

## FGP 50/2 - FGP 70/2 - FGP 100/2 - FGP 120/2 - FGP 150/2

Burners for light-oil two stages.

They are composed by: fan at high pressurisation, combustion head with adjustment at high efficiency and high flame stability and hydraulic system of regulation combustive air on the two stages of flame.

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

Complete of nozzle, flexible pipes and line filter.

Complete of flange and gasket for installation on generator.



Fig. 1 FGP 50/2



Fig. 2 FGP 70/2



Fig. 3 FGP 150/2

## TECHNICAL DATA FGP 50/2 - FGP 70/2 - FGP 100/2 - FGP 120/2 - FGP 150/2

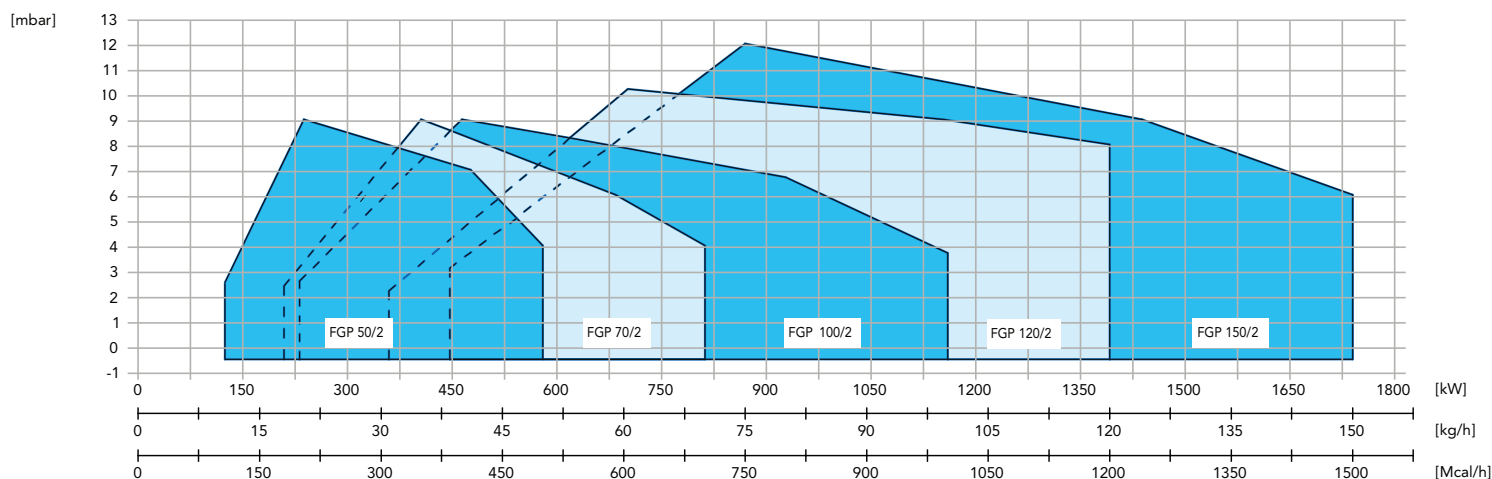
MODEL		FGP 50/2	FGP 70/2	FGP 100/2	FGP 120/2	FGP 150/2
Flow min. 1°st. / min. 2°st. - max. 2°st. *	[kg/h]	10.5/20-50	18/35-70	20.5/40-100	29/60-120	38.5/75-150
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[Mcal/h]	106.5/204-510	183/357-714	208.5/407.5-1020	295.5/612-1224	393/764.5-1500
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[kW]	124/237-593	213/415-830	243/474-1186	344/712-1423	457/889-1744
Fuel: LIGHT-OIL 1.5°E at 20°C = 6.2 cSt = 35 sec Redwood N°1						
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				
Nominal electric power	[kW]	1.1	1.2	2.4	3.4	4.4
Fan motor	[kW]	0.74	1.1	2.2	3	4
Nominal motor current absorption	[A]	1.8	2.7	5.4	6.4	8.6
Nominal auxiliary absorption	[A]	0.3				
Power supply:		3~400V, 1N~230V - 50Hz				
Electric protection degree:		IP 40				
Noisiness ** min-max	[dBA]	74-77	77-78	81-82	83-84	84-85
Burner weight ***	[kg]	31	49	63	82	86

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

\*\* Measured sonorous pressure in the combustion lab, with functional burner on beta boiler in a distance of 1 m (UNI EN ISO 3746).

\*\*\* For burner FGP 50/2 with long head add 1 kg to the weight / For burner FGP 70/2 ÷ FGP 150/2 with long head add 3 kg to the weight.

## OPERATING RANGE DIAGRAM FGP 50/M - FGP 70/M - FGP 100/M - FGP 120/M - FGP 150/M

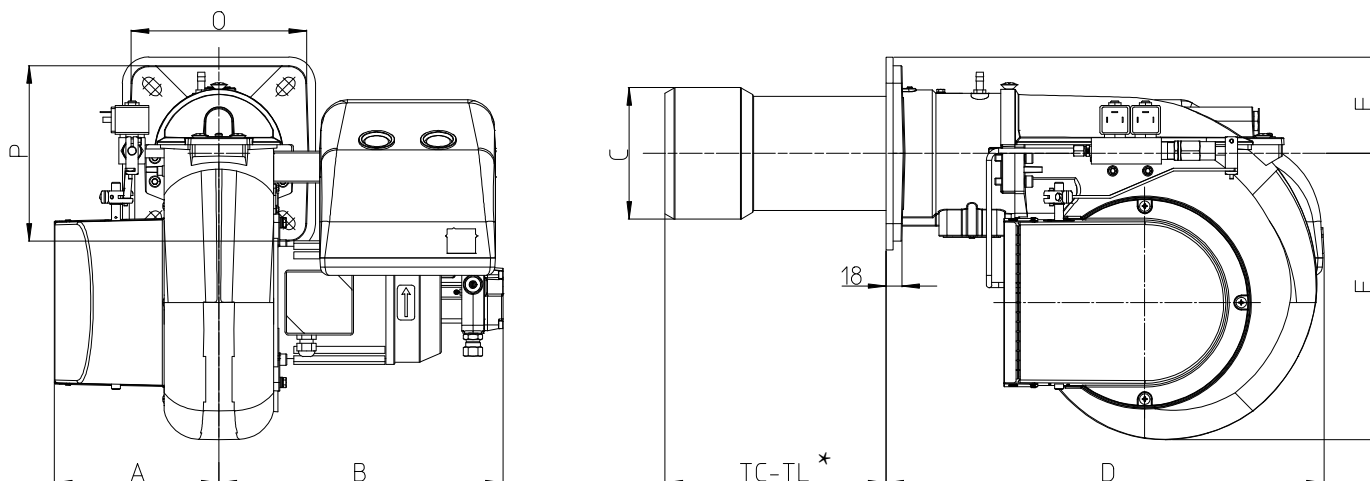


**Fig. 4** X = Thermal power Y = Pression in the combustion chamber

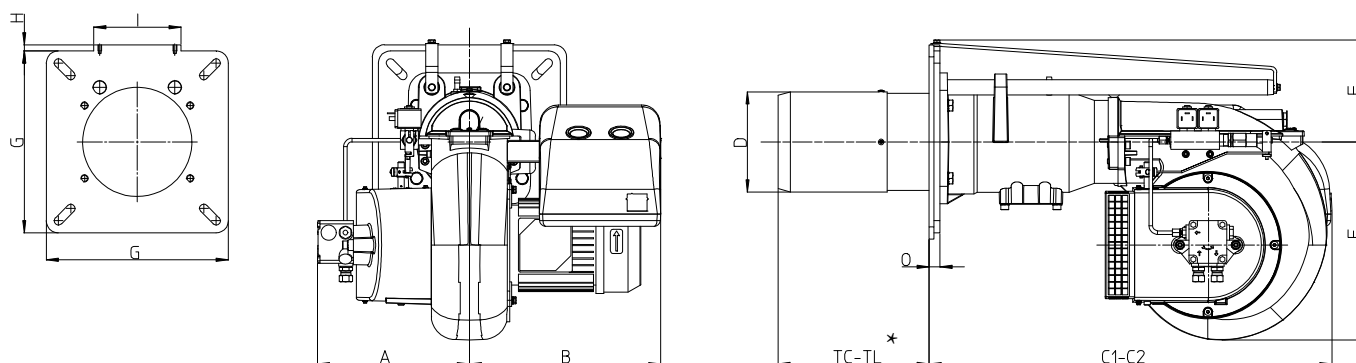
The firing rates has been obtained based on test boilers in accordance with EN267 standards and are indicative of matching the burner to the boiler. For the correct operation of the burner, combustion chamber dimensions must be in accordance with current regulation. In case of non-compliance, contact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

**FBR****DIMENSIONS [MM]****LIGHT-OIL BURNERS TWO STAGES**

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**Fig. 5** Dimensions FGP 50/2

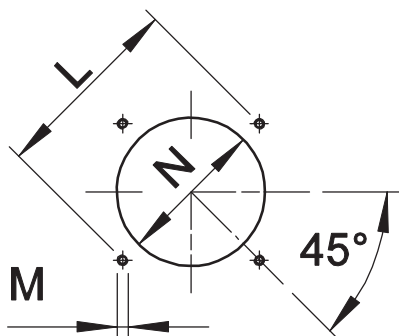
MODEL	A	B	C	D	E	F	O	P
FGP 50/2	188	324	150	493	327	100	200	200

**Fig. 6** Dimensions FGP 70/2 - FGP 100/2 - FGP 120/2 - FGP 150/2

MODEL	A	B	C1	C2	D	E	F	G	H	I	O
FGP 70/2	250	315	660	1060	165	327	171	300	10	144	18
FGP 100/2	300	350	670	1170	175	438	173	300	0	0	18
FGP 120/2	350	376	820	1400	212	438	213	320	40	183	23
FGP 150/2	350	397	820	1400	212	438	213	320	40	183	23

C2: Overall dimension with the burner out in position of maintenance.

\* see "flame tube length"



\* Suggested dimension of connection between burner and generator.

**Fig. 7** Boiler plate

MODEL		L min	L max	M	N min	N *	N max
FGP 50/2	mm	205	226	M10	160	160	180
FGP 70/2	mm	310	368	M12	180	180	250
FGP 100/2	mm	340	368	M12	190	190	250
FGP 120/2	mm	340	368	M12	230	230	250
FGP 150/2	mm	340	368	M12	230	230	250

## 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.

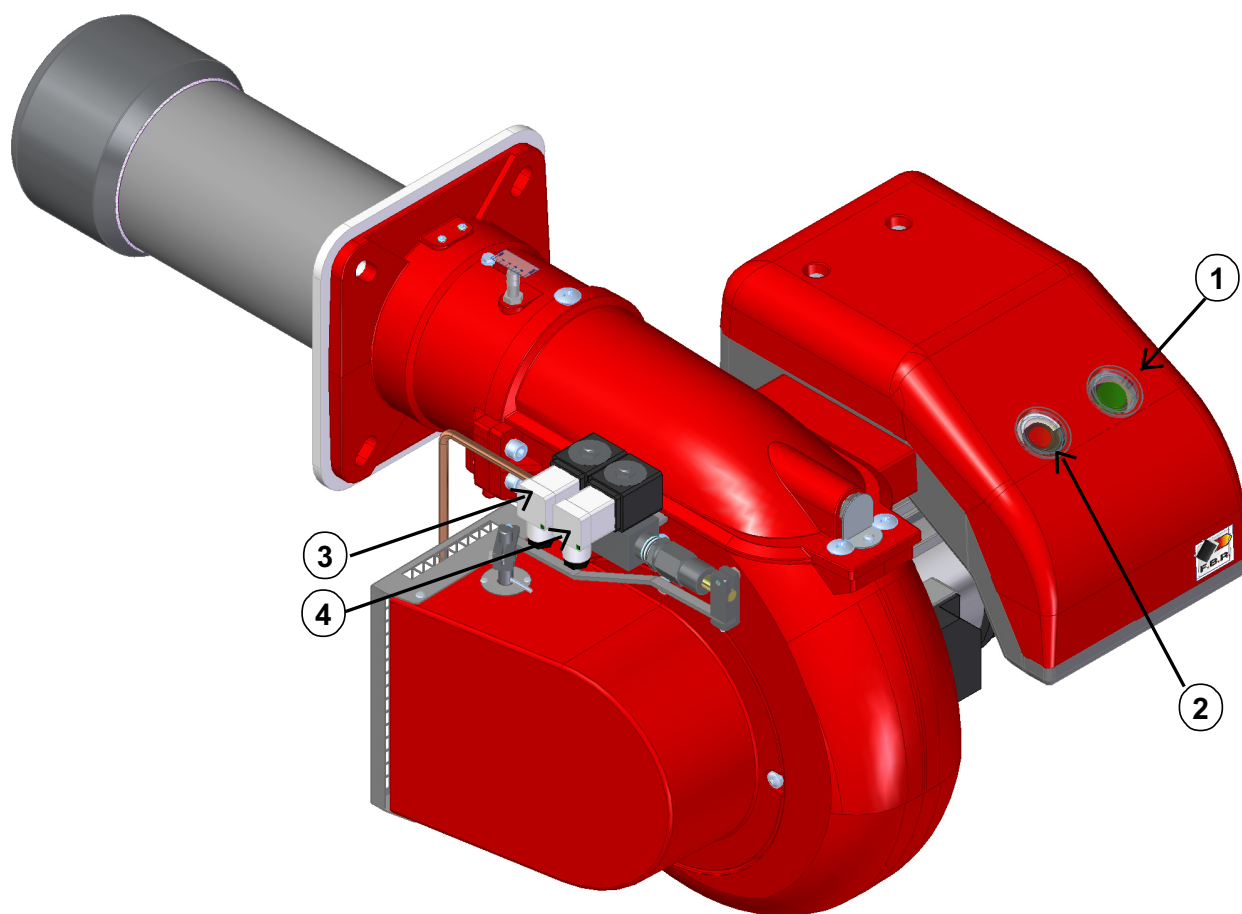
In case of boilers with flame inversion or front flue combustion chambers, it is necessary to insulate the area between the flame tube and front door with refractory material. This protection material must not impede flame tube extraction.

MODEL		TC	TL **
FGP 50/2	mm	250	335
FGP 70/2	mm	250	335
FGP 100/2	mm	235	370
FGP 120/2	mm	200	400
FGP 150/2	mm	200	400

\*\* 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. 8** Burner signal description

### LEGEND

- 1) ON/OFF button
- 2) Reset from lockout button + status lamp
- 3) 1st stage led ON \*
- 4) 2nd led ON

\* The models FGP 100/2 - FGP 120/2 - FGP 150/2 have an extra led; it is on the safety valve connector (it turns on together with the 1st stage valve).

💡 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**

Light-oil burners two stages.

**DETAILED SPECIFICATION**

Light-oil burner two stages composed by:

- Fan at high pressurisation;
- Combustion head with adjustment at high performance and elevated flame stability;
- Flange and insulating gasket for fixing at boiler;
- Three-phase power supply;
- Photoresistance for flame detection;
- IP 40 electric protection level;
- Supports and tierods for burner extraction FGP 70/2 - FGP 100/2 - FGP 120/2 - FGP 150/2;
- Easy extraction of combustion head without get off the burners by bolier.

**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.;
- Reference rules: EN267 (liquid fuel) - EN746-2 (industrial thermoprocessing equipment).

**STANDARD EQUIPMENT**

- Flexible hoses for connection;
- Line filter;
- Isomart gasket;
- Nozzle;
- Flange with insulating gasket;
- Burner nameplate;
- Warranty;
- Instruction handbook for installation, use and maintenance.

**OPTIONAL**

- Noise protection.