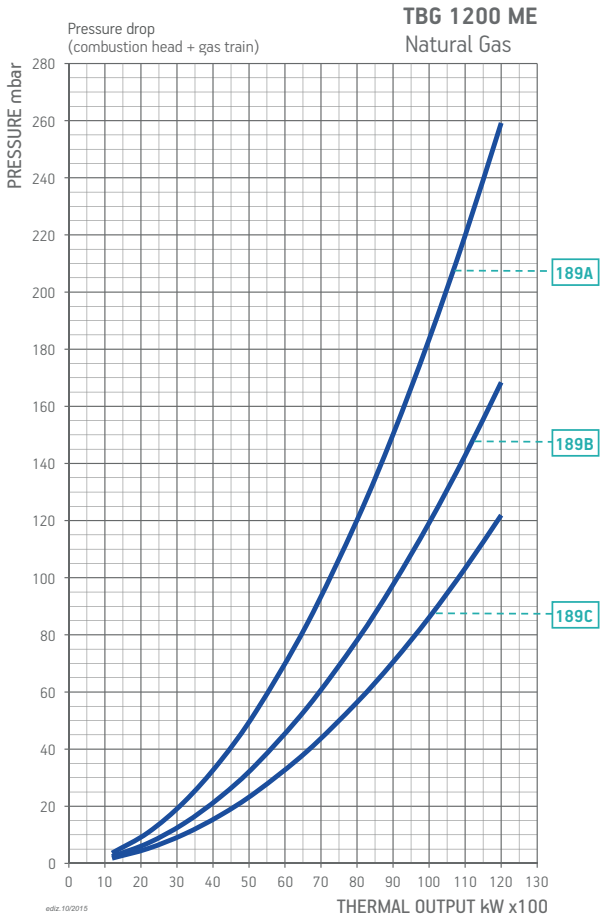
NOTE

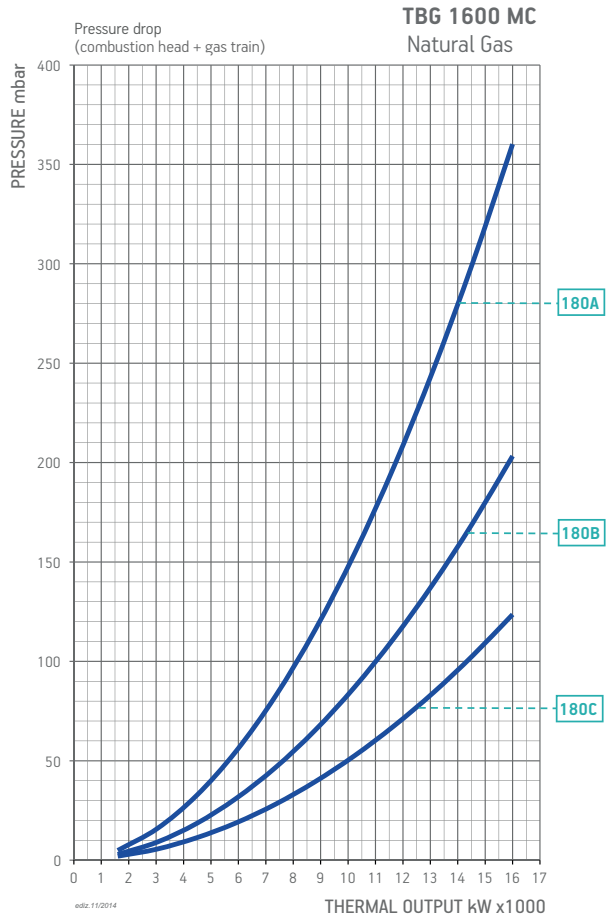
4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3,
For different type of gas and pressure values, please get in contact with our commercial department.

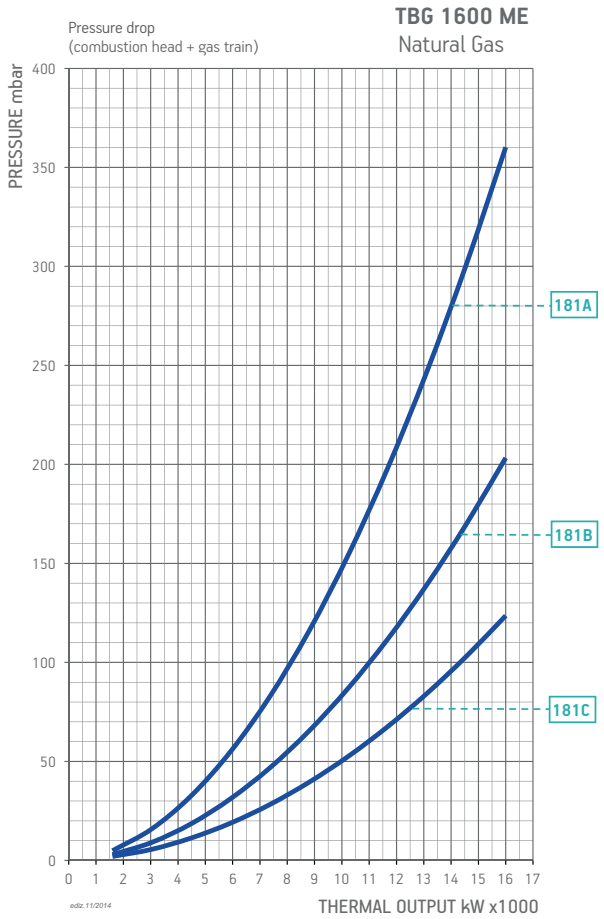
kW **1200 - 16000** | SERIES **TBG**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 1200 MC	Natural gas	188A	CE/EXP	500	CTV	19990615	Included	–	Included	D8	
		188B	CE/EXP	500	CTV	19990616	Included	–	Included	D8	
		188C	CE/EXP	500	CTV	19990617	Included	–	Included	D8	
TBG 1200 ME/ME V **TBG 1200 ME V O2** **TBG 1200 ME V CO**	Natural gas	189A	CE/EXP	500	CTV	19990606	Included	–	Included	D4	
		189B	CE/EXP	500	CTV	19990607	Included	–	Included	D4	
		189C	CE/EXP	500	CTV	19990608	Included	–	Included	D4	
TBG 1600 MC	Natural gas	180A	CE/EXP	500	CTV	19990615	Included	–	Included	D8	
		180B	CE/EXP	500	CTV	19990616	Included	–	Included	D8	
		180C	CE/EXP	500	CTV	19990617	Included	–	Included	D8	
TBG 1600 ME/ME V **TBG 1600 ME V O2** **TBG 1600 ME V CO**	Natural gas	181A	CE/EXP	500	CTV	19990606	Included	–	Included	D4	
		181B	CE/EXP	500	CTV	19990607	Included	–	Included	D4	
		181C	CE/EXP	500	CTV	19990608	Included	–	Included	D4	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

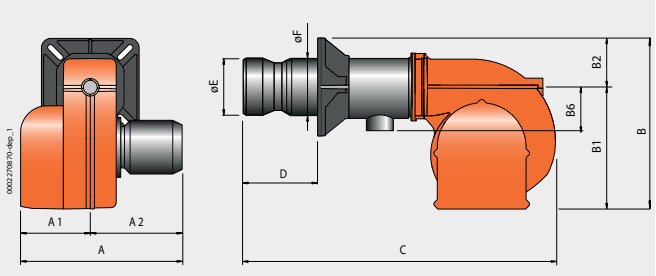
NOTE

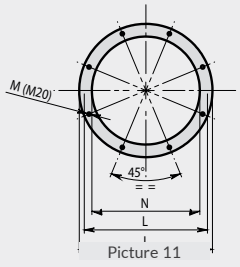
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 2700 - 22000 | SERIES TBG

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676. CE 0085

Gas burner compliant with European standard EN676. Operation:	TBG 2000 MC mechanical two-stage progressive	TBG 2000 ME electronic modulation	TBG 2000 ME V electronic modulation	TBG 2000 ME V O2 electronic modulation	TBG 2000 ME V CO electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	•	•	•
Modulation ratio:	1:8	1:8	1:8	1:8	1:8
Low NOx and CO emissions gas burner according to European standard EN676:	class 2	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit without having to remove the burner from the boiler	•	•	•	•	•
Fixed boiler coupling flange	•	•	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•	•
Device made of sound-absorbing material to reduce fan noise	•	•	•	•	•
Adjustment of fan revolutions according to working stage by means of a frequency converter in order to reduce noise and electric consumption			•	•	•
Residual oxygen (O_2) monitoring in the fumes in order to maintain an optimal air/fuel ratio and ensure increased performance				•	
Residual oxygen (O_2) and carbon monoxide (CO) and monitoring of oxidizing components (H_2) in fumes to ensure increased performance and less atmospheric pollution					•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•	•	•
Gas train outlet:	down	up/down	up/down	up/down	up/down
Flame detection by ionisation electrode with connector for microamperometer	•	•	•	•	•
Control panel with display diagram for working mode with indication lights	•				
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	•	•	•
Electric protection rating:	IP54	IP54	IP54	IP54	IP54





Picture 11

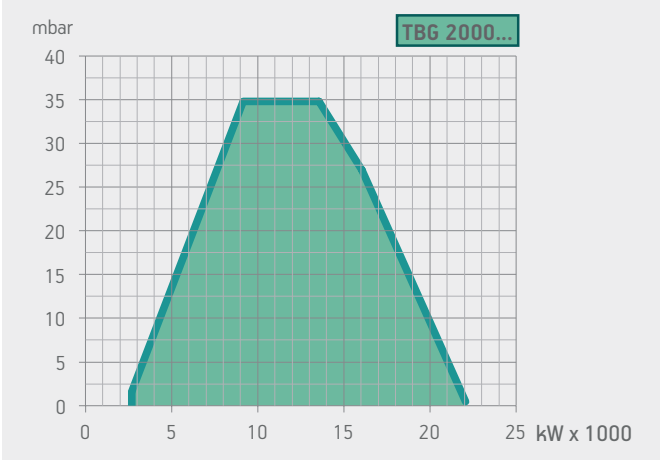
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBG 2000 MC	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	660	11
TBG 2000 ME	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	660	11
TBG 2000 ME V	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	660	11
TBG 2000 ME V O2	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	660	11
TBG 2000 ME V CO	1860	915	945	1270	870	400	440	2340	700	600	630	790	730	M20	660	11

kW 2700 - 22000

SERIES TBG

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBG 2000 MC	2100	2040	1380	1150
TBG 2000 ME	2100	2040	1380	1150
TBG 2000 ME V	2100	2040	1380	1150
TBG 2000 ME V O2	2100	2040	1380	1150
TBG 2000 ME V CO	2100	2040	1380	1150

GAS BURNERS

	inverter	O_2	CO	Emissions class	Thermal output kW	Model	Part no.	Electrical supply	Motor kW	Note
						Frequency 50 Hz				
				class 2	2700 ÷ 22000	**TBG 2000 MC**	**67510010**	3N AC 50Hz 400V	45	4)
				class 2	2700 ÷ 22000	**TBG 2000 ME**	**67500020**	3N AC 50Hz 400V	45	4)
	•			class 2	2700 ÷ 22000	**TBG 2000 ME V**	**67500025**	3N AC 50Hz 400V	45	4) 10)
	•	•		class 2	2700 ÷ 22000	**TBG 2000 ME V O2**	**67500026**	3N AC 50Hz 400V	45	4) 10)
	•	•	•	class 2	2700 ÷ 22000	**TBG 2000 ME V CO**	**67500027**	3N AC 50Hz 400V	45	4) 10)
						Frequency 60 Hz				
				class 2	2700 ÷ 22000	**TBG 2000 MC**	**67515410**	3N AC 60Hz 380V	45	4)
				class 2	2700 ÷ 22000	**TBG 2000 ME**	**on request**	3N AC 60Hz 380V	45	4)
	•			class 2	2700 ÷ 22000	**TBG 2000 ME V**	**on request**	3N AC 60Hz 380V	45	4) 10)
	•	•		class 2	2700 ÷ 22000	**TBG 2000 ME V O2**	**on request**	3N AC 60Hz 380V	45	4) 10)
	•	•	•	class 2	2700 ÷ 22000	**TBG 2000 ME V CO**	**on request**	3N AC 60Hz 380V	45	4) 10)

TO COMPLETE THE BURNER

DESCRIPTION
TBG 2000 ME V: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBG 2000 MC: modulation kit	98000055
TBG 2000 ME:modulation kit	98000059
TBG 2000 MC/2000 ME: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980063

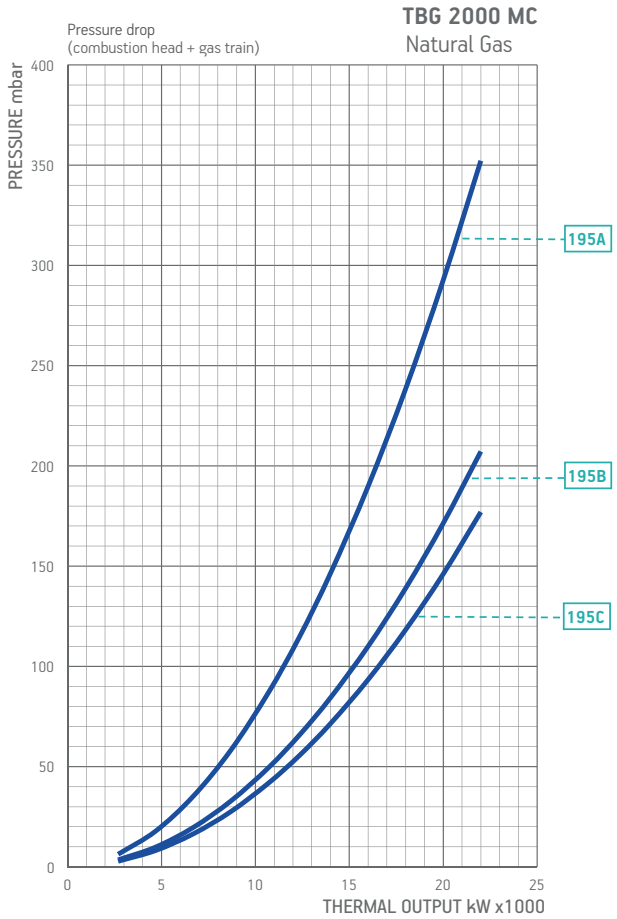
GAS BURNERS ACCESSORIES

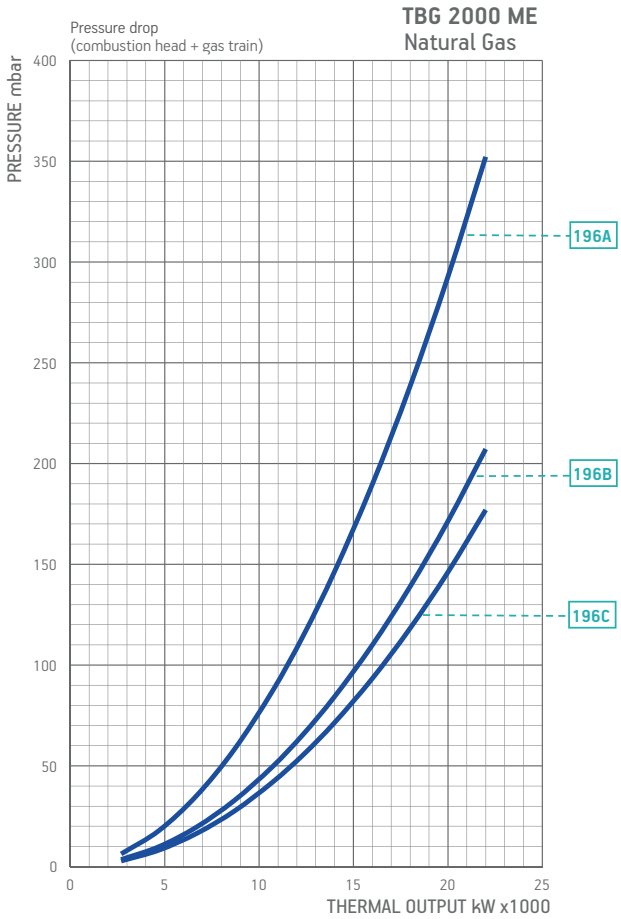
Boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
10 Inverter supplied separately, not included on the machine.
Net calorific value at reference conditions of 0°C, 1013mbar:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 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

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBG 2000 MC	Natural gas	195A	CE/EXP	500	CTV	19990616	Included	–	Included	D8	
		195B	CE/EXP	500	CTV	19990617	Included	–	Included	D8	
		195C	CE/EXP	500	CTV	19990627	Included	–	Included	D8	
TBG 2000 ME/ME V **TBG 2000 ME V O2** **TBG 2000 ME V CO**	Natural gas	196A	CE/EXP	500	CTV	19990618	Included	–	Included	D4	
		196B	CE/EXP	500	CTV	19990619	Included	–	Included	D4	
		196C	CE/EXP	500	CTV	19990620	Included	–	Included	D4	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

Dual fuel burners series

Simbology

TBML...P
Two-stage gas/light oil burners.
Dual operating mode.

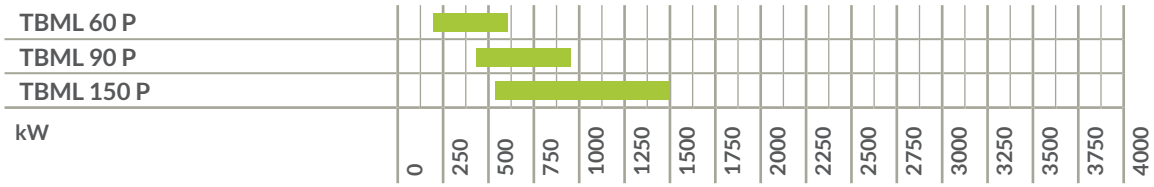
TBML...MC
Two-stage progressive/ modulating gas/ light oil burners with mechanical cam on gas, two-stage on light oil.
Dual operation mode.

TBML 50/80 ME
TBML 120/160 ME
TBML 200/260 ME
TBML 360 ME
Modulating gas/ light oil burners with electronic modulation on gas, two-stage on light oil.
Dual operation mode.

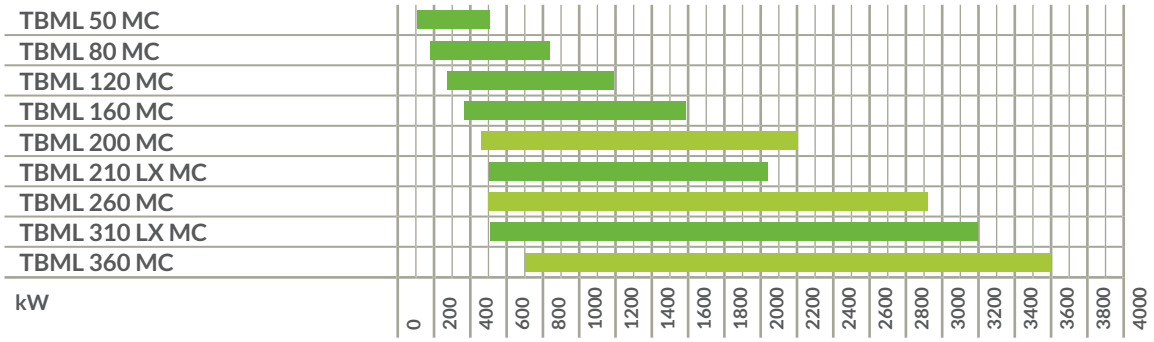
TBML from 450 to 2000 ME
Modulating gas/ light oil burners with electronic modulation.
Dual operation mode.

Low NOx

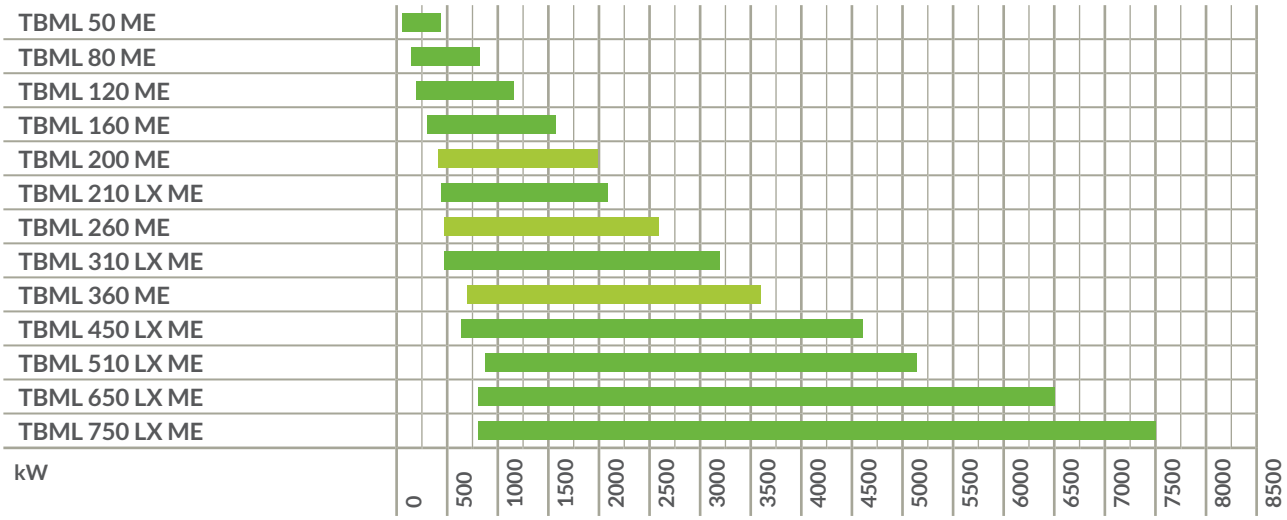
TWO-STAGE DUAL FUEL BURNERS



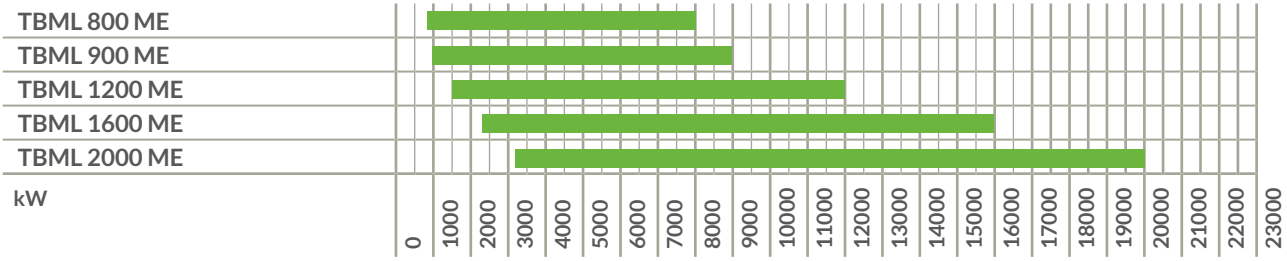
TWO-STAGE PROGRESSIVE DUAL FUEL BURNERS



MODULATING DUAL FUEL BURNERS



INDUSTRIAL DUAL FUEL BURNERS



kW 100 - 600

SERIES TBML

LOW NOX

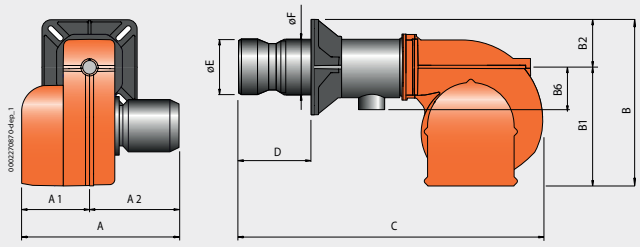
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE AND ErP 2013/813/UE | REFERENCE STANDARD EN676 AND EN267. CE 0085

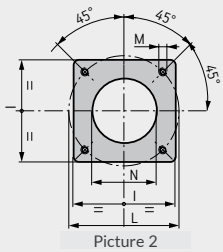
TBML 50 MC

TBML 50 ME

TBML 60 P

	TBML 50 MC	TBML 50 ME	TBML 60 P
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Operation:			two-stage
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil	mechanical two-stage progressive/ two-stage		
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil		electronic modulation/ two-stage	
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•	
Modulation ratio:	1:5	1:5	
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2	class 2
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head 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	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
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	down	down
Electric motor for pump drive			•
Pump connected to fan motor through electromagnetic clutch	•	•	
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•
Fuel switch device:	manual	manual	manual
Flame detection by UV photocell	•	•	•
Control panel with display diagram for working mode with indication lights	•		
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	
Electric protection rating:	IP40	IP40	IP40





Picture 2

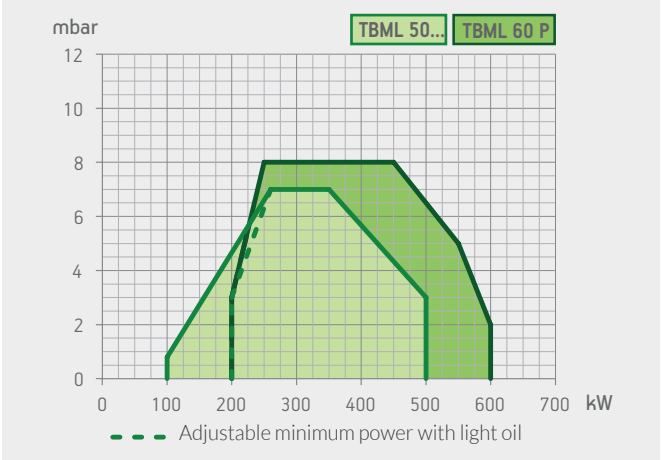
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 50 MC	770	400	370	485	325	160	160	1020	170 ÷ 340	156	152	260	225 ÷ 300	M12	171	2
TBML 50 ME	640	270	370	485	325	160	160	1020	170 ÷ 340	156	152	260	225 ÷ 300	M12	171	2
TBML 60 P	680	400	280	485	325	160	160	980	140 ÷ 350	150	152	260	225 ÷ 300	M12	167	2

kW **100 - 600**

SERIES **TBML**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 50 MC	1130	900	540	57
TBML 50 ME	1130	900	540	57
TBML 60 P	1070	800	610	49

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 156	100(200)* ÷ 500	**TBML 50 MC**	**56450010**	1,5	3N AC 50Hz 400V	0,65	4)
	see page 156	100(200)* ÷ 500	**TBML 50 ME**	**56460010**	1,5	3N AC 50Hz 400V	0,65	4)
	class 2	200÷600	**TBML 60 P**	**56470010**	1,5	3N AC 50Hz 400V	0,65+0,10	4)
			Frequency 60 Hz					
	see page 156	100(200)* ÷ 500	**TBML 50 MC**	**56455410**	1,5	3N AC 60Hz 380V	0,65	4)
	see page 156	100(200)* ÷ 500	**TBML 50 ME**	**56465410**	1,5	3N AC 60Hz 380V	0,65	4)
	class 2	200÷600	**TBML 60 P**	**56475410**	1,5	3N AC 60Hz 380V	0,65+0,10	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 50 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 50 MC: modulation kit	98000057
TBML 50 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBML 60 P: line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980053

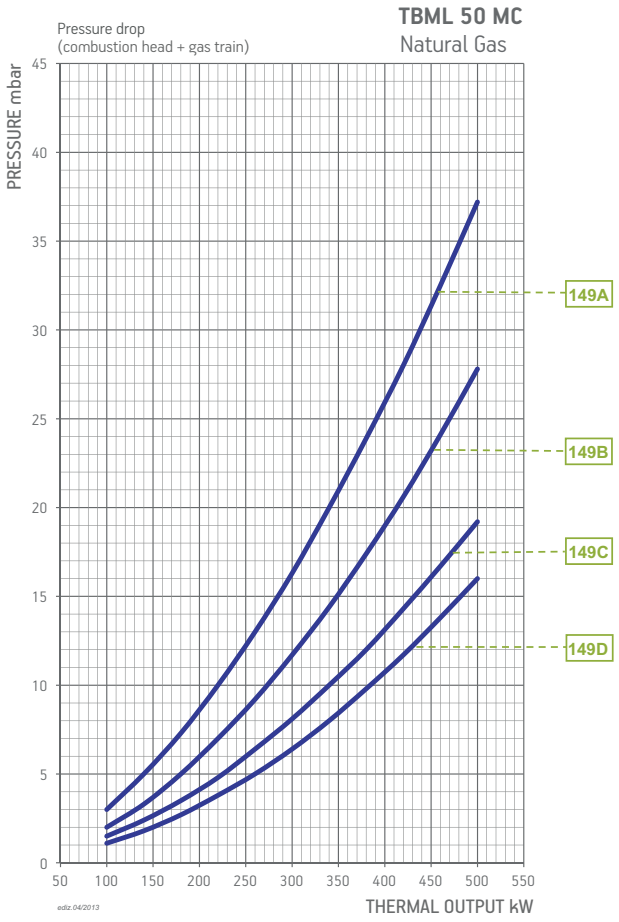
DUAL FUEL BURNERS ACCESSORIES

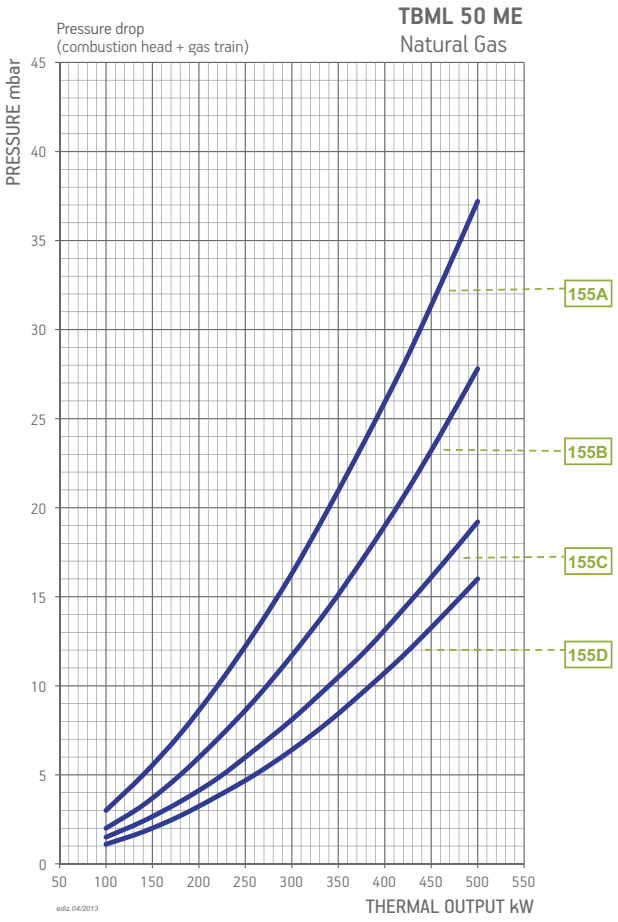
TBML 50 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 50 ME: line filter, flex hoses, nozzles, boiler couplin kit.
TBML 60 P: flex hoses, nozzles, boiler coupling kit, plug for wiring.

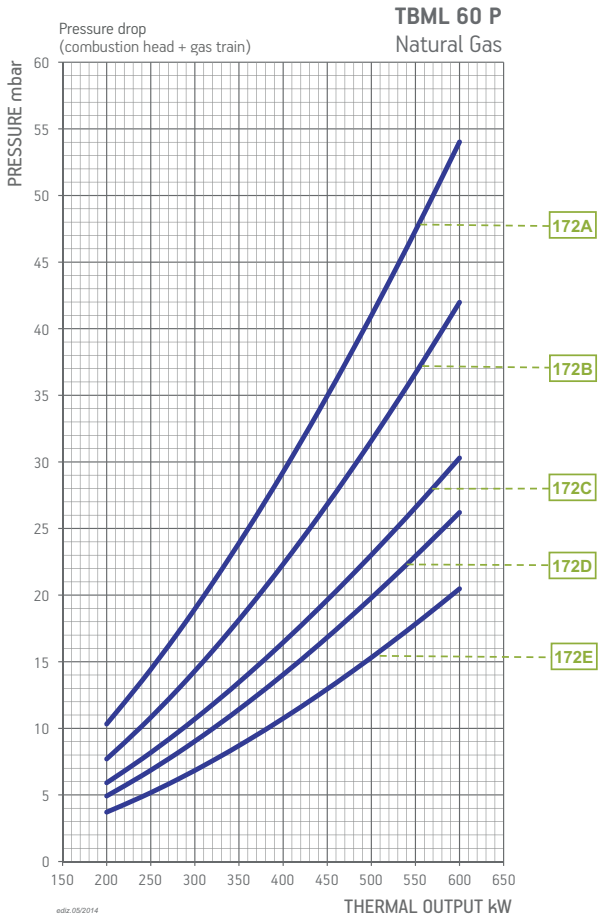
NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH







kW **100 - 600**

SERIES **TBML**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 50 MC	Natural gas	149A	CE/EXP	360	CTV	19990580	Included	96000004	Included	D7	
		149B	CE/EXP	360	CTV	19990581	Included	96000004	Included	D7	
		149C	CE/EXP	360	CTV	19990582	Included	–	Included	D7	
		149D	CE/EXP	360	CTV	19990583	Included	96000013	Included	D7	
TBML 50 ME	Natural gas	155A	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2	
		155B	CE/EXP	360	CTV	19990557	Included	96000004	Included	D2	
		155C	CE/EXP	360	CTV	19990558	Included	–	Included	D2	
		155C	CE/EXP	360	CTV	19990559	Included	96000013	Included	D2	
TBML 60 P	Natural gas	172A	CE/EXP	360		19990546	Included	96000004	–	B7	
					CTV	19990546	Included	96000004	98000101	B7	12)
		172B	CE/EXP	360		19990547	Included	96000004	–	B7	
					CTV	19990547	Included	96000004	98000101	B7	12)
		172C	CE/EXP	360		19990548	Included	–	–	B7	
					CTV	19990548	Included	–	98000101	B7	12)
		172D	CE/EXP	360		19990549	Included	96000013	–	B7	
					CTV	19990549	Included	96000013	98000101	B7	12)
		172E	CE/EXP	500		19990550	Included	96000013	–	B7	
					CTV	19990550	Included	96000013	98000102	B7	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBML 50 MC	LPG	CE/EXP	360	CTV	19990580	Included	96000004	Included	D7	
TBML 50 ME	LPG	CE/EXP	360	CTV	19990556	Included	96000004	Included	D2	
TBML 60 P	LPG	CE/EXP	360		19990547	Included	96000004	–	B7	
				CTV	19990547	Included	96000004	98000101	B7	12)

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 180 - 950

SERIES TBML

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

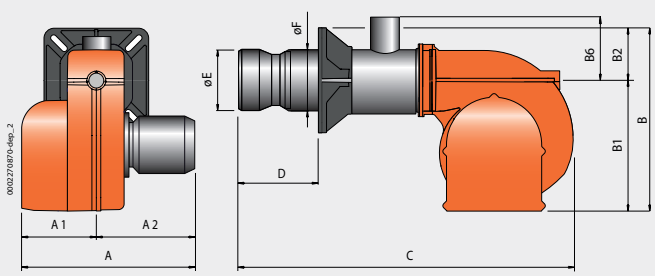
CE 0085

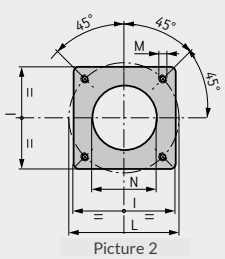
TBML 80 MC

TBML 80 ME

TBML 90 P

	TBML 80 MC	TBML 80 ME	TBML 90 P
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Operation:			two-stage
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil	mechanical two-stage progressive/ two-stage		
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil		electronic modulation/ two-stage	
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•	
Modulation ratio:	1:4	1:4	
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2	class 2
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•
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	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•
Gas train outlet:	up	up	up
Pump connected to fan motor through electromagnetic clutch	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•
Fuel switch device:	manual	manual	manual
Flame detection by UV photocell	•	•	•
Control panel with display diagram for working mode with indication lights	•		•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•	
Electric protection rating:	IP40	IP40	IP40





Picture 2

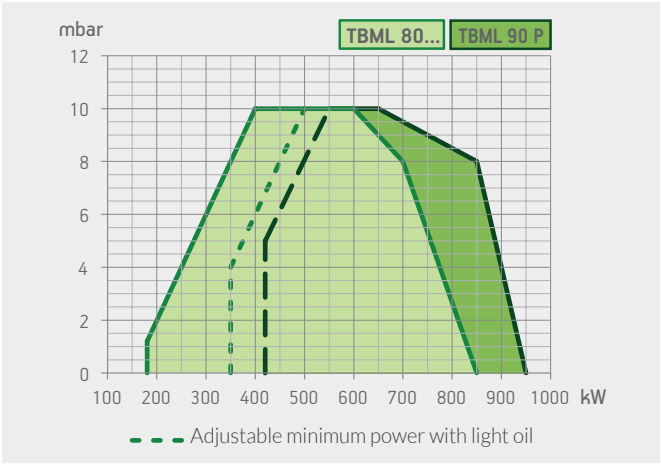
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 80 MC	700	330	370	380	380	200	200	1230	270 ÷ 440	180	178	280	250 ÷ 325	M12	195	2
TBML 80 ME	700	330	370	380	380	200	200	1250	270 ÷ 440	180	178	280	250 ÷ 325	M12	195	2
TBML 90 P	700	330	370	380	380	200	200	1250	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2

kW **180 - 950**

SERIES **TBML**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 80 MC	1070	800	700	84
TBML 80 ME	1070	800	700	81
TBML 90 P	1070	800	700	85

DUAL FUEL
GAS/LIGHT OIL BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 160	180(350)* ÷ 850	**TBML 80 MC**	**56490010**	1,5	3N AC 50Hz 400V	1,1	4)
	see page 160	180(350)* ÷ 850	**TBML 80 ME**	**56500010**	1,5	3N AC 50Hz 400V	1,1	4)
	class 2	420÷950	**TBML 90 P**	**56510010**	1,5	3N AC 50Hz 400V	1,1	4)
			Frequency 60 Hz					
	see page 160	180(350)* ÷ 850	**TBML 80 MC**	**56495410**	1,5	3N AC 60Hz 380V	1,1	4)
	see page 160	180(350)* ÷ 850	**TBML 80 ME**	**56505410**	1,5	3N AC 60Hz 380V	1,1	4)
	class 2	420÷950	**TBML 90 P**	**56515410**	1,5	3N AC 60Hz 380V	1,1	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).

TO COMPLETE THE BURNER

DESCRIPTION
TBML 80 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 80 MC: modulation kit	98000057
TBML 80 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBML 90 P: line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980053

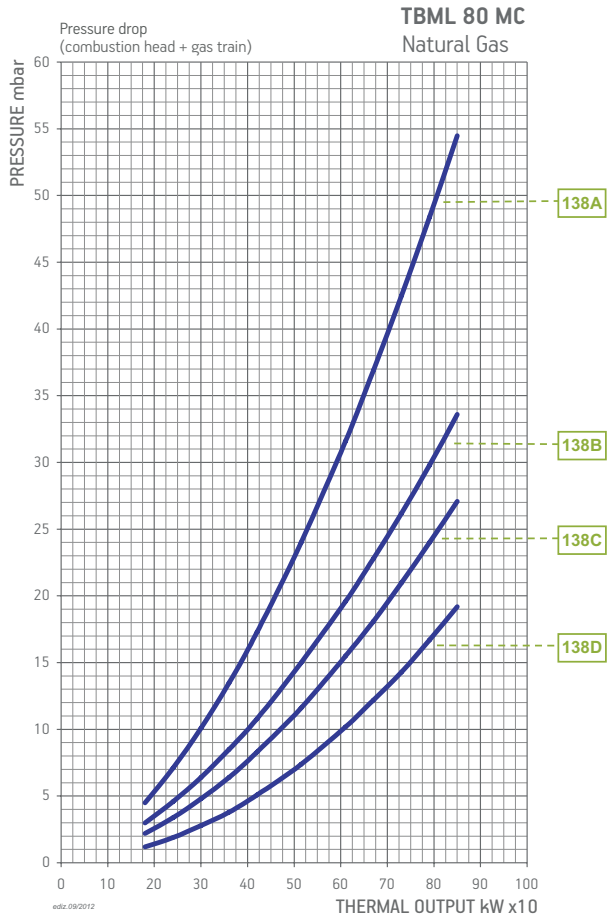
DUAL FUEL BURNERS ACCESSORIES

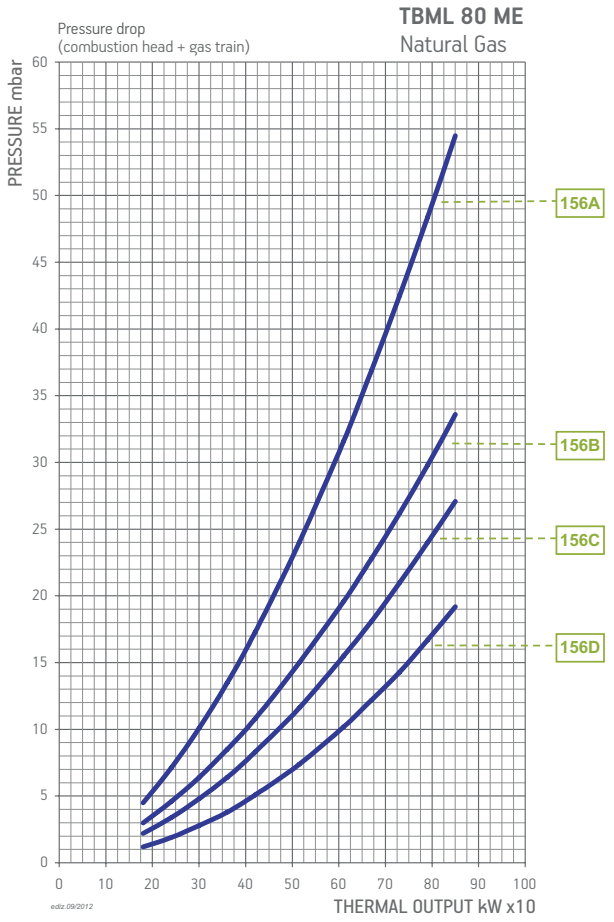
TBML 80 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 80 ME: line filter, flex hoses, nozzles, boiler coupling kit.
TBML 90 P: flex hoses, nozzles, boiler couplinmg kit, plug for wiring.

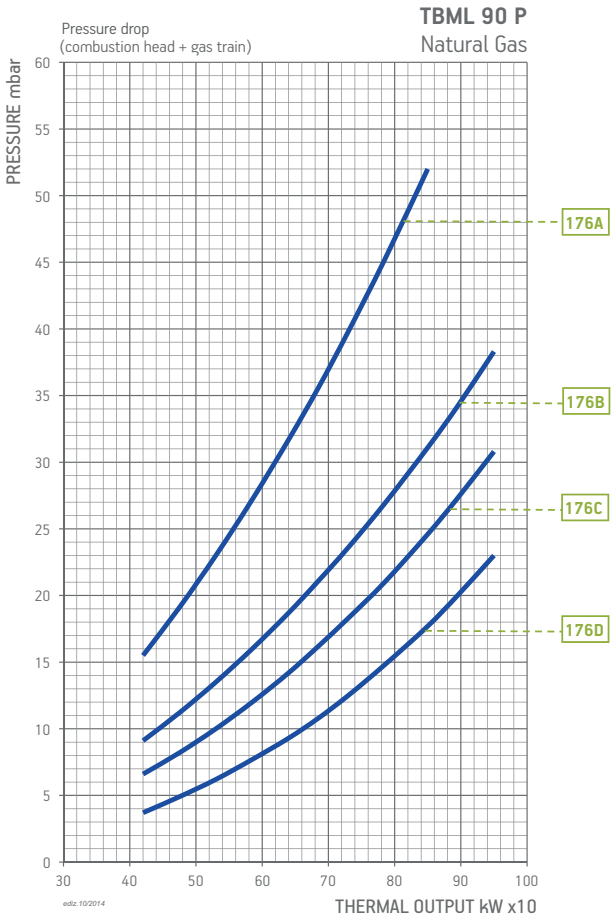
NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m³ = 22000 kcal/m³, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH







kW **180 - 950**

SERIES **TBML**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 80 MC	Natural gas	138A	CE/EXP	360	CTV	19990581	Included	96000032	Included	D7	
		138B	CE/EXP	360	CTV	19990582	Included	96000007	Included	D7	
		138C	CE/EXP	360	CTV	19990583	Included	–	Included	D7	
		138D	CE/EXP	360	CTV	19990584	Included	–	Included	D7	
TBML 80 ME	Natural gas	156A	CE/EXP	360	CTV	19990557	Included	96000032	Included	D2	
		156B	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		156C	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		156D	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
TBML 90 P	Natural gas	176A	CE/EXP	360		19990547	Included	96000032	–	B7	
					CTV	19990547	Included	96000032	98000101	B7	12)
		176B	CE/EXP	360		19990548	Included	96000007	–	B7	
					CTV	19990548	Included	96000007	98000101	B7	12)
		176C	CE/EXP	360		19990549	Included	–	–	B7	
					CTV	19990549	Included	–	98000101	B7	12)
		176D	CE/EXP	500		19990550	Included	–	–	B7	
					CTV	19990550	Included	–	98000102	B7	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBML 80 MC	LPG	CE/EXP	360	CTV	19990581	Included	96000032	Included	D7	
TBML 80 ME	LPG	CE/EXP	360	CTV	19990557	Included	96000032	Included	D2	
TBML 90 P	LPG	CE/EXP	360		19990547	Included	96000032	–	B7	
				CTV	19990547	Included	96000032	98000101	B7	12)

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

12 Valve tightness control not required by EN676.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 250 - 1200 | SERIES TBML

LOW NOX

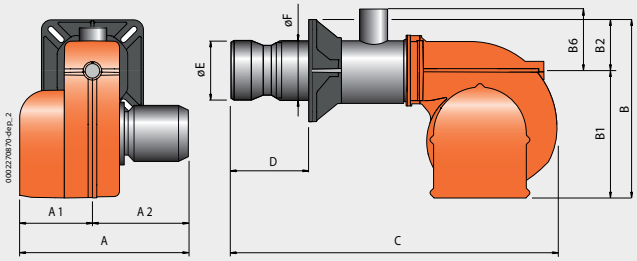
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

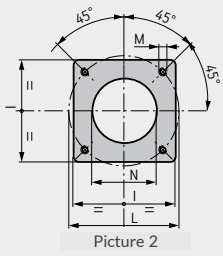
CE 0085

TBML 120 MC

TBML 120 ME

	TBML 120 MC	TBML 120 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil	**Mechanical two-stage progressive/two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil		**Modulating electronic/two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:4	1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40





Picture 2

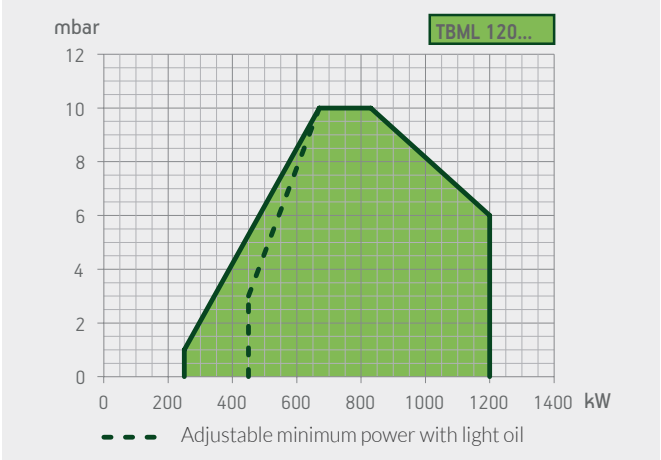
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 120 MC	700	330	370	380	380	200	200	1250	285 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBML 120 ME	700	330	370	380	380	200	200	1250	285 ÷ 450	224	219	320	280 ÷ 370	M12	239	2

kW 250 - 1200

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 120 MC	1070	800	700	98
TBML 120 ME	1070	800	700	95

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 164	250(450)* ÷ 1200	**TBML 120 MC**	**56530010**	1,5	3N AC 50Hz 400V	1,5	4)
	see page 164	250(450)* ÷ 1200	**TBML 120 ME**	**56540010**	1,5	3N AC 50Hz 400V	1,5	4)
			Frequency 60 Hz					
	see page 164	250(450)* ÷ 1200	**TBML 120 MC**	**56535410**	1,5	3N AC 60Hz 380V	1,5	4)
	see page 164	250(450)* ÷ 1200	**TBML 120 ME**	**56545410**	1,5	3N AC 60Hz 380V	1,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 120 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 120 MC: modulation kit	98000057
TBML 120 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

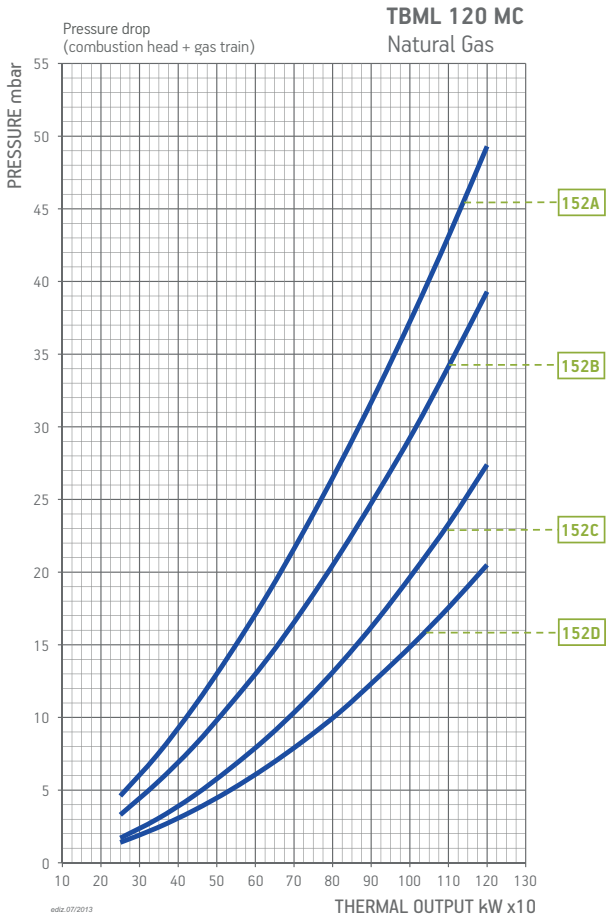
DUAL FUEL BURNERS ACCESSORIES

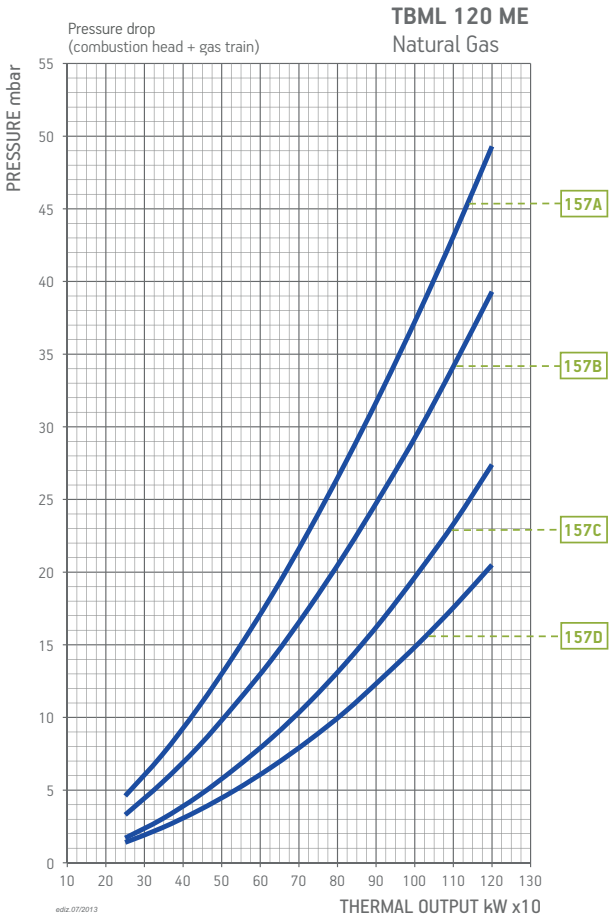
TBML 120 MC: line filter, flex hoses, nozzles, boiler coipling kit, plug for wiring.
TBML 120 ME: line filter, flex hoses, nozzles, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH





kW 250 - 1200

SERIES **TBML**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 120 MC	Natural gas	152A	CE/EXP	360	CTV	19990582	Included	96000007	Included	D7	
		152B	CE/EXP	360	CTV	19990583	Included	–	Included	D7	
		152C	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		152D	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
TBML 120 ME	Natural gas	157A	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		157B	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		157C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		157D	CE/EXP	500	CTV	19990525	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBML 120 MC	LPG	CE/EXP	360	CTV	19990582	Included	96000007	Included	D7	
TBML 120 ME	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 350 - 1600

SERIES TBML

LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

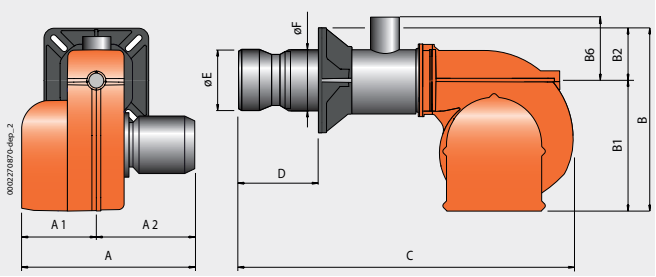
CE 0085

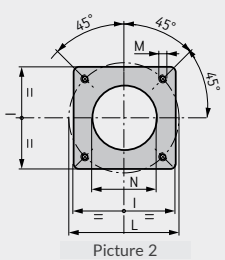
TBML 150 P

TBML 160 MC

TBML 160 ME

	TBML 150 P	TBML 160 MC	TBML 160 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Operation:	two-stage		
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil		mechanical two-stage progressive/ two-stage	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil			electronic modulation/ two-stage
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel		optional	•
Modulation ratio:		1:4	1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2	class 2
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•	•
High ventilation efficiency, low electrical input, low noise	•	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	•
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	•	•	•
Fail proof connectors for burner/gas train connection	•	•	•
Gas train outlet:	up	up	up
Pump connected to fan motor through electromagnetic clutch	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•
Fuel switch device:	manual	manual	manual
Flame detection by UV photocell	•	•	•
Control panel with display diagram for working mode with indication lights	•	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment			•
Electric protection rating:	IP40	IP40	IP40





Picture 2

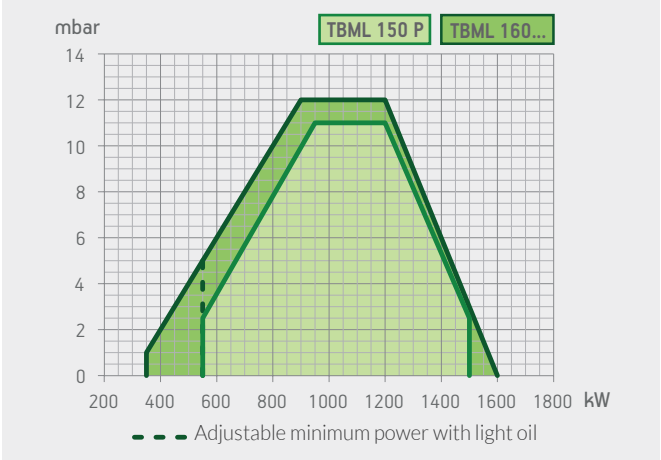
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 150 P	700	330	370	580	380	200	200	1280	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBML 160 MC	700	330	370	580	380	200	200	1250	285 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBML 160 ME	700	330	370	580	380	200	200	1250	285 ÷ 450	224	219	320	280 ÷ 370	M12	239	2

kW 350 - 1600

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 150 P	1070	800	700	90
TBML 160 MC	1070	800	700	100
TBML 160 ME	1070	800	700	97

DUAL FUEL
GAS/LIGHT OIL BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	550 ÷ 1500	**TBML 150 P**	**56550010**	1,5	3N AC 50Hz 400V	2,2	4)
	see page 168	350(550)* ÷ 1600	**TBML 160 MC**	**56570010**	1,5	3N AC 50Hz 400V	3,0	4)
	see page 168	350(550)* ÷ 1600	**TBML 160 ME**	**56580010**	1,5	3N AC 50Hz 400V	3,0	4)
			Frequency 60 Hz					
	class 2	550 ÷ 1500	**TBML 150 P**	**56555410**	1,5	3N AC 60Hz 380V	2,6	4)
	see page 168	350(550)* ÷ 1600	**TBML 160 MC**	**56575410**	1,5	3N AC 60Hz 380V	3,5	4)
	see page 168	350(550)* ÷ 1600	**TBML 160 ME**	**56585410**	1,5	3N AC 60Hz 380V	3,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 160 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 160 MC: modulation kit	98000057
TBML 160 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBML 150 P: line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980053

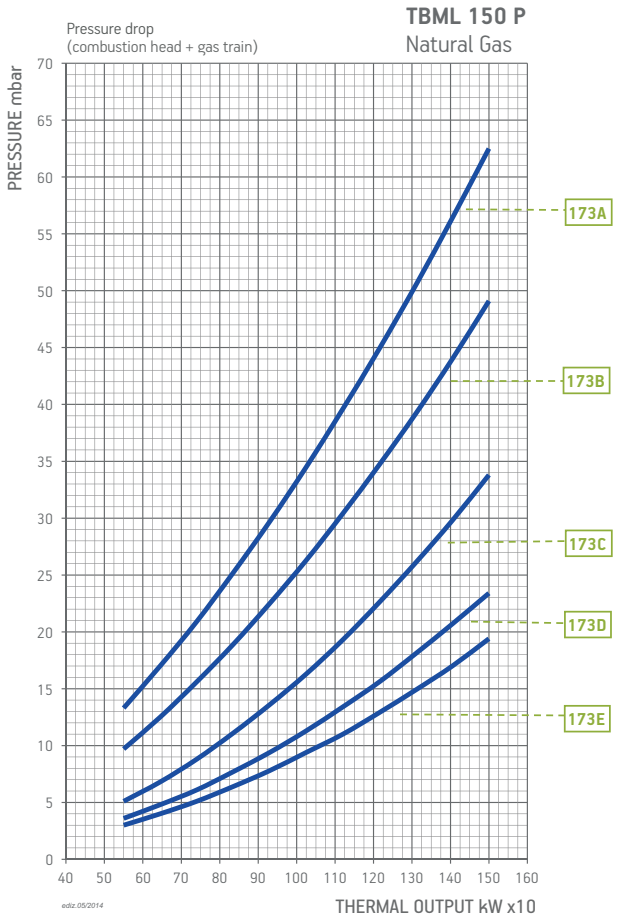
DUAL FUEL BURNERS ACCESSORIES

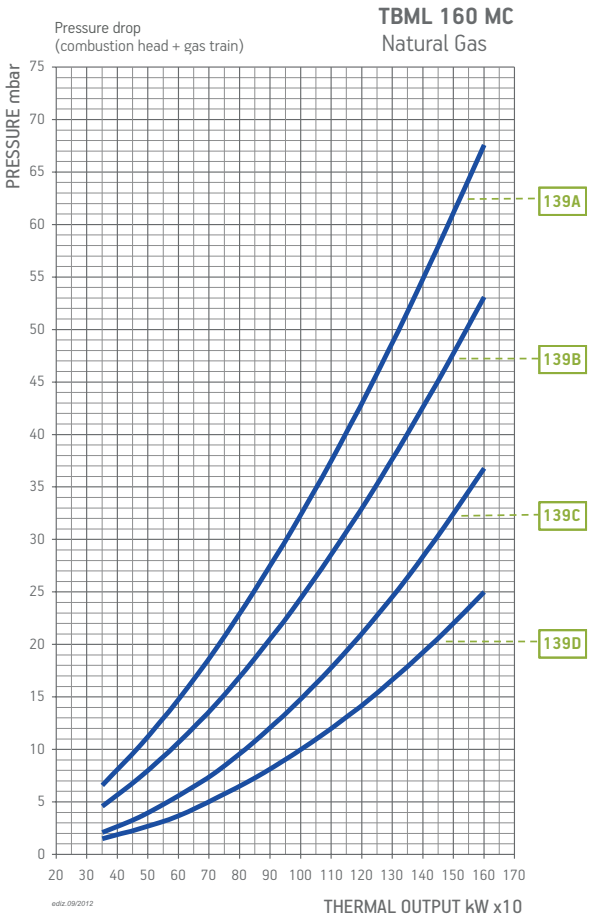
TBML 150 P: flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 160 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 160 ME: line filter, flex hoses, nozzles, boiler coupling kit.

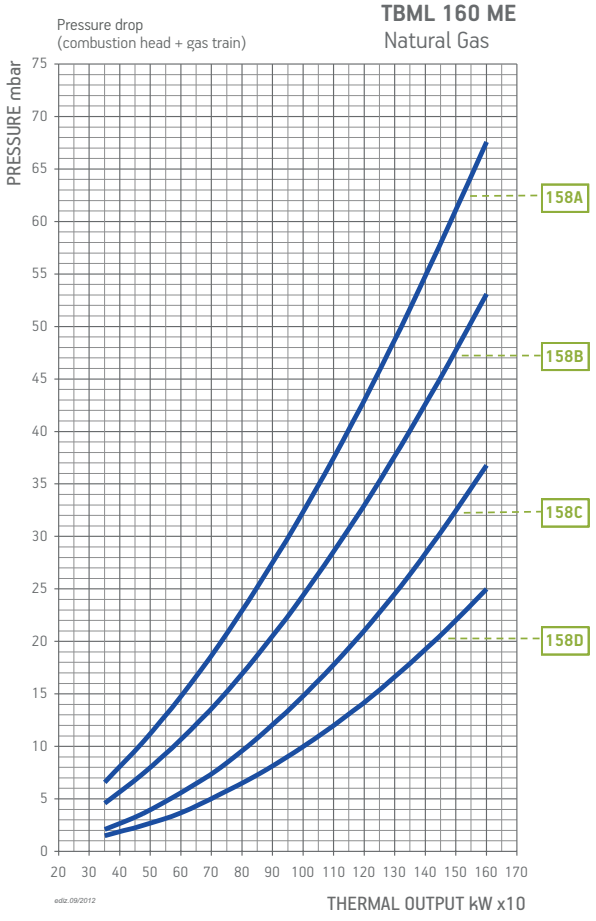
NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 150 P	Natural gas	173A	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
			EXP	360		19990548	Included	96000007	–	BE7	
					CTV	19990548	Included	96000007	98000101	BE7	
		173B	CE	360	CTV	19990549	Included	–	98000101	B7	11)
			EXP	360		19990549	Included	–	–	BE7	
					CTV	19990549	Included	–	98000101	BE7	
		173C	CE	500	CTV	19990550	Included	–	98000102	B7	11)
			EXP	500		19990550	Included	–	–	BE7	
					CTV	19990550	Included	–	98000102	BE7	
		173D	CE	500	CTV	19990563	Included	–	98000101	B7	11)
			EXP	500		19990563	Included	–	–	BE7	
					CTV	19990563	Included	–	98000101	BE7	
		173E	CE	500	CTV	19990564	Included	–	98000101	B7	11)
			EXP	500		19990564	Included	–	–	BE7	
					CTV	19990564	Included	–	98000101	BE7	
TBML 160 MC	Natural gas	139A	CE/EXP	360	CTV	19990582	Included	96000007	Included	D7	
		139B	CE/EXP	360	CTV	19990583	Included	–	Included	D7	
		139C	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		139D	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
TBML 160 ME	Natural gas	158A	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	
		158B	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		158C	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		158D	CE/EXP	500	CTV	19990525	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBML 150 P	LPG	CE	360	CTV	19990548	Included	96000007	98000101	B7	11)
		EXP	360		19990548	Included	96000007	–	BE7	
				CTV	19990548	Included	96000007	98000101	BE7	
TBML 160 MC	LPG	CE/EXP	360	CTV	19990582	Included	96000007	Included	D7	
TBML 160 ME	LPG	CE/EXP	360	CTV	19990558	Included	96000007	Included	D2	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

11 The gas train must be always completed with the valve tightness control kit to comply with the EN676 regulations.
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 450 - 2000 | SERIES TBML

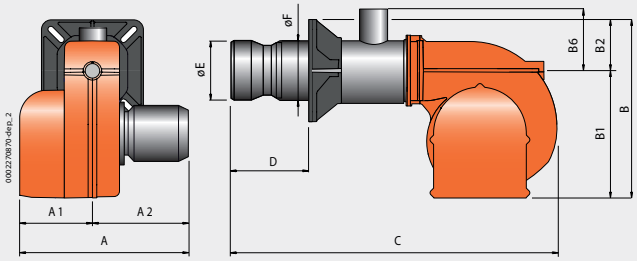
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

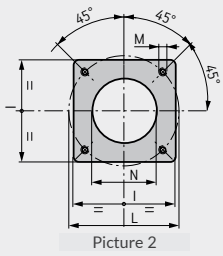
CE 0085

TBML 200 MC

TBML 200 ME

	TBML 200 MC	TBML 200 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil	**mechanical two-stage progressive/two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil		**modulating electronic/two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:4	1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40





Picture 2

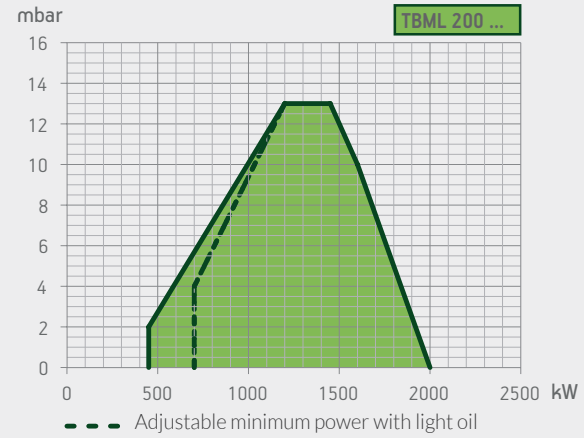
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 200 MC	700	330	370	580	380	200	200	1270	300 ÷ 470	250	219	320	300 ÷ 370	M12	265	2
TBML 200 ME	700	330	370	580	380	200	200	1270	300 ÷ 470	250	219	320	300 ÷ 370	M12	265	2

kW 450 - 2000

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 200 MC	1070	800	700	98
TBML 200 ME	1070	800	700	95

DUAL FUEL
GAS/LIGHT OIL BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	450(700)* ÷ 2000	**TBML 200 MC**	**56610010**	1,5	3N AC 50Hz 400V	3,0	4)
	class 2	450(700)* ÷ 2000	**TBML 200 ME**	**56620010**	1,5	3N AC 50Hz 400V	3,0	4)
			Frequency 60 Hz					
	class 2	450(700)* ÷ 2000	**TBML 200 MC**	**56615410**	1,5	3N AC 60Hz 380V	3,5	4)
	class 2	450(700)* ÷ 2000	**TBML 200 ME**	**56625410**	1,5	3N AC 60Hz 380V	3,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 200 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 200 MC: modulation kit	98000057
TBML 200 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

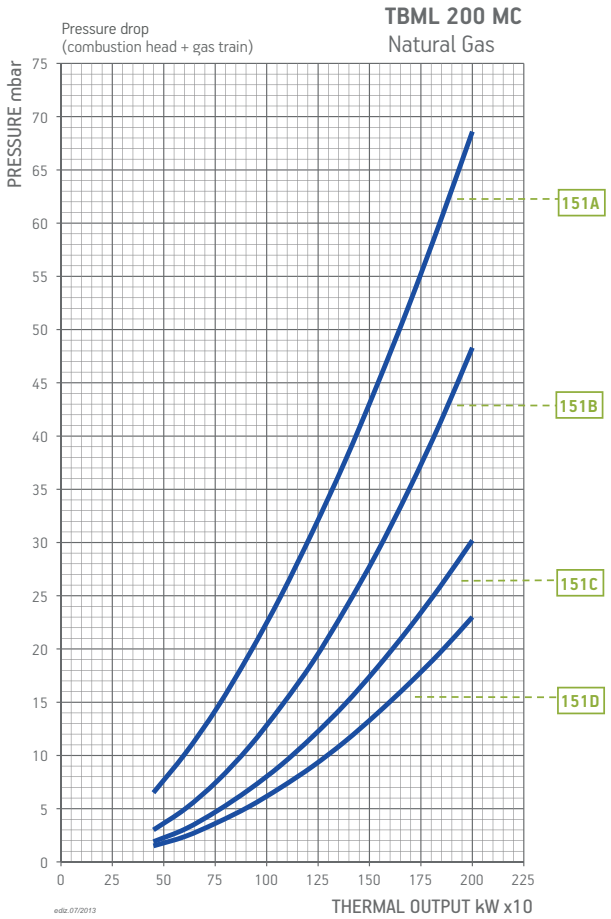
DUAL FUEL GAS BURNERS ACCESSORIES

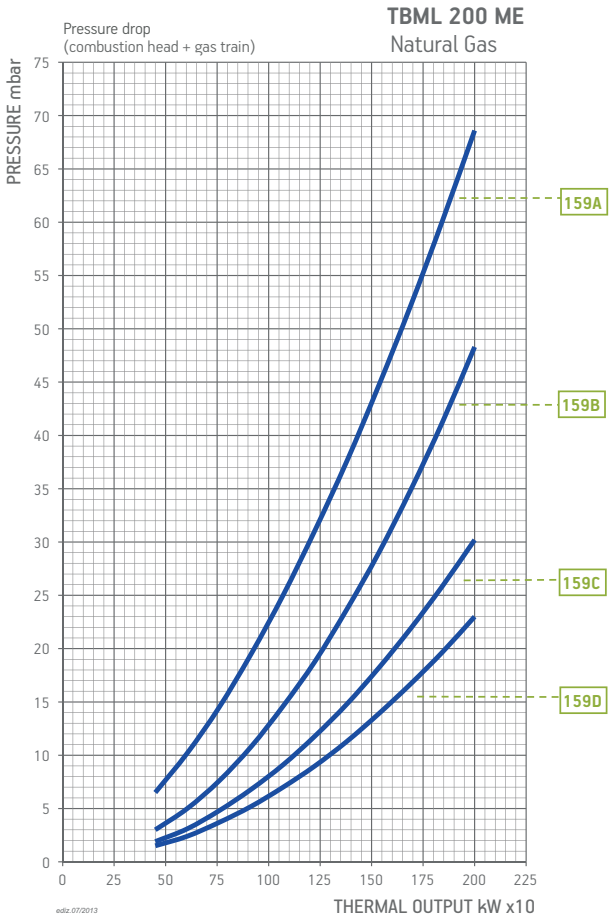
TBML 200 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 200 ME: line filter, flex hoses, nozzles, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH





kW 450 - 2000

SERIES **TBML**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 200 MC	Natural gas	151A	CE/EXP	360	CTV	19990583	Included	–	Included	D7	
		151B	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		151C	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
		151D	CE/EXP	500	CTV	19990586	Included	–	Included	D7	
TBML 200 ME	Natural gas	159A	CE/EXP	360	CTV	19990559	Included	–	Included	D2	
		159B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		159C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		159D	CE/EXP	500	CTV	19990526	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.	Note
					Part no.	Part no.	Part no.	Part no.		
TBML 200 MC	LPG	CE/EXP	360	CTV	19990583	Included	–	Included	D7	
TBML 200 ME	LPG	CE/EXP	360	CTV	19990559	Included	–	Included	D2	

To choose the correct gas train please refer to the information on page 17 and page 18.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 450 - 2100

SERIES TBML

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

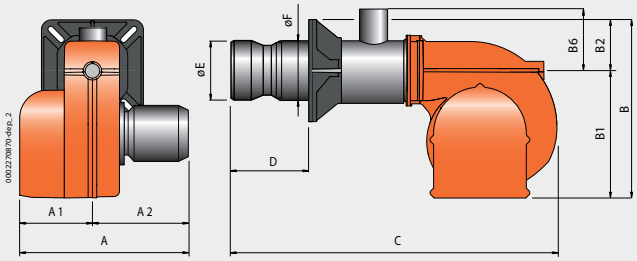
CE 0085

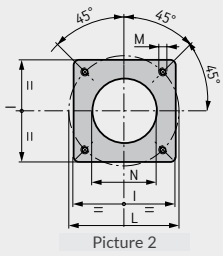
TBML 210 LX MC

TBML 210 LX ME

DUAL FUEL
GAS/LIGHT OIL BURNERS

	TBML 210 LX MC	TBML 210 LX ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil	**mechanical two-stage progressive/two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil		**modulating electronic/two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:4	1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40





Picture 2

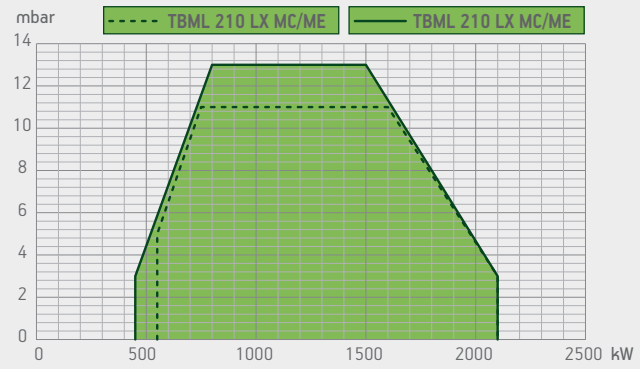
Flange dimensions and boiler drilling template.

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	N mm	Pic.
TBML 210 LX MC	770	350	420	600	400	200	200	1300	280 - 450	224	219	320	280	M12	239	2
TBML 210 LX ME	770	350	420	600	400	200	200	1300	280 - 450	224	219	320	280	M12	239	2

kW 450 - 2100

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 210 LX MC	1070	870	720	129
TBML 210 LX ME	1070	870	720	129

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 176	450(550)* ÷ 2100	**TBML 210 LX MC**	**56730010**	1,5	3N AC 50Hz 400V	5,5	4)
	see page 176	450(550)* ÷ 2100	**TBML 210 LX ME**	**56740010**	1,5	3N AC 50Hz 400V	5,5	4)
			Frequency 60 Hz					
	see page 176	450(550)* ÷ 2100	**TBML 210 LX MC**	**56735410**	1,5	3N AC 60Hz 380V	7,5	4)
	see page 176	450(550)* ÷ 2100	**TBML 210 LX ME**	**56745410**	1,5	3N AC 60Hz 380V	7,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 200 ME: modulating probe for LCM 100 (see page 254)

MODULATING MODE

DESCRIPTION	PART NO.
TBML 200 MC: modulation kit	98000057
TBML 200 MC: modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

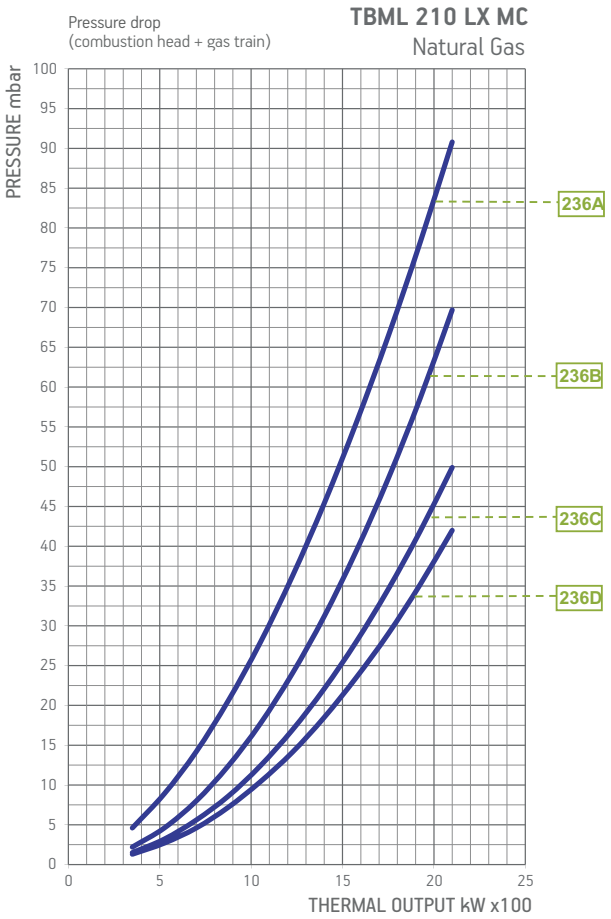
DUAL FUEL GAS BURNERS ACCESSORIES

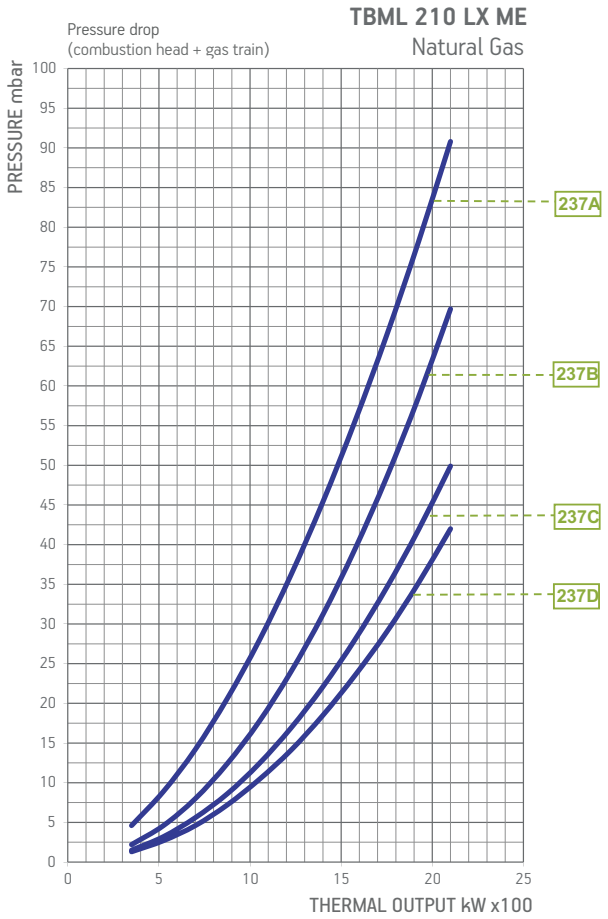
TBML 200 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 200 ME: line filter, flex hoses, nozzles, boiler coupling kit.

NOTE

4 Equipped with air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 210 LX MC	Natural gas	236A	CE/EXP	360	CTV	19990624	Included	–	Included	D7	
		236B	CE/EXP	500	CTV	19990584	2"	–	Included	D7	
		236C	CE/EXP	500	CTV	19990585	DN65	–	Included	D7	
		236D	CE/EXP	500	CTV	19990586	DN80	–	Included	D7	
TBML 210 LX ME	Natural gas	237A	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		237B	CE/EXP	500	CTV	19990524	2"	–	Included	D2	
		237C	CE/EXP	500	CTV	19990525	DN65	–	Included	D2	
		237D	CE/EXP	500	CTV	19990526	DN80	–	Included	D2	

To choose the correct gas train please refer to the information on page 17 and page 18.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW **500 - 2600** | SERIES **TBML**

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

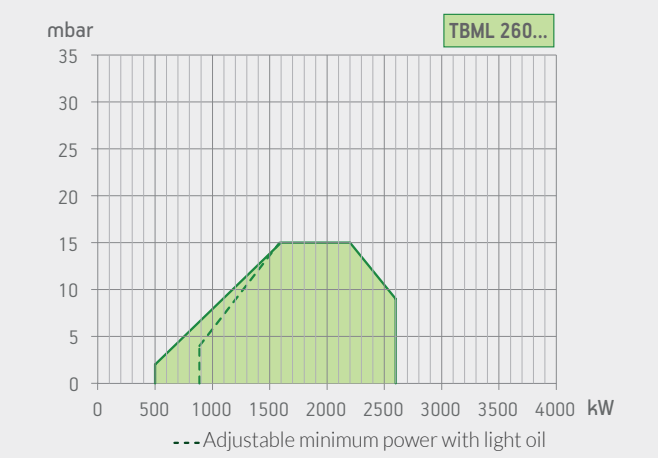
TBML 260 MC

TBML 260 ME

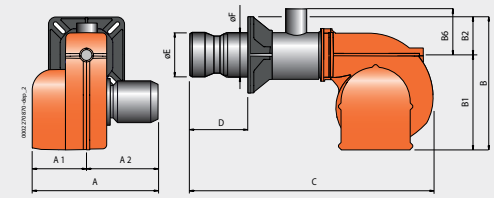
	TBML 260 MC	TBML 260 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil.	**mechanical two-stage progressive/ two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil.		**electronic modulation/ two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:5	1:5
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40

kW **500 - 2600**

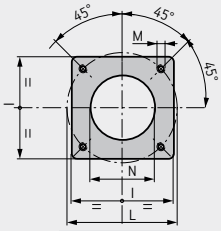
SERIES **TBML**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 260 MC	1070	870	720	127
TBML 260 ME	1070	870	720	124



TBML 260...



Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	B7 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBML 260 MC	765	345	420	600	400	200	200	-	1280	300 ÷ 470	270	219	320	310 ÷ 370	M12	285	2
TBML 260 ME	765	345	420	600	400	200	200	-	1280	300 ÷ 470	270	219	320	310 ÷ 370	M12	285	2

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	500(900)* ÷ 2600	**TBML 260 MC**	**56640010**	1,5	3N AC 50Hz 400V	5,5	4)
	class 2	500(900)* ÷ 2600	**TBML 260 ME**	**56650010**	1,5	3N AC 50Hz 400V	5,5	4)
			Frequency 60 Hz					
	class 2	500(900)* ÷ 2600	**TBML 260 MC**	**56645410**	1,5	3N AC 60Hz 380V	7,5	4)
	class 2	500(900)* ÷ 2600	**TBML 260 ME**	**56655410**	1,5	3N AC 60Hz 380V	7,5	4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 260 ME: modulating probe for LCM 100 (see page 254)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBML 260 MC/260 ME: soundproof burner cover (see page 259)	97980053

MODULATING MODE

DESCRIPTION	PART NO.
TBML 260 MC: modulation kit	98000057
TBML 260 MC: modulating probe (see page 254)	

DUAL FUEL BURNERS ACCESSORIES

TBML 260 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.

TBML 260 ME: line filter, flex hoses, nozzles, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural Gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 500 - 3200

SERIES TBML

LOW NOx

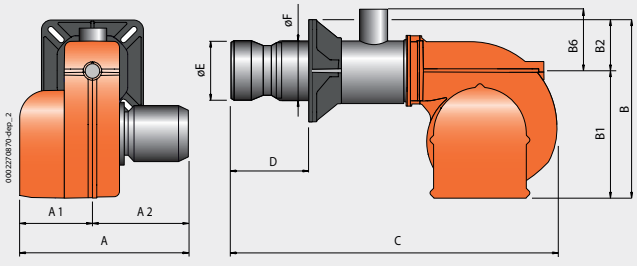
CONFORM TO: GAS DIRECTIVE EU/2016-426 | DIRECTIVE E.M.C. 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

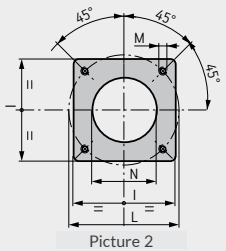
CE 0085

TBML 310 LX MC

TBML 310 LX ME

	TBML 310 LX MC	TBML 310 LX ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil.	**mechanical two-stage progressive/ two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil.		**electronic modulation/ two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:6	1:6
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40





Picture 2

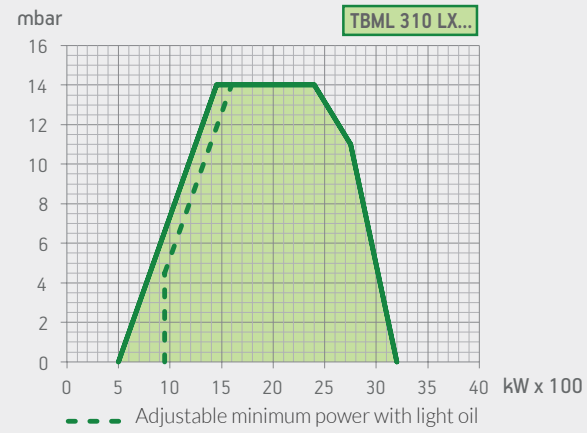
Flange dimensions and boiler drilling template.

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	Fig.
TBML 310 LX MC	880	465	415	620	400	220	200	1240	230 ÷ 440	250	219	320	310 ÷ 370	M12	270	2
TBML 310 LX ME	880	465	415	600	400	200	200	1330	230 ÷ 440	250	219	320	310 ÷ 370	M12	270	2

kW **500 - 3200**

SERIE **TBML**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 310 LX MC	1070	1070	810	168
TBML 310 LX ME	1070	1070	810	160

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 182	500(950)* ÷ 3200	**TBML 310 LX MC**	**56880010**	1,5	3N AC 50Hz 400V	7,5	3) 4)
	see page 182	500(950)* ÷ 3200	**TBML 310 LX ME**	**56890010**	1,5	3N AC 50Hz 400V	7,5	3) 4)
			Frequency 60 Hz					
	see page 182	500(950)* ÷ 3200	**TBML 310 LX MC**	**56885410**	1,5	3N AC 60Hz 380V	9,0	3) 4)
	see page 182	500(950)* ÷ 3200	**TBML 310 LX ME**	**56895410**	1,5	3N AC 60Hz 380V	9,0	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 310 LX ME: modulating probe for LCM 100 (see page 254)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980057

MODULATING MODE

DESCRIPTION	PART NO.
TBML 310 LX MC: modulation kit	98000057
TBML 310 LX MC: modulating probe (see page 254)	

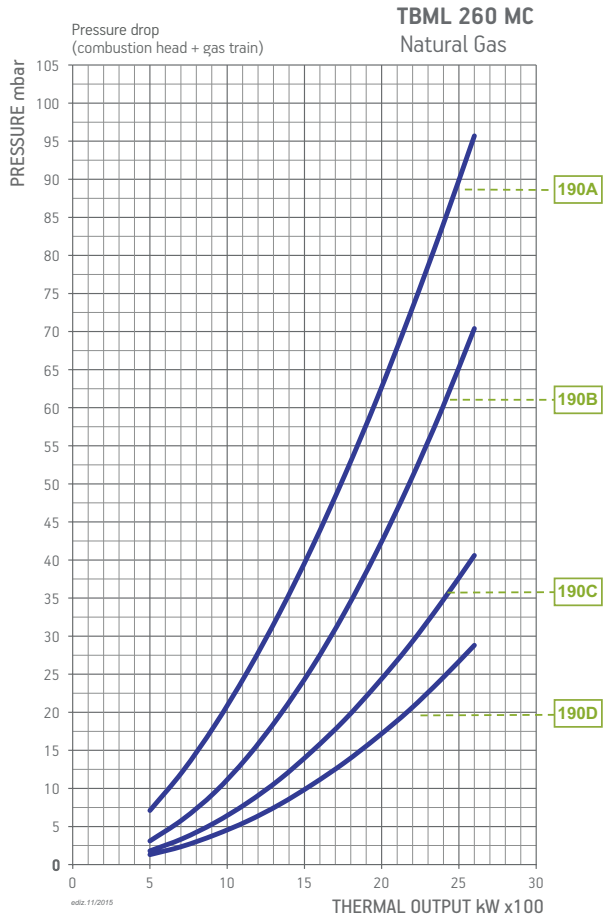
DUAL FUEL GAS BURNERS ACCESSORIES

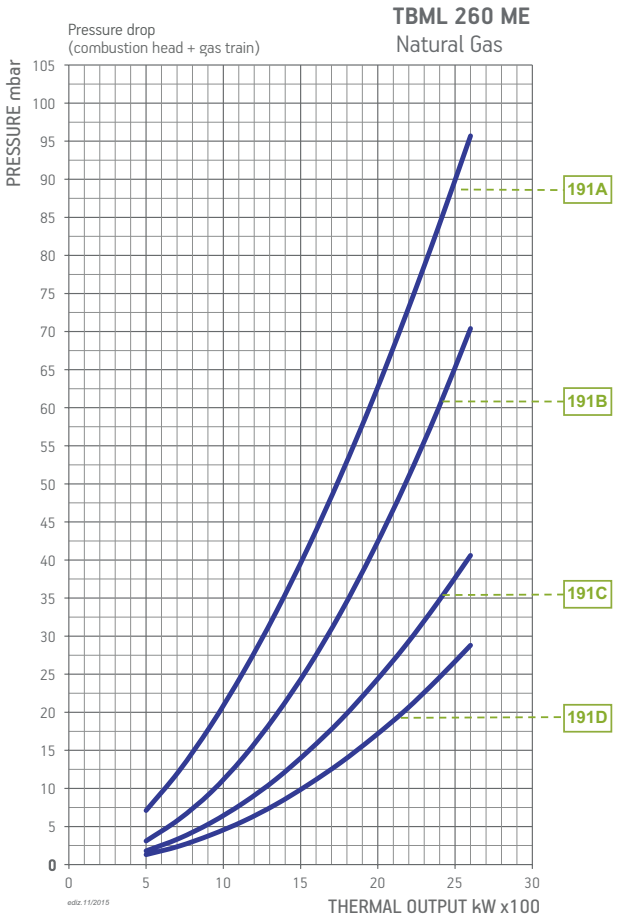
TBML 310 LX MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 310 LX ME: line filter, flex hoses, nozzles, boiler coupling kit.

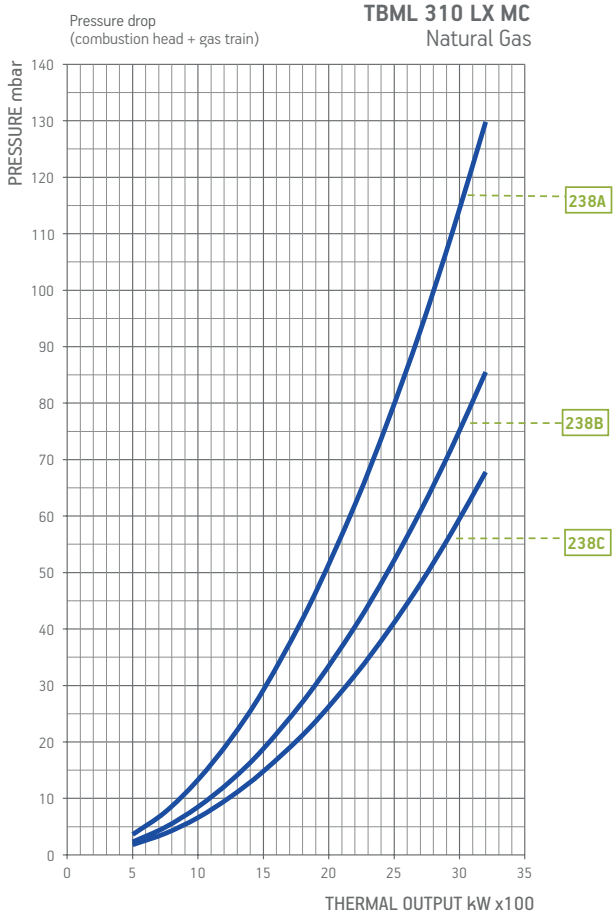
NOTES

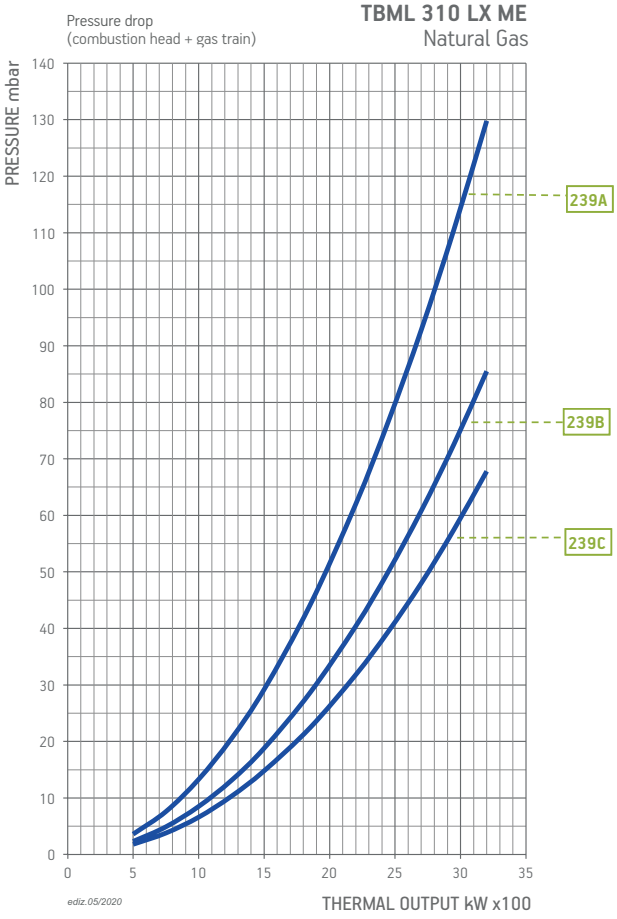
3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m³ = 22000 kcal/m³, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 260 MC	Natural gas	190A	CE/EXP	360	CTV	19990624	Included	–	Included	D7	
		190B	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		190C	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
		190D	CE/EXP	500	CTV	19990586	Included	–	Included	D7	
TBML 260 ME	Natural gas	191A	CE/EXP	360	CTV	19990562	Included	–	Included	D2	
		191B	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		191C	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		191D	CE/EXP	500	CTV	19990526	Included	–	Included	D2	
TBML 310 LX MC	Natural gas	238A	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		238B	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
		238C	CE/EXP	500	CTV	19990586	Included	–	Included	D7	
TBML 310 LX ME	Natural gas	239A	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		239B	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		239C	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBML 260 MC	LPG	CE/EXP	360	CTV	19990624	Included	–	Included	98000368	D7	
TBML 260 ME	LPG	CE/EXP	360	CTV	19990562	Included	–	Included	98000368	D2	
TBML 310 LX MC	LPG	CE/EXP	360	CTV	19990584	Included	–	Included		D7	
TBML 310 LX ME	LPG	CE/EXP	360	CTV	19990524	Included	–	Included		D2	

To choose the correct gas train please refer to the information on page 17 and page 18.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 700 - 3600

SERIES TBML

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676.

CE

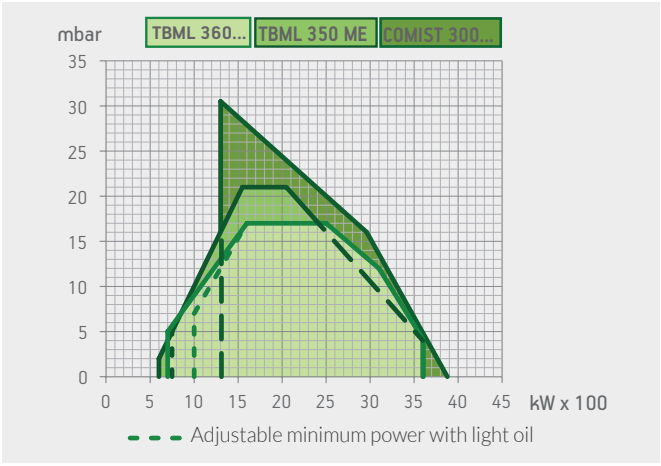
TBML 360 MC

TBML 360 ME

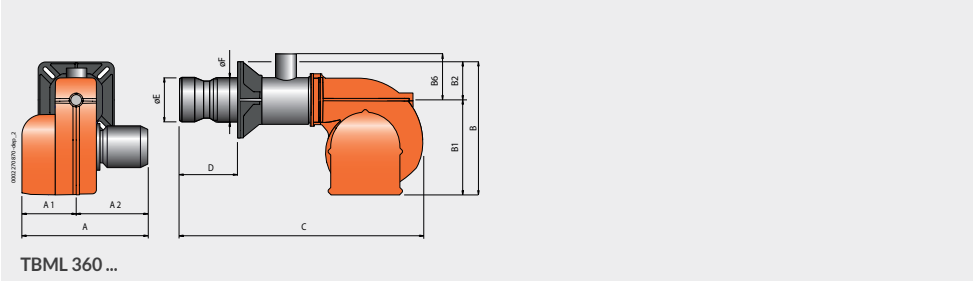
	TBML 360 MC	TBML 360 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive operation on gas, two-stage on light oil.	**mechanical two-stage progressive/ two-stage**	
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Modulating operation on gas, two-stage on light oil.		**electronic modulation/ two-stage**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	•
Modulation ratio:	1:5	1:5
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
High ventilation efficiency, low electrical input, low noise	•	•
Sliding boiler coupling flange to adapt the blast-pipe to the various types of boilers	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	mechanical cam	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
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	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	up	up
Pump connected to fan motor through electromagnetic clutch	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel with display diagram for working mode with indication lights	•	
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment		•
Electric protection rating:	IP40	IP40

kW **700 - 3600**

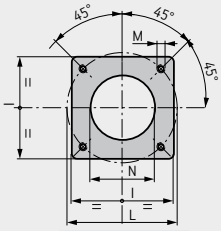
SERIES **TBML**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 360 MC	1070	1070	810	120
TBML 360 ME	1070	1070	810	117



TBML 360 ...



Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	B7 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBML 360 MC	910	490	420	600	400	200	200	-	1360	300 ÷ 470	270	219	320	310 ÷ 370	M12	290	2
TBML 360 ME	910	490	420	620	400	220	200	-	1280	300 ÷ 470	270	219	320	310 ÷ 370	M12	290	2

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	700(1000)* ÷ 3600	**TBML 360 MC**	**56670010**	1,5	3N AC 50Hz 400V	7,5	3) 4)
	class 2	700(1000)* ÷ 3600	**TBML 360 ME**	**56680010**	1,5	3N AC 50Hz 400V	7,5	3) 4)
			Frequency 60 Hz					
	class 2	700(1000)* ÷ 3600	**TBML 360 MC**	**56675410**	1,5	3N AC 60Hz 380V	9,0	3) 4)
	class 2	700(1000)* ÷ 3600	**TBML 360 ME**	**56685410**	1,5	3N AC 60Hz 380V	9,0	3) 4)

TO COMPLETE THE BURNER

DESCRIPTION
TBML 360 ME: modulating probe for LCM 100 (see page 254)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBML 360 MC/360 ME: soundproof burner cover (see page 259)	97980057

MODULATING MODE

DESCRIPTION	PART NO.
TBML 360 MC: modulation kit	98000057
TBML 360 MC: modulating probe (see page 254)	

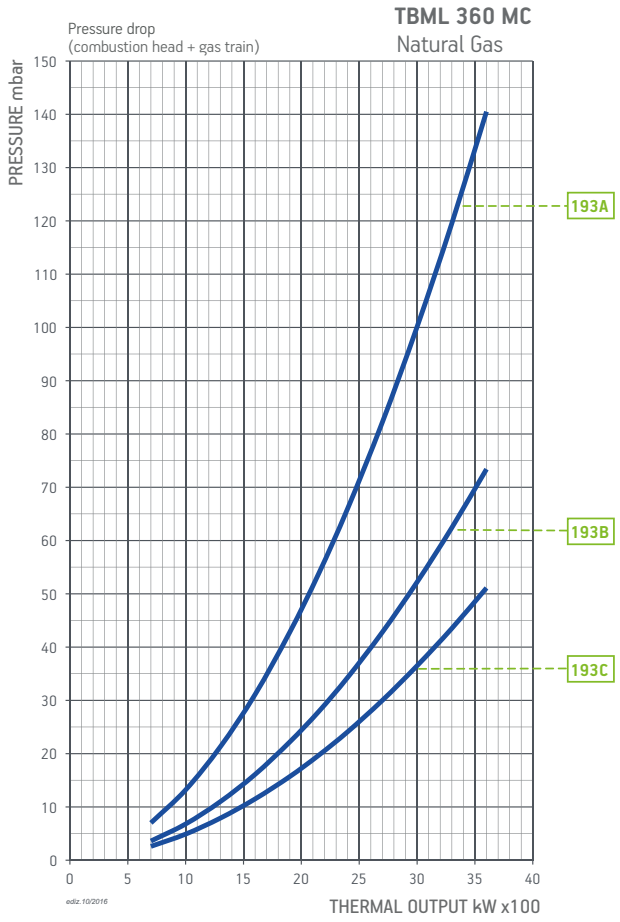
DUAL FUEL BURNERS ACCESSORIES

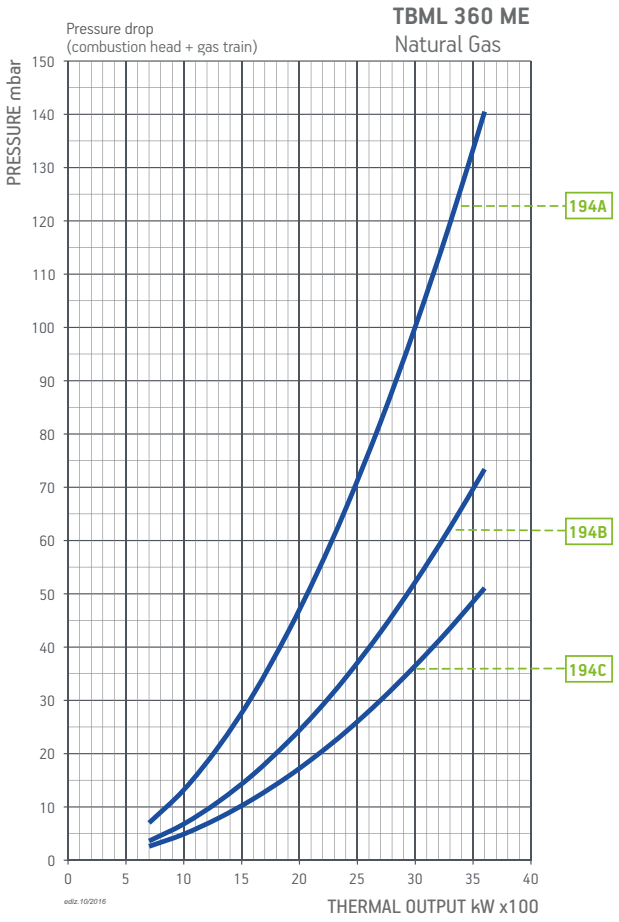
TBML 360 MC: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
TBML 360 ME: line filter, flex hoses, nozzles, boiler coupling kit.

NOTE

3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural Gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 360 MC	Natural gas	193A	CE/EXP	500	CTV	19990584	Included	–	Included	D7	
		193B	CE/EXP	500	CTV	19990585	Included	–	Included	D7	
		193C	CE/EXP	500	CTV	19990586	Included	–	Included	D7	
TBML 360 ME	Natural gas	194A	CE/EXP	500	CTV	19990524	Included	–	Included	D2	
		194B	CE/EXP	500	CTV	19990525	Included	–	Included	D2	
		194C	CE/EXP	500	CTV	19990526	Included	–	Included	D2	

Burner model	Gas type	Version	P.Max ** mbar	Execution	Gas train	Regulator with incorporated filter	Burner/gas train adapter	Valve tightness control kit	Kit LPG	Pic.	Note
					Part no.	Part no.	Part no.	Part no.	Part no.		
TBML 360 MC	LPG	CE/EXP	500	CTV	19990584	Included	–	Included	98000369	D7	
TBML 360 ME	LPG	CE/EXP	500	CTV	19990524	Included	–	Included	98000369	D2	

To choose the correct gas train please refer to the information on page 17 and page 18.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 600 - 5200

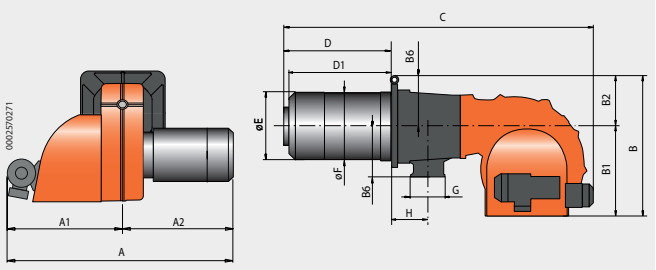
SERIES TBML

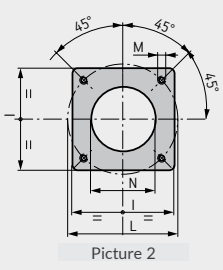
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

CE 0085

	TBML 450 LX ME	TBML 510 LX ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive control. Modulating mode is available for both fuels by the modulation kit (supplied separately)	**electronic modulation**	**electronic modulation**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional
Modulation ratio:	natural gas: 1:7 light oil: 1:4	natural gas: 1:6 light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
Fixed boiler coupling flange.	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric cam	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	down	down
Electric motor for pump drive	•	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment	•	•
Electric protection rating:	IP54	IP54





Picture 2

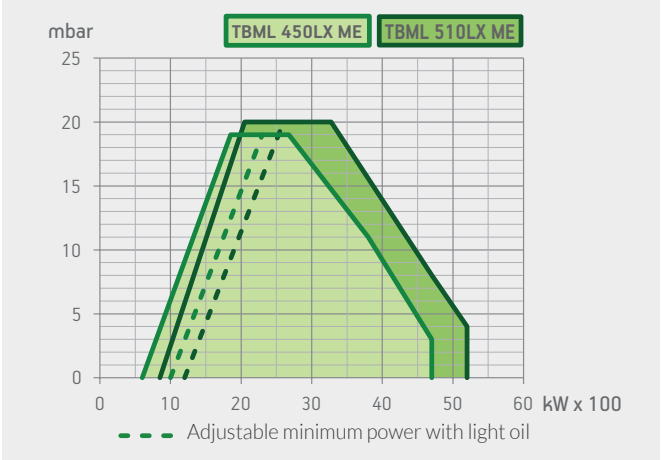
Flange dimensions and boiler drilling template.

Modell	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	H mm	D mm	D1 mm Min	D1 mm Max	ø E mm	G mm	ø F mm	R mm	R1 mm	I mm	ø L mm Min	ø L mm Max	M	ø N mm	Pic.
TBML 450 LX ME	1200	670	530	810	525	285	295	1850	223	650	547	597	397	DN80	410	1120	1000	480	520	600	M20	430	2
TBML 510 LX ME	1200	670	530	810	525	285	295	1850	223	650	547	597	397	DN80	410	1120	1000	480	520	600	M20	430	2

kW 600 - 5200

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 450 LX ME	1520	2000	1160	300
TBML 510 LX ME	1520	2000	1160	303

DUAL FUEL
GAS/LIGHT OIL BURNERS

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 190	600 ÷ 4700	**TBML 450 LX ME**	**56760010**	1,5	3N AC 50Hz 400V	9,2+1,5	4) 19)
	see page 190	850 ÷ 5200	**TBML 510 LX ME**	**56790010**	1,5	3N AC 50Hz 400V	11,0+1,5	4) 19)
			Frequency 60 Hz					
	see page 190	600 ÷ 4700	**TBML 450 LX ME**	**56765410**	1,5	3N AC 60Hz 380V	9,0+1,7	4) 19)
	see page 190	850 ÷ 5200	**TBML 510 LX ME**	**56795410**	1,5	3N AC 60Hz 380V	11,0+1,7	4) 19)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulating probe for LCM 100 (see page 254)	
Nozzle (see page 255)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Soundproof burner cover (see page 259)	97980059

DUAL FUEL BURNERS ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m^3 = 22000 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

kW 700 - 7500

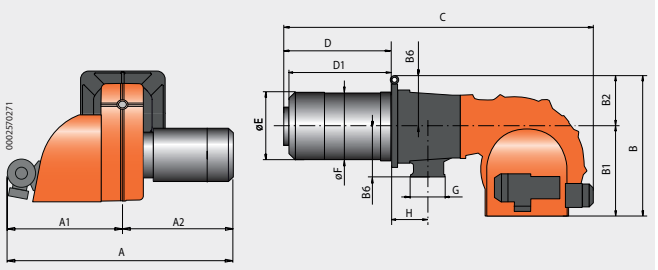
SERIES TBML

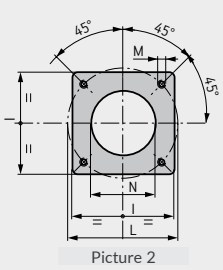
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

CE 0085

	TBML 650 LX ME	TBML 750 LX ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive control. Modulating mode is available for both fuels by the modulation kit (supplied separately)	**electronic modulation**	**electronic modulation**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional
Modulation ratio:	natural gas: 1:9 light oil: 1:4	natural gas: 1:10 light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 3
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
Fixed boiler coupling flange.	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric cam	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	down	down
Electric motor for pump drive	•	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment	•	•
Electric protection rating:	IP54	IP54





Picture 2

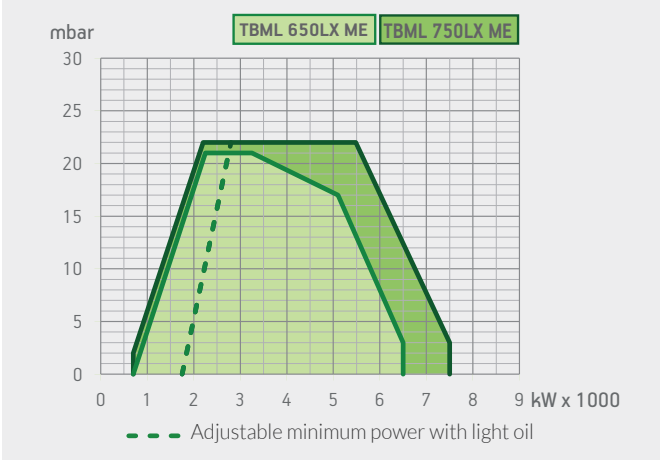
Flange dimensions and boiler drilling template.

Modell	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	H mm	D mm	D1 mm Min	D1 mm Max	ø E mm	G mm	ø F mm	R mm	R1 mm	I mm	ø L mm Min	ø L mm Max	M	ø N mm	Pic.
TBML 650 LX ME	1250	690	560	810	525	285	295	1850	223	650	547	597	397	DN80	410	1240	1000	480	520	600	M20	430	2
TBML 750 LX ME	1250	690	560	810	525	285	295	1850	223	650	547	597	397	DN80	410	1240	1000	480	520	600	M20	430	2

kW 700 - 7500

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 650 LX ME	1520	2000	1160	330
TBML 750 LX ME	1520	2000	1160	360

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 192	700 ÷ 6500	**TBML 650 LX ME**	**56820010**	1,5	3N AC 50Hz 400V	7,5+1,5	4) 19)
	see page 192	700 ÷ 7500	**TBML 750 LX ME**	**56850010**	1,5	3N AC 50Hz 400V	18,5+2,2	4) 19)
			Frequency 60 Hz					
	see page 192	700 ÷ 6500	**TBML 650 LX ME**	**56825410**	1,5	3N AC 60Hz 380V	9,0+1,7	4) 19)
	see page 192	700 ÷ 7500	**TBML 750 LX ME**	**56845410**	1,5	3N AC 60Hz 380V	18,5+2,6	4) 19)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulating probe for LCM 100 (see page 254)	
Nozzle (see page 255)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Soundproof burner cover (see page 259)	97980059

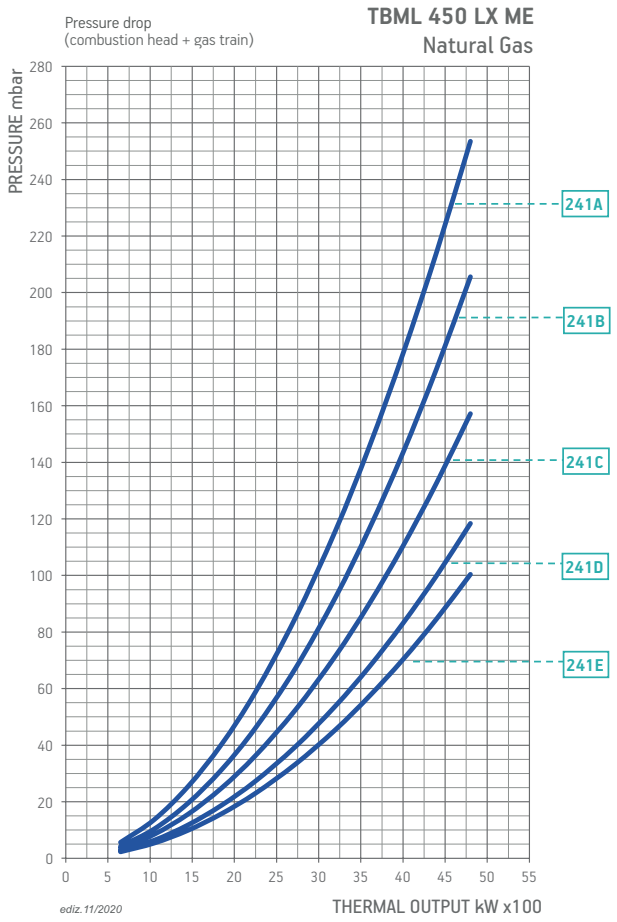
DUAL FUEL BURNERS ACCESSORIES

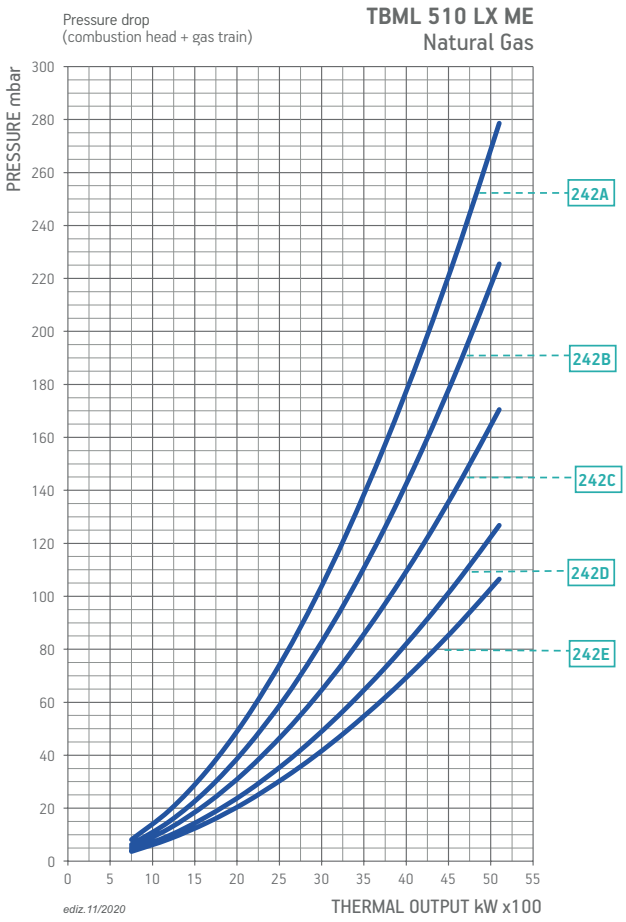
Line filter, flex hoses, boiler coupling kit.

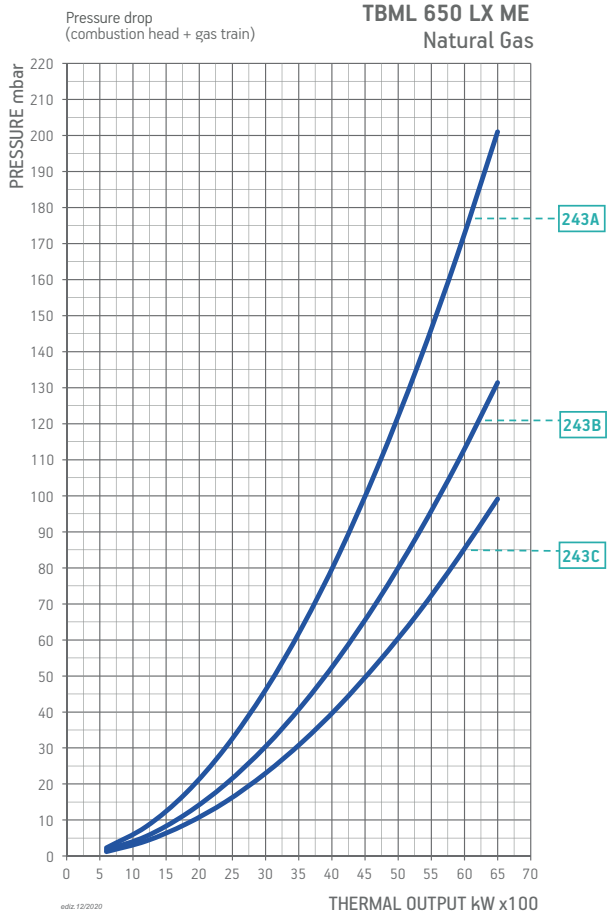
NOTE

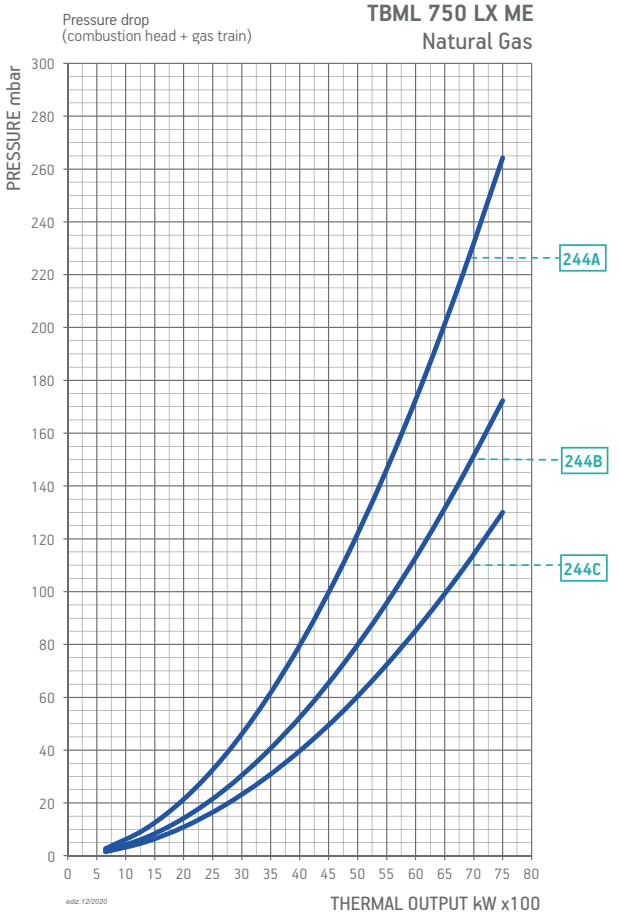
4 Equipped with automatic air closure device.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m³ = 22000 kcal/m³, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
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.		
TBML 450 LX ME	Natural gas	241A	CE/EXP	500	CTV	19990541	Included		Included	D4	
		241B	CE/EXP	500	CTV	19990666	Included		Included	D4	
		241C	CE/EXP	500	CTV	19990542	Included		Included	D4	
		241D	CE/EXP	500	CTV	19990543	Included		Included	D4	
		241E	CE/EXP	500	CTV	19990544	Included		Included	D4	
TBML 510 LX ME	Natural gas	242A	CE/EXP	500	CTV	19990541	Included		Included	D4	
		242B	CE/EXP	500	CTV	19990666	Included		Included	D4	
		242C	CE/EXP	500	CTV	19990542	Included		Included	D4	
		242D	CE/EXP	500	CTV	19990543	Included		Included	D4	
		242E	CE/EXP	500	CTV	19990544	Included		Included	D4	
TBML 650 LX ME	Natural gas	243A	CE/EXP	500	CTV	19990542	Included		Included	D4	
		243B	CE/EXP	500	CTV	19990543	Included		Included	D4	
		243C	CE/EXP	500	CTV	19990544	Included		Included	D4	
TBML 750 LX ME	Natural gas	244A	CE/EXP	500	CTV	19990542	Included		Included	D4	
		244B	CE/EXP	500	CTV	19990543	Included		Included	D4	
		244C	CE/EXP	500	CTV	19990544	Included		Included	D4	

To choose the correct gas train please refer to the information on page 17 of the burners catalogue.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW 800 - 9000 | SERIES TBML

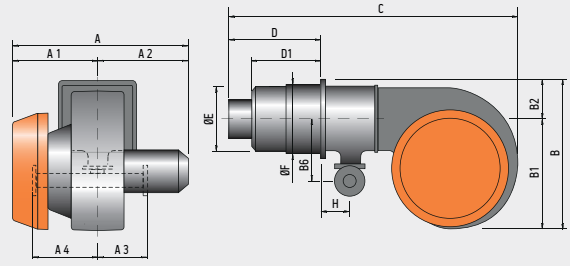
LOW NOX

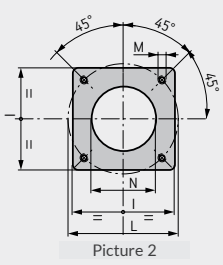
CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

CE 0085

DUAL FUEL
GAS/LIGHT OIL BURNERS

	TBML 800 ME	TBML 900 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Operation:	**electronic modulation**	**electronic modulation**
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive control. Modulating mode is available for both fuels by the modulation kit (supplied separately)	•	•
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional
Modulation ratio:	natural gas: 1:7 light oil: 1:4	natural gas: 1:9 light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 3	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2	class 2
Adjusting the combustion head		•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•	•
Fixed boiler coupling flange	•	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric servomotor	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•	•
Fail proof connectors for burner/gas train connection	•	•
Gas train outlet:	down	down
Electric motor for pump drive	•	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•	•
Fuel switch device:	manual	manual
Flame detection by UV photocell	•	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment	•	•
Electric protection rating:	IP54	IP54





Picture 2

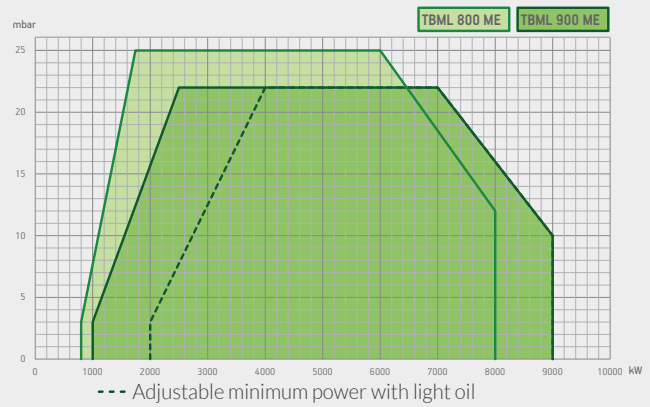
Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	A3 mm	A4 mm	B mm	B1 mm	B2 mm	B3 mm	C mm	D mm	D1 mm	E mm	F mm	H mm	I mm	L mm	M	N mm	Pic.
TBML 800 ME	1230	570	660	335	425	1000	740	260	410	2020	715	570	418	432	190	520	594	M20	462	2
TBML 900 ME	1230	570	660	334	375	1000	740	260	407	2000	670-730	426	426	432		480	594	M20	462	2

kW **800 - 9000**

SERIES **TBML**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 800 ME	2200	1460	1200	515
TBML 900 ME	2200	1460	1240	570

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 196	800(2000)* ÷ 8000	**TBML 800 ME**	**67320010**	1,5	3N AC 50Hz 400V	15,0+2,2	4) 19)
	see page 196	1000(2000)* ÷ 9000	**TBML 900 ME**	**67380010**	1,5	3N AC 50Hz 400V	18,5+2,2	4) 19)
			Frequency 60 Hz					
	see page 196	800(2000)* ÷ 8000	**TBML 800 ME**	**67325410**	1,5	3N AC 60Hz 380V	18,5+2,6	4) 19)
	see page 196	1000(2000)* ÷ 9000	**TBML 900 ME**	**on demand**	1,5	3N AC 60Hz 380V	N.D.	4) 19)

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).

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit TBML 900 ME	98000059
Modulating probe for LCM 100 (see page 254)	
Nozzle with 1:5 ratio (see page 255)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058

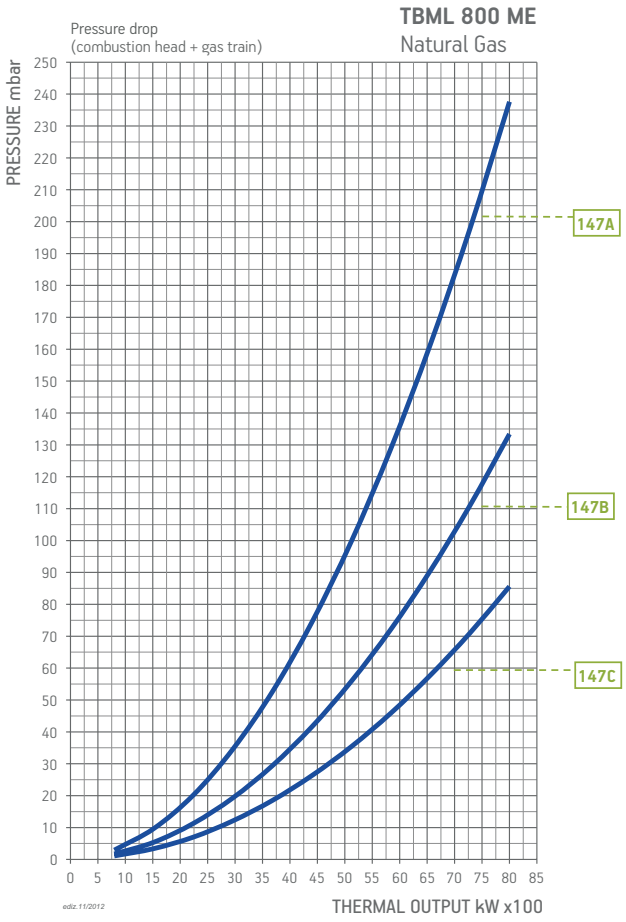
DUAL FUEL BURNERS ACCESSORIES

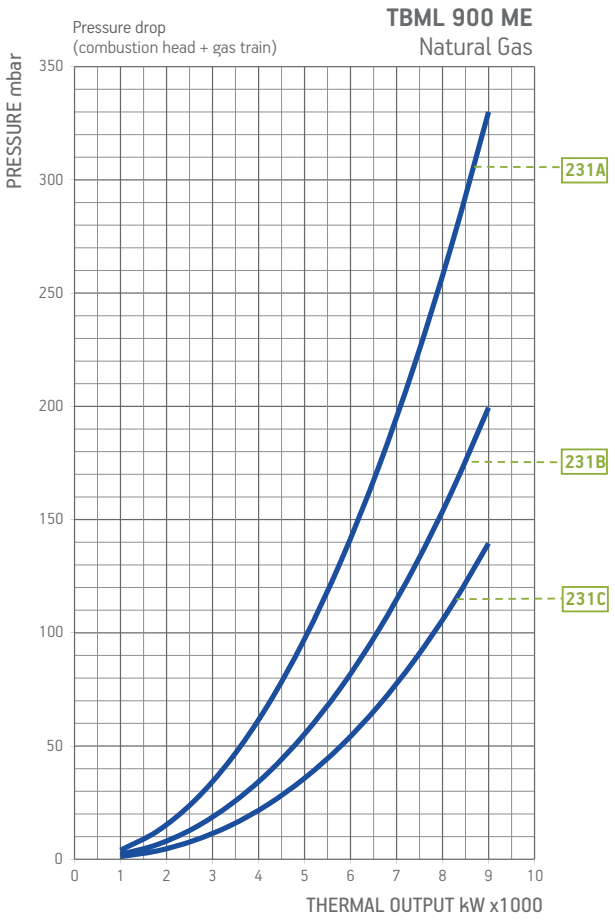
TBML 800 ME: line filter, flex hoses, boiler coupling kit
TBML 900 ME: line filter, flex hoses, boiler coupling kit

NOTE

4 Equipped with automatic air closure device.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH





DUAL FUEL
GAS/LIGHT OIL BURNERS

kW **800 - 9000**

SERIES **TBML**

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.	Note
						Part no.	Part no.	Part no.	Part no.		
TBML 800 ME	Natural gas	147A	CE/EXP	500	CTV	19990588	Included	96005008	Included	D4	
		147B	CE/EXP	500	CTV	19990589	Included	-	Included	D4	
		147C	CE/EXP	500	CTV	19990590	Included	96005009	Included	D4	
TBML 900 ME	Natural gas	231A	CE/EXP	500	CTV	19990588	Included	96005008	Included	D4	
		231B	CE/EXP	500	CTV	19990589	Included	-	Included	D4	
		231C	CE/EXP	500	CTV	19990590	Included	96005009	Included	D4	

To choose the correct gas train please refer to the information on page 17.
For information on the structure, composition, and size of the gas train please refer to the diagrams on page 260.

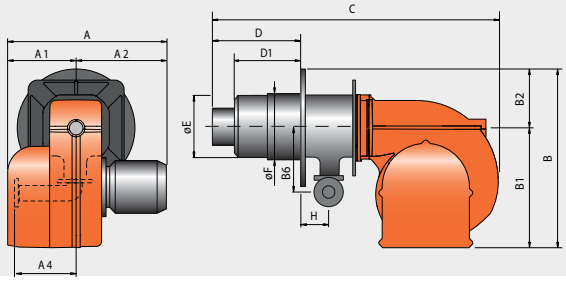
NOTE

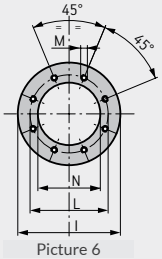
CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

kW **1500 - 12000** | SERIES **TBML**

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

	TBML 1200 ME
Alternating natural gas/light oil burner according to european regulation EN676and EN267. Operation:	**electronic modulation**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional
Modulation ratio:	natural gas: 1:8 - light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2
Burner with emissions on light oil according to European standard EN267:	class 2
Adjusting the combustion head	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•
Fixed boiler coupling flange.	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Electric motor for pump drive	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•
Atomisation unit with solenoid valve for to control of the nozzle closing pin.	•
Fuel switch device:	manual
Flame detection by UV photocell	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.	•
Electric protection rating:	IP54



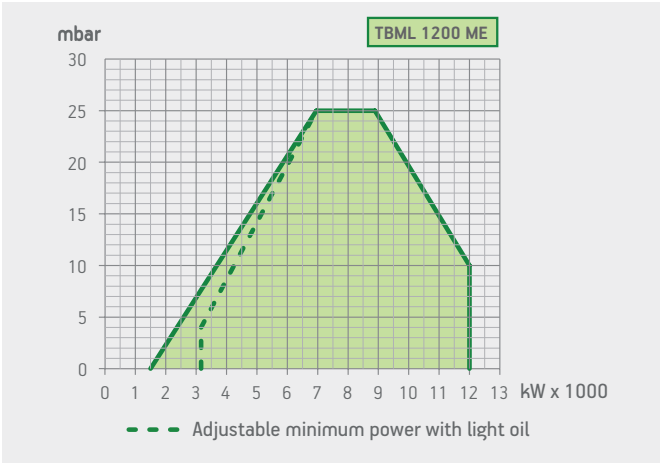


Picture 6

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	H mm	I mm	L mm	M mm	N mm	Pic.
TBML 1200 ME	1650	900	750	1130	780	350	360	2285	742	496	503	235	685	360	M20	533	6

kW **1500 - 12000** | SERIES **TBML**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 1200 ME	2610	1760	1470	637

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 200	1500(3160)* ÷ 12000	**TBML 1200 ME**	**67340010**	1,5	3N AC 50Hz 400V	22,0+4,0	4)
			Frequency 60 Hz					
	see page 200	1500(3160)* ÷ 12000	**TBML 1200 ME**	**on demand**	1,5	3N AC 60Hz 380V	22,0+4,0	4)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulating probe for LCM 100 (see page 254)	

DUAL FUEL BURNERS ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTES

4 Equipped with automatic air closure device.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m^3 = 8550 kcal/m^3, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

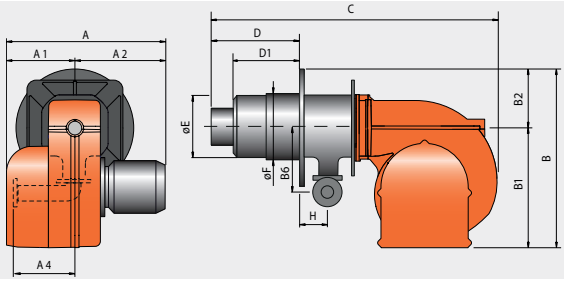
kW 2340 - 16000 | SERIES TBML

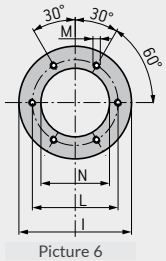
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

CE 0085

	TBML 1600 ME
Alternating natural gas/light oil burner according to european regulation EN676and EN267. Operation:	**electronic modulation**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional
Modulation ratio:	natural gas: 1:8 - light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2
Burner with emissions on light oil according to European standard EN267:	class 2
Adjusting the combustion head	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•
Fixed boiler coupling flange.	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Electric motor for pump drive	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•
Atomisation unit with solenoid valve for to control of the nozzle closing pin.	•
Fuel switch device:	manual
Flame detection by UV photocell	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment.	•
Electric protection rating:	IP54





Picture 6

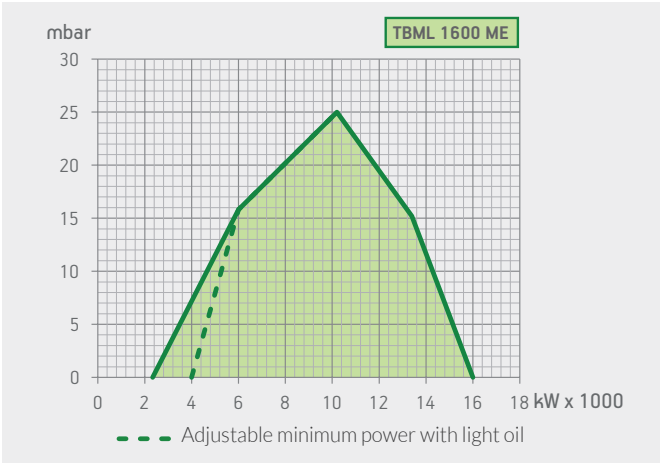
Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	D mm	E mm	F mm	H mm	I mm	L mm	M mm	N mm	Pic.
TBML 1600 ME	1742	900	842	1130	780	350	360	2295	747	563	503	235	685	630	M20	580	6

kW 2340 - 16000

SERIES TBML

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 1600 ME	2470	2050	1420	850

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 202	2340 ÷ 16000	**TBML 1600 ME**	**67530010**	1,5	3N AC 50Hz 400V	30,0+5,5	4) 19)
			Frequency 60 Hz					
	see page 202	2340 ÷ 16000	**TBML 1600 ME**	**on demand**	1,5	3N AC 60Hz 380V	30,0+5,5	4) 19)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulating probe for LCM 100 (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980061

DUAL FUEL BURNERS ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m³ = 22000 kcal/m³, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

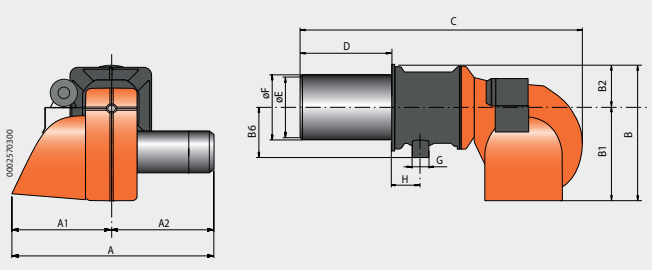
kW 3200 - 20000 | SERIES TBML

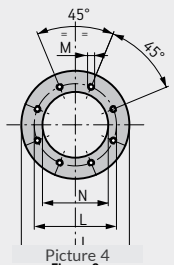
LOW NOX

CONFORM TO: GAS DIRECTIVE EU/2016/426 | E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN676 AND EN267.

CE 0085

	TBML 2000 ME
Alternating natural gas/light oil burner according to european regulation EN676 and EN267. Two-stage progressive control. Modulating mode is available for both fuels by the modulation kit (supplied separately)	**electronic modulation**
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional
Modulation ratio:	natural gas: 1:6 - light oil: 1:4
Burner with Low NOx and CO emissions on gas according to European standard EN676:	class 2
Burner with Low NOx and CO emissions on light oil according to European standard EN267:	class 2
Adjusting the combustion head	•
Maintenance facilitated by the possibility of removing the mixing unit and combustion head without having to remove the burner from the boiler	•
Fixed boiler coupling flange.	•
Easy maintenance thanks to the two-sides hinge which allows the removal of the combustion head without having to remove the burner from the boiler	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
CE version gas train is complete with butterfly valve, operation and safety valve with electromagnetic drive, valve tightness control, minimum and maximum pressure switch, pressure regulator and gas filter	•
Fail proof connectors for burner/gas train connection	•
Gas train outlet:	down
Electric motor for pump drive	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•
Fuel switch device:	manual
Flame detection by UV photocell	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment	•
Electric protection rating:	IP54





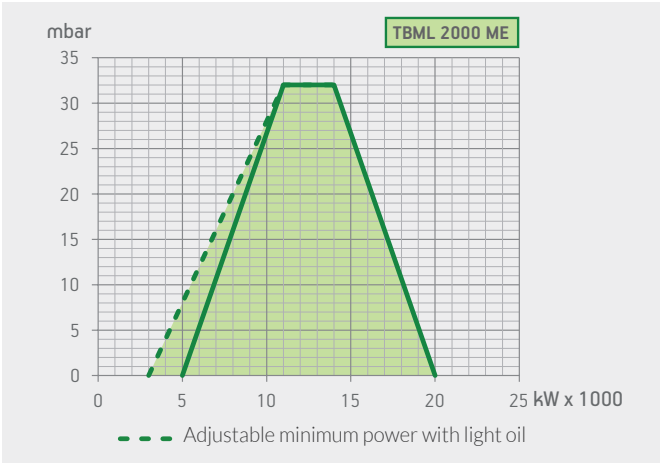
Picture 4

Flange dimensions and boiler drilling template.

Modell	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	B6 mm	C mm	D mm	E mm	F mm	G	H mm	I mm	L mm	M	N mm	Pic.
TBML 2000 ME	1855	913	942	1265	870	395	482	2595	856	600	612	DN125	258	790	730	M20	642	4

kW **3200 - 20000** | SERIES **TBML**

CE 0085



Model	Size of packaging L	P	H	Weight
	mm			kg
TBML 2000 ME	2750	2050	1520	980

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	see page 204	3200 ÷ 20000	**TBML 2000 ME**	**67550010**	1,5	3N AC 50Hz 400V	45,0+7,5	4) 19)
			Frequency 60 Hz					
	see page 204	3200 ÷ 20000	**TBML 2000 ME**	**on demand**	1,5	3N AC 60Hz 380V	45,0+7,5	4) 19)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulating probe for LCM 100 (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980061

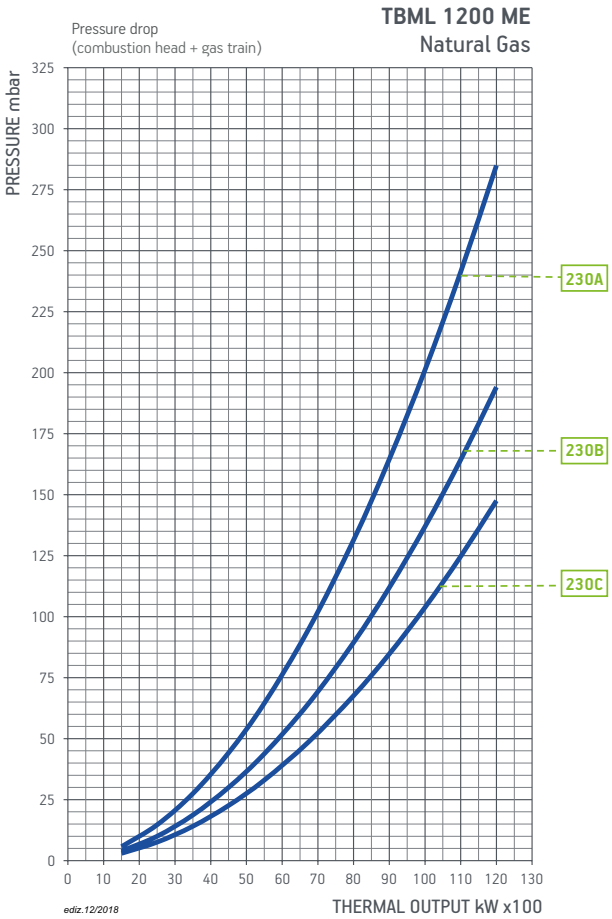
DUAL FUEL BURNERS ACCESSORIES

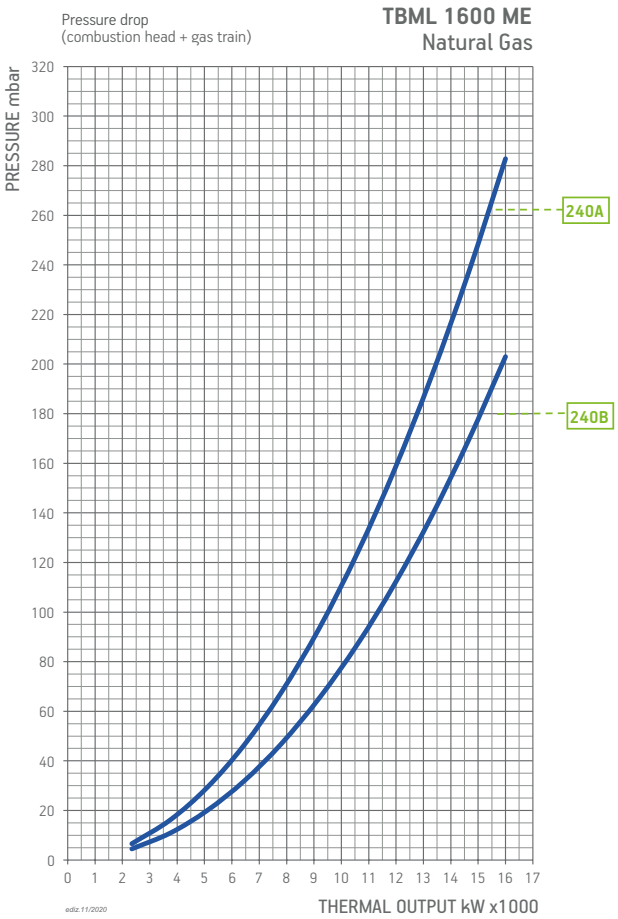
Line filter, flex hoses, boiler coupling kit.

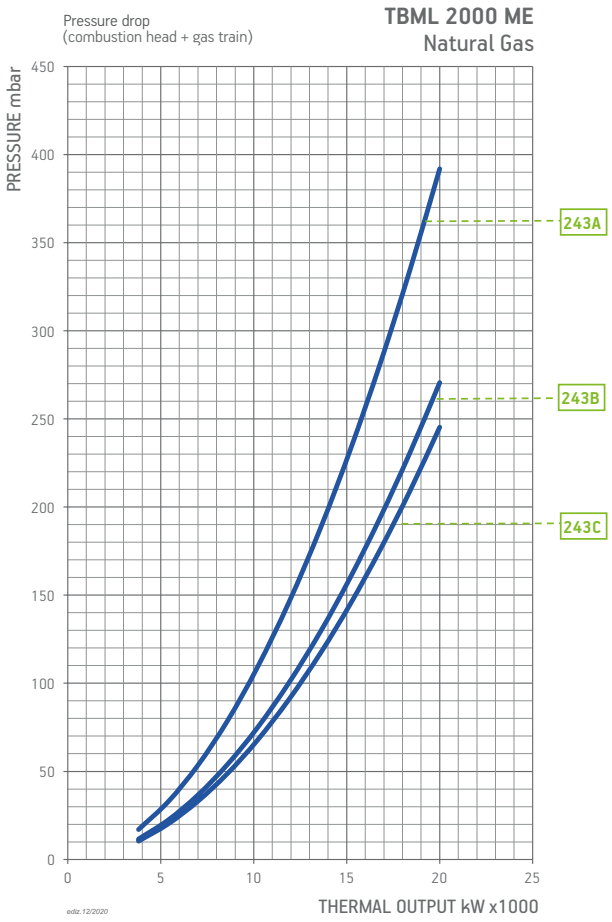
NOTE

4 Equipped with automatic air closure device.
19 For applications on flame-reversing boilers, please get in contact with our commercial department.
*) Min thermal capacity with light oil operation.
Net calorific value:
Natural gas: Hi = 35,80 MJ/m³ = 8550 kcal/m³, at reference conditions of 0°C, 1013mbar.
LPG: Hi = 92 MJ/m³ = 22000 kcal/m³, at reference conditions of 0°C, 1013mbar.
Light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.
For different type of gas and pressure values, please get in contact with our commercial department.

BURNER/GAS TRAIN MATCH







kW **1500 - 20000** | SERIES **TBML**

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.		
TBML 1200 ME	Natural gas	230A	CE/EXP	500	CTV	19990606	Included		Included	D4	
		230B	CE/EXP	500	CTV	19990607	Included		Included	D4	
		230C	CE/EXP	500	CTV	19990608	Included		Included	D4	
TBML 1600 ME	Natural gas	240A	CE/EXP	500	CTV	19990640	Included		Included	D4	
		240B	CE/EXP	500	CTV	19990641	Included		Included	D4	
TBML 2000 ME	Natural gas	243A	CE/EXP	500	CTV	19990648	Included		Included	D4	
		243B	CE/EXP	500	CTV	19990649	Included		Included	D4	
		243C	CE/EXP	500	CTV	19990650	Included		Included	D4	

To choose the correct gas train please refer to the information on page 17 of the burners catalogue.

NOTE

CTV Gas train with Valve Tightness Control.
**) Maximum gas inlet pressure at pressure regulator.

Light oil burners

RANGE

Symbology

BTL...
TBL...
Single-stage light oil burners.

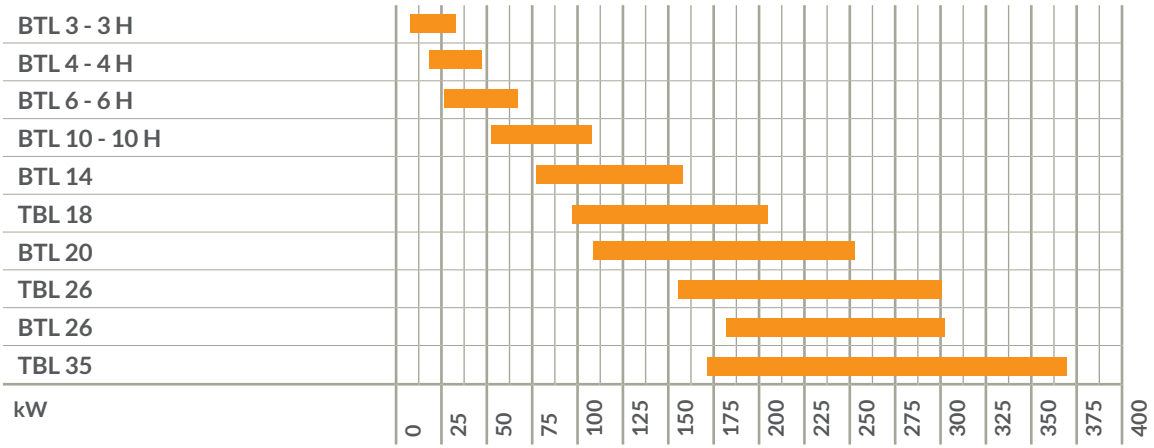
BTL...P
TBL... P
TBL...LX
BT 300 DSG 4T
BT 350 DSG
Two-stage light oil burners.

BT... DSPG
Two-stage progressive/ modulating light oil burners with mechanical cam.

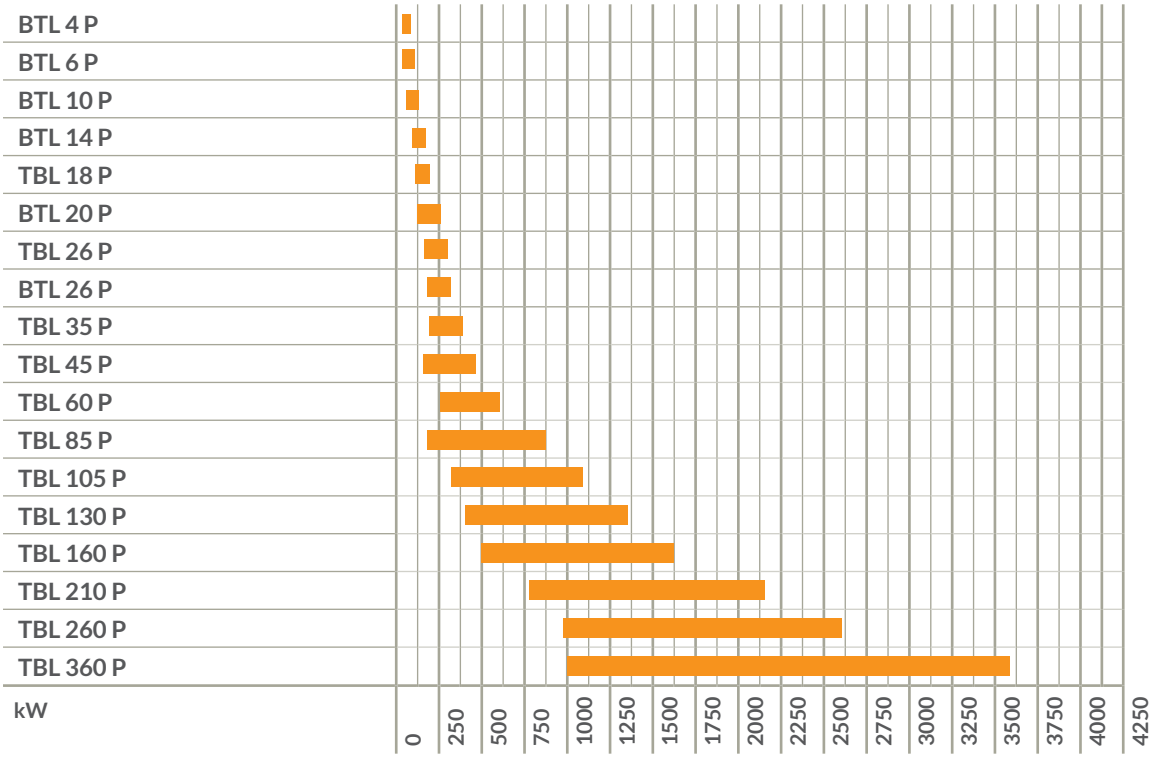
TBL... ME
Two-stage progressive/ modulating gas burners with electronic cam.

Low NOx

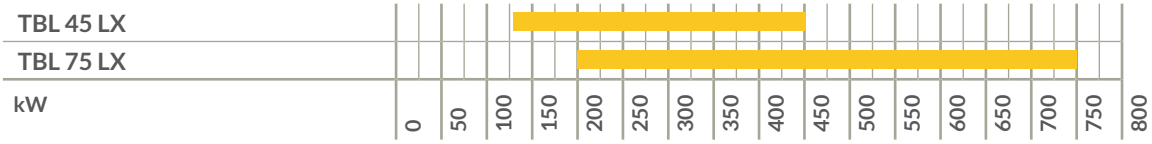
SINGLE-STAGE LIGHT OIL BURNERS



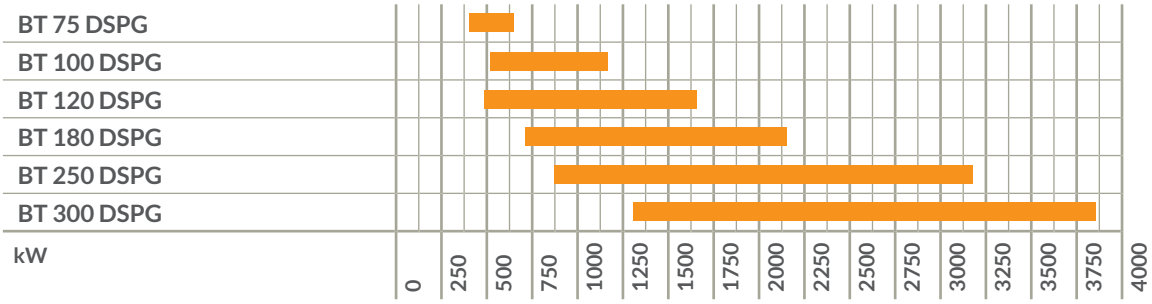
TWO-STAGE LIGHT OIL BURNERS



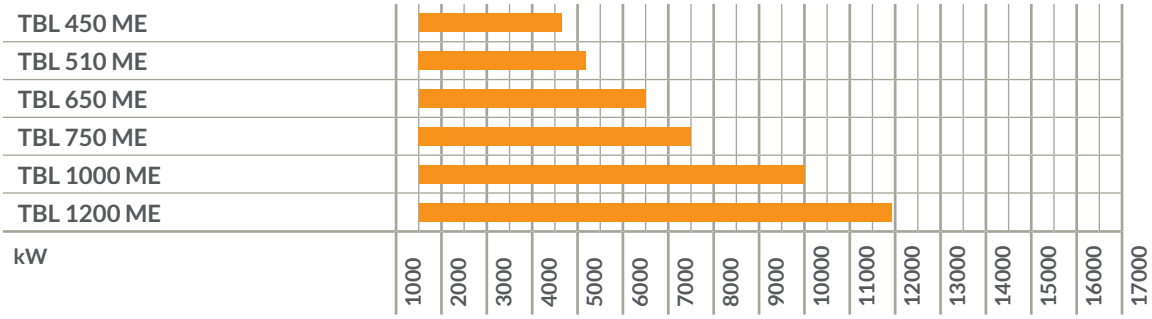
LOW NOX LIGHT OIL BURNERS



TWO-STAGE PROGRESSIVE LIGHT OIL BURNERS



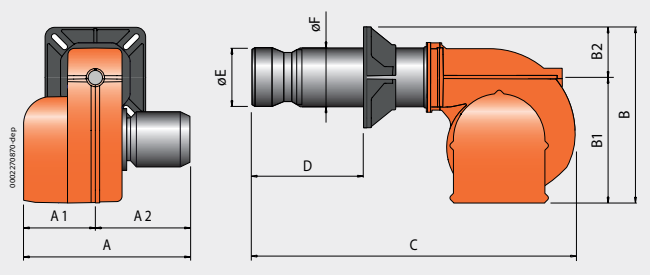
TWO - STAGE PROGRESSIVE LIGHT OIL BURNERS

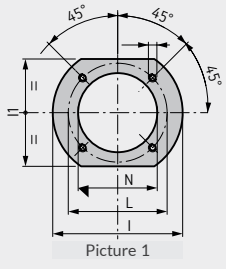


kW 16 - 42 | SERIES BTL

CONFORM TO: E.M.C DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/EU | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN267.

Light oil burner. Operation:	BTL 3	BTL 3 H
	single-stage	single-stage
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head without having to remove the burner from the boiler	•	•
Fixed boiler coupling flange	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	manual	manual
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•
Light oil preheater with variable capacity		•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover	•	•





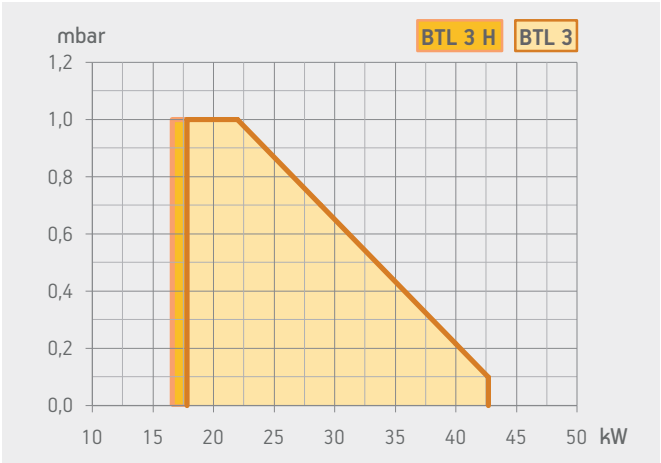
Picture 1

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	I1 mm	L mm	M	N mm	Pic.
BTL 3	250	120	130	242	170	72	330	90	80	80	170	144	135 ÷ 161	M8	85	1
BTL 3 H	250	120	130	242	170	72	330	90	80	80	170	144	135 ÷ 161	M8	85	1

kW **16 - 42**

SERIES **BTL**



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 3	400	300	280	9
BTL 3 H	400	300	280	9

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	17,8 ÷ 42,7	**BTL 3**	**35450010**	1,5	1N AC 50Hz 230V	0,09	1)
	16,6 ÷ 42,7	**BTL 3 H**	**35450011**	1,5	1N AC 50Hz 230V	0,09	1) 2)
		Frequency 60 Hz					
	17,8 ÷ 42,7	**BTL 3**	**35450010**	1,5	1N AC 60Hz 220V	0,09	1)
	16,6 ÷ 42,7	**BTL 3 H**	**35450011**	1,5	1N AC 60Hz 220V	0,09	1) 2)

OPTIONALS

DESCRIPTION
BTL 3/3 H: 200 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

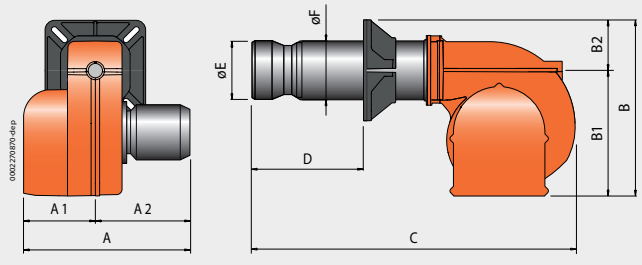
NOTE

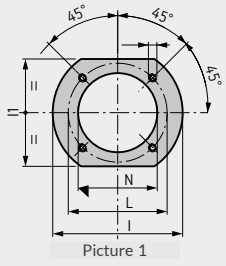
1 Equipped with air closure device.
2 Equipped with light oil pre-heater with drop-stop device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 26 - 56 | SERIES BTL

CONFORM TO: E.M.C DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/EU | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN267.

Light oil burner. Operation:	BTL 4	BTL 4 H	BTL 4 P
	single-stage	single-stage	two-stage
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	manual	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•	•
Light oil preheater with variable capacity		•	
Flame detection by phototransistor	•	•	•
Electric protection rating:	IP40	IP40	IP40
Sound-proof plastic protective cover	•	•	•

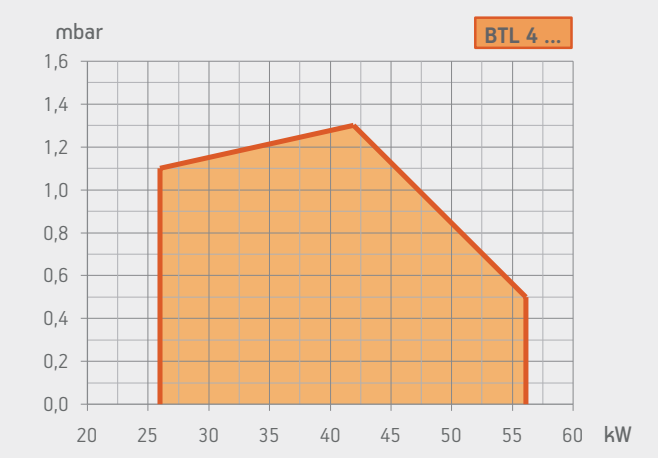




Picture 1

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	I1 mm	L mm	M	N mm	Pic.
BTL 4	246	123	123	289	219	70	410	50 ÷ 105	80	80	170	140	130 ÷ 155	M8	85	1
BTL 4 H	246	123	123	289	219	70	410	50 ÷ 105	80	80	170	140	130 ÷ 155	M8	85	1
BTL 4 P	246	123	123	289	219	70	410	50 ÷ 105	80	80	170	140	130 ÷ 155	M8	85	1



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 4	560	310	350	12
BTL 4 H	560	310	350	12
BTL 4 P	560	310	350	12

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	26,0 ÷ 56,1	**BTL 4**	**35490010**	1,5	1N AC 50Hz 230V	0,1	1)
	26,0 ÷ 56,1	**BTL 4 H**	**35490011**	1,5	1N AC 50Hz 230V	0,1	1) 2)
	26,0 ÷ 56,1	**BTL 4 P**	**35500010**	1,5	1N AC 50Hz 230V	0,1	1)
		Frequency 60 Hz					
	26,0 ÷ 56,1	**BTL 4**	**35490010**	1,5	1N AC 60Hz 220V	0,1	1)
	26,0 ÷ 56,1	**BTL 4 H**	**35490011**	1,5	1N AC 60Hz 220V	0,1	1) 2)
	26,0 ÷ 56,1	**BTL 4 P**	**35500010**	1,5	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION
200 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

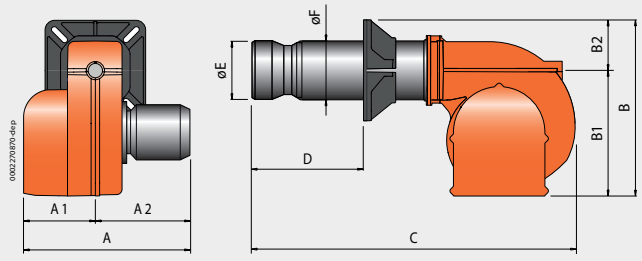
NOTE

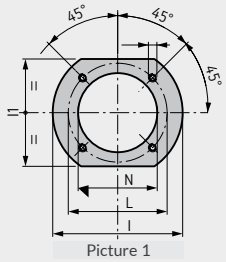
1 Equipped with air closure device.
2 Equipped with light oil pre-heater with drop-stop device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 31 - 74 | SERIES BTL

CONFORM TO: E.M.C DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/EU | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN267.

Light oil burner. Operation:	BTL 6	BTL 6 H	BTL 6 P
	single-stage	single-stage	two-stage
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	manual	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•	•
Light oil preheater with variable capacity		•	
Flame detection by phototransistor	•	•	•
Electric protection rating:	IP40	IP40	IP40
Sound-proof plastic protective cover	•	•	•

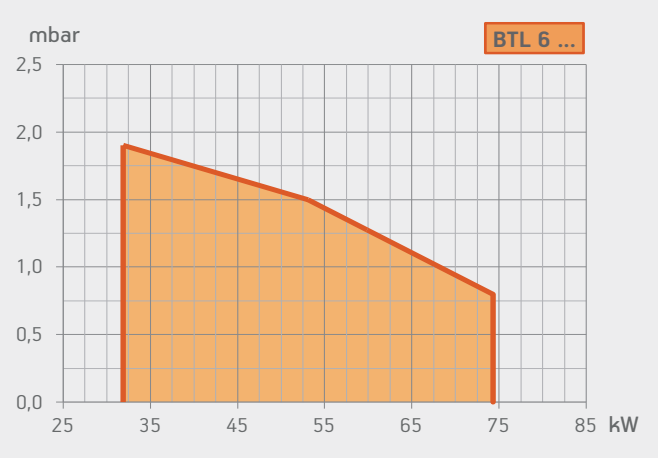




Picture 1

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	I1 mm	L mm	M	N mm	Pic.
BTL 6	246	123	123	289	219	70	455	50 ÷ 150	90	90	170	140	130 ÷ 155	M8	95	1
BTL 6 H	246	123	123	289	219	70	455	50 ÷ 150	90	90	170	140	130 ÷ 155	M8	95	1
BTL 6 P	246	123	123	289	219	70	455	50 ÷ 150	90	90	170	140	130 ÷ 155	M8	95	1



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 6	560	310	350	12
BTL 6 H	560	310	350	12
BTL 6 P	560	310	350	12

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	31,9 ÷ 74,3	**BTL 6**	**35510010**	1,5	1N AC 50Hz 230V	0,1	1)
	31,9 ÷ 74,3	**BTL 6 H**	**35510011**	1,5	1N AC 50Hz 230V	0,1	1) 2)
	31,9 ÷ 74,3	**BTL 6 P**	**35520010**	1,5	1N AC 50Hz 230V	0,1	1)
		Frequency 60 Hz					
	31,9 ÷ 74,3	**BTL 6**	**35510010**	1,5	1N AC 60Hz 220V	0,1	1)
	31,9 ÷ 74,3	**BTL 6 H**	**35510011**	1,5	1N AC 60Hz 220V	0,1	1) 2)
	31,9 ÷ 74,3	**BTL 6 P**	**35520010**	1,5	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION
BTL 6/6 H/6 P: 250 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

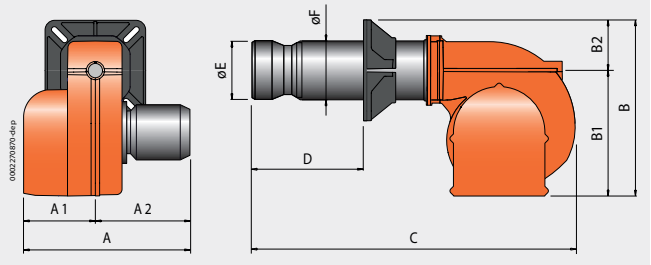
NOTE

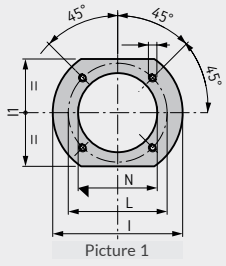
1 Equipped with air closure device.
2 Equipped with light oil pre-heater with drop-stop device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 60 - 118 | SERIES BTL

CONFORM TO: E.M.C DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/EU | MACHINERY DIRECTIVE 2006/42/CE | COMMISSION REGULATION ErP 2013/811/UE | REFERENCE STANDARD EN267.

Light oil burner. Operation:	BTL 10	BTL 10 H	BTL 10 P
	single-stage	single-stage	two-stage
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	manual	electric servomotr
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•	•
Light oil preheater with variable capacity		•	
Flame detection by phototransistor	•	•	•
Electric protection rating:	IP40	IP40	IP40
Sound-proof plastic protective cover	•	•	•





Picture 1

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	I1 mm	L mm	M	N mm	Pic.
BTL 10	246	123	123	289	219	70	480	50 ÷ 158	90	90	170	140	130 ÷ 155	M8	95	1
BTL 10 H	246	123	123	289	219	70	480	50 ÷ 158	90	90	170	140	130 ÷ 155	M8	95	1
BTL 10 P	246	123	123	289	219	70	480	50 ÷ 158	90	90	170	140	130 ÷ 155	M8	95	1

kW 60 - 118

SERIES BTL

Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 10	560	310	350	12
BTL 10 H	560	310	350	12
BTL 10 P	560	310	350	12

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	60,2 ÷ 118,0	**BTL 10**	**35530010**	1,5	1N AC 50Hz 230V	0,1	1)
	60,2 ÷ 118,0	**BTL 10 H**	**35530011**	1,5	1N AC 50Hz 230V	0,1	1) 2)
	60,2 ÷ 118,0	**BTL 10 P**	**35540010**	1,5	1N AC 50Hz 230V	0,1	1)
		Frequency 60 Hz					
	60,2 ÷ 118,0	**BTL 10**	**35530010**	1,5	1N AC 60Hz 220V	0,1	1)
	60,2 ÷ 118,0	**BTL 10 H**	**35530011**	1,5	1N AC 60Hz 220V	0,1	1) 2)
	60,2 ÷ 118,0	**BTL 10 P**	**35540010**	1,5	1N AC 60Hz 220V	0,1	1)

OPTIONALS

DESCRIPTION
250 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

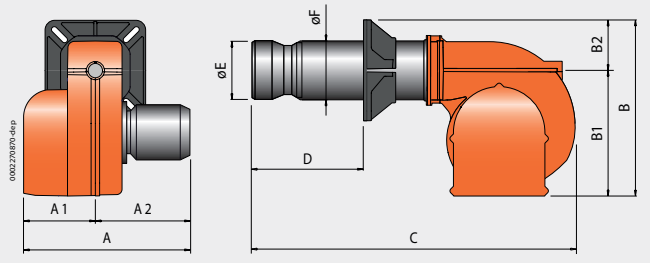
NOTE

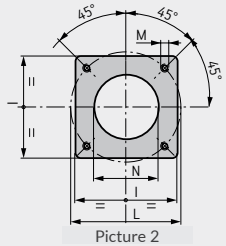
1 Equipped with air closure device.
2 Equipped with light oil pre-heater with drop-stop device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 70 - 190 | SERIES BTL

CONFORM TO: 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 EN267.

Light oil burner. Operation:	BTL 14 single-stage	BTL 14 P two-stage
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover	•	•





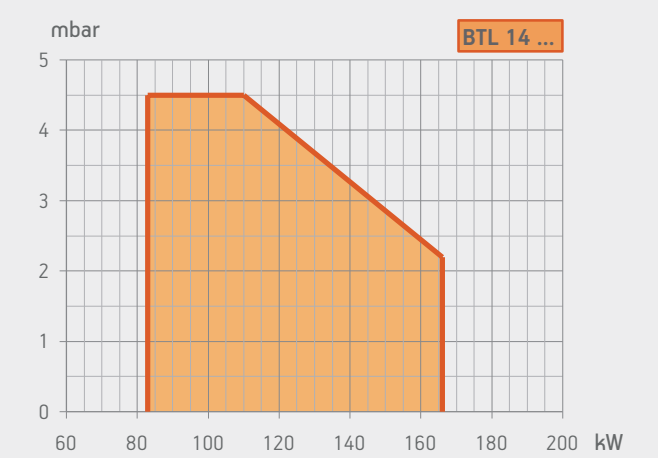
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
BTL 14	303	158	145	358	275	83	620	100 ÷ 250	100	100	166	150 ÷ 200	M10	110	2
BTL 14 P	303	158	145	358	275	83	620	100 ÷ 250	100	100	166	150 ÷ 200	M10	110	2

kW 70 - 190

SERIES BTL



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 14	780	370	410	18
BTL 14 P	780	370	410	18

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	83 ÷ 166	**BTL 14**	**35610010**	1,5	1N AC 50Hz 230V	0,18	1) 3)
	83 ÷ 166	**BTL 14 P**	**35620010**	1,5	1N AC 50Hz 230V	0,18	1) 3)
		Frequency 60 Hz					
	83 ÷ 166	**BTL 14**	**35615410**	1,5	1N AC 60Hz 220V	0,25	1) 3)
	83 ÷ 166	**BTL 14 P**	**35625410**	1,5	1N AC 60Hz 220V	0,25	1) 3)

OPTIONALS

DESCRIPTION
BTL 14/14 P: 500 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

NOTE

1 Equipped with air closure device.
3 Soundproof lid on burner air intake.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 90 - 210

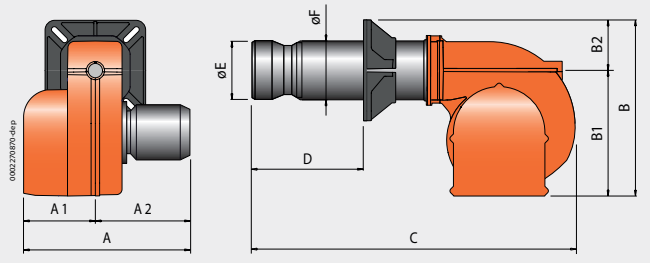
SERIES **TBL**

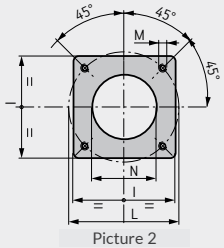
LOW NOX

CONFORM TO: 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 EN267.

CE

	TBL 18	TBL 18 P
Light oil burner. Operation:	**single-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	hydraulic jack
Device made of sound-absorbing material to reduce fan noise	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Noise level dB(A)	<73	<73





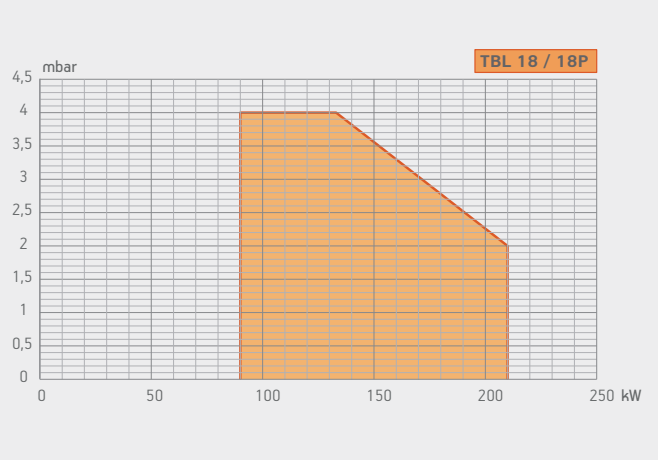
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 18	440	215	225	355	262	93	690	100 - 240	150	114	185	200 - 245	M12	155	2
TBL 18 P	440	215	225	355	262	93	690	100 - 240	150	114	185	200 - 245	M12	155	2

kW 90 - 210

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 18	1000	600	510	22,5
TBL 18 P	1000	600	510	23,5

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	90 ÷ 210	**TBL 18**	**35560010**	1,5	1N AC 50Hz 230V	0,25	
	class 2	90 ÷ 210	**TBL 18 P**	**35570010**	1,5	1N AC 50Hz 230V	0,25	
			Frequency 60 Hz					
	class 2	90 ÷ 210	**TBL 18**	**35565410**	1,5	1N AC 60Hz 220V	0,25	
	class 2	90 ÷ 210	**TBL 18 P**	**35575410**	1,5	1N AC 60Hz 220V	0,25	

OPTIONALS

DESCRIPTION
TBL 18/18 P: long combustion head
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

LIGHT OIL BURNER ACCESSORIES

Flex hoses, light oil filter, nozzle.

NOTE

Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

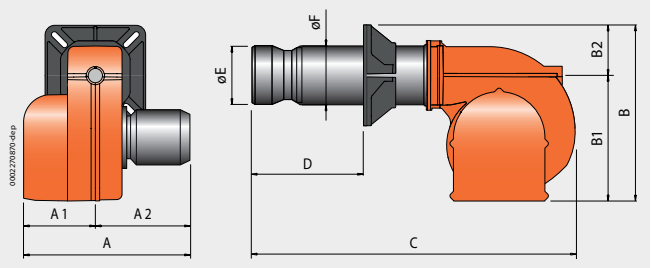
kW 118 - 261

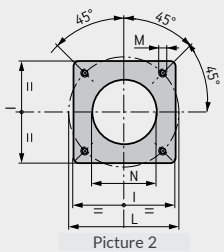
SERIES BTL

CONFORM TO: 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 EN267.

CE

Light oil burner. Operation:	BTL 20 single-stage	BTL 20 P two-stage
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	•	•
Device made of sound-absorbing material to reduce fan noise	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover	•	•





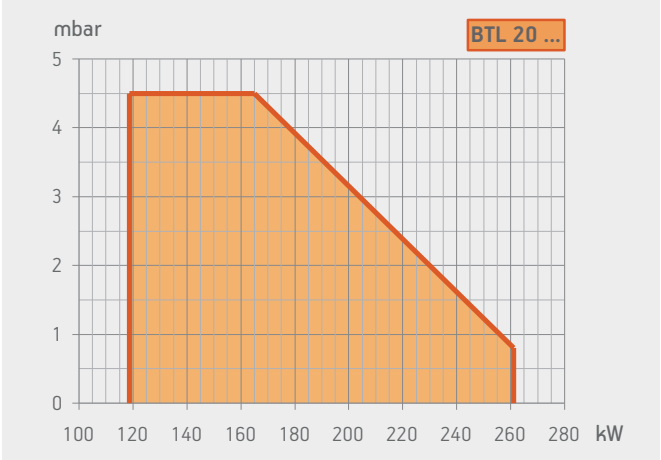
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
BTL 20	303	158	145	368	275	93	645	100 ÷ 250	114	114	185	170 ÷ 210	M10	120	2
BTL 20 P	303	158	145	368	275	93	645	100 ÷ 250	114	114	185	170 ÷ 210	M10	120	2

kW 118 - 261

SERIES BTL



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 20	780	370	410	18
BTL 20 P	780	370	410	18

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	118,6 ÷ 261,0	**BTL 20**	**35630010**	1,5	1N AC 50Hz 230V	0,18	1) 3)
	118,6 ÷ 261,0	**BTL 20 P**	**35640010**	1,5	1N AC 50Hz 230V	0,18	1) 3)
		Frequency 60 Hz					
	118,6 ÷ 261,0	**BTL 20**	**35635410**	1,5	1N AC 60Hz 220V	0,25	1) 3)
	118,6 ÷ 261,0	**BTL 20 P**	**35645410**	1,5	1N AC 60Hz 220V	0,25	1) 3)

OPTIONALS

DESCRIPTION
500 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

NOTE

1 Equipped with air closure device.
3 Soundproof lid on burner air intake.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 155 - 308

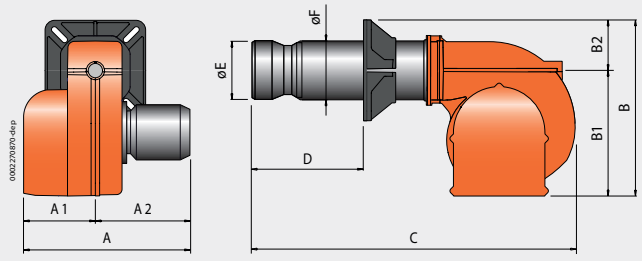
SERIES **TBL**

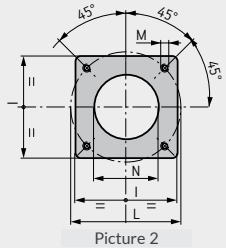
LOW NOX

CONFORM TO: 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 EN267.

CE

	TBL 26	TBL 26 P
Light oil burner. Operation:	**single-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	hydraulic jack
Device made of sound-absorbing material to reduce fan noise	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Noise level dB(A)	<76	<76





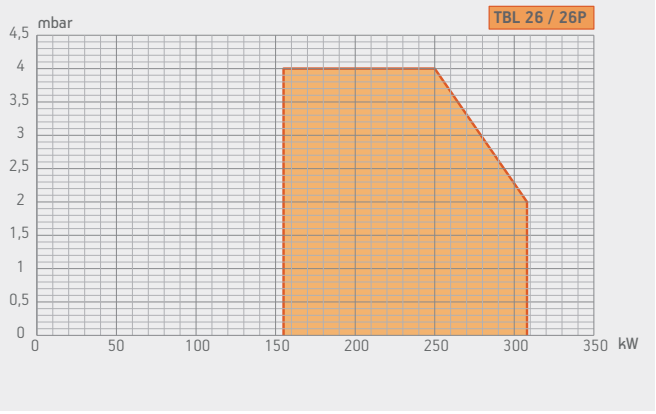
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 26	440	215	225	355	262	93	700	100 - 240	150	114	185	200 - 245	M12	155	2
TBL 26 P	440	215	225	355	262	93	700	100 - 240	150	114	185	200 - 245	M12	155	2

kW 155 - 308

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 26	1000	600	510	23
TBL 26 P	1000	600	510	24

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	155 ÷ 308	**TBL 26**	**35580010**	1,5	1N AC 50Hz 230V	0,37	
	class 2	155 ÷ 308	**TBL 26 P**	**35590010**	1,5	1N AC 50Hz 230V	0,37	
			Frequency 60 Hz					
	class 2	155 ÷ 308	**TBL 26**	**35585410**	1,5	1N AC 60Hz 220V	0,37	
	class 2	155 ÷ 308	**TBL 26 P**	**35595410**	1,5	1N AC 60Hz 220V	0,37	

OPTIONALS

DESCRIPTION
TBL 26/26 P: long combustion head
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980054

LIGHT OIL BURNER ACCESSORIES

Flex hoses, light oil filter, nozzle.

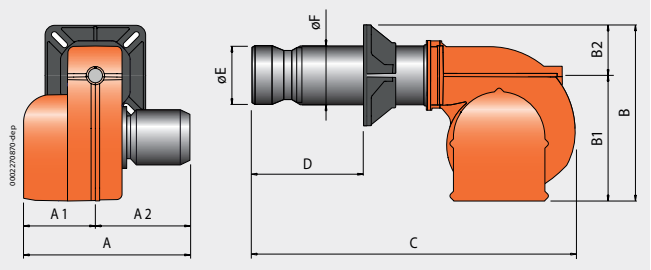
NOTE

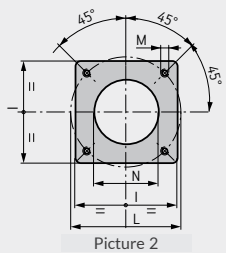
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 190 - 310 | SERIES BTL

CONFORM TO: 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 EN267.

Light oil burner. Operation:	BTL 26 single-stage	BTL 26 P two-stage
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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
Device made of sound-absorbing material to reduce fan noise	•	•
Fuel supply circuit made of gear pump with pressure adjustment and shut-off valves	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40
Sound-proof plastic protective cover	•	•





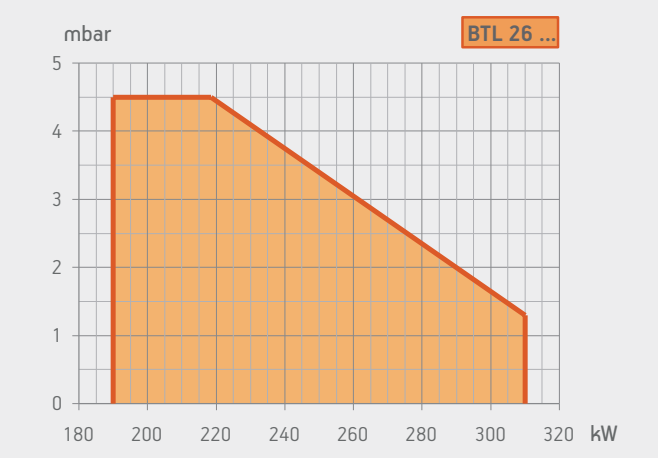
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
BTL 26	303	158	145	368	275	93	650	100 ÷ 255	135	135	185	170 ÷ 210	M10	140	2
BTL 26 P	303	158	145	368	275	93	650	100 ÷ 255	135	135	185	170 ÷ 210	M10	140	2

kW 190 - 310

SERIES BTL



Model	Size of packaging L	P	H	Weight
	mm			kg
BTL 26	780	370	410	18
BTL 26 P	780	370	410	18

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	190 ÷ 310	**BTL 26**	**35650010**	1,5	1N AC 50Hz 230V	0,25	3)
	190 ÷ 310	**BTL 26 P**	**35660010**	1,5	1N AC 50Hz 230V	0,25	3)
		Frequency 60 Hz					
	190 ÷ 310	**BTL 26**	**35655410**	1,5	1N AC 60Hz 220V	0,25	3)
	190 ÷ 310	**BTL 26 P**	**35665410**	1,5	1N AC 60Hz 220V	0,25	3)

OPTIONALS

DESCRIPTION
500 mm long combustion head
Biodiesel operation (see note 5 page 12)

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzle, boiler coupling kit, plug for wiring.

NOTE

3 Soundproof lid on burner air intake.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 170 - 370

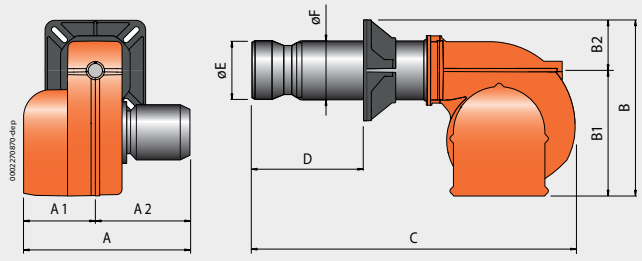
SERIES TBL

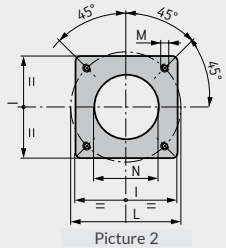
LOW NOX

CONFORM TO: 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 EN267.

CE

	TBL 35	TBL 35 P	TBL 35 P DACA
Light oil burner. Operation:	**single-stage**	**two-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	class 2
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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	hydraulic jack	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney			•
Device made of sound-absorbing material to reduce fan noise	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•
Flame detection by phototransistor	•	•	•
Electric protection rating:	IP40	IP40	IP40
Noise level dB(A)	<74	<74	<74





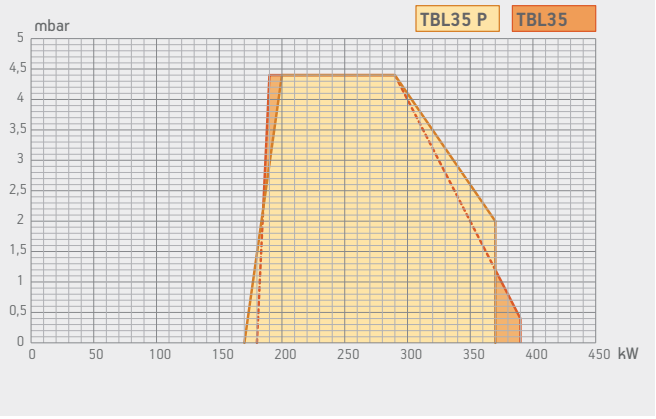
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 35	440	215	225	365	260	105	780	150 - 350	150	135	210	200 - 245	M12	155	2
TBL 35 P	440	215	225	365	260	105	780	150 - 350	150	135	210	200 - 245	M12	155	2

kW **170 - 370**

SERIES **TBL**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 35	1000	600	510	26,0
TBL 35 P	1000	600	510	34,5
TBL 35 P DACA	1000	600	510	33,0

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	170 ÷ 370	**TBL 35**	**35680010**	1,5	1N AC 50Hz 230V	0,37	
	class 2	170 ÷ 370	**TBL 35 P**	**35690010**	1,5	1N AC 50Hz 230V	0,37	
	class 2	170 ÷ 370	**TBL 35 P DACA**	**35690110**	1,5	1N AC 50Hz 230V	0 ,37	4)
			Frequency 60 Hz					
	class 2	170 ÷ 370	**TBL 35**	**35685410**	1,5	1N AC 60Hz 220V	0,37	
	class 2	170 ÷ 370	**TBL 35 P**	**35695410**	1,5	1N AC 60Hz 220V	0,37	
	class 2	170 ÷ 370	**TBL 35 P DACA**	**35695420**	1,5	1N AC 60Hz 220V	0,37	4)

OPTIONALS

DESCRIPTION
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 35 P/35 P DACA: line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980054

LIGHT OIL BURNER ACCESSORIES

TBL 35 P/35 P DACA: flex hoses, nozzles, boiler coupling kit, plug for wiring.

NOTE

4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

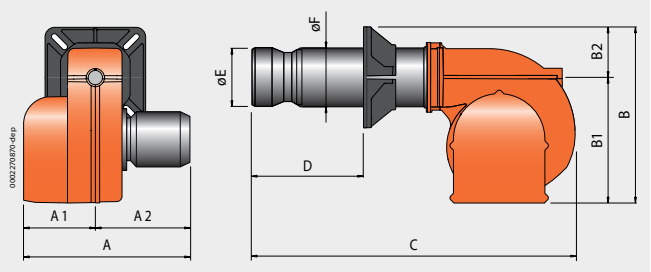
kW 130 - 450 | SERIES TBL

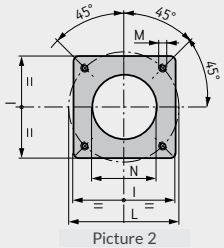
LOW NOX

CONFORM TO: 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 EN267.

CE

	TBL 45 P	TBL 45 P DACA	TBL 45 LX
Light oil burner. Operation:	**two-stage**	**two-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	class 3
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•
Flame detection by phototransistor	•	•	
Flame detection by IRD photocell			•
Electric protection rating:	IP40	IP40	IP44





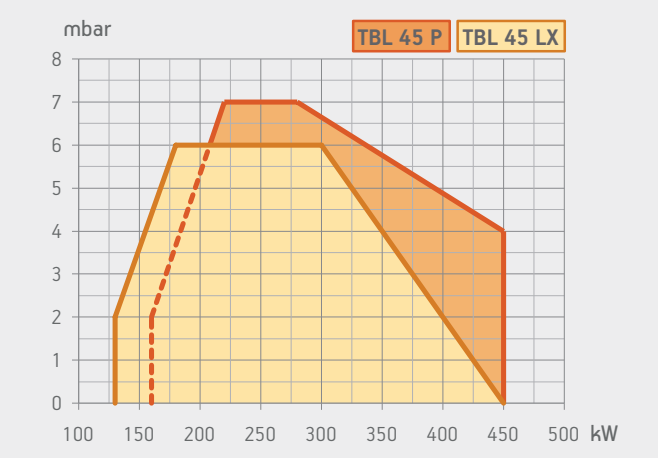
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 45 P	505	260	245	433	325	108	820	120 ÷ 350	135	133	215	200 ÷ 245	M12	150	2
TBL 45 P DACA	535	260	275	433	325	108	860	120 ÷ 350	135	133	215	200 ÷ 245	M12	150	2
TBL 45 LX	535	260	275	433	325	108	860	120 ÷ 350	135	133	215	200 ÷ 245	M12	150	2

kW 130 - 450

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 45 P	1000	600	510	34
TBL 45 P DACA	1000	600	510	34
TBL 45 LX	1000	600	510	34

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	160 ÷ 450	**TBL 45 P**	**35710010**	1,5	1N AC 50Hz 230V	0,50	
	class 2	160 ÷ 450	**TBL 45 P**	**35710015**	1,5	3N AC 50Hz 400V	0,65	
	class 2	160 ÷ 450	**TBL 45 P DACA**	**35710110**	1,5	1N AC 50Hz 230V	0,50	4)
	class 3	130 ÷ 450	**TBL 45 LX**	**35730010**	1,5	1N AC 50Hz 230V	0,50	4)
			Frequency 60 Hz					
	class 2	160 ÷ 450	**TBL 45 P**	**35715410**	1,5	1N AC 60Hz 220V	0,50	
	class 2	160 ÷ 450	**TBL 45 P**	**35715415**	1,5	1N AC 60Hz 380V	0,65	
	class 2	160 ÷ 450	**TBL 45 P DACA**	**35715420**	1,5	1N AC 60Hz 220V	0,50	4)

OPTIONALS

DESCRIPTION
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 45 P/45 P DACA: line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980054

LIGHT OIL BURNER ACCESSORIES

TBL 45 P/45 P DACA: flex hoses, nozzles, boiler coupling kit, plug for wiring.

TBL 45 LX: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.

NOTE

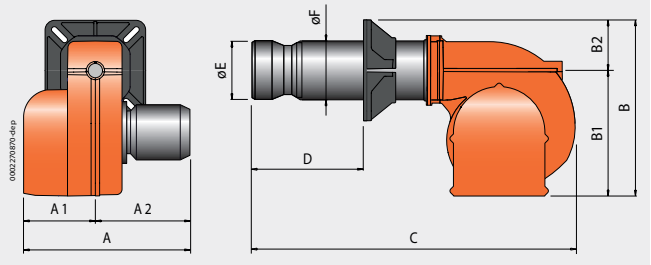
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

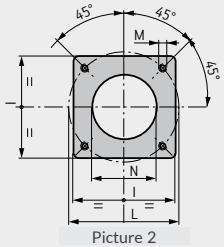
kW 250 - 600 | SERIES TBL

CONFORM TO: 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 EN267.

CE

Light oil burner. Operation:	TBL 60 P two-stage	TBL 60 P DACA two-stage
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Flame detection by phototransistor	•	•
Electric protection rating:	IP40	IP40





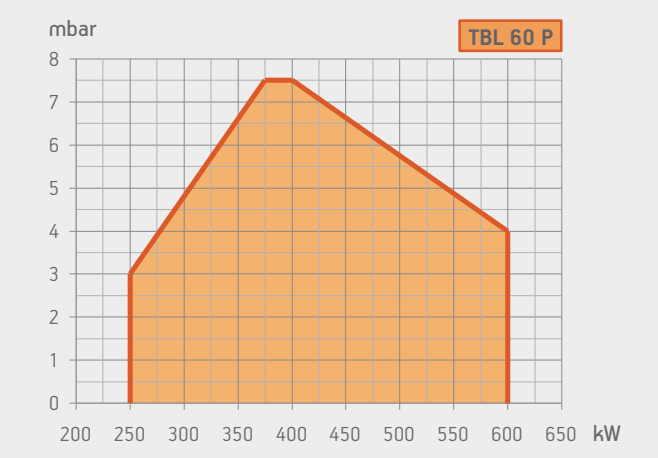
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 60 P	505	260	245	455	325	130	840	140 ÷ 350	150	152	260	225 ÷ 300	M12	167	2
TBL 60 P DACA	535	260	275	455	325	130	880	140 ÷ 350	150	152	260	225 ÷ 300	M12	167	2

kW 250 - 600

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 60 P	1000	600	510	36
TBL 60 P DACA	1000	600	510	36

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	250 ÷ 600	**TBL 60 P**	**35750010**	1,5	3N AC 50Hz 400V	0,65	
	class 2	250 ÷ 600	**TBL 60 P DACA**	**35750110**	1,5	3N AC 50Hz 400V	0,65	4)
			Frequency 60 Hz					
	class 2	250 ÷ 600	**TBL 60 P**	**35755410**	1,5	3N AC 60Hz 380V	0,65	
	class 2	250 ÷ 600	**TBL 60 P DACA**	**35755420**	1,5	3N AC 60Hz 380V	0,65	4)

OPTIONALS

DESCRIPTION
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Line filter 3/8"	98000370
Soundproof burner cover (see page 259)	97980054

LIGHT OIL BURNER ACCESSORIES

Flex hoses, nozzles, boiler coupling kit, plug for wiring.

NOTE

4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 200 - 889

SERIES TBL - BT

LOW NOX

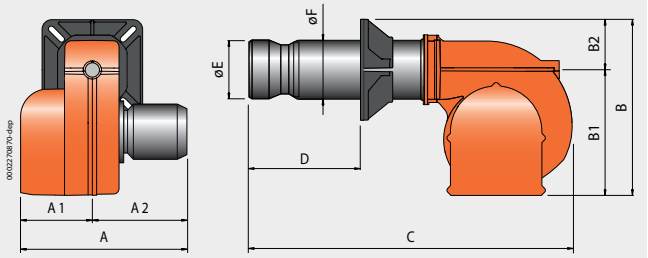
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

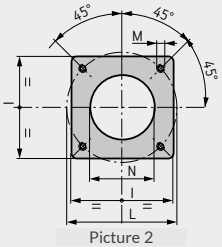
TBL 85 P

TBL 75 LX

BT 75 DSPG

Light oil burner. Operation:	TBL 85 P	TBL 85 P DACA	TBL 75 LX	BT 75 DSPG
	two-stage	two-stage	two-stage	mechanical two-stage progressive
Modulation ratio:				1:2
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	class 3	
Adjusting the combustion head	•	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening		•	•	
Device made of sound-absorbing material to reduce fan noise		•	•	
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve				•
Atomisation unit with magnet to control the outlet/nozzle return pins				•
Flame detection by photoresistance				•
Flame detection by IRD photocell			•	
Flame detection by photodiode	•	•		
Control panel with display diagram for working mode with indication lights	•	•	•	
Electric protection rating:	IP40	IP40	IP44	IP40





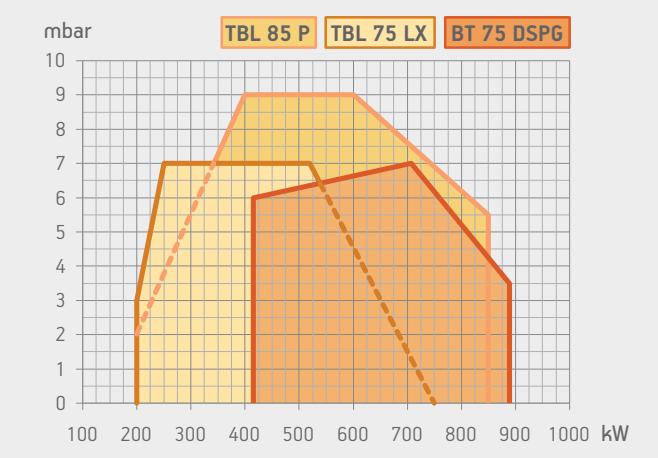
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 85 P	670	300	370	510	380	130	1250	175 ÷ 400	161	159	260	225 ÷ 300	M12	176	2
TBL 85 P DACA	670	300	370	510	380	130	1250	175 ÷ 400	161	159	260	225 ÷ 300	M12	176	2
TBL 75 LX	670	300	370	510	380	130	1240	220 ÷ 400	152	159	260	225 ÷ 300	M12	174	2
BT 75 DSPG	595	310	385	510	365	145	1215	130 ÷ 450	205	160	260	255 ÷ 300	M12	220	2

kW 200 - 889

SERIES TBL - BT



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 85 P	1070	800	700	79
TBL 85 P DACA	1070	800	700	79
TBL 75 LX	1070	800	700	82
BT 75 DSPG	1730	1030	880	140

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	200 ÷ 850	**TBL 85 P**	**35800010**	1,5	3N AC 50Hz 400V	1,10	
	class 2	200 ÷ 850	**TBL 85 P DACA**	**35800110**	1,5	3N AC 50Hz 400V	1,10	3) 4)
	class 3	200 ÷ 750	**TBL 75 LX**	**35820010**	1,5	3N AC 50Hz 400V	1,10	3) 4)
		415 ÷ 889	**BT 75 DSPG**	**3510010**	1,5	3N AC 50Hz 400V	1,10	4)
			Frequency 60 Hz					
	class 2	200 ÷ 850	**TBL 85 P**	**35805410**	1,5	3N AC 60Hz 380V	1,10	
	class 2	200 ÷ 850	**TBL 85 P DACA**	**35805420**	1,5	3N AC 60Hz 380V	1,10	3) 4)
		415 ÷ 889	**BT 75 DSPG**	**35105410**	1,5	3N AC 60Hz 380V	1,5+0,65	4)

TO COMPLETE THE BURNER

DESCRIPTION
BT 75 DSPG: nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
BT 75 DSPG: modulation kit	98000055
BT 75 DSPG: modulating probe (see page 254)	

OPTIONALS

DESCRIPTION
TBL 85 P / 85 P DACA / TBL 75 LX: biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 85 P/85 P DACA - TBL 75 LX: soundproof burner cover (see page 259)	97980053
BT 75 DSPG: soundproof burner cover (see page 259)	97980055

LIGHT OIL BURNER ACCESSORIES

TBL 85 P/85 P DACA - TBL 75 LX: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
BT 75 DSPG: line filter, flex hoses, boiler coupling kit.

NOTE

3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 320 - 1186

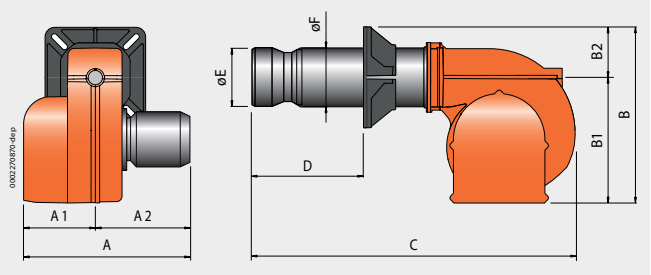
SERIES **TBL - BT**

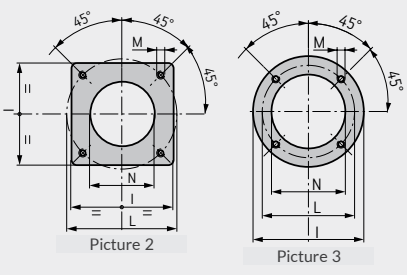
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

TBL 105 P

BT 100 DSPG

Light oil burner. Operation:	TBL 105 P	TBL 105 P DACA	BT 100 DSPG
	two-stage	two-stage	mechanical two-stage progressive
Modulation ratio:			1:2
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	
Device made of sound-absorbing material to reduce fan noise		•	
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve			•
Atomisation unit with magnet to control the outlet/nozzle return pins			•
Flame detection by photoresistance			•
Flame detection by photodiode	•	•	
Control panel with display diagram for working mode with indication lights	•	•	
Electric protection rating:	IP40	IP40	IP40





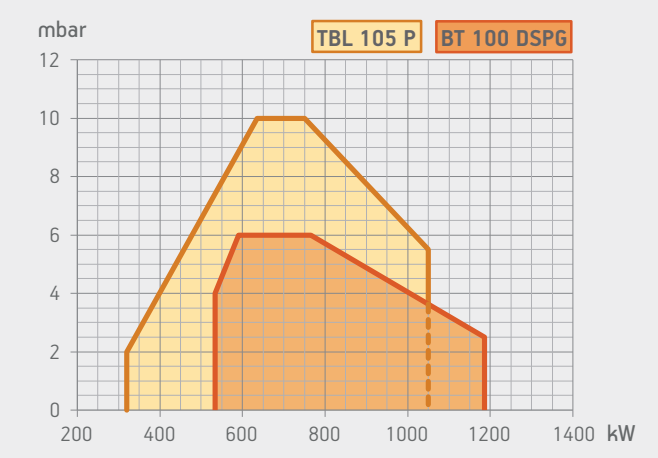
Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 105 P	680	310	370	520	380	140	1250	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBL 105 P DACA	680	310	370	520	380	140	1250	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
BT 100 DSPG	670	330	340	525	365	160	1415	210 ÷ 400	230	195	320	276	M16	245	3

LIGHT OIL BURNERS

kW 320 - 1186

SERIES TBL - BT



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 105 P	1070	800	700	80
TBL 105 P DACA	1070	800	700	80
BT 100 DSPG	1730	1030	880	150

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	320 ÷ 1050	**TBL 105 P**	**35850010**	1,5	3N AC 50Hz 400V	1,50	
	class 2	320 ÷ 1050	**TBL 105 P DACA**	**35850110**	1,5	3N AC 50Hz 400V	1,50	3) 4)
		533 ÷ 1186	**BT 100 DSPG**	**3514010**	1,5	3N AC 50Hz 400V	1,50	4)
			Frequency 60 Hz					
	class 2	320 ÷ 1050	**TBL 105 P**	**35855410**	1,5	3N AC 60Hz 380V	1,50	
	class 2	320 ÷ 1050	**TBL 105 P DACA**	**35855420**	1,5	3N AC 60Hz 380V	1,50	3) 4)
		553 ÷ 1186	**BT 100 DSPG**	**35145410**	1,5	3N AC 60Hz 380V	2,60+0,65	4)

TO COMPLETE THE BURNER

DESCRIPTION
BT 100 DSPG: nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
BT 100 DSPG: modulation kit	98000055
BT 100 DSPG: modulating probe (see page 254)	

OPTIONALS

DESCRIPTION
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 105 P/105 P DACA: soundproof burner cover (see page 259)	97980053
BT 100 DSPG: soundproof burner cover (see page 259)	97980055

LIGHT OIL BURNER ACCESSORIES

TBL 105 P/105 P DACA: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
BT 100 DSPG:line filter, flex hoses, boiler coupling kit.

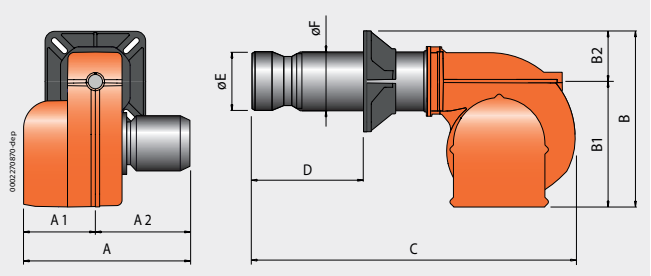
NOTE

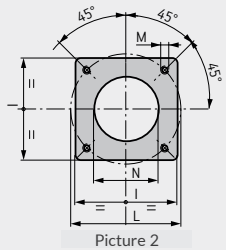
3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 400 - 1300 | SERIES TBL

CONFORM TO: E.M.C DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/EU | MACHINERY DIRECTIVE 2006/42/CE | REFERENCE STANDARD EN267.

	TBL 130 P	TBL 130 P DACA
Light oil burner. Operation:	**two-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•
Device made of sound-absorbing material to reduce fan noise		•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Flame detection by photodiode	•	•
Control panel with display diagram for working mode with indication lights	•	•
Electric protection rating:	IP40	IP40





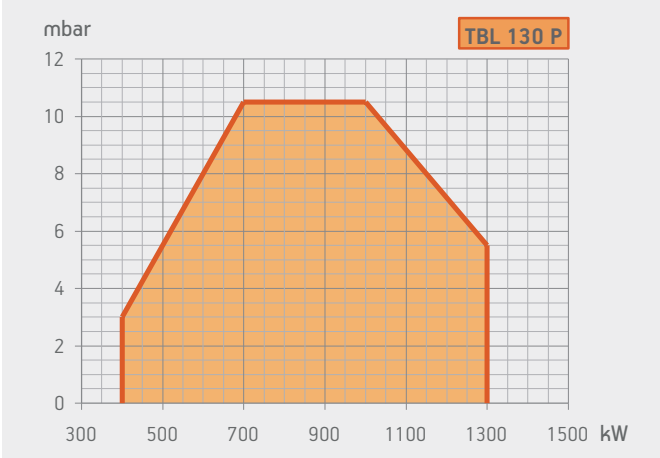
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 130 P	680	310	370	520	380	140	1250	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2
TBL 130 P DACA	680	310	370	520	380	140	1250	175 ÷ 400	180	178	280	250 ÷ 325	M12	195	2

kW 400 - 1300

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 130 P	1070	800	700	85
TBL 130 P DACA	1070	800	700	85

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	400 ÷ 1300	**TBL 130 P**	**35900010**	1,5	3N AC 50Hz 400V	2,2	
	class 2	400 ÷ 1300	**TBL 130 P DACA**	**35900110**	1,5	3N AC 50Hz 400V	2,2	3) 4)
			Frequency 60 Hz					
	class 2	400 ÷ 1300	**TBL 130 P**	**35905410**	1,5	3N AC 60Hz 380V	2,6	
	class 2	400 ÷ 1300	**TBL 130 P DACA**	**35905420**	1,5	3N AC 60Hz 380V	2,6	3) 4)

OPTIONALS

DESCRIPTION
Biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980053

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.

NOTE

3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 474 - 1660

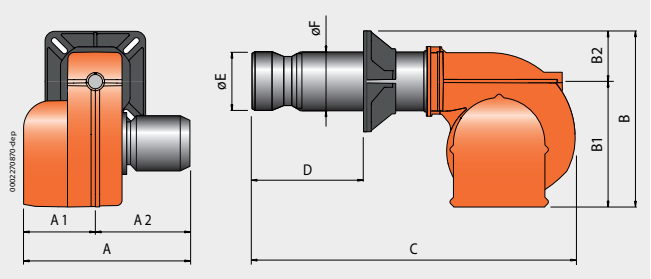
SERIES TBL - BT

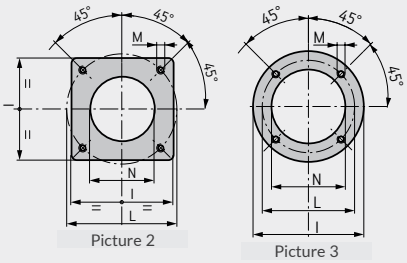
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

TBL 160 P

BT 120 DSPG

Light oil burner. Operation:	TBL 160 P	TBL 160 P DACA	BT 120 DSPG
	two-stage	two-stage	mechanical two-stage progressive
Modulation ratio:			1:3
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	
Device made of sound-absorbing material to reduce fan noise		•	
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve			•
Atomisation unit with magnet to control the outlet/nozzle return pins			•
Flame detection by photoresistance			•
Flame detection by photodiode	•	•	
Control panel with display diagram for working mode with indication lights	•	•	
Electric protection rating:	IP40	IP40	IP40





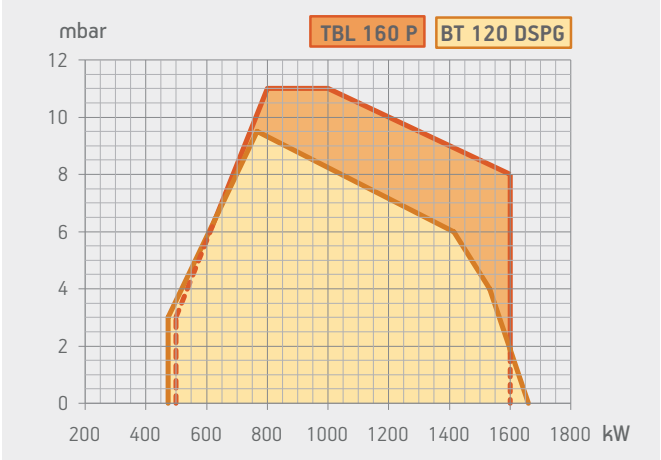
Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 160 P	680	310	370	540	380	160	1300	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
TBL 160 P DACA	680	310	370	540	380	160	1300	200 ÷ 450	224	219	320	280 ÷ 370	M12	239	2
BT 120 DSPG	770	390	380	610	450	160	1415	155 ÷ 500	230	195	320	276	M16	245	3

LIGHT OIL BURNERS

kW 474 - 1660

SERIES TBL - BT



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 160 P	1070	800	700	90
TBL 160 P DACA	1070	800	700	90
BT 120 DSPG	1730	1030	880	175

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	500 ÷ 1600	**TBL 160 P**	**35950010**	1,5	3N AC 50Hz 400V	2,2	
	class 2	500 ÷ 1600	**TBL 160 P DACA**	**35950110**	1,5	3N AC 50Hz 400V	2,2	3) 4)
		474 ÷ 1660	**BT 120 DSPG**	**3518010**	1,5	3N AC 50Hz 400V	2,2	4)
			Frequency 60 Hz					
	class 2	500 ÷ 1600	**TBL 160 P**	**35955410**	1,5	3N AC 60Hz 380V	2,6	
	class 2	500 ÷ 1600	**TBL 160 P DACA**	**35955420**	1,5	3N AC 60Hz 380V	2,6	3) 4)
		474 ÷ 1660	**BT 120 DSPG**	**35185410**	1,5	3N AC 60Hz 380V	3,5+1,3	4)

TO COMPLETE THE BURNER

DESCRIPTION
BT 120 DSPG: nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
BT 120 DSPG: modulation kit	98000055
BT 120 DSPG: modulating probe (see page 254)	

OPTIONALS

DESCRIPTION
TBL 160 P / P DACA: biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 160 P/160 P DACA: soundproof burner cover (see page 259)	97980053
BT 120 DSPG: soundproof burner cover (see page 259)	97980055

LIGHT OIL BURNER ACCESSORIES

TBL 160 P/160 P DACA: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
BT 120 DSPG: line filter, flex hoses, boiler coupling kit.

NOTE

3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW 712 - 2135

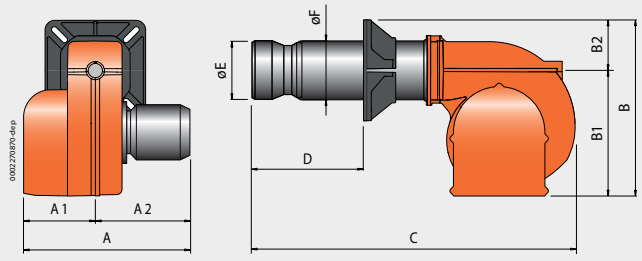
SERIES **TBL - BT**

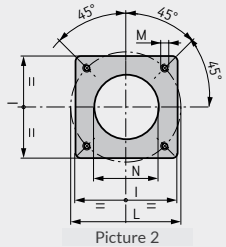
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

TBL 210 P

BT 180 DSPG

Light oil burner. Operation:	TBL 210 P	TBL 210 P DACA	BT 180 DSPG
	two-stage	two-stage	mechanical two-stage progressive
Modulation ratio:			1:3
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•
Combustion air intake designed to achieve optimum linearity of the air gate opening	•	•	
Device made of sound-absorbing material to reduce fan noise		•	
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve			•
Atomisation unit with magnet to control the outlet/nozzle return pins			•
Flame detection by photoresistance			•
Flame detection by photodiode	•	•	





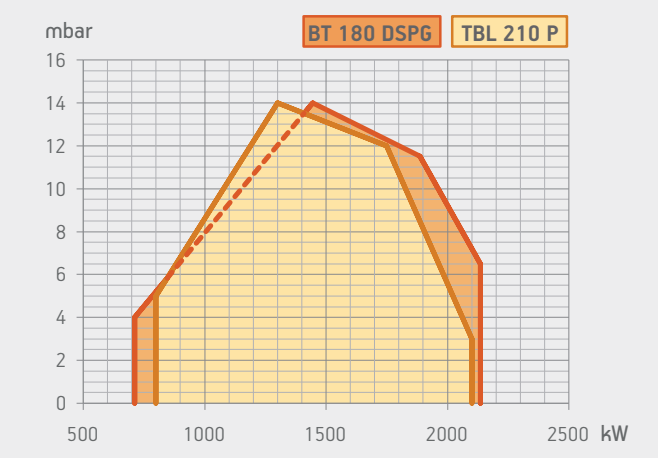
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 210 P	680	310	370	540	380	160	1300	210 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBL 210 P DACA	680	310	370	540	380	160	1300	210 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
BT 180 DSPG	815	390	425	650	450	200	1700	200 ÷ 535	260	220	320	280 ÷ 370	M12	275	2

kW 712 - 2135

SERIES TBL - BT



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 210 P	1070	800	700	94
TBL 210 P DACA	1070	800	700	94
BT 180 DSPG	1730	1030	880	220

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	800 ÷ 2100	**TBL 210 P**	**36000020**	1,5	3N AC 50Hz 400V	3,0	
	class 2	800 ÷ 2100	**TBL 210 P DACA**	**36000010**	1,5	3N AC 50Hz 400V	3,0	3) 4)
		712 ÷ 2135	**BT 180 DSPG**	**3522010**	1,5	3N AC 50Hz 400V	3,0	4)
			Frequency 60 Hz					
	class 2	800 ÷ 2100	**TBL 210 P**	**36005420**	1,5	3N AC 60Hz 380V	2,6	
	class 2	800 ÷ 2100	**TBL 210 P DACA**	**36005410**	1,5	3N AC 60Hz 380V	2,6	3) 4)
		712 ÷ 2135	**BT 180 DSPG**	**35225410**	1,5	3N AC 60Hz 380V	3,5+1,3	4)

TO COMPLETE THE BURNER

DESCRIPTION
BT 180 DSPG: nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
BT 180 DSPG: modulation kit	98000055
BT 180 DSPG: modulating probe (see page 254)	

OPTIONALS

DESCRIPTION
TBL 210 P / 210 P DACA: biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 210 P/210 P DACA : soundproof burner cover (see page 259)	97980053
BT 180 DSPG: soundproof burner cover (see page 259)	97980057

LIGHT OIL BURNER ACCESSORIES

TBL 210 P/210 P DACA: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
BT 180 DSPG: line filter, flex hoses, boiler coupling kit.

NOTE

3 Soundproof lid on burner air intake.
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW **873 - 3186**

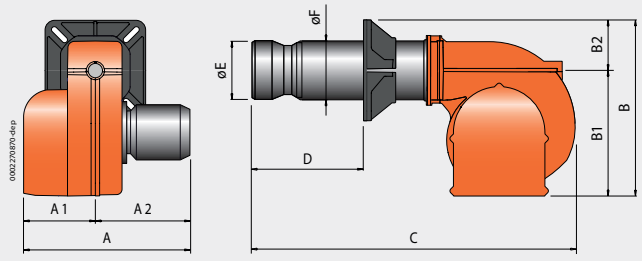
SERIES **TBL - BT**

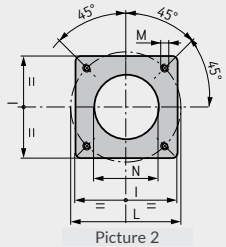
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

TBL 260 P

BT 250 DSPG

Light oil burner. Operation:	TBL 260 P	TBL 260 P DACA	BT 250 DSPG
	two-stage	two-stage	mechanical two-stage progressive
Modulation ratio:			1:3
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	
Adjusting the combustion head	•	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•	•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•	
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve			•
Atomisation unit with magnet to control the outlet/nozzle return pins			•
Flame detection by photoresistance	•	•	•
Flame detection by photodiode	•	•	
Control panel with display diagram for working mode with indication lights	•	•	
Electric protection rating:	IP40	IP40	IP40





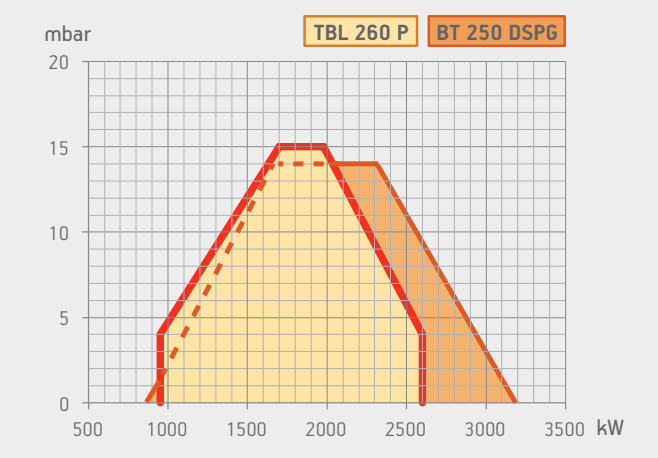
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 260 P	760	340	420	560	400	160	1300	210 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
TBL 260 P DACA	760	340	420	560	400	160	1300	210 ÷ 450	250	219	320	280 ÷ 370	M12	265	2
BT 250 DSPG	1000	520	480	740	580	160	1700	235 ÷ 560	260	220	320	280 ÷ 370	M12	280	2

kW 873 - 3186

SERIES TBL - BT



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 260 P	1070	870	720	105
TBL 260 P DACA	1070	870	720	105
BT 250 DSPG	1030	1150	1010	256

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	950 ÷ 2600	**TBL 260 P**	**36040020**	1,5	3N AC 50Hz 400V	5,5	
	class 2	950 ÷ 2600	**TBL 260 P DACA**	**36040010**	1,5	3N AC 50Hz 400V	5,5	4)
		873 ÷ 3186	**BT 250 DSPG**	**3526010**	1,5	3N AC 50Hz 400V	7,5	4)
			Frequency 60 Hz					
	class 2	950 ÷ 2600	**TBL 260 P**	**36045420**	1,5	3N AC 60Hz 380V	7,5	
	class 2	950 ÷ 2600	**TBL 260 P DACA**	**36045410**	1,5	3N AC 60Hz 380V	7,5	4)
		873 ÷ 3186	**BT 250 DSPG**	**35265410**	1,5	3N AC 60Hz 380V	9,0+1,3	4)

TO COMPLETE THE BURNER

DESCRIPTION
BT 250 DSPG: nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
BT 250 DSPG: modulation kit	98000055
BT 250 DSPG: modulating probe (see page 254)	

OPTIONALS

DESCRIPTION
TBL 260 P / 206 P DACA0: biodiesel operation (see note 5 page 12)

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
TBL 260 P/260 P DACA: soundproof burner cover (see page 259)	97980053
BT 250 DSPG: soundproof burner cover (see page 259)	97980057

LIGHT OIL BURNER ACCESSORIES

TBL 260 P/260 P DACA: line filter, flex hoses, nozzles, boiler coupling kit, plug for wiring.
BT 250 DSPG: line filter, flex hoses, boiler coupling kit.

NOTE

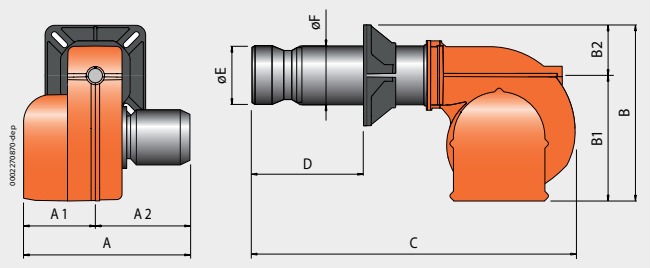
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

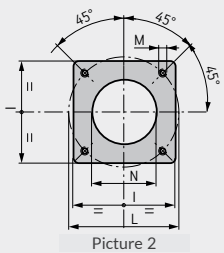
kW 1304 - 3854 | SERIES BT

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

BT 300 DSPG

Light oil burner. Operation:	BT 300 DSPG mechanical two-stage progressive
Modulation ratio:	1:3
Adjusting the combustion head	•
Maintenance facilitated by the possibility of removing the combustion head 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:	mechanical cam
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•
Fuel supply circuit made of gear pump with pressure adjustment and control flow valve	•
Atomisation unit with magnet to control the outlet/nozzle return pins	•
Flame detection by photoresistance	•
Electric protection rating:	IP40





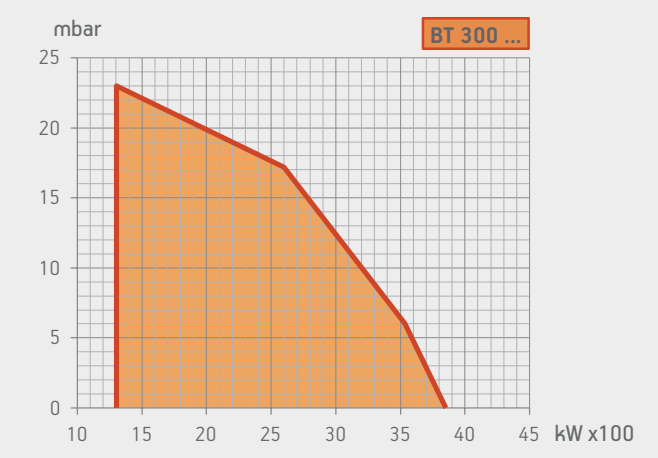
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
BT 300 DSPG	1000	520	480	800	580	220	1900	245 ÷ 605	360	275	440	400 ÷ 540	M20	380	2

kW 1304 - 3854

SERIES **BT**



Model	Size of packaging L	P	H	Weight
	mm			kg
BT 300 DSPG	2030	1150	1010	290

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	1304 ÷ 3854	**BT 300 DSPG**	**3530010**	1,5	3N AC 50Hz 400V	7,5	4)
		Frequency 60 Hz					
	1304 ÷ 3854	**BT 300 DSPG**	**35305410**	1,5	3N AC 60Hz 380V	9,0+1,3	4)

TO COMPLETE THE BURNER

DESCRIPTION
Nozzle with 1 ÷ 3 ratio (see page 255)

MODULATING MODE

DESCRIPTION	PART NO.
Modulation kit	98000055
Modulating probe (see page 254)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980057

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTE

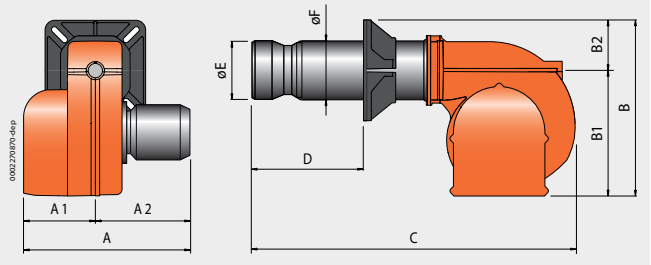
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

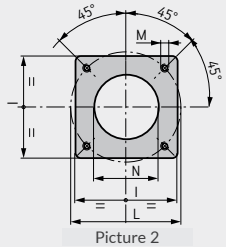
kW **1000 - 3600** | SERIES **TBL**

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE.

TBL 360 P

	TBL 360 P	TBL 360 P DACA
Light oil burner. Operation:	**two-stage**	**two-stage**
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2
Adjusting the combustion head	•	•
Maintenance facilitated by the possibility of removing the combustion head 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:	hydraulic jack	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney		•
Fuel supply circuit made of gear pump with pressure adjustment, shut-off valves and safety valve	•	•
Flame detection by IRD photocell	•	•
Control panel with display diagram for working mode with indication lights	•	•
Electric protection rating:	IP40	IP40





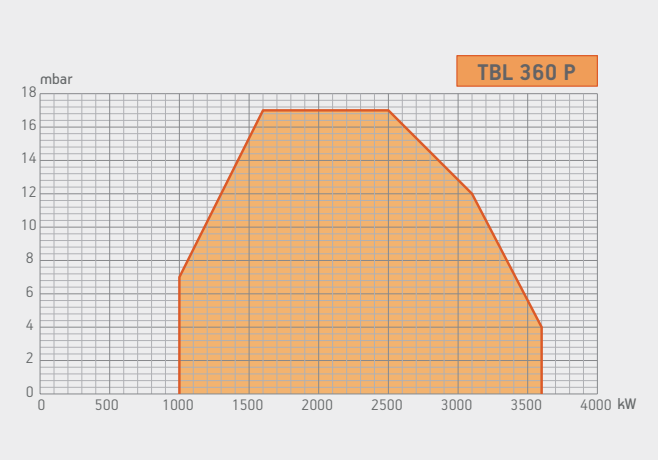
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 360 P	880	465	415	600	400	200	1330	230-440	250	219	320	310-370	M12	255	2
TBL 360 P DACA	880	465	415	600	400	200	1330	230-440	250	219	320	310-370	M12	255	2

kW 1000 - 3600

SERIES TBL



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 360 P	1070	1070	810	115
TBL 360 P DACA	1070	1070	810	115

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	1000 ÷ 3600	**TBL 360 P**	**36080020**	1,5	1N AC 50Hz 230V	7,5	
	class 2	1000 ÷ 3600	**TBL 360 P DACA**	**36080010**	1,5	1N AC 50Hz 230V	7,5	4)
			Frequency 60 Hz					
	class 2	1000 ÷ 3600	**TBL 360 P**	**36085420**	1,5	1N AC 60Hz 220V	9,2	
	class 2	1000 ÷ 3600	**TBL 360 P DACA**	**36085410**	1,5	1N AC 60Hz 220V	9,2	4)

OPTIONALS

DESCRIPTION
Biodiesel operation

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover	97980057

LIGHT OIL BURNER ACCESSORIES

Flex hoses, light oil filter, nozzle

NOTE

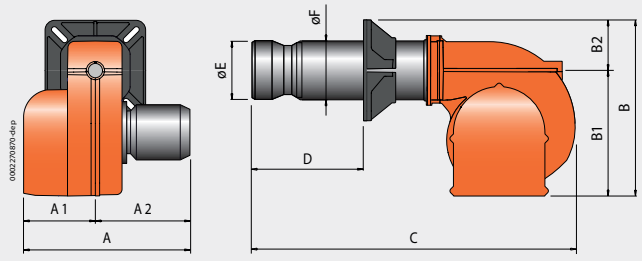
4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

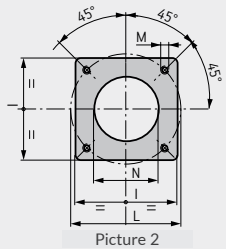
kW **1000 - 7500** | SERIES **TBL**

CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE. CE

Light oil burner. Operation:	TBL 450 ME	TBL 510 ME	TBL 650 ME	TBL 750 ME
	electronic modulation	electronic modulation	electronic modulation	electronic modulation
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional	optional	optional
Modulation ratio:	1:4	1:4	1:4	1:4
Low NOx and CO emissions light oil burner according to European standard EN267:	class 2	class 2	class 2	class 2
Adjusting the combustion head	•	•	•	•
Maintenance facilitated by the possibility of removing the combustion head without having to remove the burner from the boiler	•	•	•	•
Fixed boiler coupling flange	•	•	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric servomotor	electric servomotor	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•	•	•
Electronic motor for pump drive	•	•	•	•
Fuel supply circuit made of gear pump with pressure adjustment, flow regulator valve with servomotor, shut-off valve, two safety valves, maximum pressure switch	•	•	•	•
Flame detection by UV photocell	•	•	•	•
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	•	•	•	•

*) On request IP54





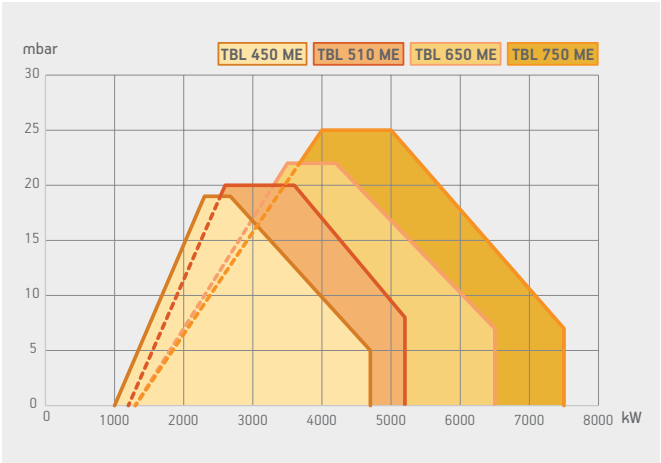
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 450 ME	1200	670	530	820	535	285	1790	600	389	410	480	520 - 600	M20	415	2
TBL 510 ME	1313	733	580	820	535	285	1805	600	389	410	480	520 - 600	M20	415	2
TBL 650 ME	1313	733	580	820	535	285	1805	600	389	410	480	520 - 600	M20	415	2
TBL 750 ME	1380	733	647	820	535	285	1805	600	389	410	480	520 - 600	M20	415	2

kW **1000 - 7500**

SERIES **TBL**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 450 ME	2065	1525	1200	300
TBL 510 ME	2065	1525	1200	303
TBL 650 ME	2065	1525	1200	330
TBL 750 ME	2065	1525	1200	360

	Emissions class	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
			Frequency 50 Hz					
	class 2	1000 ÷ 4700	**TBL 450 ME**	**36130010**	1,5	3N AC 50Hz 400V	9,2+1,5	4)
	class 2	1200 ÷ 5200	**TBL 510 ME**	**36160010**	1,5	3N AC 50Hz 400V	11,0+1,5	4)
	class 2	1300 ÷ 6500	**TBL 650 ME**	**36190010**	1,5	3N AC 50Hz 400V	15,0+2,2	4)
	class 2	1300 ÷ 7500	**TBL 750 ME**	**36220010**	1,5	3N AC 50Hz 400V	18,5+2,2	4)
			Frequency 60 Hz					
	class 2	1000 ÷ 4700	**TBL 450 ME**	**on demand**	1,5	3N AC 60Hz 380V	9,2+1,5	4)
	class 2	1200 ÷ 5200	**TBL 510 ME**	**on demand**	1,5	3N AC 60Hz 380V	11,0+1,5	4)
	class 2	1300 ÷ 6500	**TBL 650 ME**	**on demand**	1,5	3N AC 60Hz 380V	15,0+2,2	4)
	class 2	1300 ÷ 7500	**TBL 750 ME**	**on demand**	1,5	3N AC 60Hz 380V	18,5+2,2	4)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit	98000059
Modulating probe for LCM 100 (see page 254)	
Nozzle with 1÷4 ratio (see page 255)	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980058
Soundproof burner cover (see page 259)	97980059

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

kW **1500 - 12000** | SERIES **TBL ME**

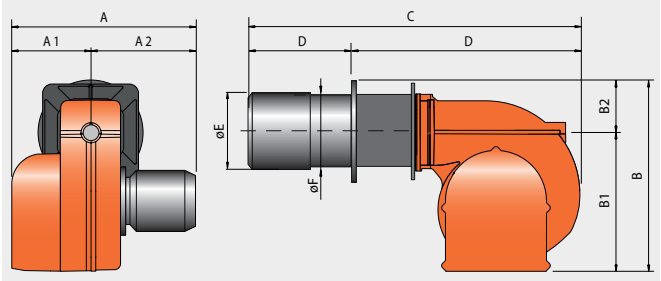
CONFORM TO: E.M.C. DIRECTIVE 2014/30/UE | L.V. DIRECTIVE 2014/35/UE | MACHINERY DIRECTIVE 2006/42/CE. CE

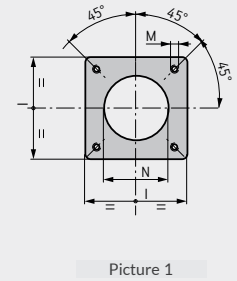
TBL 1000

TBL 1200

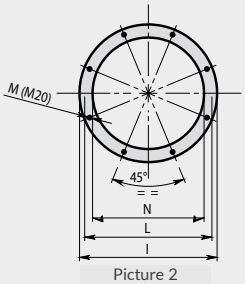
Light oil burner. Operation:	TBL 1000 ME modulating electronic	TBL 1200 ME modulating electronic
P.I.D. controller and signal receiver (0÷10V / 4÷20 mA) integrated in burner control panel	optional	optional
Modulation ratio:	1:5	1:4
Maintenance facilitated by the possibility of removing the combustion head without having to remove the burner from the boiler	•	•
Fixed boiler coupling flange	•	•
Combustion air intake with butterfly valve. Air flow adjustment:	electric servomotor	electric servomotor
Fully closing air damper on shutdown to avoid loss of heat through the chimney	•	•
Electric motor for pump drive	•	•
Fuel supply circuit made of gear pump with pressure adjustment, control flow valve, shut-off valves and safety valve, safety pressure switch	•	•
Flame detection by UV photocell	•	•
Control panel equipped either with display showing the working process and with the keyboard for the burner adjustment	•	•
Electric protection rating:	IP40 *)	IP40 *)
Sound-proof plastic protective cover	•	•

*) On request IP54





Picture 1



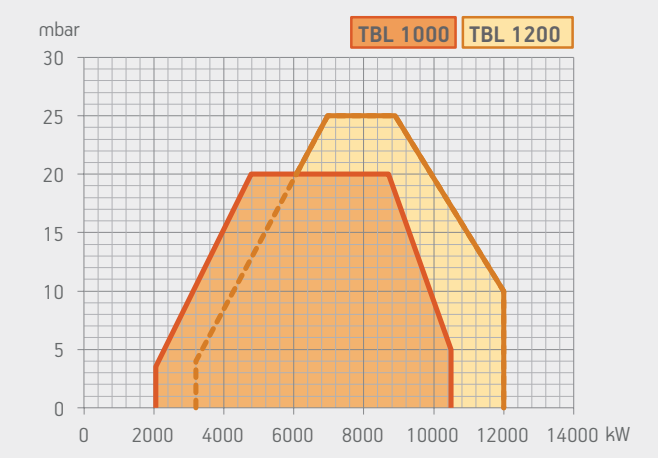
Picture 2

Flange dimensions and boiler drilling template.

Model	A mm	A1 mm	A2 mm	B mm	B1 mm	B2 mm	C mm	D mm	D1 mm	E mm	F mm	I mm	L mm	M	N mm	Pic.
TBL 1000 ME	1 530	880	650	1050	770	280	1924-2014	632-722	1292	426	432	520	–	M20	462	1
TBL 1200 ME	1650	900	750	1130	780	350	2300	750	-	496	503	685	630	M20	550	2

kW **1500 - 12000**

SERIES **TBL ME**



Model	Size of packaging L	P	H	Weight
	mm			kg
TBL 1000 ME	2020	1530	1050	447
TBL 1200 ME	2610	1760	1470	637

	Thermal output kW	Model	Part no.	Max visc. °E at 20°C	Electrical supply	Motor kW	Note
		Frequency 50 Hz					
	2050 ÷ 10500	**TBL 1000 ME**	**36250010**	1,5	3N AC 50Hz 400V	22+4	4)
	3160 ÷ 12000	**TBL 1200 ME**	**36290010**	1,5	3N AC 50Hz 400V	22+4	4)
		Frequency 60 Hz					
	2050 ÷ 10500	**TBL 1000 ME**	**36255410**	1,5	3N AC 50Hz 400V	30+3,5	4)
	3160 ÷ 12000	**TBL 1200 ME**	**36295410**	1,5	3N AC 50Hz 400V	30+4,8	4)

TO COMPLETE THE BURNER

DESCRIPTION	PART NO.
Modulation kit (see page 254)	98000059
Modulation probe (see page 254)	
TBL 1000 ME: nozzle (see page 255)	
TBL 1200 ME: nozzle included	

ACCESSORIES AVAILABLE ON REQUEST

DESCRIPTION	PART NO.
Soundproof burner cover (see page 259)	97980061

LIGHT OIL BURNER ACCESSORIES

Line filter, flex hoses, boiler coupling kit.

NOTE

4 Equipped with automatic air closure device.
Net calorific value of light oil: Hi = 42,70 MJ/kg = 10200 kcal/kg.

MODULATION

The two stage progressive burners, by installing the PID load controller and related modulating kit, can operate as modulating burners with the ability to adjust the thermic load according to boiler needs.
The load adjustment is possible between the minimum and maximum burner's operating point.

How to choose the modulating kit components:
According to the parameter that it's necessary to control: temperature (°C) or pressure (bar) it's necessary to choose the range kit according to boiler operating range.

In case the value is included in two ranges it's necessary to select the lower range.

Example:
In case the required hot water boiler set point is 100°C it's necessary to select the temperature probe kit with operating range between 0 ÷ 130°C.
In case the steam boiler must operate with 8bar outlet steam pressure it's necessary to select the pressure probe kit with operating range between 0 ÷ 10 bar.

Automatic proportional modulation regulator PID

Part no.	Model
98000055	Modulation kit LC3
98000056	Modulation kit LC3
98000057	Modulation kit LC3
98000058	Modulation kit LC3
98000059	Modulation kit LCM 100

Temperature probe for LC3 modulation

Part no.	Temperature	Type robe	Probe length	Male coupling
98000023	0 °C ÷ 130 °C	PT 1000	85 [1)]	R 1/2"
98000021	0 °C ÷ 500 °C	PT 1000	200 [1)]	G 1/2"
98000022	0 °C ÷ 1100 °C	Thermocouple	425 [1)]	R 1/2"

Temperature probe for LCM 100 modulation

Part no.	Temperature	Type robe	Probe length	Male coupling
98000023	0 °C ÷ 130 °C	PT 1000	85 [1)]	R 1/2"
98000021	0 °C ÷ 500 °C	PT 1000	200 [1)]	G 1/2"

Temperature probe for ETAMATIC OEM control box

Part no.	Temperature	Type robe	Probe length	Male coupling
98000035	0 °C ÷ 500 °C	PT 100	100 [1)]	G 1/2"

Steam pressure probe (for all types of automatic regulator)*

Part no.	Pressure steam	Signal output	Male coupling
98000045	0 ÷ 1 bar	4 ÷ 20 mA	G 1/2"
98000046	0 ÷ 10 bar	4 ÷ 20 mA	G 1/2"
98000047	0 ÷ 16 bar	4 ÷ 20 mA	G 1/2"
98000048	0 ÷ 25 bar	4 ÷ 20 mA	G 1/2"
98000049	0 ÷ 40 bar	4 ÷ 20 mA	G 1/2"

*) In the case of using applications where temperatures exceed 90°C you need to match the kit codes: 98000062

External climate regulation

Part no.	Description	Temperature
85060070	Temperature probe PT100	-50 °C ÷ 90 °C
98000061	Interface module for LC3	

Power signal converter (TBG 45÷360 MC / LX MC)

Part no.	Description
98000063	Converter kit 0 ÷ 10 V / 4 ÷ 20 mA

Note: For different modulation values please contact our Technical Assistance Service.
1) Different lengths on request.

RETURN NOZZLES

Nozzle with fuel return for diesel and mixed series two-stage progressive / modulating and modulating burners. This kind of nozzle, while keeping the pump pressure constant, varies the amount of fuel supplied according to the return pressure of the nozzle.
To be ordered together with the burner when placing the order according to the power required by the application.

Nozzles for light oil and heavy oil (ratio 1÷3)

excluded burners: TBML 800

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000201	50	45°
98000202	60	45°
98000203	70	45°
98000204	80	45°
98000205	90	45°
98000206	100	45°
98000207	125	45°
98000208	150	45°
98000209	175	45°
98000210	200	45°
98000211	225	45°
98000212	250	45°
98000213	275	45°
98000214	300	45°
98000215	325	45°
98000216	350	45°
98000217	375	45°

Codice	Rated flow-rate kg/h	Flow-rate angle
98000218	400	45°
98000219	425	45°
98000220	450	45°
98000221	475	45°
98000222	500	45°
98000223	525	45°
98000224	550	45°
98000225	575	45°
98000226	600	45°
98000227	650	45°
98000228	700	45°
98000229	750	45°
98000230	800	45°
98000231	850	45°
98000232	900	45°
98000233	1000	45°

Nozzles for light oil and heavy oil (ratio 1÷4)

for burners TBML 450÷900 - TBL 450÷750 - TBL 1000÷1200

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000264	200	45°
98000265	225	45°
98000266	250	45°
98000267	275	45°
98000268	300	45°
98000269	330	45°
98000270	360	45°
98000272	400	45°
98000274	450	45°

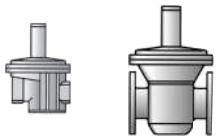
Part no.	Rated flow-rate kg/h	Flow-rate angle
98000275	500	45°
98000277	550	45°
98000278	600	45°
98000279	650	45°
98000271	700	45°
98000273	750	45°
98000276	800	45°
98000287	850	50°
98000288	900	50°

Nozzles for light oil and heavy oil (ratio 1÷5)

for burners TBML 800 - TBL 1000÷1200

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000238	200	45°
98000239	225	45°
98000240	250	45°
98000241	275	45°
98000242	300	45°
98000243	325	45°
98000244	350	45°
98000245	375	45°
98000246	400	45°
98000247	425	45°
98000248	450	45°

Part no.	Rated flow-rate kg/h	Flow-rate angle
98000249	475	45°
98000250	500	45°
98000251	525	45°
98000252	550	45°
98000253	575	45°
98000254	600	45°
98000255	650	45°
98000256	700	45°
98000257	750	45°
98000258	800	45°
98000259	850	45°
98000260	900	45°



Gas pressure regulator with incorporated filter approved CE*

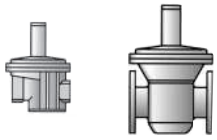
Control closing , pressure taps upstream side - the side valley , safety diaphragm.
Max inlet pressure : 1 bar.

Part no.	Model	Outlet pressure mbar	Gas connection
97392010	BTFR/1	40 ÷ 110	1/2"
97392020	BTFR/1	40 ÷ 110	3/4"
97392030	BTFR/1	40 ÷ 110	1"
97392040	BTFR/1	90 ÷ 190	1"1/4
97392050	BTFR/1	90 ÷ 190	1"1/2
97392060	BTFR/1	90 ÷ 190	2"
97392070	BTFR/1	110 ÷ 200	DN65 - PN16
97392080	BTFR/1	110 ÷ 200	DN80 - PN16
97392090	BTFR/1	130 ÷ 200	DN100 - PN16

CE gas pressure regulator CE*

Control closing , pressure taps upstream side - the side valley , safety diaphragm.
Max inlet pressure : 1 bar.

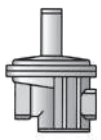
Part no.	Model	Outlet pressure mbar	Gas connection
97392100	BTR/1	100 ÷ 250	DN125 - PN16
97392110	BTR/1	100 ÷ 250	DN150 - PN16



Gas pressure regulator with incorporated filter approved CE*

Control closing , pressure taps upstream side - the side valley , safety diaphragm.
Max inlet pressure : 2 bar.

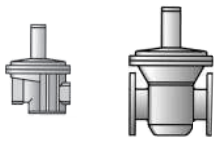
Part no.	Model	Outlet pressure mbar	Gas connection
97392210	BTFR/2	40 ÷ 110	1/2"
97392220	BTFR/2	40 ÷ 110	3/4"
97392230	BTFR/2	40 ÷ 110	1"
97392240	BTFR/2	90 ÷ 190	1"1/4
97392250	BTFR/2	90 ÷ 190	1"1/2
97392260	BTFR/2	90 ÷ 190	2"
97392270	BTFR/2	110 ÷ 200	DN65 - PN16
97392280	BTFR/2	110 ÷ 200	DN80 - PN16
97392290	BTFR/2	130 ÷ 200	DN100 - PN16



Gas pressure regulator with incorporated filter approved CE*

Control closing , pressure taps upstream side - the side valley , safety diaphragm.
Max inlet pressure : 6 bar.

Part no.	Model	Outlet pressure mbar	Gas connection
97392310	BTFR/6	30 ÷ 90	1/2"
97392320	BTFR/6	30 ÷ 90	3/4"
97392330	BTFR/6	30 ÷ 90	1"



CE gas pressure regulator CE*

Control closing , pressure taps upstream side - the side valley , safety diaphragm.
Max inlet pressure : 6 bar.

Part no.	Model	Outlet pressure mbar	Gas connection
97392340	BTR/6	85 ÷ 180	1"1/4
97392350	BTR/6	85 ÷ 180	1"1/2
97392360	BTR/6	85 ÷ 180	2"
97392370	BTR/6	110 ÷ 200	DN65 - PN16
97392380	BTR/6	110 ÷ 200	DN80 - PN16
97392390	BTR/6	110 ÷ 200	DN100 - PN16

*) All the pressure regulators in these pages have a standard spring with its own adjustment field For different delivery pressures, the able below shows the regulation field that must be used, as well as the corresponding spring to replace the standard one with.

PRESSURE REGULATOR SPRINGS

			1/2"	3/4"	1"	1"1/4	1"1/2	2"	DN 65	DN 80	DN 100	DN 125	DN 150
PRESSURE INPUT 1bar		regulator code	97392010	97392020	97392030	97392040	97392050	97392060	97392070	97392080	97392090	97392100	97392110
	code spring	97399002	9 ÷ 28	9 ÷ 28	9 ÷ 28								
		97399005	18 ÷ 40	18 ÷ 40	18 ÷ 40								
		97399007				13 ÷ 23	13 ÷ 23	13 ÷ 23					
		97399008	**40 ÷ 110***	**40 ÷ 110***	**40 ÷ 110***								
		97399009				20 ÷ 36	20 ÷ 36	20 ÷ 36					
		97399010	110 ÷ 150	110 ÷ 150	110 ÷ 150								
		97399011	150 ÷ 200	150 ÷ 200	150 ÷ 200	33 ÷ 58	33 ÷ 58	33 ÷ 58					
		97399012				55 ÷ 100	55 ÷ 100	55 ÷ 100					
		97399013							13 ÷ 27	13 ÷ 27	15 ÷ 27		
		97399014							22 ÷ 50	22 ÷ 50	22 ÷ 55		
		97399015	200 ÷ 600	200 ÷ 600	200 ÷ 600								
		97399016				**90 ÷ 190***	**90 ÷ 190***	**90 ÷ 190***					
		97399017							50 ÷ 130	50 ÷ 130	55 ÷ 130		
		97399018							**110 ÷ 200***	**110 ÷ 200***	**130 ÷ 200***		
		97399019										20 ÷ 150	20 ÷ 150
		97399020										**100 ÷ 250***	**100 ÷ 250***
		97399021										230 ÷ 350	230 ÷ 350
		97399022										300 ÷ 450	300 ÷ 450
PRESSURE INPUT 2 bar		regulator code	97392210	97392220	97392230	97392240	97392250	97392260	97392270	97392280	97392290		
	code spring	97399001	9 ÷ 22	9 ÷ 22	9 ÷ 22								
		97399005	20 ÷ 40	20 ÷ 40	20 ÷ 40								
		97399008	**40 ÷ 110***	**40 ÷ 110***	**40 ÷ 110***	12 ÷ 35	12 ÷ 35	12 ÷ 35					
		97399010	110 ÷ 150	110 ÷ 150	110 ÷ 150	30 ÷ 50	30 ÷ 50	30 ÷ 50					
		97399011	150 ÷ 200	150 ÷ 200	150 ÷ 200	40 ÷ 60	40 ÷ 60	40 ÷ 60					
		97399012				60 ÷ 95	60 ÷ 95	60 ÷ 95					
		97399013							13 ÷ 27	13 ÷ 27	15 ÷ 27		
		97399014							22 ÷ 50	22 ÷ 50	27 ÷ 55		
		97399015	200 ÷ 600	200 ÷ 600	200 ÷ 600								
		97399016				**90 ÷ 190***	**90 ÷ 190***	**90 ÷ 190***					
		97399017							50 ÷ 130	50 ÷ 130	55 ÷ 130		
		97399018							**110 ÷ 200***	**110 ÷ 200***	**130 ÷ 200***		
PRESSURE INPUT 6 bar		regulator code	97392310	97392320	97392330	97392340	97382350	97392360	97392370	97392380	97392390		
	code spring	97399003	20 ÷ 30	20 ÷ 30	20 ÷ 30								
		97399004	**30 ÷ 90***	**30 ÷ 90***	**30 ÷ 90***								
		97399006	90 ÷ 170	90 ÷ 170	90 ÷ 170								
		97399009				15 ÷ 33	15 ÷ 33	15 ÷ 33					
		97399011				32 ÷ 60	32 ÷ 60	32 ÷ 60					
		97399012				50 ÷ 95	50 ÷ 95	50 ÷ 95					
		97399013							13 ÷ 27	13 ÷ 27	13 ÷ 22		
		97399014							22 ÷ 58	22 ÷ 58	18 ÷ 40		
		97399016				**85 ÷ 180***	**85 ÷ 180***	**85 ÷ 180***					
		97399017							50 ÷ 130	50 ÷ 130	25 ÷ 120		
		97399018							**110 ÷ 200***	**110 ÷ 200***	**110 ÷ 200***		

*) of series.

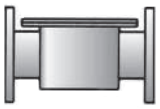
SPRINGS FOR PRESSURE REGULATOR

Part no.	Type
97399001	Regulator spring M0-0400
97399002	Regulator spring M0-0402
97399003	Regulator spring M0-0410
97399004	Regulator spring M0-0440
97399005	Regulator spring M0-0500
97399006	Regulator spring M0-0520
97399007	Regulator spring M0-0800
97399008	Regulator spring M0-0825
97399009	Regulator spring M0-0850
97399010	Regulator spring M0-0900
97399011	Regulator spring M0-0970

Part no.	Type
97399012	Regulator spring M0-1000
97399013	Regulator spring M0-1100
97399014	Regulator spring M0-1200
97399015	Regulator spring M0-1305
97399016	Regulator spring M0-1370
97399017	Regulator spring M0-1400
97399018	Regulator spring M0-1400/1800
97399019	Regulator spring M0-8400
97399020	Regulator spring M0-8500
97399021	Regulator spring M0-8600
97399022	Regulator spring M0-8700

Gas filters approved CE

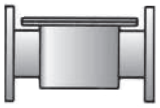
With pressure.
Max inlet pressure: 2 bar.



Part no.	Model	Gas connection
97410001	BTF	1/2" FF
97410002	BTF	3/4" FF
97410003	BTF	1" FF
97410004	BTF	1"1/4 FF
97410005	BTF	1"1/2 FF
97410006	BTF	2" FF
97419999	BTF	DN65 - PN16
97429999	BTF	DN80 - PN16
97439999	BTF	DN100 - PN16
97459999	BTF	DN125 - PN16
97449999	BTF	DN150 - PN16

Gas filters approved CE

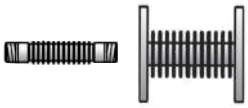
With pressure.
Max inlet pressure: 6 bar.



Part no.	Model	Gas connection
97410010	BTF/6	1" 1/4" FF
97410011	BTF/6	1" 1/2" FF
97410012	BTF/6	2" FF
97410013	BTF/6	DN65 - PN16
97410014	BTF/6	DN80 - PN16
97410015	BTF/6	DN100 - PN16

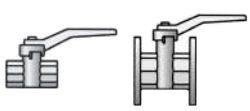
Anti-vibration and compensation joints approved CE

DIN 30681 stainless steel.



Part no.	Model	Gas connection
97029999	BTGA	1/2" MM
97039999	BTGA	3/4" MM
97049999	BTGA	1" MM
97059999	BTGA	1" 1/4" MM
97069999	BTGA	1" 1/2" MM
97079999	BTGA	2" MM
97089999	BTGA	DN65 - PN16
97099999	BTGA	DN80 - PN16
97109999	BTGA	DN100 - PN16
97119999	BTGA	DN125 - PN16
97129999	BTGA	DN150 - PN16

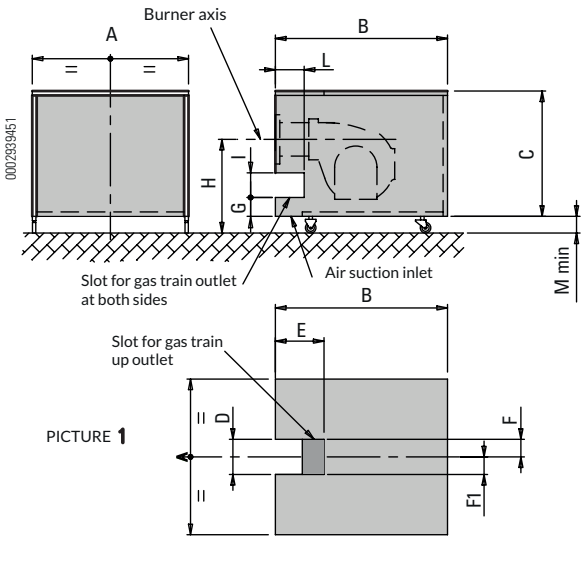
Ball valves approved CE



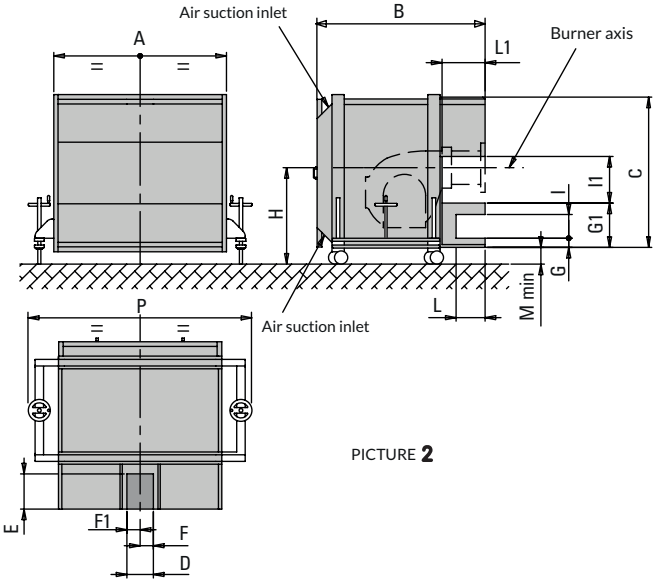
Part no.	Model	Gas connection
97679999	BTVS	3/8" FF
97689999	BTVS	1/2" FF
97699999	BTVS	3/4" FF
97709999	BTVS	1" FF
97719999	BTVS	1" 1/4" FF
97729999	BTVS	1" 1/2" FF
97739999	BTVS	2" FF
97749999	BTVS	DN65 - PN16
97759999	BTVS	DN80 - PN16
97769999	BTVS	DN100 - PN16
97179999	BTVS	DN125 - PN16
97189999	BTVS	DN150 - PN16

SOUNDPROOF BURNER

Average sound pressure reduction of about 10 dB(A) measured in a laboratory with 1 meter microphone from the burner.



PICTURE **1**

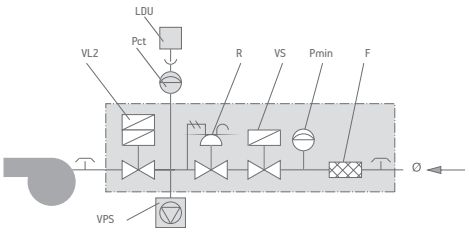


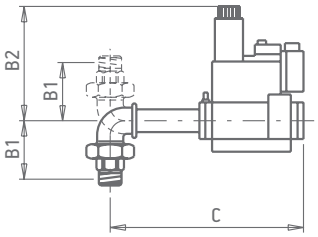
PICTURE **2**

Model	Sound pressure	Pic.	A	B	C	D	E	F	F1	G	G1	H mm		I	I1	L	L1	M min	P
			mm	mm	mm	mm	mm	mm	mm	mm	mm	min	max	mm	mm	mm	mm	mm	mm
97980053*	-10 dB(A)	1	1100	1340	860	85	500	42,5	42,5	207	-	660	1350	85	-	500	-	190	-
97980054	-10 dB(A)	1	750	1080	650	85	380	42,5	42,5	157	-	560	1060	85	-	355	-	190	-
97980055	-10 dB(A)	1	1100	1340	860	85	440	42,5	42,5	–	-	650	1300	–	-	–	–	190	-
97980057	-10 dB(A)	1	1335	1655	1130	210	495	47,5	162,5	–	-	900	1700	–	-	–	–	190	-
97980058*	-10 dB(A)	1	1610	1740	1190	500	380	37,5	462,5	24,5	-	950	1700	210	-	380	-	190	-
97980059	-20 dB(A)	1	1560	1645	1190	500	380	37,5	462,5	245	-	950	1700	210	-	380	-	190	-
97980061	-20 dB(A)	2	1956	1945	1740	300	400	150	150	104	504	1450	1700	270	530	330	490	180	2540

Note:
For gas burners in case of gas train up outlet it is necessary to install a 200 mm long cilindric extension.
*) To decrease the sound pressure by 20 dB(A) please contact our sales office.

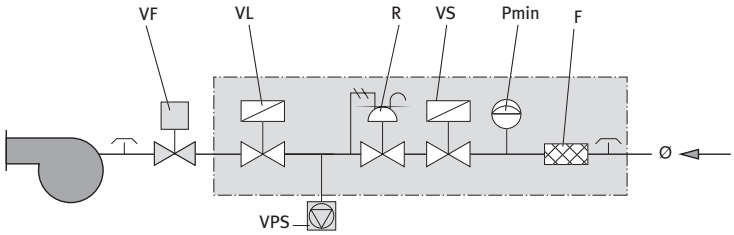
B2

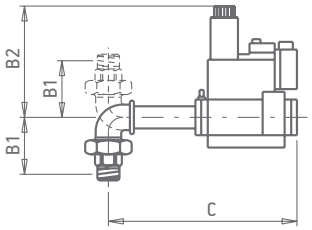




Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight
	F	LDU	Pct	Pmin	R	VL2	VPS	VS	Ø	B1	B2	C	L x P x H	kg
19990016 (MB... 405 - 1/2")	●			●	●	●	■	●	3/4"	72	210	204	300 x 210 x 300	5
19990020 (MB... 407 - 3/4")	●			●	●	●	■	●	3/4"	72	210	204	300 x 210 x 300	5
19990024 (MB... 410 - 1")	●			●	●	●	■	●	1"1/4	95	260	249	300 x 210 x 300	8
19990168 (MB... 412 - 1"1/4)	●			●	●	●	■	●	1"1/4	95	260	249	300 x 210 x 300	8
19990510 (MB... 407 - 3/4")	●			●	●	●	■	●	3/4"	72	210	365	300 x 210 x 300	5
19990511 (MB... 410 - 1")	●			●	●	●	■	●	1"1/4	95	260	410	300 x 210 x 300	8
19990512 (MB... 412 - 1"1/4)	●			●	●	●	■	●	1"1/4	95	260	410	300 x 210 x 300	8
19990513 (MB... 415 - 1"1/2)	●			●	●	●	■	●	1"1/2	103	270	500	460 x 250 x 460	11
19990514 (MB... 420 - 2")	●			●	●	●	■	●	2"	114	330	500	460 x 260 x 460	13

B7



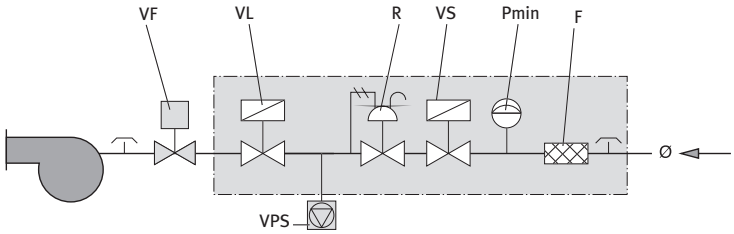


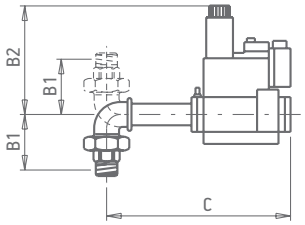
Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight
	F	Pmin	R	VF	VL	VPS	VS	Ø	B1	B2	C	L x P x H	kg
19990545 (MB...407 - 3/4")	●	●	●	◆	●	■	●	3/4"	72	210	450	300 x 210 x 300	5
19990546 (MB...410 - 1")	●	●	●	◆	●	■	●	1"1/4	95	260	490	400 x 300 x 280	8
19990547 (MB...412 - 1"1/4)	●	●	●	◆	●	■	●	1"1/4	95	260	490	400 x 300 x 280	8
19990548 (MB...415 - 1"1/2)	●	●	●	◆	●	▲	●	1"1/2	103	170	600	460 x 250 x 460	11
19990549 (MB...420 - 2")	●	●	●	◆	●	▲	●	2"	114	220	600	460 x 250 x 460	13
19990550 (VGD20.503 - 2")	●	●	●	◆	●	▲	●	2"	114	285	890	990 x 300 x 500	15
19990563 (VGD40.065 - 2"1/2)	●	●	●	◆	●	▲	●	DN65	114	320	1120	1380 x 430 x 700	26
19990564 (VGD40.080 - 3")	●	●	●	◆	●	▲	●	DN80	114	325	1175	1380 x 430 x 700	28
19990609 (MB...420 - 2")	●	●	●	◆	●	▲	●	2"	114	220	600	460 x 250 x 460	13
19990628 (MB...415 - 1"1/2)	●	●	●	◆	●	▲	●	1"1/2	103	170	600	460 x 250 x 460	11
19990629 (VGD40.065 - 2"1/2)	●	●	●	◆	●	▲	●	DN65	125	320	760	1030 x 430 x 650	35
19990630 (VGD40.080 - 3")	●	●	●	◆	●	▲	●	DN80	175	325	860	1030 x 430 x 650	37

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

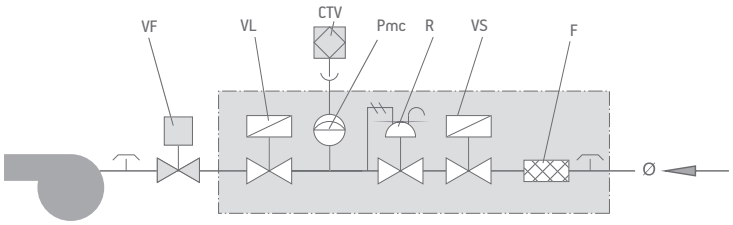
BE7

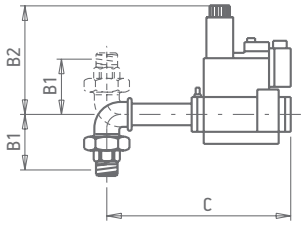




Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight
	F	Pmin	R	VF	VL	VPS	VS	Ø	B1	B2	C	L x P x H	kg
19990548 (MB...415 - 1"1/2)	●	●	●	◆	●	■	●	1"1/2	103	170	600	460 x 250 x 460	11
19990549 (MB...420 - 2")	●	●	●	◆	●	■	●	2"	114	220	600	460 x 250 x 460	13
19990550 (VGD20.503 - 2")	●	●	●	◆	●	■	●	2"	114	285	890	990 x 300 x 500	15
19990563 (VGD40.065 - 2"1/2)	●	●	●	◆	●	■	●	DN65	114	320	1120	1380 x 430 x 700	26
19990564 (VGD40.080 - 3")	●	●	●	◆	●	■	●	DN80	114	325	1175	1380 x 430 x 700	28
19990609 (MB...420 - 2")	●	●	●	◆	●	■	●	2"	114	220	600	460 x 250 x 460	13
19990628 (MB...415 - 1"1/2)	●	●	●	◆	●	■	●	1"1/2	103	170	600	460 x 250 x 460	11
19990629 (VGD40.065 - 2"1/2)	●	●	●	◆	●	■	●	DN65	125	320	760	1030 x 430 x 650	35
19990630 (VGD40.080 - 3")	●	●	●	◆	●	■	●	DN80	175	325	860	1030 x 430 x 650	37

D2



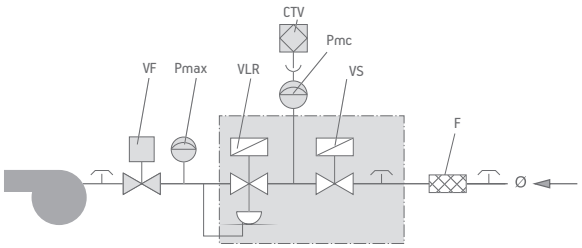


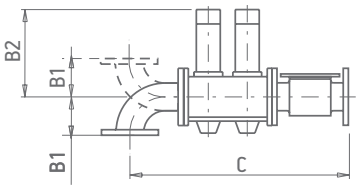
Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight
	CTV	F	Pmc	R	VF	VL	VS	Ø	B1	B2	C	L x P x H	kg
19990524 (VGD20.503 - 2")	●	●	●	●	◆	●	●	2"	114	285	890	990 x 300 x 500	14
19990525 (VGD40.065 - 2"1/2)	●	●	●	●	◆	●	●	DN65	114	320	1120	1380 x 430 x 700	26
19990526 (VGD40.080 - 3")	●	●	●	●	◆	●	●	DN80	114	325	1175	1380 x 430 x 700	28
19990555 (MB... 407 - 3/4")	●	●	●	●	◆	●	●	3/4"	72	140	350	300 x 210 x 300	5
19990556 (MB... 410 - 1")	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990557 (MB... 412 - 1"1/4)	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990558 (MB... 415 - 1"1/2)	●	●	●	●	◆	●	●	1"1/2	103	170	490	460 x 250 x 460	11
19990559 (MB... 420 - 2")	●	●	●	●	◆	●	●	2"	114	220	520	520 x 410 x 410	13
19990561 (MB... 415 - 1"1/2)	●	●	●	●	◆	●	●	1"1/2	103	170	490	520 x 410 x 410	11
19990562 (MB... 420 - 2")	●	●	●	●	◆	●	●	2"	114	220	520	520 x 410 x 410	13
19990573 (MB... 407 - 3/4")	●	●	●	●	DN20	●	●	3/4"	72	160	305	400 x 300 x 280	12
19990574 (MB... 410 - 1")	●	●	●	●	DN20	●	●	1"1/4	95	160	355	400 x 300 x 280	15
19990575 (MB... 412 - 1"1/4)	●	●	●	●	DN20	●	●	1"1/4	95	160	355	400 x 300 x 280	15
19990576 (MB... 415 - 1"1/2)	●	●	●	●	DN20	●	●	1"1/2	103	170	445	520 x 410 x 410	18
19990577 (VGD40.065 - 2"1/2)	●	●	●	●	◆	●	●	DN65	125	320	760	1030 x 430 x 650	50
19990578 (VGD40.080 - 3")	●	●	●	●	◆	●	●	DN80	175	325	860	1030 x 430 x 650	57

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

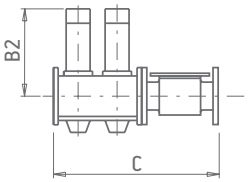
● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

D4





Pic. 1



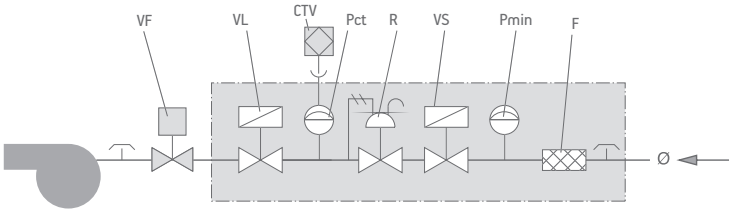
Pic. 2

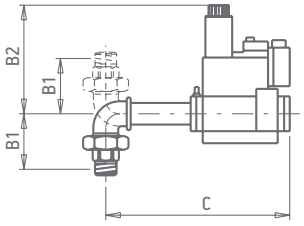
Gas train Part no.	Position								Gas train dimensions mm			Size of packaging mm	Weight	Pic.
	CTV	F	Pmax	Pmc	VF	VLR	VS	Ø	B1	B2	C	L x P x H	kg	
19990541 (VGD20.503 - 2")	●	2"	●	●	◆	●	●	2"	145	285	890	990 x 300 x 500	23	1
19990542 (VGD40.065 - 2"1/2)	●	DN65	●	●	◆	●	●	DN65	135	320	970	1380 x 430 x 700	36	1
19990543 (VGD40.080 - 3")	●	DN80	●	●	◆	●	●	DN80	135	325	1010	1380 x 430 x 700	38	1
19990544 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44	1
19990587 (VGD20.503 - 2")	●	2"	●	●	◆	●	●	2"	–	285	530	650 x 500 x 380	19	2
19990588 (VGD40.065 - 2"1/2)	●	DN65	●	●	◆	●	●	DN65	–	320	580	830 x 430 x 640	26	2
19990589 (VGD40.080 - 3")	●	DN80	●	●	◆	●	●	DN80	–	325	630	830 x 430 x 640	29	2
19990590 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	–	330	730	830 x 430 x 640	40	2
19990606 (VGD40.080 - 3")	●	DN80	●	●	◆	●	●	DN80	165	325	1015	1380 x 430 x 700	38	1
19990607 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44	1
19990608 (VGD40.125 - 5")	●	DN125	●	●	◆	●	●	DN125	170	350	1275	1580 x 430 x 720	60	1
19990618 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	200	330	1260	1380 x 430 x 710	45	1
19990619 (VGD40.125 - 5")	●	DN125	●	●	◆	●	●	DN125	209	350	1410	1580 x 430 x 740	83	1
19990620 (VGD40.150 - 6")	●	DN150	●	●	◆	●	●	DN150	200	370	1490	1580 x 430 x 740	95	1
19990626 (VGD40.150 - 6")	●	DN150	●	●	◆	●	●	DN150	170	370	1280	1580 x 430 x 720	95	1
19990640 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44	1
19990641 (VGD40.125 - 5")	●	DN125	●	●	◆	●	●	DN125	170	350	1275	1580 x 430 x 720	60	1
19990648 (VGD40.100 - 4")	●	DN100	●	●	◆	●	●	DN100	200	330	1260	1380 x 430 x 710	45	1
19990649 (VGD40.125 - 5")	●	DN125	●	●	◆	●	●	DN125	207	350	1312	1580 x 430 x 740	83	1
19990650 (VGD40.150 - 6")	●	DN150	●	●	◆	●	●	DN150	200	370	1485	1580 x 430 x 740	95	1
19990666 (VGD20.065 - 2"1/2)	●	DN65	●	●	◆	●	●	DN65	135	285	1120	1380 x 430 x 700	45	1

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

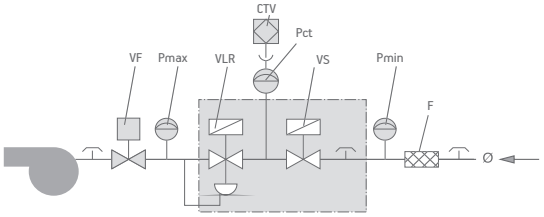
D7

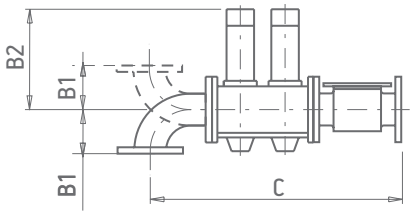




Gas train Part no.	Position									Gas train dimensions mm			Size of packaging mm	Weight
	CTV	F	Pct	Pmin	R	VF	VL	VS	Ø	B1	B2	C	L x P x H	kg
19990580 (MB...410 - 1")	●	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990581 (MB...412 - 1"1/4)	●	●	●	●	●	◆	●	●	1"1/4	95	160	390	300 x 210 x 300	8
19990582 (MB...415 - 1"1/2)	●	●	●	●	●	◆	●	●	1"1/2	103	170	490	460 x 250 x 460	11
19990583 (MB...420 - 2")	●	●	●	●	●	◆	●	●	2"	114	220	520	520 x 410 x 410	13
19990584 (VGD20.503 - 2")	●	●	●	●	●	◆	●	●	2"	114	285	890	990 x 300 x 500	15
19990585 (VGD40.065 - 2"1/2)	●	●	●	●	●	◆	●	●	DN65	114	320	1120	1380 x 430 x 700	26
19990586 (VGD40.080 - 3")	●	●	●	●	●	◆	●	●	DN80	114	325	1190	1380 x 430 x 700	28
19990624 (MB...420 - 2")	●	●	●	●	●	◆	●	●	2"	114	220	520	520 x 410 x 410	13

D8



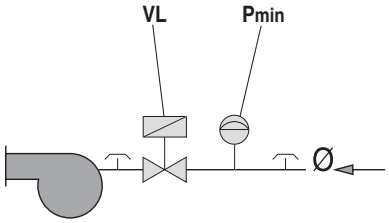


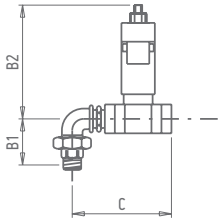
Gas train Part no.	Position									Gas train dimensions mm			Size of packaging mm	Weight
	CTV	F	Pct	Pmax	Pmin	VF	VLR	VS	Ø	B1	B2	C	L x P x H	kg
19990599 (VGD20.503 - 2")	●	2"	●	●	●	◆	●	●	2"	145	285	890	990 x 300 x 500	23
19990600 (VGD40.065 - 2"1/2)	●	DN65	●	●	●	◆	●	●	DN65	135	320	970	1380 x 430 x 700	36
19990601 (VGD40.080 - 3")	●	DN80	●	●	●	◆	●	●	DN80	135	325	1010	1380 x 430 x 700	38
19990602 (VGD40.100 - 4")	●	DN100	●	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44
19990615 (VGD40.080 - 3")	●	DN80	●	●	●	◆	●	●	DN80	165	325	1015	1380 x 430 x 700	38
19990616 (VGD40.100 - 4")	●	DN100	●	●	●	◆	●	●	DN100	175	330	1100	1380 x 430 x 700	44
19990617 (VGD40.125 - 5")	●	DN125	●	●	●	◆	●	●	DN125	170	350	1275	1580 x 430 x 720	60
19990627 (VGD40.150 - 6")	●	DN150	●	●	●	◆	●	●	DN150	170	370	1280	1580 x 430 x 720	95
19990665 (VGD20.065 - 2"1/2)	●	DN65	●	●	●	◆	●	●	DN65	135	285	1120	1380 x 430 x 700	45

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

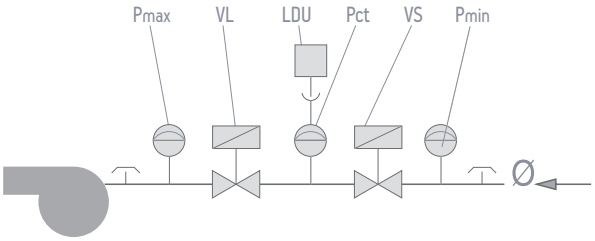
ME1

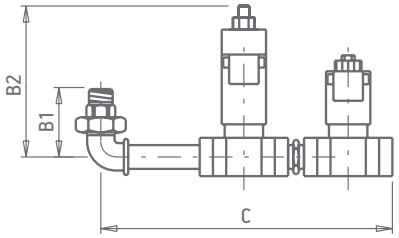




Gas train Part no.	Position			Gas train dimensions mm			Size of packaging mm	Weight
	Pmin	VL	Ø	B1	B2	C	L x P x H	kg
19990670	●	3/4"	3/4"	81	204	103	240 x 220 x 210	3
19990671	●	1"	1"	93	204	109	240 x 220 x 210	4
19990235	●	1/2"	1/2"	72	151	110	240 x 220 x 210	2

ME4



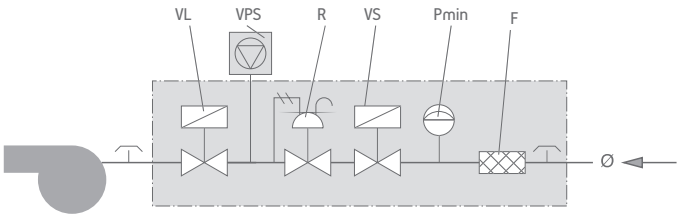


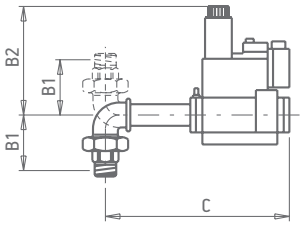
Gas train Part no.	Position							Gas train dimensions mm			Size of packaging mm	Weight
	LDU	Pct	Pmax	Pmin	VL	VS	Ø	B1	B2	C	L x P x H	kg
19990471			●	●	1" 1/2	1" 1/2	1" 1/2	103	205	540	520 x 410 x 410	13

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

M2





Gas train Part no.	Position							Gas train dimensions mm			Size of packaging mm	Weight
	F	Pmin	R	VL	VPS	VS	Ø	B1	B2	C	L x P x H	kg
19990002 (MB... 405 - 1/2")	●	●	●	●	■	●	3/4"	72	140	204	310 x 210 x 250	4
19990005 (MB... 407 - 3/4")	●	●	●	●	■	●	3/4"	72	140	204	310 x 210 x 250	4
19990008 (MB... 410 - 1")	●	●	●	●	■	●	1"1/4	95	160	249	310 x 210 x 250	7
19990166 (MB... 412 - 1"1/4)	●	●	●	●	■	●	1"1/4	95	160	249	310 x 210 x 250	7
19990466 (MBC... 65 - 1/2")	●	●	●	●		●	1/2"	67	150	198	240 x 220 x 210	2
19990545 (MB... 407 - 3/4")	●	●	●	●	■	●	3/4"	72	140	450	300 x 210 x 300	5
19990546 (MB... 410 - 1")	●	●	●	●	■	●	1"1/4	95	160	490	400 x 300 x 280	8
19990547 (MB... 412 - 1"1/4)	●	●	●	●	■	●	1"1/4	95	160	490	400 x 300 x 280	8
19990548 (MB... 415 - 1"1/2)	●	●	●	●	■	●	1"1/2	103	270	600	460 x 250 x 460	11
19990549 (MB... 420 - 2")	●	●	●	●	■	●	2"	114	330	600	650 x 500 x 380	13

CTV Valve tightness control.
F Filter.
LDU LDU valve tightness control.
Pct Pressure switch for gas control.
Pmax Maximum pressure switch.
Pmc Minimum and control pressure switch gas leaks.
Pmin Minimum pressure switch.
R Pressure regulator.
RF Pressure regulator with filter.
RFP Pressure regulator with filter for pilot gas train.
RM Manual flow rate regulator.
RP Pneumatic regualtor.
VF Regulator throttle valve.
VL Operating valve.
VL2 Two-stage operating valve.
VLP Operating pilot valve.
VLR Operating valve with pressure regulator.
VP Pilot valve.
VPS VPS valve tightness control.
VS Safety valve.
VSP Safety pilot valve.
Ø Gas train diameter.
Ø1 Main gas train diameter.
Ø2 Pilot gas train diameter.

● As standard.
▲ As standard for burners with an output of more than 1200 kW, on request for burners with an output of less than 1200 kW.
■ On request.
◆ Mounted on burner.

ICIM

CISQ is a member of IQNet

THE INTERNATIONAL CERTIFICATION NETWORK

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IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CERTIFICATO N. / *CERTIFICATE No.* 0202/9

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY MANAGEMENT SYSTEM OPERATED BY

BALTUR S.p.A.

UNITÀ OPERATIVA / *OPERATIVE UNIT*

Via Ferrarese, 10 - 44042 Cento (FE)
Italia

È CONFORME ALLA NORMA / *IS IN COMPLIANCE WITH THE STANDARD*

UNI EN ISO 9001:2015

Sistema di Gestione per la Qualità / *Quality Management System*

PER LE SEGUENTI ATTIVITÀ / *FOR THE FOLLOWING ACTIVITIES*

EA: 18 - 29

Progettazione, produzione e assistenza di bruciatori e caldaie. Commercializzazione di gruppi termici, generatori di aria calda, climatizzatori, refrigeratori e unità di rinnovo aria, ventilconvettori, scaldabagno, bollitori e sistemi a energia solare.

Design, production and service of burners and boilers. Trade of heating systems, hot air generators, air-conditioners, chillers and air renewal units, fan coil units, water heaters, boilers and thermal solar systems.

Riferirsi alla documentazione del Sistema di Gestione per la Qualità aziendale per l'applicabilità dei requisiti della norma di riferimento.
Refer to the documentation of the Quality Management System for details of application to reference standard requirements.

Il presente certificato è soggetto al rispetto del documento ICIM "Regolamento per la certificazione dei sistemi di gestione" e al relativo Schema specifico.
The use and the validity of this certificate shall satisfy the requirements of the ICIM document "Rules for the certification of company management systems" and specific Scheme

Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato della certificazione di cui al presente certificato, si prega di contattare il n° telefonico +39 02 725341 o indirizzo e-mail info@icim.it.
For timely and updated information about any changes in the certification status referred to in this certificate, please contact the number +39 02 725341 or email address info@icim.it.

DATA EMISSIONE / *FIRST ISSUE*	EMISSIONE CORRENTE / *CURRENT ISSUE*	DATA DI SCADENZA / *EXPIRING DATE*
20/07/1994	16/07/2021	15/07/2024

Vincenzo Delacqua
Rappresentante Direzione / Management Representative
ICIM S.p.A.
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www.icim.it

ACCREDIA
SGQ N° 004 A

0449CM_03_IT

FEDERAZIONE CISQ
www.cisq.com

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CISQ is the Italian Federation of management system Certification Bodies.

IQNet ®

THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

CISQ/ICIM SPA has issued an IQNet recognized certificate that the organization:

BALTUR S.p.A.

Via Ferrarese, 10 - I-44042 Cento (FE)

has implemented and maintains a

Quality Management System

for the following scope:

Design, production and service of burners and boilers. Trade of heating systems, hot air generators, air-conditioners, chillers and air renewal units, fan coil units, water heaters, boilers and thermal solar systems.

which fulfils the requirements of the following standard:

ISO 9001:2015

Issued on:	**2021-07-16**
First issued on:	**1994-07-20**
Expires on:	**2024-07-15**

This attestation is directly linked to the IQNet Partner's original certificate and shall not be used as a stand-alone document.

Registration Number: IT-3733

IQNet — *Alex Stoichitoiu*, *President of IQNET*

CISQ — *Ing. Mario Romersi*, *President of CISQ*

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* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com

baltur
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