

CE

RIELLO
B
BURNERS

LOW NO_x MODULATING GAS BURNERS

► MODUBLOC MB SP BLU SERIES

| | | |
|----------------|-----------|------------|
| ► MB 6 SP BLU | 1634/3600 | □ 5900 kW |
| ► MB 8 SP BLU | 1567/3450 | □ 8300 kW |
| ► MB 10 SP BLU | 2050/4000 | □ 9200 kW |
| ► MB 12 SP BLU | 1959/4880 | □ 10400 kW |



The MODUBLOC MB SP BLU burners are characterised by a monoblock structure which means that all necessary components are combined in a single unit, making installation easier and faster.

The series covers a firing range from 3600 to 10400 kW and it has been designed for use in hot water boilers or industrial steam generators.

Using a particular proportioning gas valve the burner keeps the desired air/gas ratio in every working condition, allowing the maximum safety levels.

The burner can also supply with precision the demanded power, guaranteeing an high efficiency system level and the stability setting, obtaining fuel consumption and operating costs reduction.

The combustion head, studied with advanced fluidodynamic softwares, guarantees reduced polluting emissions.

An exclusive design, with fan unit fitted in axis with the combustion head, guarantees low sound emissions.



TECHNICAL DATA

| Model | | ▼ MB 6 SP BLU | ▼ MB 8 SP BLU | ▼ MB 10 SP BLU | ▼ MB 12 SP BLU |
|---------------------------------|----------|---|----------------|----------------|-----------------|
| Burner operation mode | | 2 stages progressive / modulating | | | |
| Modulation ratio at max. output | | 3,5 ÷ 1 | 5 ÷ 1 | 4,5 ÷ 1 | 5 ÷ 1 |
| Servomotor | type | SQM 10 | | | |
| | run time | s | | | |
| Heat output | kW | 1634/3600+5900 | 1567/3450+8300 | 2050/4000+9200 | 1959/4880+10400 |
| | Mcal/h | 1405/3095+5073 | 1347/2966+7137 | 1763/3439+7911 | 1684/4196+8942 |
| Working temperature | | °C min./max. 0/40 | | | |
| Net calorific value G20 gas | | kWh/Nm ³ 10 | | | |
| G20 gas density | | kg/Nm ³ 0,71 | | | |
| G20 gas delivery | | 163/360+590 | 157/345+830 | 205/400+791 | 196/488+1040 |
| Net calorific value G25 gas | | kWh/Nm ³ 8,6 | | | |
| G25 gas density | | kg/Nm ³ 0,78 | | | |
| G25 gas delivery | | 190/419+686 | 182/401+965 | 238/465+1070 | 228/567+1209 |
| Fan | | type Centrifugal with reverse curve blades | | | |
| Air temperature | | max °C 60 | | | |
| Electrical supply | | Ph/Hz/V 3N/50/400~(±10%) | | | |
| Auxiliary electrical supply | | Ph/Hz/V 1/50/230 ~ (±10%) | | | |
| Control box | | type LFL 1.333 | | | |
| Total electrical power | | 16 | 19,5 | 23 | 26 |
| Auxiliary electrical power | | 0,7 | 0,7 | 0,7 | 0,7 |
| Protection level | | IP 40 | | | |
| Motor electrical power | | 15 | 18,4 | 22 | 25 |
| Rated motor current | | 29,2 | 38,5 | 43,5 | 49 |
| Motor start up current | | 7.6 x I nom | 7.6 x I nom | 8.1 x I nom | 8.1 x I nom |
| Motor protection level | | IP 55 | | | |
| Ignition transformer | | type | | | |
| | | V1 - V2 230V - 2x5 kV | | | |
| | | I1 - I2 1,9A - 30mA | | | |
| Operation | | Intermittent (at least one stop every 24 h) - Continuous, equipped with LGK16.333.A27 control box | | | |
| Sound pressure | | 85,1 | 87,9 | 87,9 | 87,9 |
| Sound power | | W - | | | |
| CO emission | | mg/kWh < 10 | | | |
| NOx emission | | mg/kWh < 80 | | | |
| Directive | | 90/396 - 89/336 - 73/23 EEC | | | |
| Conforming to | | EN 676 | | | |
| Certification | | CE-0085BO0341 | | | |

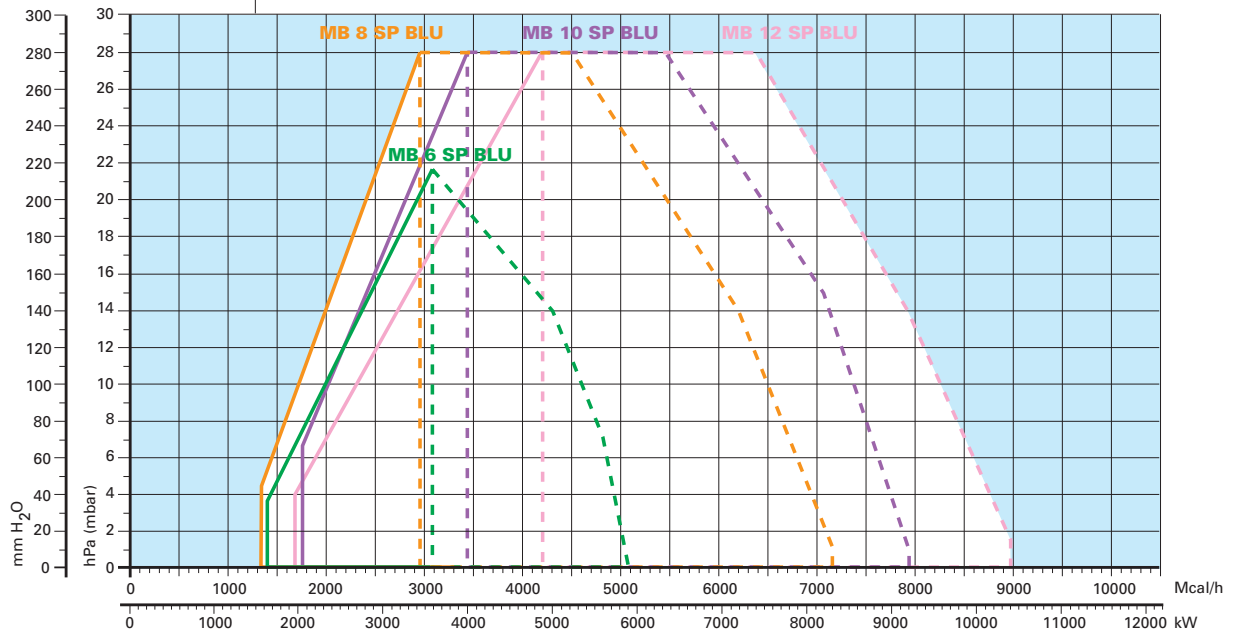
Reference conditions:

Temperature: 20°C
 Pressure: 1000 mbar
 Altitude: 100 m a.s.l.
 Noise measured at a distance of 1 meter.


Since the Company is constantly engaged in the production improvement, the aesthetic and dimensional features, the technical data, the equipment and the accessories can be changed.
 This document contains confidential and proprietary information of RIELLO S.p.A. Unless authorised, this information shall not be divulged, nor duplicated in whole or in part.



FIRING RATES



 Useful working field for choosing the burner

 Modulation range

Test conditions conforming to EN 676:

Temperature: 20°C
 Pressure: 1000 mbar
 Altitude: 100 m a.s.l.





FUEL SUPPLY

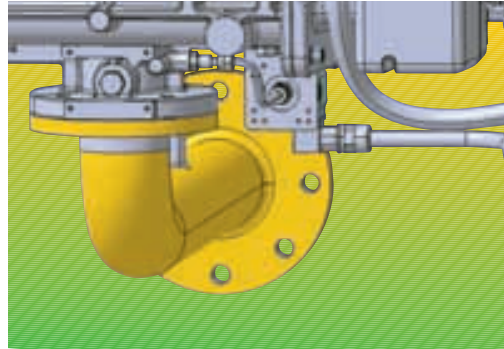
► GAS TRAIN

The gas train can be selected to best fit system requirements depending on the fuel output and pressure in the supply line.

The proportioning valve installed on the gas train maintains constant the desired air to gas ratio in every working condition regardless variation of external factors such as: changing in gas pressure, air delivery, chamber backpressure and voltage fluctuation.

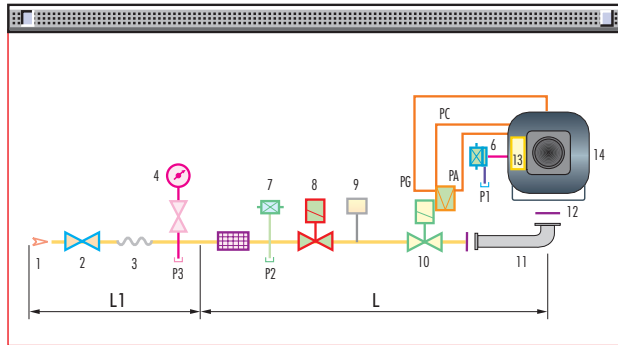
This result is obtained by measuring: the air pressure after the air damper, the gas pressure entering the burner and the chamber backpressure.

Fuel can be supplied either from the right or left side, on the basis of the application.

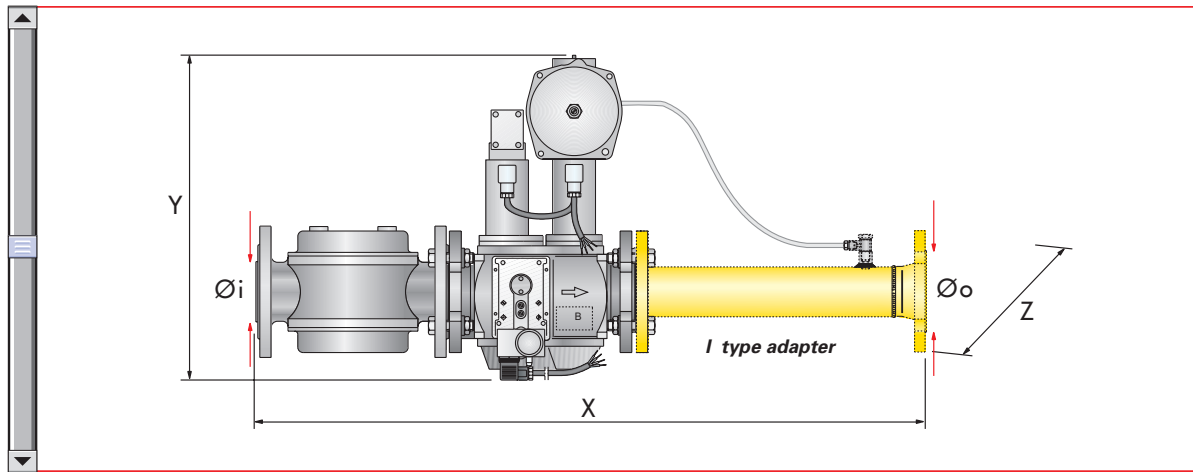


Example of the MB SP BLU gas inlet equipped with an adapter type "L".

VGD gas train with seal control



| | |
|----|--|
| 1 | Gas input pipework |
| 2 | Manual valve |
| 3 | Anti-vibration joint |
| 4 | Pressure gauge with pushbutton cock |
| 5 | Filter |
| 6 | Maximum gas pressure switch |
| 7 | Minimum gas pressure switch |
| 8 | Safety shut-off valve VS |
| 9 | Gas leak detection control |
| 10 | Air/gas ratio control/shut-off valve VR |
| 11 | Gas train/burner adaptor |
| 12 | Gas train/burner adaptor |
| 13 | Flange gasket |
| 14 | Burner |
| P1 | Gas pressure test point |
| P2 | Pressure downstream the filter |
| P3 | Pressure upstream the filter |
| PA | Air pressure test point |
| PC | Combustion chamber pressure test point |
| PG | Gas pressure test point |
| L | Gas train supplied separately, with code |
| L1 | Installer's responsibility |



Example of gas train VGD type

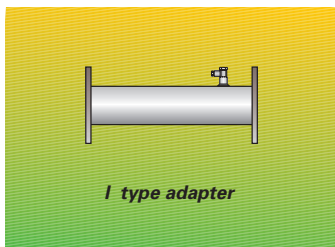
Gas trains are approved by standard EN 676 together with the burner.

The overall dimensions of the gas train depends on how they are constructed. The following table shows the maximum dimensions of the gas trains that can be fitted to MB SP BLU burners, intake and outlet diameters and seal control if fitted.

Please note that the seal control can be installed as an accessory, if not already installed on the gas train. In accordance with EN 676 Standards, gas valve leak detection control devices are compulsory for burners with maximum outputs of more than 1200 kW.

The maximum working gas pressure is 500 mbar (with leakage control type VPS 504 maximum gas pressure is 500 mbar).

| | Name | Code | Ø i | Ø o | X mm | Y mm | Z mm | Seal Control |
|-------------------|-----------------|-----------|--------|-------|------|------|------|--------------|
| GAS TRAINS | VGDF 65 | 3970212 | DN 65 | DN 80 | 1008 | 523 | 340 | 3010367 |
| | VGDF 80 | 3970213 | DN 80 | DN 80 | 1033 | 547 | 350 | 3010367 |
| | VGDF 100 | 3970214 | DN 100 | DN 80 | 1163 | 577 | 370 | 3010367 |
| | VGDF 125 | on demand | DN 125 | DN 80 | -- | -- | -- | 3010367 |



An "I" type adapter, code 3010222, must be ordered separately to match the gas valve to the selected gas train. For further information see paragraph "Accessories".



► PRESSURE DROP DIAGRAM

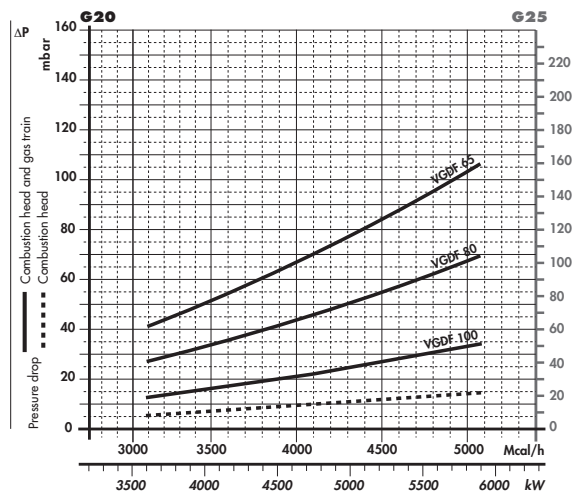
The diagrams indicate the minimum pressure drop of the burners with the various gas trains that can be matched with them; at the value of these pressure drop add the combustion chamber pressure.

The value thus calculated represents the minimum required input pressure to the gas train related to the needed capacity.

Gas inlet pressure should not exceed 20% of total pressure drop (head, chamber and gas train) in order to keep a wide and stable modulation range.

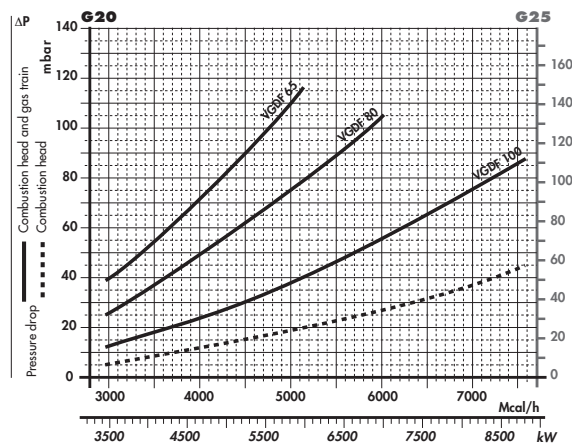
NATURAL GAS

MB 6 SP BLU



| Gas train | Code | Adapter | Seal Control |
|-----------|---------|---------|--------------|
| VGDF 65 | 3970212 | 3010222 | 3010367 |
| VGDF 80 | 3970213 | 3010222 | 3010367 |
| VGDF 100 | 3970214 | 3010222 | 3010367 |

MB 8 SP BLU

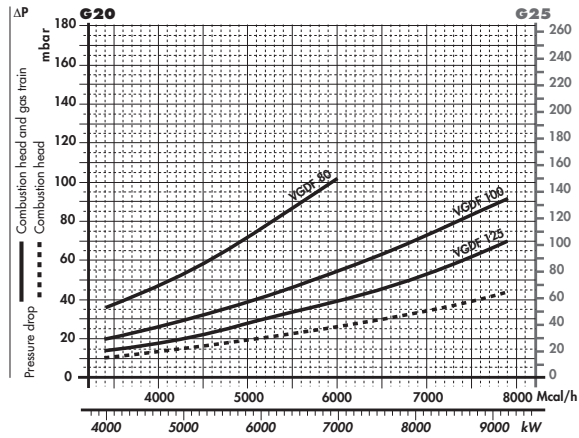


| Gas train | Code | Adapter | Seal Control |
|-----------|---------|---------|--------------|
| VGDF 65 | 3970212 | 3010222 | 3010367 |
| VGDF 80 | 3970213 | 3010222 | 3010367 |
| VGDF 100 | 3970214 | 3010222 | 3010367 |



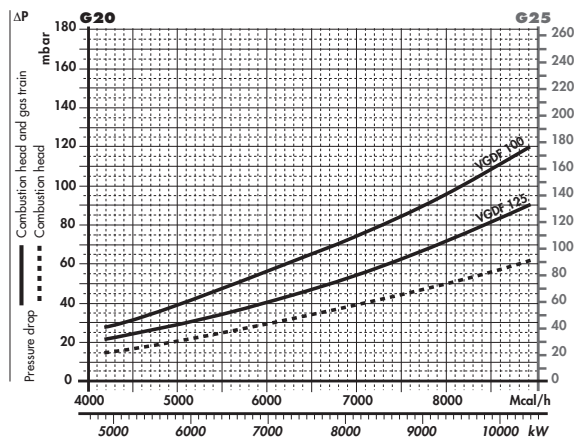
NATURAL GAS

MB 10 SP BLU



| Gas train | Code | Adapter | Seal Control |
|-----------|-----------|---------|--------------|
| VGDF 80 | 3970213 | 3010222 | 3010367 |
| VGDF 100 | 3970214 | 3010222 | 3010367 |
| VGDF 125 | on demand | 3010222 | 3010367 |

MB 12 SP BLU



| Gas train | Code | Adapter | Seal Control |
|-----------|-----------|---------|--------------|
| VGDF 100 | 3970214 | 3010222 | 3010367 |
| VGDF 125 | on demand | 3010222 | 3010367 |

note Please contact the Riello Burner Technical Office for different pressure levels from those above indicated and refer to the technical manual for optimised selection.



SELECTING THE FUEL SUPPLY LINES

The following diagram enables pressure drop in a pre-existing gas line to be calculated and to select the correct gas train.

The diagram can also be used to select a new gas line when fuel output and pipe length are known. The pipe diameter is selected on the basis of the desired pressure drop. The diagram uses methane gas as reference; if another gas is used, conversion coefficient and a simple formula (on the diagram) transform the gas output to a methane equivalent (refer to figure A). Please note that the gas train dimensions must take into account the back pressure of the combustion chamber during operations.

Control of the pressure drop in an existing gas line or selecting a new gas supply line.

The methane output equivalent is determined by the formula in the fig. A on the diagram and the conversion coefficient.

Once the equivalent output has been determined on the delivery scale (\dot{V}), shown at the top of the diagram, move vertically downwards until you cross the line that represents the pipe diameter; at this point, move horizontally to the left until you meet the line that represents the pipe length.

Once this point is established you can verify, by moving vertically downwards, the pipe pressure drop on the bottom scale below (mbar).

By subtracting this value from the pressure measured on the gas meter, the correct pressure value will be found for the choice of gas train.

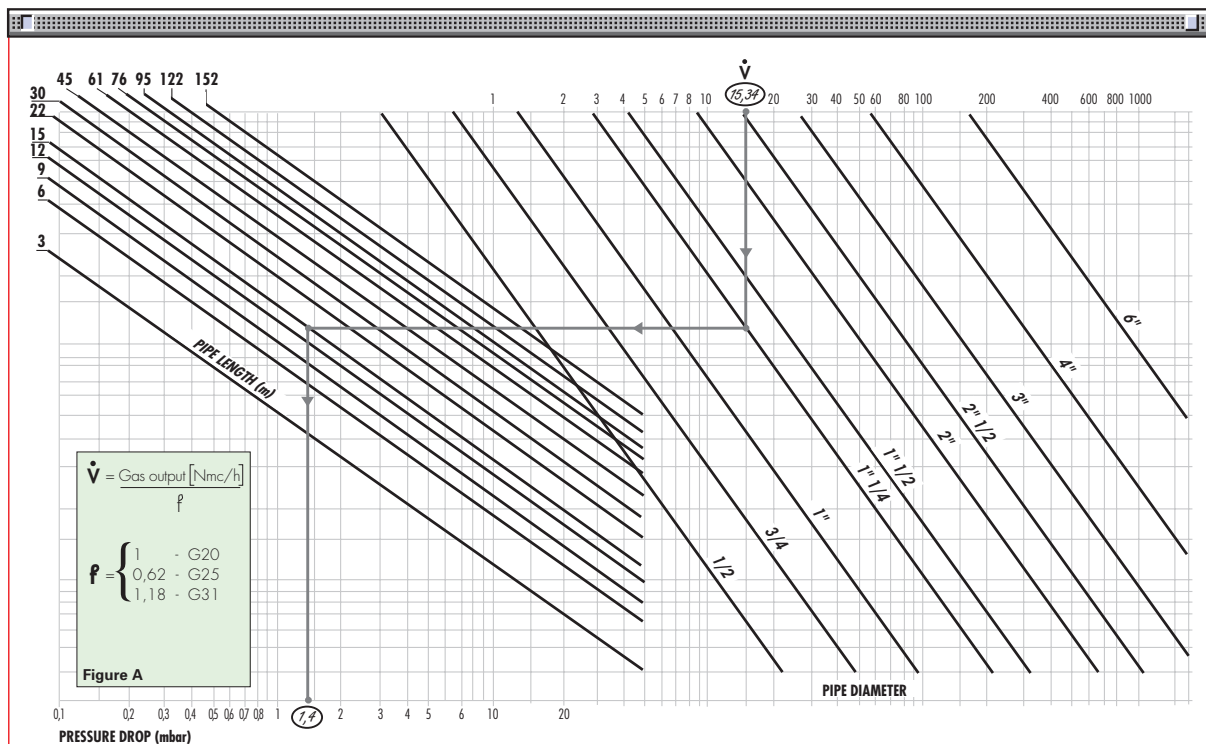
Example:

- gas used G25
- gas output 9.51 mc/h
- pressure at the gas meter 20 mbar
- gas line length 15 m
- conversion coefficient 0.62 (see figure A)

- equivalent methane output $\dot{V} = \left[\frac{9.51}{0.62} \right] = 15.34 \text{ mc/h}$

- once the value of 15.34 has been identified on the output scale (\dot{V}), moving vertically downwards you cross the line that represents 1" 1/4 (the chosen diameter for the piping);
- from this point, move horizontally to the left until you meet the line that represents the length of 15 m of the piping;
- move vertically downwards to determine a value of 1.4 mbar in the pressure drop bottom scale;
- subtract the determined pressure drop from the meter pressure, the correct pressure level will be found for the choice of gas train;

- correct pressure = (20-1.4) = 18.6 mbar



VENTILATION

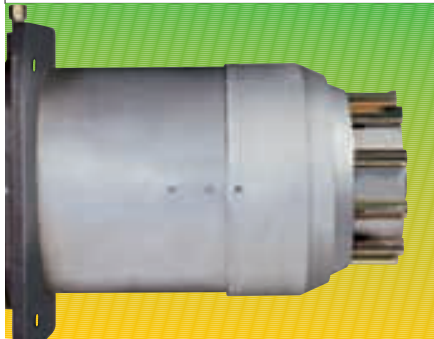


Example of air damper

All the burners in the MB series are fitted with fans with reverse curve blades, which give excellent performance and are fitted in line with the combustion head. The air flow and sound-deadening materials that are used in the construction are designed to reduce sound emissions to the minimum and guarantee high levels of performance in terms of output and air pressure. A high precision servomotor through the main management module installed on each burner of MB series, controls the air dampers position constantly, guaranteeing an optimal fuel-air mix.

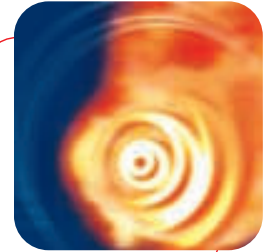


COMBUSTION HEAD

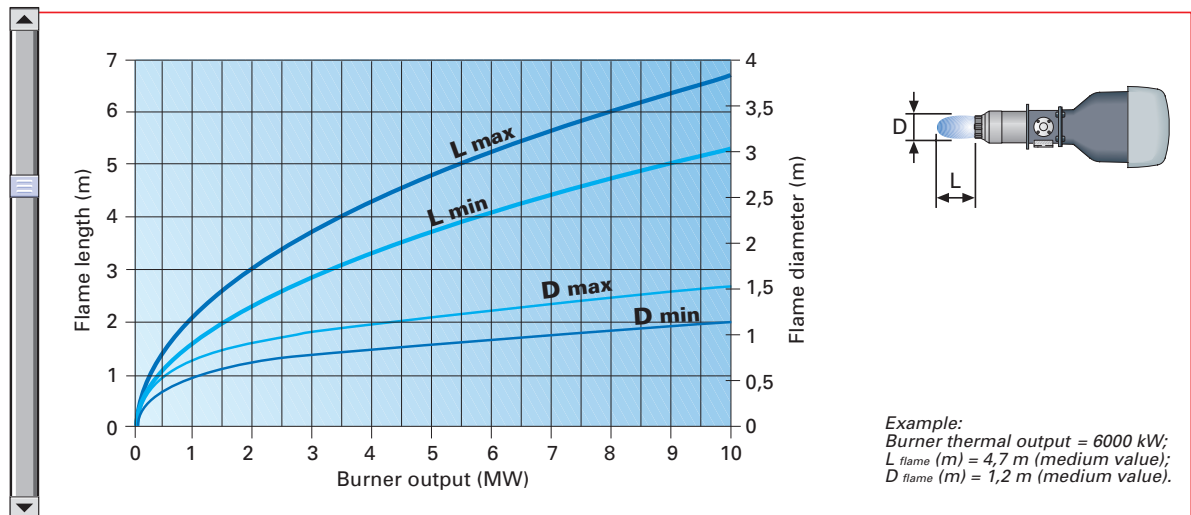


Example of a MODUBLOC MB SP BLU burner combustion head

Depending on the type of generator, check that the penetration of the head into the combustion chamber is correct. The head is designed to allow Low NOx emissions.

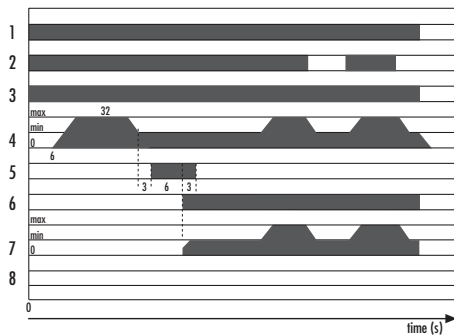


Flame dimensions



START UP CYCLE

MB 6-8-10-12 SP BLU



- 1 - Load limit remote control system
- 2 - Two stage progressive control
- 3 - Motor
- 4 - Air gate valve
- 5 - Ignition transformer
- 6 - Valve
- 7 - Flame
- 8 - Lock-out



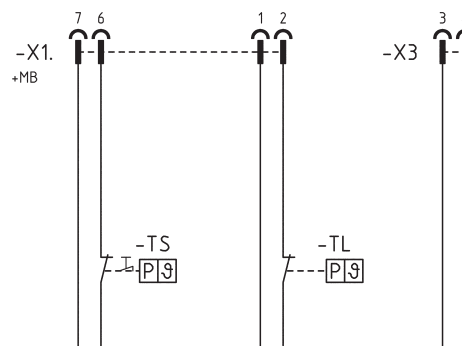
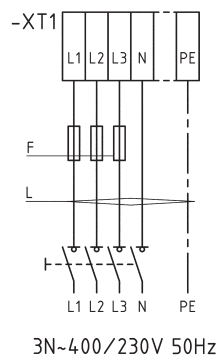
WIRING DIAGRAMS

Electrical connections must be made by qualified and skilled personnel, according to the local norms.



Example of the terminal board for electrical connections

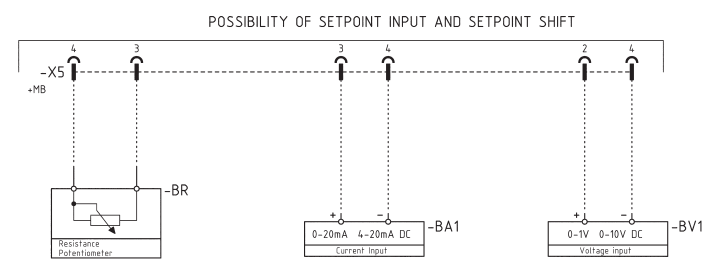
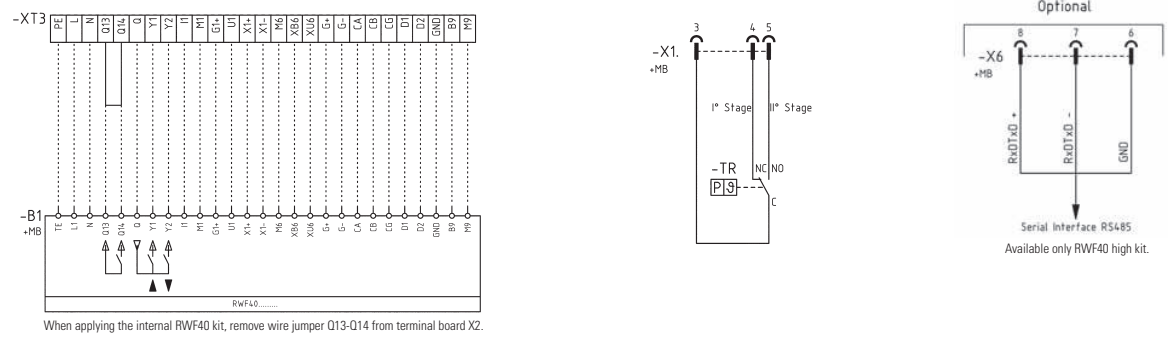
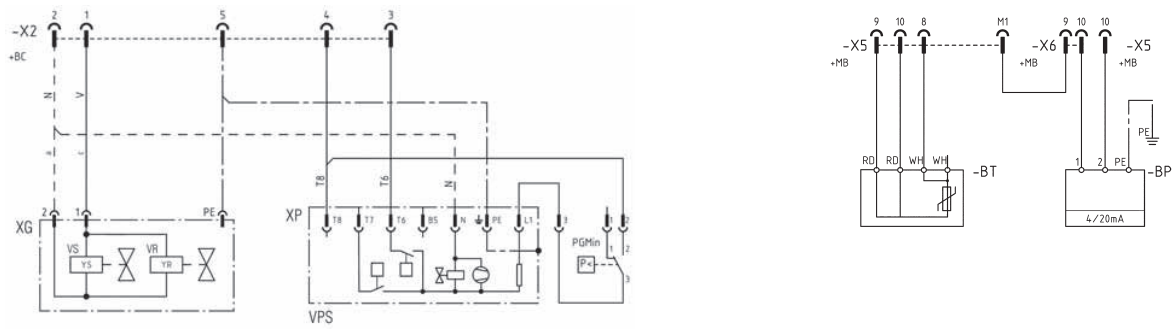
THREE PHASE SUPPLY TO THE POWER CIRCUIT AND CONNECTING THE AUXILIARY CONTROLS



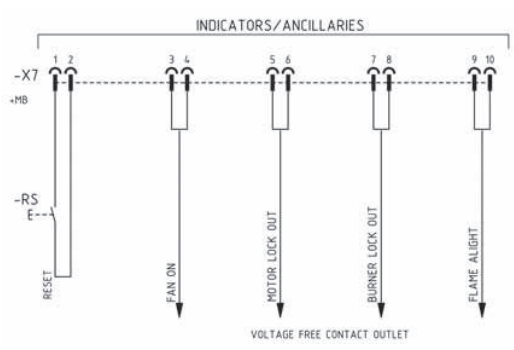
- XT1** - General supply terminal board
- X1** - 10 pin plug
- X3** - Available for gas circuit external interlock
- TS** - Safety thermostat
- TL** - Threshold thermostat
- F** - Fuse (refer to table A)
- L** - Lead section (refer to table A)



CONNECTION OF THE PROBES FOR THE CONTROLLED PARAMETER AND DATA CONNECTION FOR THE VARIOUS MODULES (Accessories)



AUXILIARY SIGNALS



- X1-X2** - 10 pin plug
- X5-X6-X7** - RWF40 power controller
- B1** - Temperature probe
- BT** - Temperature probe
- BP** - Pressure probe
- BTEXT** - External temperature sensor
- PG** - Minimum gas pressure switch
- TR** - Two stages progressive control
- VPS** - Seal control
- VR** - Adjustment valve
- VS** - Safety valve
- XP** - Seal control plug
- XG** - Gas train plug
- XT3** - Power controller (RWF40) interface terminal strip

The following table shows the supply lead sections and the type of fuse to be used.

| Model | ▼ MB 6 SP BLU | | ▼ MB 8 SP BLU | ▼ MB 10 SP BLU | ▼ MB 12 SP BLU |
|-------------------|---------------|--------|---------------|----------------|----------------|
| | 230V | 400V | 400V | 400V | 400V |
| F A | 50A aM | 32A aM | 50A aM | 50A aM | 63A aM |
| L mm ² | 10 | 6 | 10 | 10 | 16 |

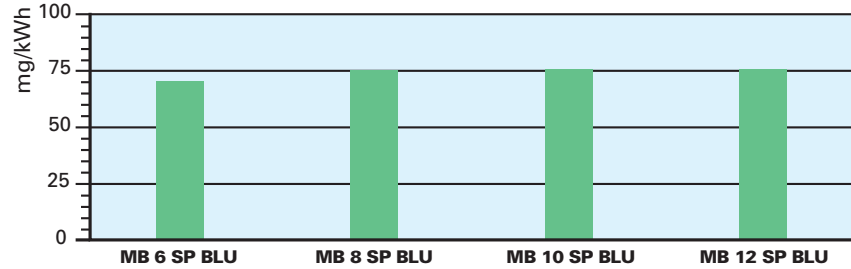
Table A



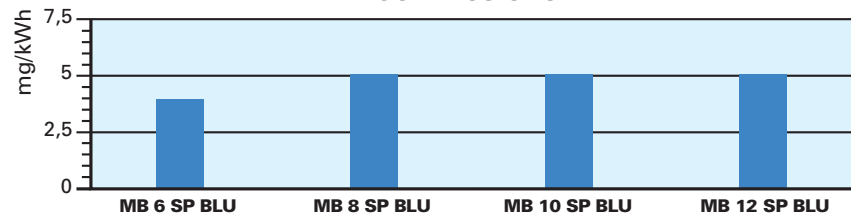


EMISSIONS

NO₂ EMISSIONS



CO EMISSIONS

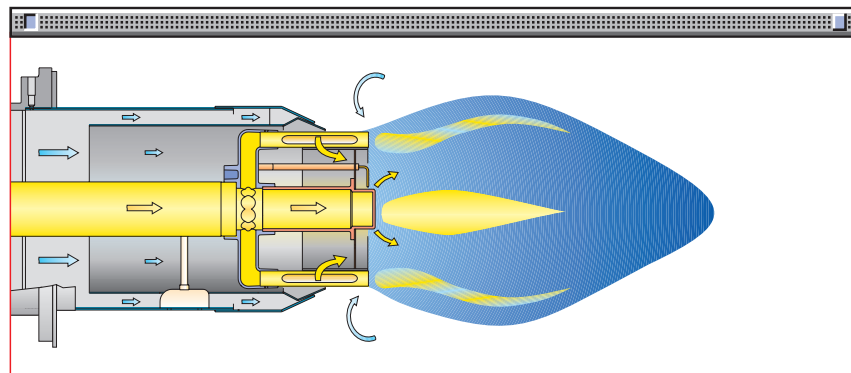


The emissions have been obtained, for the various models, on the basis of EN 676 standard.

The MB SP BLU series reduce polluting emissions with its exclusive design which optimises air/fuel mixture.

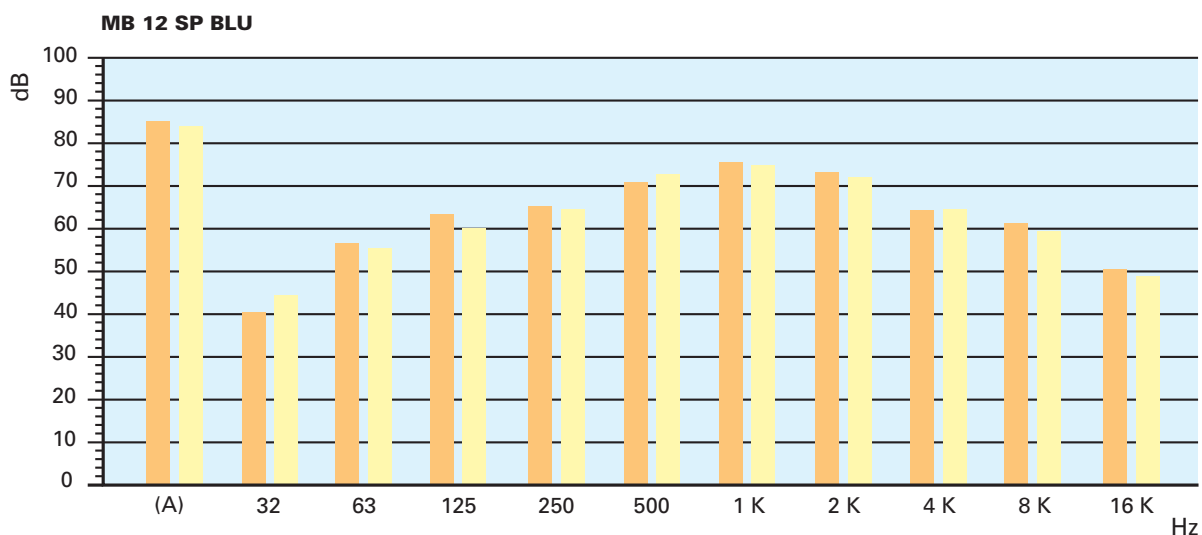
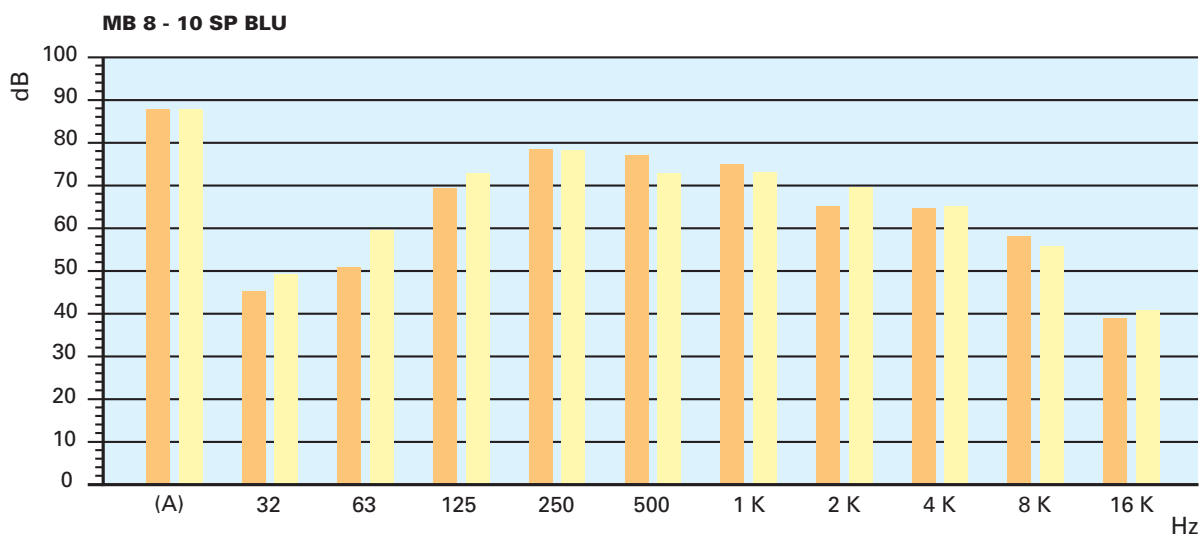
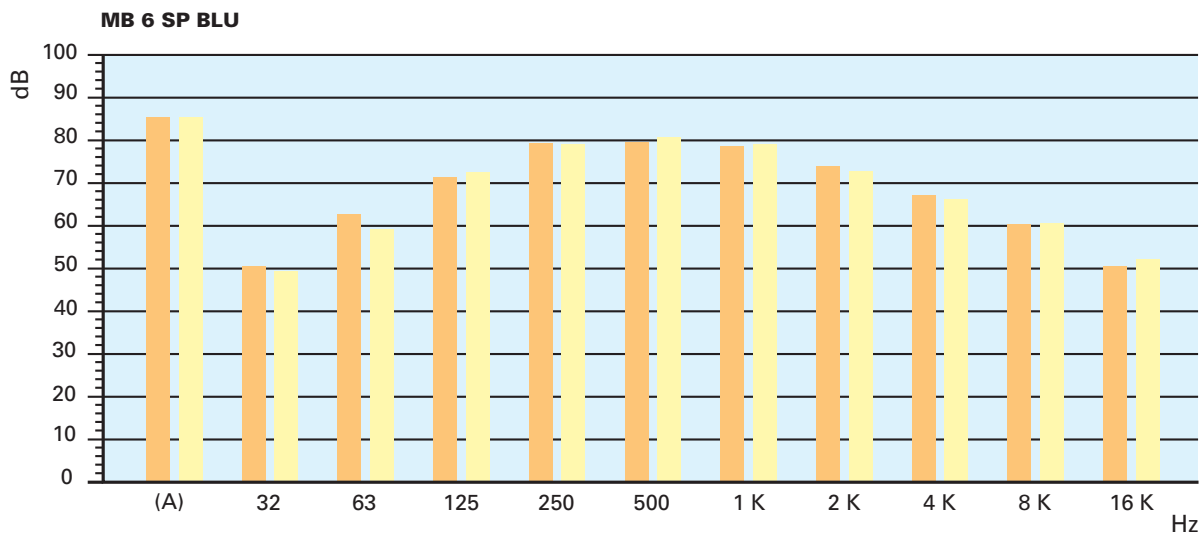
The gas in the combustion head is distributed through openings which are perpendicular to the air flow; part of the fuel is injected directly into the centre of the flame.

This results in low flame temperature combustion to prevent the formation of NO. Gradual and progressive combustion throughout the flame prevents areas of high oxidation inside the flame. Emissions are further reduced by the re-circulation of combustion gases due to the high velocity of air leaving the combustion head. Pollution levels are below even the most severe requirement standards.





SOUND EMISSIONS



(A) Value obtained in dB(A)

Maximum modulation

Minimal modulation

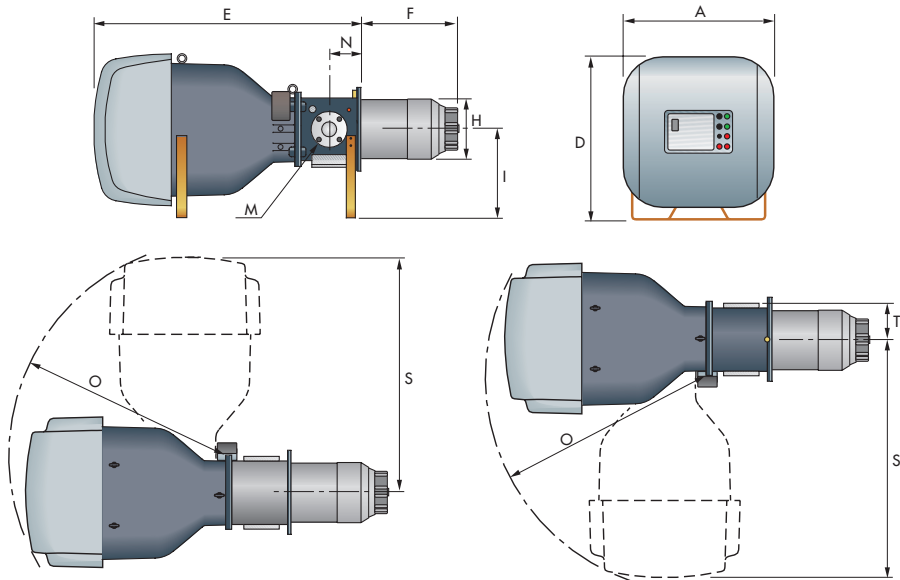




OVERALL DIMENSIONS (mm)

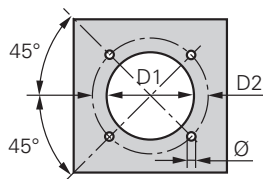
BURNERS

MB 6-8-10-12 SP BLU



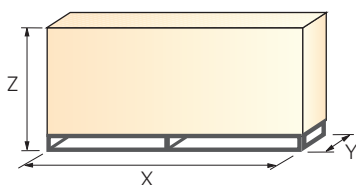
| Model | A | D | E | F | H | I | M | N | O | S | T |
|----------------|------|------|------|-----|-----|-----|------|-----|------|------|-----|
| ▶ MB 6 SP BLU | 840 | 910 | 1470 | 521 | 336 | 490 | DN80 | 183 | 1205 | 1330 | 180 |
| ▶ MB 8 SP BLU | 1007 | 1079 | 1900 | 660 | 413 | 575 | DN80 | 208 | 1570 | 1740 | 221 |
| ▶ MB 10 SP BLU | 1007 | 1079 | 1900 | 660 | 413 | 575 | DN80 | 208 | 1570 | 1740 | 221 |
| ▶ MB 12 SP BLU | 1007 | 1079 | 1900 | 664 | 456 | 575 | DN80 | 208 | 1570 | 1740 | 221 |

BURNER - BOILER MOUNTING FLANGE



| Model | D1 | D2 | Ø |
|----------------|-----|-----|-----|
| ▶ MB 6 SP BLU | 350 | 496 | M20 |
| ▶ MB 8 SP BLU | 418 | 608 | M20 |
| ▶ MB 10 SP BLU | 418 | 608 | M20 |
| ▶ MB 12 SP BLU | 470 | 608 | M20 |

PACKAGING



| Model | X | Y | Z | kg |
|----------------|------|------|------|-----|
| ▶ MB 6 SP BLU | 2120 | 1005 | 1175 | 300 |
| ▶ MB 8 SP BLU | 2690 | 1170 | 1350 | 450 |
| ▶ MB 10 SP BLU | 2690 | 1170 | 1350 | 450 |
| ▶ MB 12 SP BLU | 2690 | 1170 | 1350 | 460 |

INSTALLATION DESCRIPTION

Installation, start up and maintenance must be carried out by qualified and skilled personnel.

All operations must be performed in accordance with the technical handbook supplied with the burner.

Access to the internal components is very simple, as the back of the burner is hinged which means it can be completely opened.

The burners can be supplied with the opening on the right or left, depending on personal requirements.



▶ BURNER SETTING

- ▶ All the burners have lifting rings, for easier installation and maintenance.
- ▶ After drilling the boilerplate, using the supplied gasket as template, prepare a suitable lifting system and, after hooking onto the rings, fix burner to the boiler.
- ▶ Install the gas train, choosing it on the basis of the maximum boiler output and on the basis of the diagrams enclosed with the burner instructions.
- ▶ Adjust the combustion head run, using the mechanism lever.



▶ ELECTRICAL CONNECTIONS AND START UP

- ▶ Make the electrical connections to the burner following the wiring diagrams included in the instruction handbook.
- ▶ Turning the motor check the led signalling correct rotation direction, at left of the plugs group, is on.
- ▶ Perform a first ignition calibration on the gas train.
- ▶ On start up, check:
 - gas pressure at the combustion head (to max. and min. output)
 - combustion quality, in terms of unburned substances and excess air.





BURNER ACCESSORIES

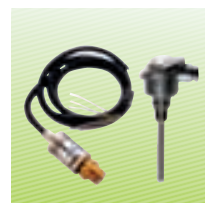
Burner support

For easier maintenance, a mobile burner support has been designed, which means the burner can be dismantled without the need for forklift trucks.



| Burner support | |
|---------------------------|--------------|
| Burner | Support code |
| MB 6 - 8 - 10 - 12 SP BLU | 3010385 |

Accessories for modulating operation



| Probe | | | |
|---------------------------|-------------|------------------|------------|
| Burner | Probe type | Range (°C) (bar) | Probe code |
| MB 6 - 8 - 10 - 12 SP BLU | Temperature | 0 ÷ 500°C | 3010110 |
| MB 6 - 8 - 10 - 12 SP BLU | Pressure | 0 ÷ 2,5 bar | 3010213 |
| MB 6 - 8 - 10 - 12 SP BLU | Pressure | 0 ÷ 16 bar | 3010214 |

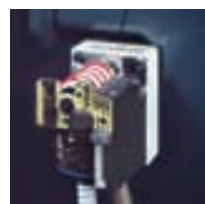


| Regulator | | |
|---------------------------|--------------|----------------|
| Burner | Type | Regulator code |
| MB 6 - 8 - 10 - 12 SP BLU | RWF 40 BASIC | 3010356 |
| MB 6 - 8 - 10 - 12 SP BLU | RWF 40 HIGH | 3010357 |

NOTE: RWF 40 HIGH version with RS435 serial interface.



| Analogic control signal converter | | |
|-----------------------------------|-------------------------------|---------|
| Burner | Type (input signal) | Code |
| MB 6 - 8 - 10 - 12 SP BLU | 0/2 - 10 V (impedance 200 KΩ) | 3010390 |
| | 0/4 - 20 mA (impedance 250 Ω) | |



| Potentiometer | |
|---------------------------|---------|
| Burner | Code |
| MB 6 - 8 - 10 - 12 SP BLU | 3010021 |

It is necessary for analogic control signal converter operation.

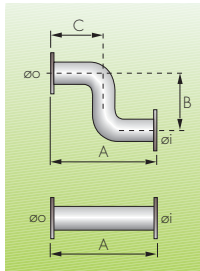
GAS TRAIN ACCESSORIES



Adapters

In certain cases, an adapter must be fitted between the gas train and the burner, when the diameter of the gas train is different from the set diameter of the burner.

Below are given the adapters than can be fitted on the various burners:



| Adapters | | | | | | | | |
|---------------------------|-----------|--------------|------------|-------|------|--------------|------|----------------|
| Burner | Gas train | Adapter type | Dimensions | | | Adapter code | | |
| | | | Øi DN | Øo DN | A mm | | B mm | C mm |
| MB 6 - 8 - 10 - 12 SP BLU | VGDF | I | 80 | 80 | 320 | – | – | 3010222 |
| MB 6 - 8 - 10 - 12 SP BLU | VGDF | Z | 80 | 80 | 400 | 480 | 225 | 3010226 |

Seal control



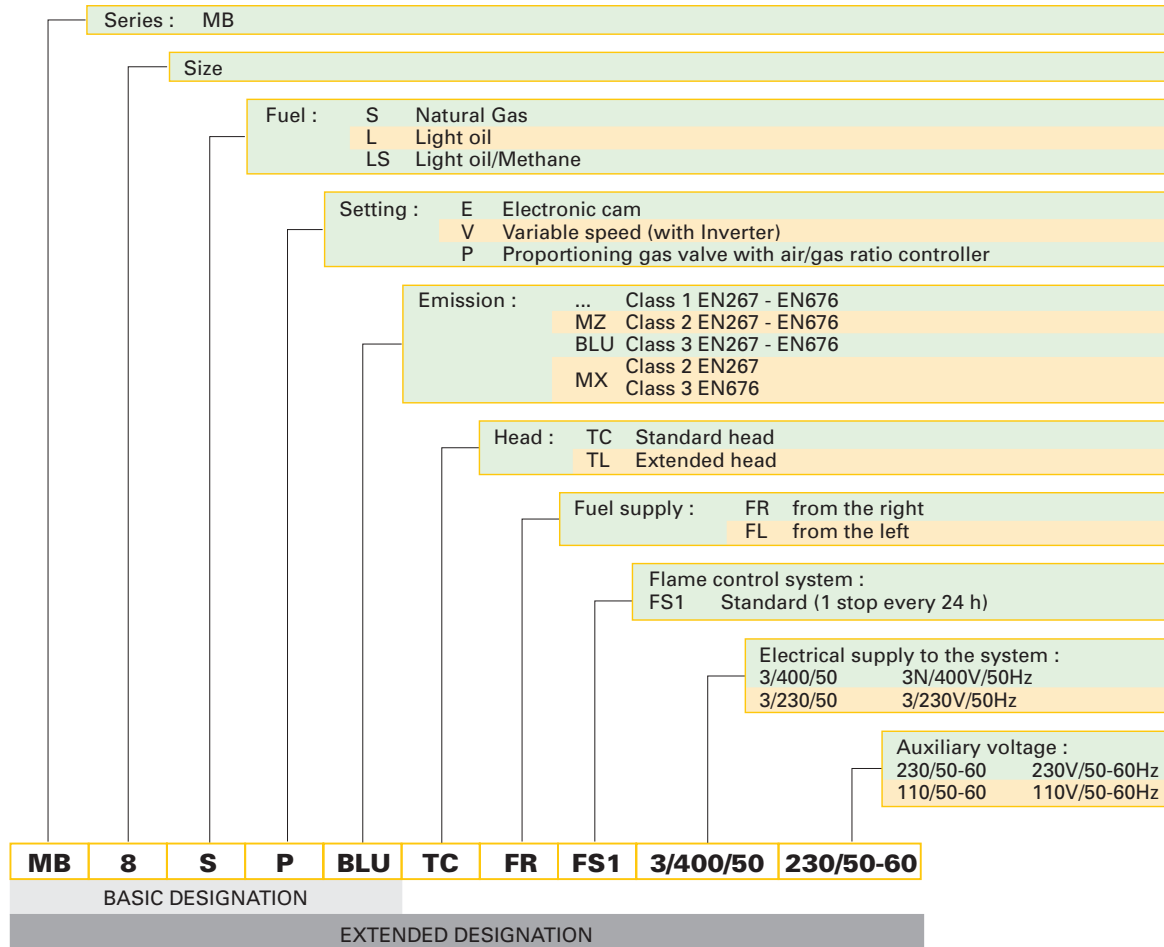
| Seal control | |
|---------------------------|----------------|
| Burner | Code |
| MB 6 - 8 - 10 - 12 SP BLU | 3010125 |



SPECIFICATION

A specific index guides your choice of burner from the various models available in the MODUBLOC MB series. Below is a clear and detailed specification description of the product.

DESIGNATION OF SERIES



AVAILABLE BURNER MODELS

| | | | | | | | | | | | | | |
|-------|-----|----|----|-----|----------|-----------|--------|-----|----|----|-----|----------|-----------|
| MB6SP | BLU | TC | FR | FS1 | 3/400/50 | 230/50-60 | MB10SP | BLU | TC | FR | FS1 | 3/400/50 | 230/50-60 |
| MB6SP | BLU | TC | FL | FS1 | 3/400/50 | 230/50-60 | MB10SP | BLU | TC | FL | FS1 | 3/400/50 | 230/50-60 |
| MB6SP | BLU | TC | FR | FS2 | 3/400/50 | 230/50-60 | MB10SP | BLU | TC | FR | FS2 | 3/400/50 | 230/50-60 |
| MB6SP | BLU | TC | FL | FS2 | 3/400/50 | 230/50-60 | MB10SP | BLU | TC | FL | FS2 | 3/400/50 | 230/50-60 |
| MB8SP | BLU | TC | FR | FS1 | 3/400/50 | 230/50-60 | MB12SP | BLU | TC | FR | FS1 | 3/400/50 | 230/50-60 |
| MB8SP | BLU | TC | FL | FS1 | 3/400/50 | 230/50-60 | MB12SP | BLU | TC | FL | FS1 | 3/400/50 | 230/50-60 |
| MB8SP | BLU | TC | FR | FS2 | 3/400/50 | 230/50-60 | MB12SP | BLU | TC | FR | FS2 | 3/400/50 | 230/50-60 |
| MB8SP | BLU | TC | FL | FS2 | 3/400/50 | 230/50-60 | MB12SP | BLU | TC | FL | FS2 | 3/400/50 | 230/50-60 |

MB4SP BLU are available on request.



▶ **PRODUCT SPECIFICATION**

Burner

Monoblock forced draught gas burner with modulating operation, fully automatic, made up of:

- Fan with reverse curve blades high performance with low sound emissions
- Air suction circuit lined with sound-proofing material
- Air damper for air setting controlled by a high precision servomotor
- Air pressure switch
- Fan starting motor at 2900 rpm, three-phase 230/400 - 400/690 V with neutral, 50Hz
- Low emission combustion head, that can be set on the basis of required output, fitted with:
 - stainless steel end cone, resistant to corrosion and high temperatures
 - ignition electrodes
 - flame stability disk
- Maximum gas pressure switch, with pressure test point, for halting the burner in the case of over pressure on the fuel supply line
- Module for air/fuel setting and output modulation with incorporated PID control of temperature or pressure of the heat generator
- Flame control panel for controlling the system safety
- Photocell for flame detection
- Star/triangle starter for the fan motor
- Main electrical supply terminal board
- Burner on/off switch
- Auxiliary voltage led signal
- Manual or automatic output increase/decrease switch
- Burner working led signal
- Contacts motor and thermal relay with release button
- Motor internal thermal protection
- Motor failure led signal
- Burner failure led signal and lighted release button
- Led signal for correct rotation direction of fan motor
- Emergency button
- Coded connection plugs-sockets
- Burner opening hinge
- Lifting rings
- IP 40 electric protection level.

Gas train

Fuel supply line, in the proportioning valve configuration, fitted with:

- Filter
- Stabiliser
- Minimum gas pressure switch
- Safety valve
- Valve seal control (for output > 1200 kW) to be ordered as accessory kit
- One stage working valve with ignition gas output regulator.

Conforming to:

- 89/336/EEC directive (electromagnetic compatibility)
- 73/23/EEC directive (low voltage)
- 90/396/EEC directive (gas)
- EN 676 (gas burners).

Standard equipment:

- 1 flange gasket
- 8 screws for fixing the flange
- 1 thermal screen
- 4 screws for fixing the burner flange to the boiler
- Gas train
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

Available accessories to be ordered separately:

- Pressure probe 0 - 2,5 bar
- Pressure probe 0 - 16 bar
- Temperature probe 0 - 500°C
- RWF 40 for MB SP BLU
- Burner support
- Adapters
- Seal control.





RIELLO S.p.A. - Via Ing. Pilade Riello, 5 - 37048 San Pietro di Legnago (VR) Italy
Tel. ++39.0442630111 - Fax ++39.044221980
Internet: <http://www.rielloburners.com> - E-mail: info@rielloburners.com



Since the Company is constantly engaged in the production improvement, the aesthetic and dimensional features, the technical data, the equipment and the accessories can be changed.
This document contains confidential and proprietary information of RIELLO S.p.A.
Unless authorised, this information shall not be divulged, nor duplicated in whole or in part.