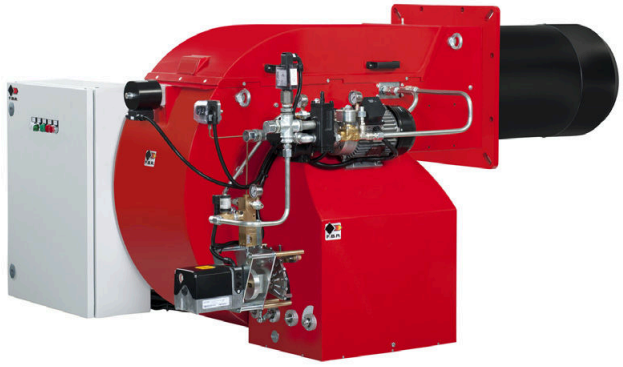
FGP 650/M



Burners for light oil two stages progressive (hi-low flame) or modulating (PID fully modulating) with the addition of the optional system modulation kit plus feeder. Fan at high pressurisation, combustion head with

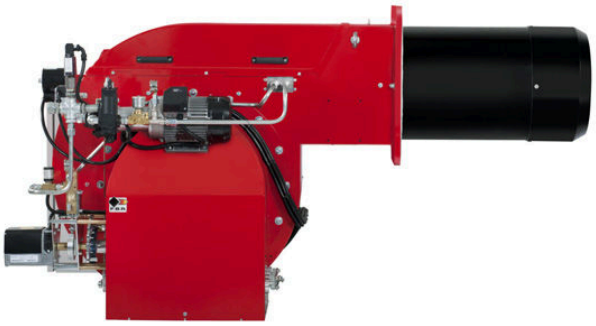
adjustment at high efficiency and high flame stability.

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

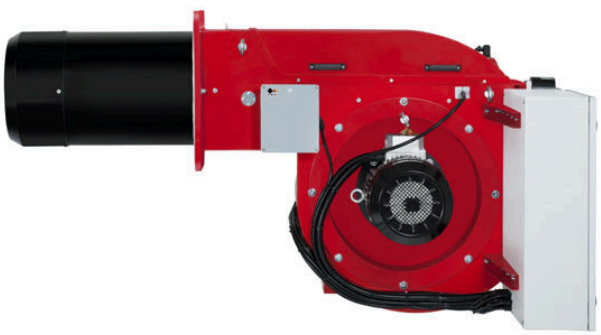
Disposition rationalized of the components with accessibility facilitated for the operations of setting and maintenance.

Burners are supplied with gasket for installation on boiler, nozzle, flexible hoses, line filter.

Also available with electronic camme.







TECHNICAL DATA

MODEL		FGP 650/M
Thermal power min.1°st. / min.2°st. - max.2°st. *	[Mcal/h]	847/3000-6500
Thermal power min.1°st. / min.2°st. - max.2°st. *	[kW]	986/3488-7558
Light-oil flow min.1°st. / min.2°st. - max.2°st. *	[kg/h]	85/294-637
Fuel: Light-oil 1.5°E at 20°C = 6.2 cSt = 35 sec Redwood N°1		
Intermitted working operation (min. 1 stop every 24 hours) two stages progressive or modulating		
Enviromental conditions operation / storage:		-15...+40°C / -20...+70°C, rel. humidity max. 80%
Max. temperature combustion air	[°C]	60
Nominal electric power	[kW]	21
Fan motor	[kW]	18.5
Pump motor	[kW]	2.2
Fan motor absorption	[A]	36.2
Pump motor absorption	[A]	5.4
Nominal absorption burner auxiliary	[A]	4
Power supply		3~380/440V - 1/N~220/240V-50Hz
Degree of electric protection		IP40
Noiseness ** max.	[dB(A)]	85
Burner weight	[kg]	540

* Reference conditions: Environment temperature 20°C - Barometric pressure 1013 mbars - Altitude 0 metre (sea level)
** Measured sonorous pressure in the laboratory combustion, with functional burner on beta boiler to 1 metre of distance (UNI EN ISO 3746 law).

OPERATING RANGE DIAGRAM

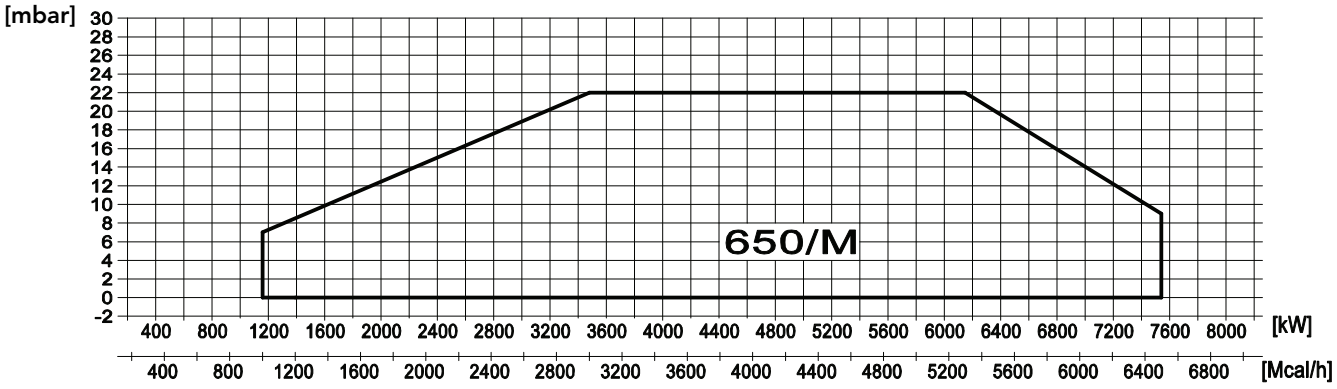


Fig. 1 X = Thermal power Y = Pression in the combustion chamber

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.

BURNER DIMENSIONS [mm]

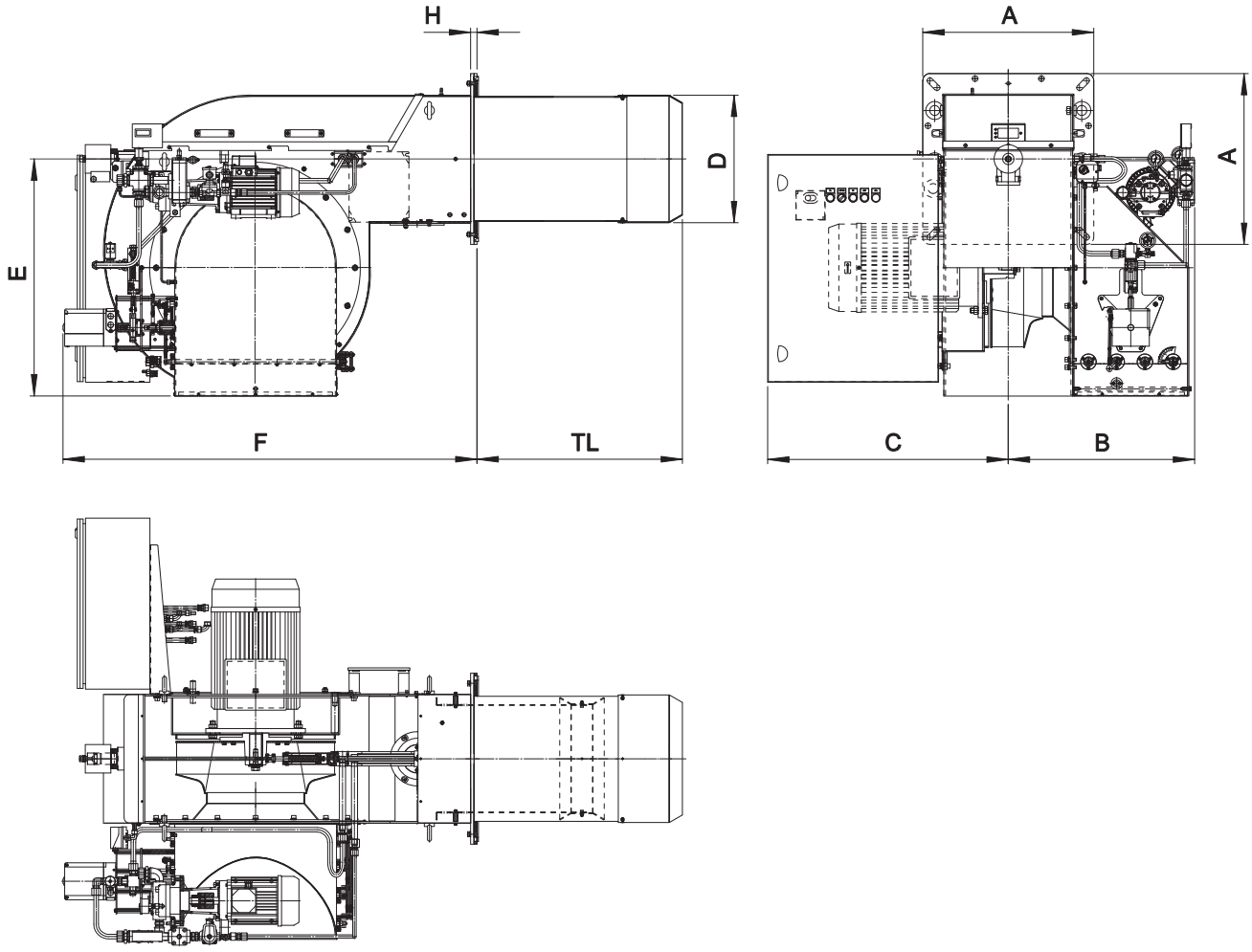
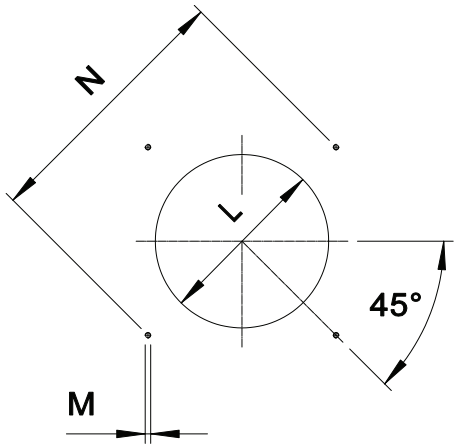


Fig. 2 Burner dimensions

MODEL	A	B	C	D	E	F	H	TL
FGP 650/M	600	654	845	439	833	1453	22	721

BOILER PLATE



The dimensions of the boiler plate (threaded holes or studs) must be as indicated in the drawing.

Fig. 3 Boiler plate

MODEL		M	N min	N*	N Max	Lmin	Lmax
FGP 650/M	mm	M16	707	778	778	460	540

* Suggested dimension.

PRODUCT SPECIFICATION

SHORT DESCRIPTION

Burners for light oil two stages progressive (hi-low flame) or modulating (PID fully modulating) with the addition of the optional system modulation kit plus feeder.

DETAILED SPECIFICATION

Burners for light oil two stages progressive (hi-low flame) or modulating (PID fully modulating) with the addition of the optional system modulation kit plus feeder. The burner is composed by:

- Frame made of steel;
- Centrifugal fan at high pressurization with reverse curved blades at low noisiness;
- Combustion head with adjustment at high performance and elevated flame stability equipped with inox steel blast tube and steel flame disc;
- Easy extraction of combustion head without get off the burners by bolier;
- Flange and insulating gasket for fixing at boiler/furnace;
- Control box for control and supervision of burner;
- Photoresistance for flame detection;
- Three-phase power supply;
- Fan motor start-up made by delta/star system;
- IP40 electric protection level;
- Safety air pressure switch to stop in lockout the burner in case of failed or anomalous fan operation;
- Servomotor for air shutter and for the fuel pressure regulator;
- Mobile shutter with total closure when idle for minimize the energetic losses related at boiler cooling;
- Light-oil gear pump operated by specific electric motor;
- Nozzle assembly with magnet to control inlet/return needle nozzle;
- 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 maximum value based on instantaneous loading request.

CONFORMING TO:

- CE rules;
- 2004/108/CE Directive E.M.C.;
- 2006/95/CE Directive L.V.;
- 2006/42/CE 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 kit for temperatures;
- Power modulating kit for pressures;
- Temperature probe 0°-400°C (PT 100 ohm at 0°C);
- Temperature probe 0°-1200°C (K probe);
- Pressure probe 0-3 bar, 0-6 bar, 0-16 bar, 0-20 bar, 0-30 bar;
- Noise protection.

The illustrations and data here shown are indicative. F.B.R. Bruciatori S.r.l. reserves the right to bring, without any obligation of warning, any changes that would be appropriate to the continuing development of their products.



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