

FGP 350/M-EL - FGP 450/M-EL - FGP 550/M-EL

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

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.

The adoption of strong metal components makes the burner durable also in heavy duty conditions.

Complete of flange and gasket for installation on generator, nozzle, flexible pipes and line filter.

The actuators are independent and are managed directly by the electronic cam:

- one actuator for the air shutter
- one actuator for the light-oil modulator

The burners are equipped with an electronic microprocessor system, in addition there is a LCD display with interactive configuration.

With the addition of optional accessories (probes) thanks to the most advanced systems for automatic modulation, the burner constantly ensures the proper fuel / air ratio. The maximum efficiency of the returns in each combustion point derived from the punctual adaptation of the thermal load to the heat requirements of the burner at any instant of operation.

The fuel / combustion air curve, more extended, is fully exploited, guaranteeing excellent performance in terms of accuracy and speed, even during the calibration phase. A microprocessor monitors the different stages of the process and allows the correct repetition of the sequences of operation.

Some accessories are available, like: PC interface, VSD (inverter), Profibus, Modbus.



Fig. 1 FGP 450/M-EL

CONTROL BOX LAMTEC BT3

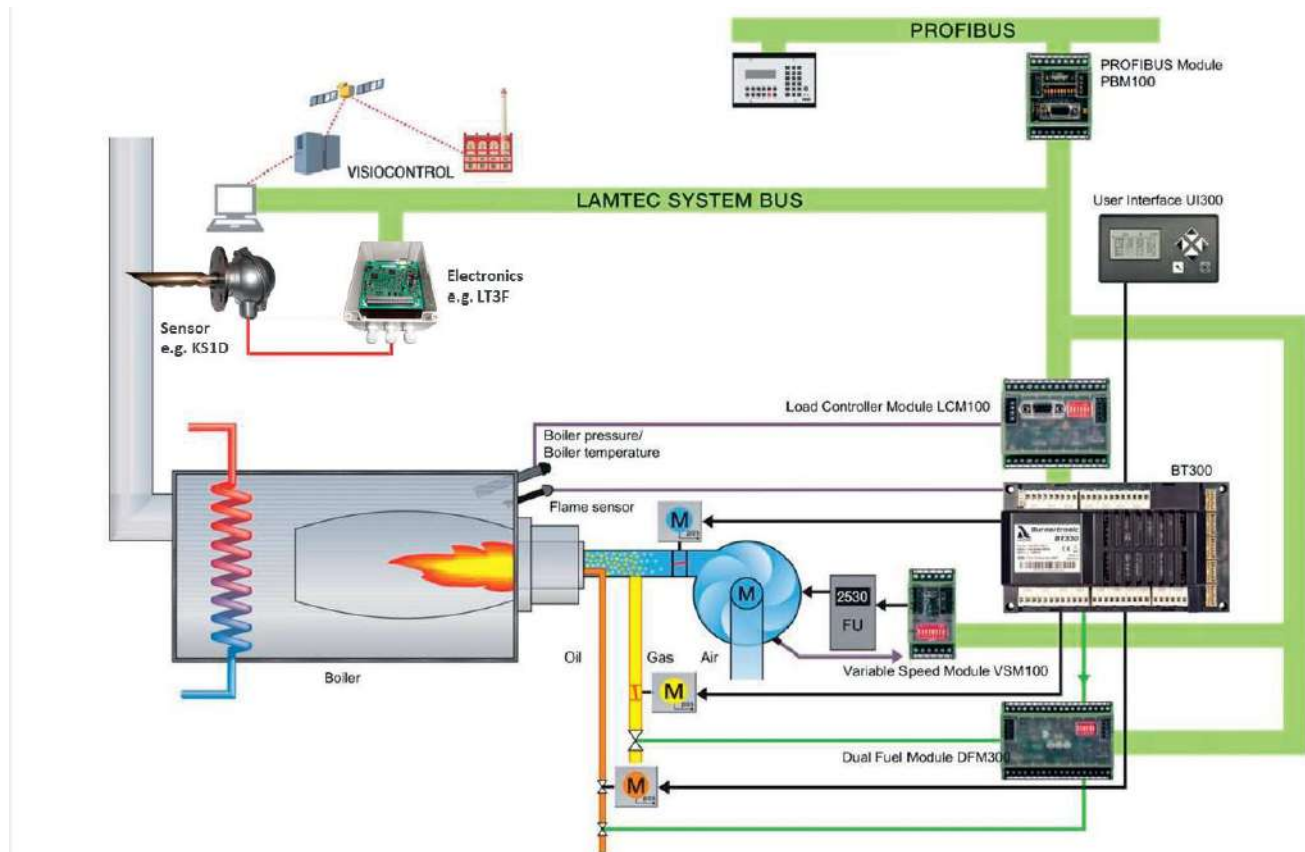


Fig. 2 Control box Lamtec BT3

TECHNICAL DATA FGP 350/M-EL - FGP 450/M-EL - FGP 550/M-EL

MODEL		FGP 350/M-EL	FGP 450/M-EL	FGP 550/M-EL
Flow min. 1°st. / min. 2°st. - max. 2°st. *	[kg/h]	46/140-350	53/160-450	66/200-550
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[Mcal/h]	460/1400-3500	530/1600-4500	660/2000-5500
Thermal power min. 1°st. / min. 2°st. - max. 2°st. *	[kW]	534/1660-4151	615/1898-5337	766/2372-6523
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 progressive or modulating				
Environmental conditions operation / storage:	-15...+40°C / -20...+70°C, rel. humidity max. 80%			
Max. temperature combustion air	[°C]	60	60	60
Nominal electric power	[kW]	12	14	21
Fan motor	[kW]	9	11	18.5
Pump motor	[kW]	2.2	2.2	2.2
Nominal motor current absorption	[A]	19	21.7	36
Nominal auxiliary absorption	[A]	0.6	0.6	0.6
Power supply:	3~400V, 1N~230V - 50Hz			
Electric protection degree:		IP 40	IP 40	IP 40
Noisiness ** min. - max.	[dB(A)]	86-86	88-89	89-90
Burner weight	[kg]	230	240	287

* 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).

OPERATING RANGE DIAGRAM FGP 350/M-EL - FGP 450/M-EL - FGP 550/M-EL

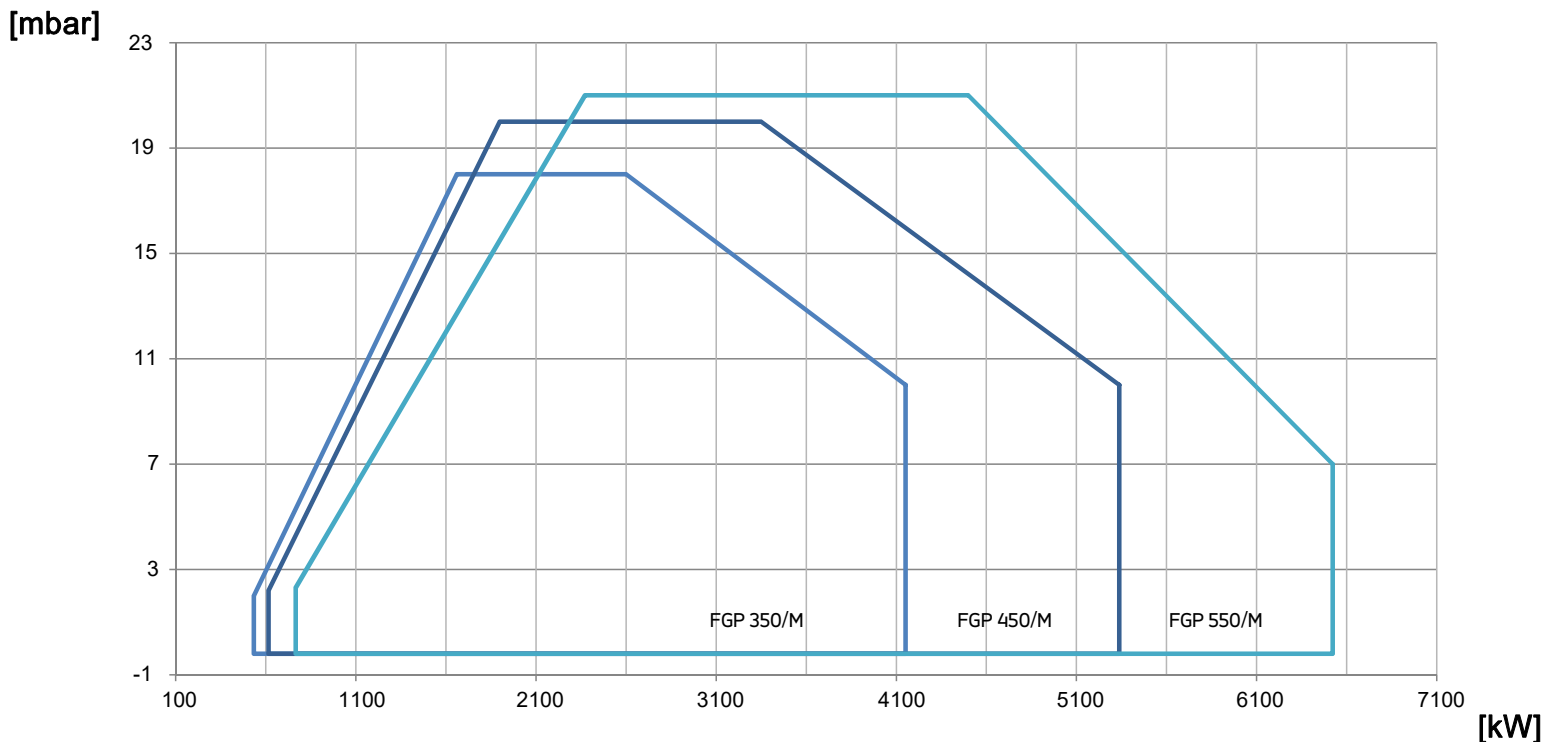


Fig. 2 X = Thermal power Y = Pression in the combustion chamber

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

DIMENSIONS [MM]

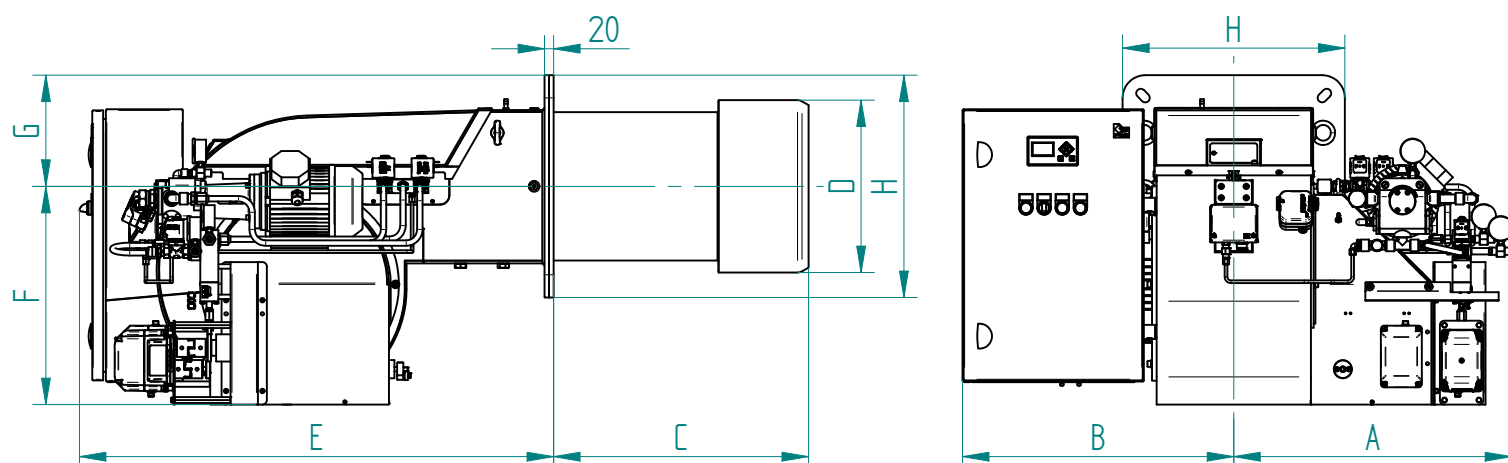
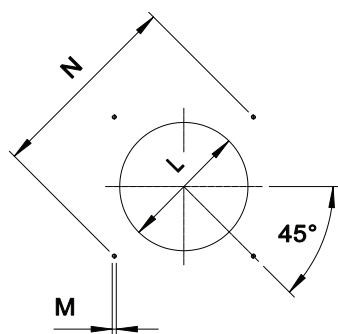


Fig. 3 Dimensions FGP 350/M-EL - FGP 450/M-EL - FGP 550/M-EL

MODEL	A	B	C	D	E	F	G	H
FGP 350/M-EL	615	600	537	334	1035	480	245	490
FGP 450/M-EL	615	600	562	380	1035	480	245	490
FGP 550/M-EL	615	660	562	380	1035	480	245	490

BOILER PLATE



* Suggested dimension of connection between burner and generator

Fig. 4 Boiler plate

MODEL		M	N min	N *	N Max	L min	L *	L max
FGP 350/M-EL	mm	M14	552	552	580	350	350	450
FGP 450/M-EL	mm	M14	552	552	580	390	390	450
FGP 550/M-EL	mm	M14	552	552	580	390	410	450

PRODUCT SPECIFICATION

SHORT DESCRIPTION

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

DETAILED SPECIFICATION

Light-oil burner two stages progressive (hi-low flame) or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe; 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;
- Photoresistance for flame detection;
- IP 40 electric protection level;
- Electronic control box for control and supervision of burner;
- One servomotor for air shutter;
- One servomotor for the fuel pressure regulator;
- Easy extraction of combustion head without get off the burners by bolier;
- Maximum light-oil pressure switch to stop the burner in case of the light-oil pressure on the return is higher then the set point value;
- Safety air pressure switch to stop the burner in case of failed or anomalous fan operation;
- Mobile shutter with total closure when idle for minimize the energetic losses related at boiler cooling;
- Dedicated electric motor for light-oil pump;
- LCD display with interactive configuration;
- 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 minimum 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.;
- 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

- 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.