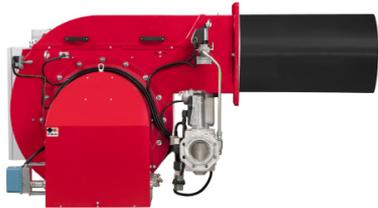


GAS P 750-1000-1300-1500-1800/M EL



Burners for gas two stages progressive (hi-low flame) or modulating (PID fully modulating) equipped with electronic control box (Lamtec BT3). Fan at high pressurisation, combustion head with adjustment at high efficiency and high flame stability. Equipped with ignition pilot flame.

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

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

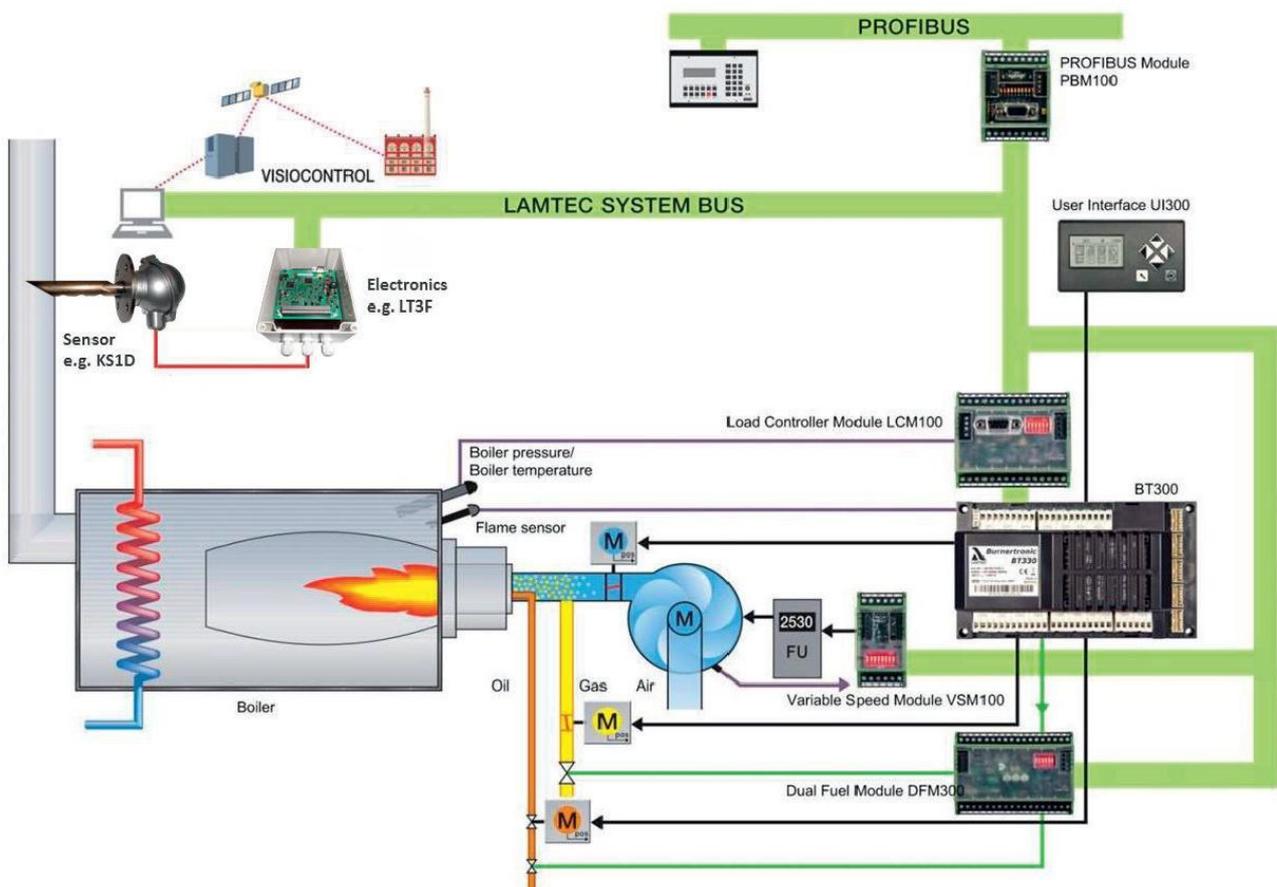
The burners are equipped with an operating display that allows:

- Adjustment of the parameters of the burner operation
- Adjustment of the setpoint and operation range of the pressure / temperature probe
- Adjustment of the burner's curveset

With the addition of optional accessories (probes) thanks to the most advanced systems for automatic modulation in mechanical or electronic version, the burner constantly ensures the proper gas / 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.

In the version with the electronic cam 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), O2 control, O2 + CO control, field bus (profibus, modbus, profinet).





TECHNICAL DATA

GAS BURNERS TWO STAGES PROGRESSIVE OR MODULATING WITH ELECTRONIC CONTROL BOX

SK073041_B_en

MODEL		GAS P 750/M-EL	GAS P 1000/M-EL	GAS P1300/M-EL
Thermal power 1°st./min 2°st.-max 2°st. *	[Mcal/h]	1200/3400-7500	1200-3400-10000	1700/3600-11500
Thermal power 1°st./min 2°st.-max 2°st. *	[kW]	1395/3953-8721	1395-3953-11628	1977/4186-13372
Gas flow G20 //(NATURAL GAS) 1°st./min 2°st.-max 2°st. *	[Nm³/h]	140/398-877	140/398-1170	199/421-1345
Gas flow G31 //(LPG) 1°st./min 2°st.-max 2°st. *	[Nm³/h]	54/153-338	54/153-450	77/162-518
Fuel		Natural gas (second family) - LPG (third family)		
Fuel category		I2R,I2H,I2L,I2E,I2E+,I2Er,I2ELL,I2E(R) / I3B/P,I3+,I3P,I3B,I3R		
Intermittent working operation (min. 1 stop every 24 hours) two stage progressive or modulating				
Environmental conditions operation / storage		0...+40°C / -20...+70°C , rel. humidity max. 80%		
Max temperature combustion air	[°C]	60	60	60
Minimum gas train pressure (DN65-S-F65 natural gas/ LPG)**	[mbar]	271/105	-/-	-/-
Minimum gas train pressure (DN80-S-F80 natural gas/ LPG)**	[mbar]	156/60	285/110	366/141
Minimum gas train pressure (DN100-S-F100 natural gas/ LPG)**	[mbar]	101/39	176/68	248/95
Minimum gas train pressure (DN125-S-F125 natural gas/ LPG)**	[mbar]	-/-	130/50	180/70
Maximum supply gas pressure (Pe.max)	[mbar]	500	500	500
Nominal electric power	[kW]	22.2	30.2	37.2
Fan motor	[kW]	22	30	37
Nominal absorption current (powers)	[A]	42	56	68
Nominal absorption current (auxiliary)	[A]	0.4	0.4	0.4
Power supply		3~400V-1/N~230V-50Hz		
Electric protection degree		IP40	IP40	IP40
Sound level*** min-max	[dB(A)]	84-88	86-92	86-93
Burner weight	[kg]	540	570	590

MODEL		GAS P1500/M-EL	GAS P1800/M-EL
Thermal power 1°st./min 2°st.-max 2°st. *	[Mcal/h]	1700/3600-13000	2000/5000-15000
Thermal power 1°st./min 2°st.-max 2°st. *	[kW]	1977/4186-15116	2325/5814-17442
Gas flow G20 //(NATURAL GAS) 1°st./min 2°st.-max 2°st. *	[Nm³/h]	199/421-1520	234/585-1754
Gas flow G31 //(LPG) 1°st./min 2°st.-max 2°st. *	[Nm³/h]	77/162-586	90/225-676
Fuel		Natural gas (second family) - LPG (third family)	
Fuel category		I2R,I2H,I2L,I2E,I2E+,I2Er,I2ELL,I2E(R) / I3B/P,I3+,I3P,I3B,I3R	
Intermittent working operation (min. 1 stop every 24 hours) modulating			
Environmental conditions operation / storage		0...+40°C / -20...+70°C , rel. humidity max. 80%	
Max temperature combustion air	[°C]	60	60
Minimum gas train pressure (DN80-S-F80 natural gas/ LPG)**	[mbar]	460/177	-/-
Minimum gas train pressure (DN100-S-F100 natural gas/ LPG)**	[mbar]	310/119	370/-
Minimum gas train pressure (DN125-S-F125 natural gas/ LPG)**	[mbar]	225/87	307/-
Minimum gas train pressure (DN150-S-F150 natural gas/ LPG)**	[mbar]	206/79	287/-

MODEL		GAS P1500/M-EL	GAS P1800/M-EL
Maximum supply gas pressure (Pe.max)	[mbar]	500	500
Nominal electric power	[kW]	45.5	55.5
Fan motor	[kW]	45	55
Nominal absorption current (powers)	[A]	78	96
Nominal absorption current (auxiliary)	[A]	0.4	0.4
Power supply		3~400V-1/N~230V-50Hz	
Electric protection degree		IP40	IP40
Sound level*** min-max	[dB(A)]	87-93	88-94
Burner weight	[kg]	660	870

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

** 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 1m of distance (UNI EN ISO 3746).

FIRING RATES

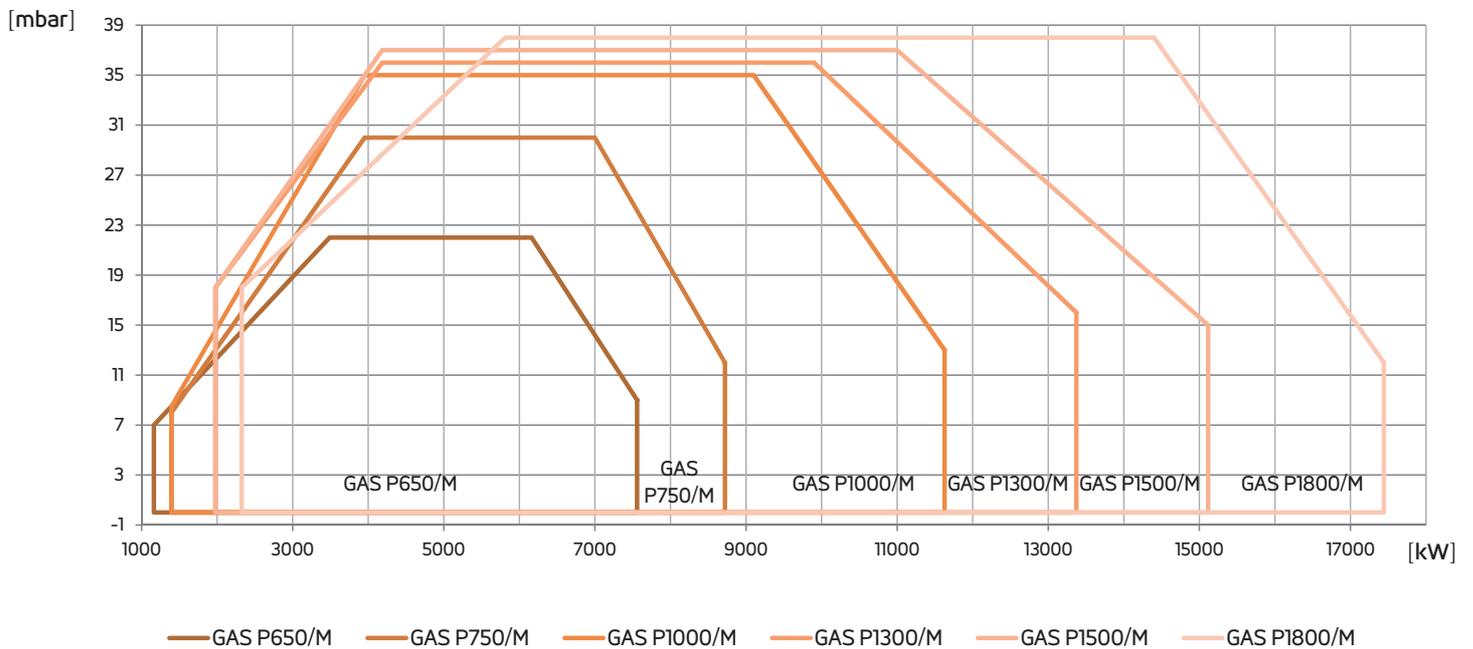


Fig. 2 X = Thermal power [kW] Y = Pression in the combustion

The firing rates have 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.

PRODUCT SPECIFICATION**SHORT DESCRIPTION**

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

DETAILED SPECIFICATION

Burner for gas two stages progressive or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe; composed by:

- burner frame made of steel completed by specific boiler plate
- combustion head with adjustment at high efficiency and high flame stability equipped with blast tube made of stainless steel and flame stability disk made of steel
- safety air pressure switch -air side- that stops the burner in case of failed or irregular fan operation
- spherical gas valve servo-controlled; progressive start and free way passage with total opening
- one servomotor for air flaps and one servomotor for spherical gas valve
- moving shutter with total closure when idle in order to reduce at the least energy losses related to boiler cooling down
- high performance centrifugal fan with backward curved blades for low noise
- Gas train completely assembled and tested; complete of: working valve class A - safety valve class A - minimum gas pressure switch - gas valve proving pressure switch - filter
- valve proving system
- Three-phase power supply
- UV probe for flame detection
- Maximum gas pressure switch to stop the burner in lock-out in case of the gas pressure is higher than the set point value
- Pilot ignition
- 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.;
- 2006/42/CE - 2006/42/EG - 2006/42/EC Directive M.D.;
- 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;
- Kit for input 4-20mA / 0-10Vdc;
- Temperature probe 0°C-400°C (PT 100 a 0° C);
- Temperature probe 0°C-350°C (J probe);
- 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;
- Sensors and system for O₂ control (is suggest to add the VSD);
- Sensors and system for CO control (is suggest to add the VSD);
- Sensors and system for O₂-CO control (is suggest to add the VSD);
- Modules for field BUS (modbus - profibus - profinet);
- Noise protection;
- Antivibration couplings;
- Handle gas taps.