

## GAS P100/2CE-LX - GAS P150/2CE-LX

Gas burners two stages with: die-cast aluminum body, 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.

Available in the versions METHANE (natural gas).

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

Complete of flange and gasket for installation on generator.

Complete of supports and tie-rods for burner extraction.



Fig. 1 GAS P150/2CE-LX

TECHNICAL DATA AND OPERATING RANGE DIAGRAM GAS P100/2CE-LX - GAS P150/2CE-LX

MODEL		GAS P100/2CE-LX	GAS P150/2CE-LX
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[Mcal/h]	116/350-650	172/500-1000
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[kW]	135/407-756	200/581-1163
Gas flow G20 (NATURAL GAS) min. 1°st. / min. 2°st. - max. 2°st. *	[Nm³/h]	13.5/41-76	20/58.4-117
Fuel: NATURAL GAS (second family)			
Fuel category:		I2R,I2H,I2L,I2E,I2E+,I2Er,I2ELL,I2E(R)B	
NOx **	[mg/kWh]	<80: class 3 (EN 676)	<80: class 3 (EN 676)
Intermittent working operation (min. 1 stop every 24 hours) two stages			
Environmental conditions operation / storage:		-15...+40°C / -20...+70°C, rel. humidity max. 80%	
Max. temperature combustion air	[°C]	60	60
Minimum pressure gas train D1"1/2-S NATURAL GAS/L.P.G. ***	[mbar]	41	66
Minimum pressure gas train D2"-S NATURAL GAS/L.P.G. ***	[mbar]	36	56
Maximum pressure at the entry of valves (Pe. max)	[mbar]	360	360
Nominal electric power	[kW]	2.7	3.4
Fan motor	[kW]	2.2	3
Nominal motor current absorption	[A]	5.2	6
Nominal auxiliary absorption	[A]	0.5	0.6
Power supply:		3~400V, 1/N~230V-50Hz	
Electric protection degree:		IP 40	IP 40
Noisiness **** min. - max.	[dB(A)]	81-82	83-84
Burner weight *****	[kg]	65	79

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

\*\* In order to obtain low Nox 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.

\*\*\* Minimal feeding-gas pressure to the gas train to get the maximum power of the burner, considering counter-pressure in combustion chamber of value 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 3 kg to the weight.

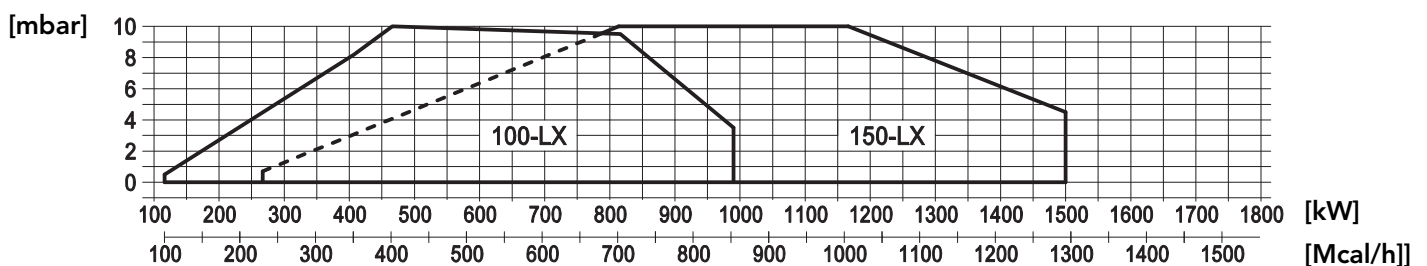
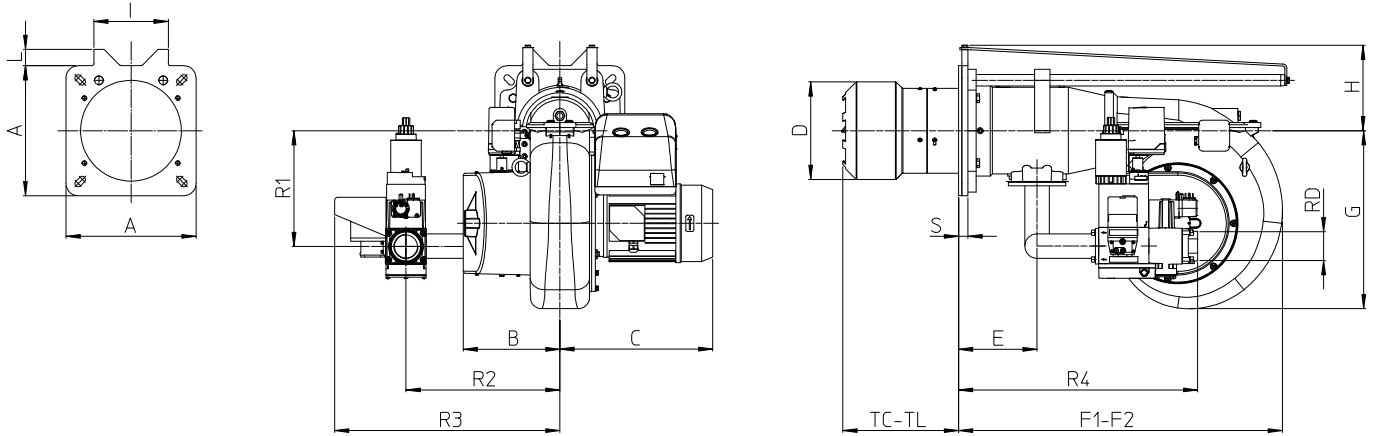


Fig. 2 X = Thermal power Y = Pressure in the combustion chamber

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, combustion chamber dimensions must be in accordance with current regulation. In case of non-compliance, contact the manufacturer.

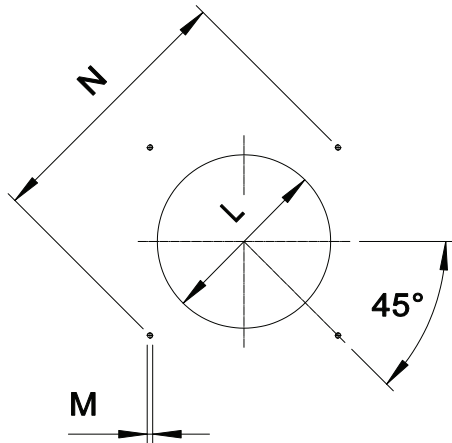
**DIMENSIONS [MM]**



**Fig. 3** Dimensions GAS P70/2CE - GAS P100/2CE

MODEL	A	B	C	D	E	F1	F2	G	H	I	L	S	R1	R2	R3	R4	RD	Gas train weight
GAS P100/2CE-LX - D1"1/2-S	300	238	350	185	184	660	1160	438	173	0	0	18	260	380	532	591	Rp1 1/2	8 Kg
GAS P100/2CE-LX - D2"-S	300	238	350	185	184	660	1160	438	173	0	0	18	260	380	536	591	Rp 2	11 Kg
GAS P150/2CE-LX - D2"-S	320	238	376	240	193	800	1380	438	213	183	40	23	285	380	555	589	Rp 2	9 Kg

**BOILER PLATE**



\* Suggested dimension of connection between burner and generator.

Fig. 4 Boiler plate

MODEL		L min	L *	L max	M	N min	N max
GAS P100/2CE-LX	mm	195	195	250	M12	340	368
GAS P150/2CE-LX	mm	250	250	250	M14	340	368

**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.

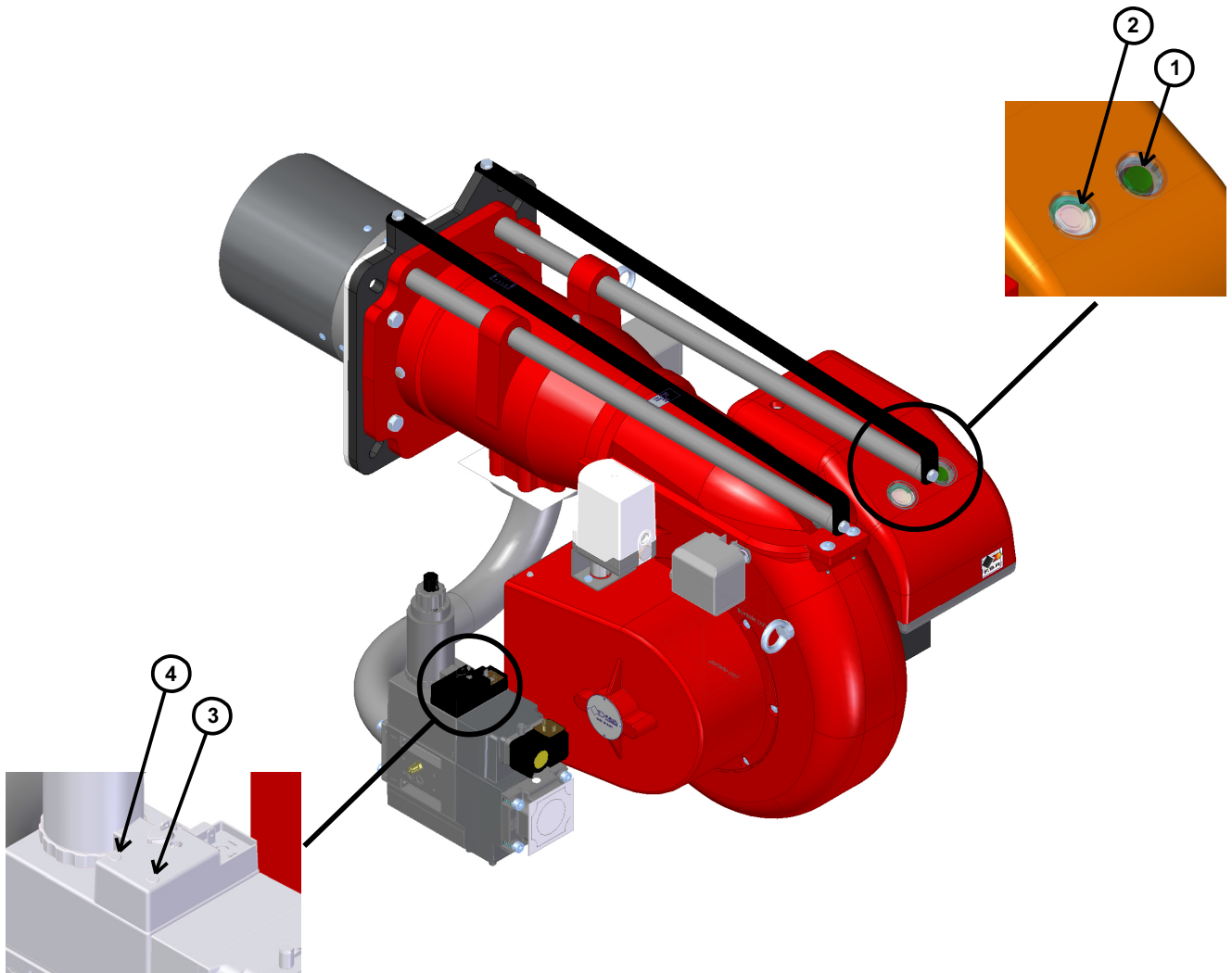
In case of boilers with flame inversion or front flue combustion chambers, it is necessary to insulate the area between the flame tube and front door with refractory material. This protection material must not impede flame tube extraction.

MODEL		TC	TL **
GAS P100/2CE-LX	mm	250	385
GAS P150/2CE-LX	mm	285	405

\*\* 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
- 3) 1st stage GAS valve lamp (only for gas train D2"-S)
- 4) 2nd stage GAS valve lamp (only for gas train D2"-S)

💡 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

Gas burners two stages low emissions certified in conformity with CE 676 class 3 (NO<sub>x</sub> < 80 mg/kWh).

### DETAILED SPECIFICATION

Gas burner two stages low emissions certified in conformity with CE 676 class 3 (NO<sub>x</sub> < 80 mg/kWh–CO < 60 mg/kWh), composed by:

- Die-cast aluminum body;
- 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 safety valve class A, adjustment two stages valve class A and valve proving system as standard for model GAS P150/2CE-LX;
- UV probe for flame detection;
- IP 40 electric protection level;
- Servomotor for air shutter and for the consent of the 2nd stage gas valve;
- Moving shutter with total closure when idle in order to reduce at the least energy losses related to boiler cooling down;
- Supports and tierods for burner extraction;
- Easy extraction of combustion head without get off the burners by bolier;
- Maximum gas pressure switch to stop the burner in lock-out in case of the gas pressure is higher then the set point value.

### 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

- Noise protection;
- Antivibration couplings;
- Handle gas taps.