

## GAS XP 60/M CE-LX

Burners for gas two stages progressive (hi-low flame) or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe.

They are composed by: fan at high pressurisation and combustion head with adjustment at high efficiency and high flame stability.

Compact overall dimensions and disposition rationalized of the components with accessibility facilitated for the operations of setting and maintenance.

Gas train completely assembled and tested; complete of working valve with flow adjustment, safety valve, minimum gas pressure switch and gas filter.

Complete of flange and gasket for installation on generator.



Fig. 1

## TECHNICAL DATA GAS XP 60/M CE-LX

MODEL		GAS XP 60/M CE-LX
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[Mcal/h]	130/200-474
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[kW]	151/232-550
Gas flow G20 (NATURAL GAS) min. 1°st. / min. 2°st. - max. 2°st. *	[Nm³/h]	15.4/23.7-56
Fuel: NATURAL GAS (second family)		
Fuel category:	I2R,I2H,I2L,I2E,I2E+,I2Er,I2ELL,I2E(R)B	
NO <sub>x</sub> **	[mg/kWh]	< 80 : class 3 (EN 676)
Intermittent working operation (min. 1 stop every 24 hours) 2 stages progressives & modulating		
Environmental conditions operation / storage:	-15..+40°C / -20...+70°C, relative umidity max 80%	
Max. temperature combustion air	[°C]	60
Min. pressure gas train D1" - S NATURAL GAS ***	[mbar]	75
Min. pressure gas train D1"1/4 - S NATURAL GAS ***	[mbar]	47.5
Min. pressure gas train D1"1/2 - S NATURAL GAS ***	[mbar]	35
Maximum pressure at the entry of valves (Pe. max)	[mbar]	360
Nominal electric power	[W]	935
Fan motor	[W]	740
Nominal motor current absorption	[A]	2
Nominal auxiliary absorption	[A]	0.5
Power supply:	3 ~400V, 1N ~230V-50Hz	
Electric protection degree:	IP40	
Noisiness **** min. - max.	[dB(A)]	73-76
Burner weight *****	[kg]	36

\* Reference conditions: Environment temperature 20°C - Barometric pressure 1013 mbars - Altitude 0 metre (sea level).

\*\* In order to obtain low NO<sub>x</sub> emission as declared, burner must be matched to the proper boiler for this application: boiler with 3 turns for the exhaust gas, condensing boilers and any generator with direct exhaust outlet and the thermal load that is not higher than 1,1 MW/m³.

\*\*\* Minimum pressure of gas feeding to the gas train in order to obtain the maximum power of the burner considering the back pressure in combustion chamber to a value of 0 (zero).

\*\*\*\* Measured sonorous pressure in the laboratory combustion, with functional burner on beta boiler to 1 metre of distance (UNI EN ISO 3746 law).

\*\*\*\*\* For burner with long head add 1 kg weight.

## FIRING RATES

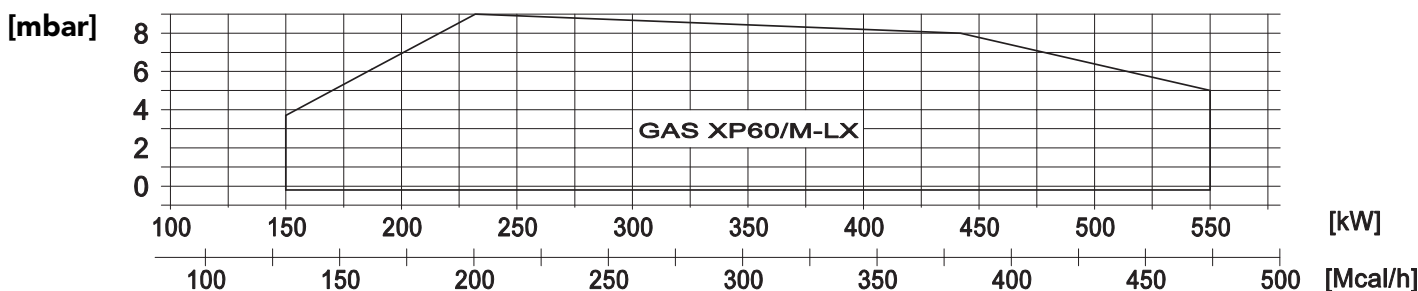
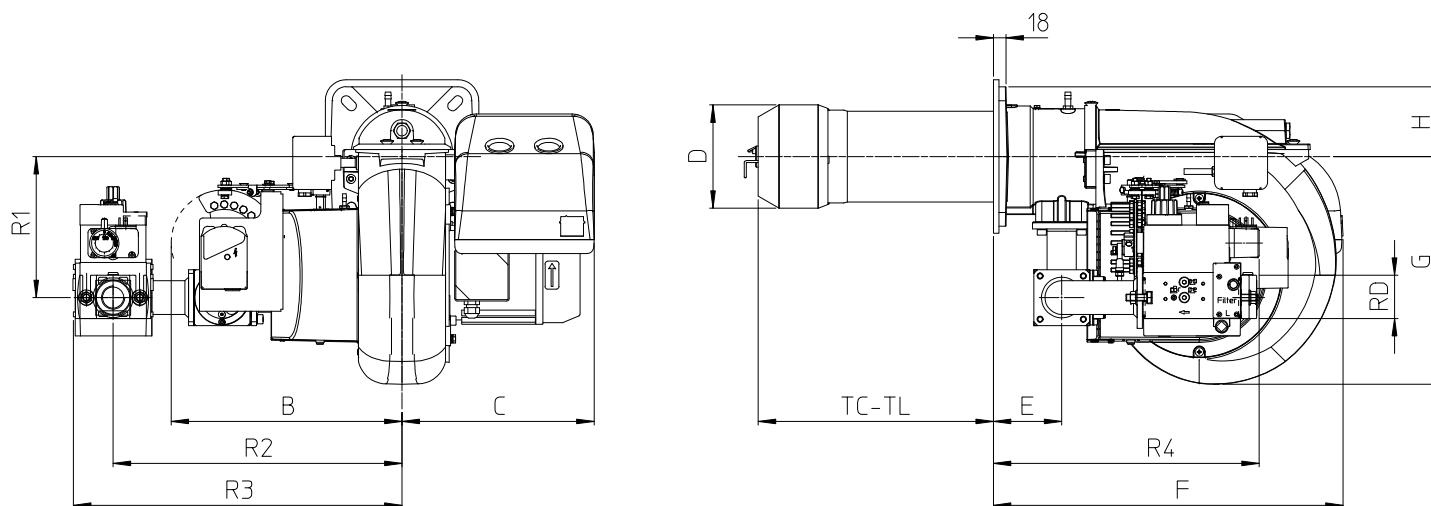


Fig. 2 X = Thermal power Y = Pression in the combustion chamber

The firing rates has been obtained based on test boilers in accordance with EN267 standards and are indicative of matching the burner to the boiler. For the correct operation of the burner bruciatore, combustion chamber dimensions must be in accordance with current regulation. In case of non-compliance, contact the manufacturer.

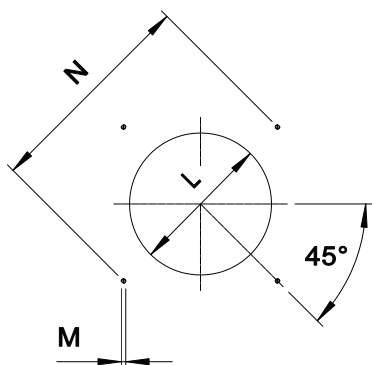
**FBR****DIMENSIONS [MM]****GAS BURNERS LOW NOX TWO STAGES PROGRESSIVE  
OR MODULATING**

SK073034\_B\_en

**Fig. 3** Dimensions

MODEL	B	C	D	E	F	G	H	R1	R2	R3	R4	RD	Gas train weight
GAS XP 60/M CE-LX - D1"	331	276	148	98	501	327	100	202	414	471	381	Rp 1	5.6 kg
GAS XP 60/M CE-LX - D1"1/4	331	276	148	98	501	327	100	202	414	471	378	Rp 1"1/4	5.6 kg
GAS XP 60/M CE-LX - D1"1/2	331	276	148	98	501	327	100	202	414	468.5	458	Rp 1"1/2	8 kg

\* see "flame tube length"

**BOILER PLATE**\* Suggested dimension of connection between burner  
and generator.**Fig. 4** Boiler plate

MODEL		L *	M	N min	N max
GAS XP 60/M CE-LX	mm	160	M10	205	226

**FLAME TUBE LENGTH**

Flame tube length must be selected based on the specifications supplied by boiler manufacturer and, in any case, it must be greater than the thickness of the boiler door included its insulation.

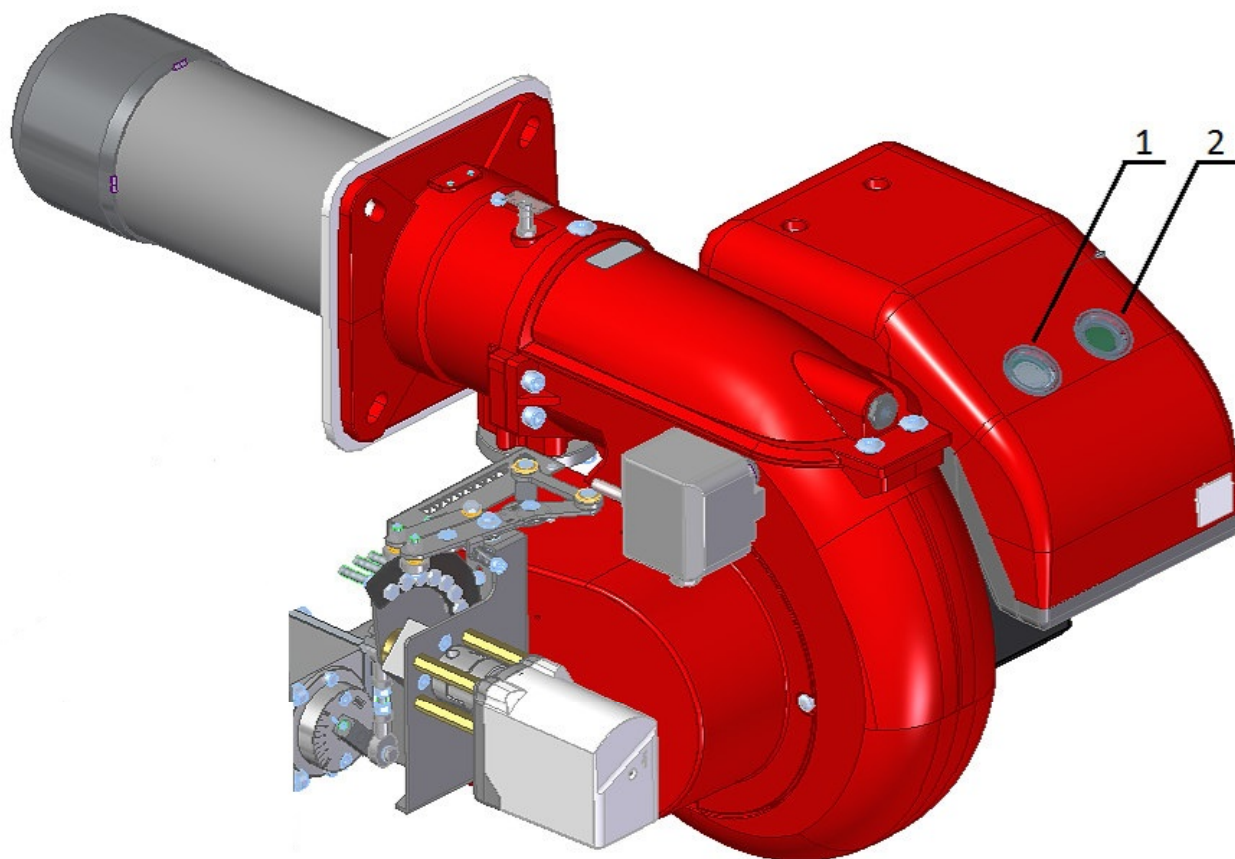
In case of boilers with flame inversion or front flue combustion chambers, it is necessary to insulate the area between the flame tube and front door with refractory material. This protection material must not impede flame tube extraction.

MODEL		TC	TL **
GAS XP 60/M CE-LX	mm	250	335

\*\* For different flame lengths, please contact our Technical-Sales Department.

## BURNER SIGNAL DESCRIPTION

In the picture below there are indicated all the signalation present on the burner:



**Fig. 5** Burner signal description

### LEGEND

- 1) ON/OFF button
- 2) Reset from lockout button + status lamp

💡 The multicolor signal lamp in the lockout reset button (pos.2) is the key indicating element for visual diagnostics and interface diagnostics.

In normal operation, the different operating states are indicated in the form of color codes; please refer to electrical device handbook supplied with the present instructions.

💡 After a non-alterable lockout, the red signal lamp in the lockout reset button (pos.2) lights up. By pressing the lockout reset button (pos.2) for more than 3 seconds, the visual diagnostics of the cause of fault can be activated; please refer to electrical device handbook supplied with the present instructions.

For close the diagnostics mode and for switch on the burner again, it is necessary to reset the burner control. Press the lockout reset button (pos.2) for about 1 second (<3 seconds).

💡 After a non-alterable lockout, the red signal lamp in the lockout reset button (pos.2) lights up. For reset the control box press the lockout reset button (pos.2) for about 1 second (<3 seconds).

**PRODUCT SPECIFICATION****SHORT DESCRIPTION**

Burners for gas two stages progressive (hi-low flame) or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe low emissions certified in conformity with CE 676 class 3 (NO<sub>x</sub> < 80 mg/kWh).

**DETAILED SPECIFICATION**

Burner for gas two stages progressive (hi-low flame) or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe low emissions certified in conformity with CE 676 class 3 (NO<sub>x</sub> < 80 mg/kWh); composed by:

- Fan at high pressurisation;
- Combustion head with adjustment at high performance and elevated flame stability equipped with inox steel blast tube and steel flame disc;
- Flange and insulating gasket for fixing at boiler;
- Three-phase power supply;
- Safety air pressure switch to stop the burner in lock-out in case of failed or anomalous fan operation;
- Gas train with: one-block valve class A (1st stage slow opening + safety), gas pressure switch and filter stabilizer;
- Ionisation probe for flame detection;
- IP 40 electric protection level;
- Spherical gas valve servo-controlled; progressive start and free way passage with total opening;
- Servomotor for air shutter and for the spherical gas valve;
- Moving shutter with total closure when idle in order to reduce at the least energy losses related to boiler cooling down;
- Easy extraction of combustion head without get off the burners by bolier;
- Set up for the additional specific kit that transforms burner operation as modulating i.e. the modulating kit allows to supply any power between the minimun and the maximum value based on instantaneous loading request.

**CONFORMING TO:**

- CE rules;
- 2014/30/UE Directive E.M.C.;
- 2014/35/UE Directive L.V.;
- 2014/68/EU Directive M.D.;
- 97/23/CE Directive P.E.D.;
- 2009/142/CE Directive GAS;
- Reference rules: EN676 (gas) - EN746-2 (industrial thermoprocessing equipment).

**STANDARD EQUIPMENT**

- Isomart gasket;
- Flange with insulating gasket;
- Burner nameplate;
- Warranty;
- Instruction handbook for installation, use and maintenance.

**OPTIONAL**

- Power modulating kits for temperatures;
- Power modulating kits for pressures;
- Temperature probe 0°C-400°C (PT 100 a 0° C);
- Temperature probe 0°C-1200°C (K probe);
- Pressure probe 0-3 bar, 0-6 bar. 0-16 bar, 0-20 bar, 0-30 bar;
- Noise protection;
- Antivibration couplings;
- Handle gas taps.