

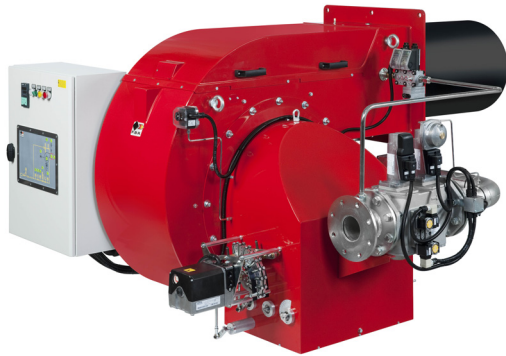
GAS P 750/M MEC

GAS P 1000/M MEC

GAS P 1300/M MEC

GAS P 1500/M-MEC

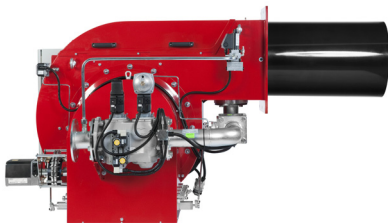
GAS P 1800/M-MEC



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





TECHNICAL DATA

| MODEL | | GAS P 750/M MEC | GAS P 1000/M MEC | GAS P 1300/M MEC |
|------------------------------------------------------------------------|----------|-----------------------------------------------------|------------------|------------------|
| 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 | 1978/4186-13372 |
| 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 | | 2R 2H 2L 2E 2E+ 2Er 2ELL 2E(R)B 3B/P 3+, 3P, 3B, 3R | | |
| Intermittent working operation (min. 1 stop every 24 hours) modulating | | | | |
| Environmental conditions operation / storage | | -15...+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)** | | 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 | 67 |
| Nominal absorption current (auxiliary) | [A] | 0.4 | 0.4 | 0.4 |
| Power supply | | 3~400V-1/N~230V-50Hz | | |
| Electric protection degree | | IP54 | IP54 | IP54 |
| Sound level*** min-max | [dB(A)] | 84-88 | 86-92 | 86-93 |
| Burner weight | [kg] | 540 | 570 | 590 |

| MODEL | | GAS P 1500/M MEC | GAS P1800/M-MEC |
|------------------------------------------------------------------------|----------|-----------------------------------------------------|-----------------|
| 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] | 1978/4186-15116 | 2325/5814-17442 |
| Gas flow G20 //(NATURAL GAS) 1°st./min 2°st.-max 2°st. * | [Nm³/h] | 199/421-1521 | 234/585-1754 |
| Gas flow G31 //(LPG) 1°st./min 2°st.-max 2°st. * | [Nm³/h] | 77/162-585 | 90/225-676 |
| Fuel | | Natural gas (second family) - LPG (third family) | |
| Fuel category | | 2R 2H 2L 2E 2E+ 2Er 2ELL 2E(R)B 3B/P 3+, 3P, 3B, 3R | |
| Intermittent working operation (min. 1 stop every 24 hours) modulating | | | |
| Environmental conditions operation / storage | | -15...+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)** | | 460/177 | - |
| Minimum gas train pressure (DN100-S F100 natural gas/ LPG)** | [mbar] | 310/119 | 327/126 |
| Minimum gas train pressure (DN125-S F125 natural gas/ LPG)** | [mbar] | 225/87 | 216/83 |
| Minimum gas train pressure (DN150-S F150 natural gas/ LPG)** | [mbar] | 206/79 | 196/75 |



| MODEL | | GAS P 1500/M MEC | GAS P1800/M-MEC |
|----------------------------------------|---------|----------------------|-----------------|
| Maximum supply gas pressure (Pe.max) | [mbar] | 500 | 500 |
| Nominal electric power | [kW] | 45.2 | 55.2 |
| 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 | | IP54 | IP54 |
| Sound level*** min-max | [dB(A)] | 87-93 | 88-94 |
| Burner weight | [kg] | 660 | 760 |

* 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

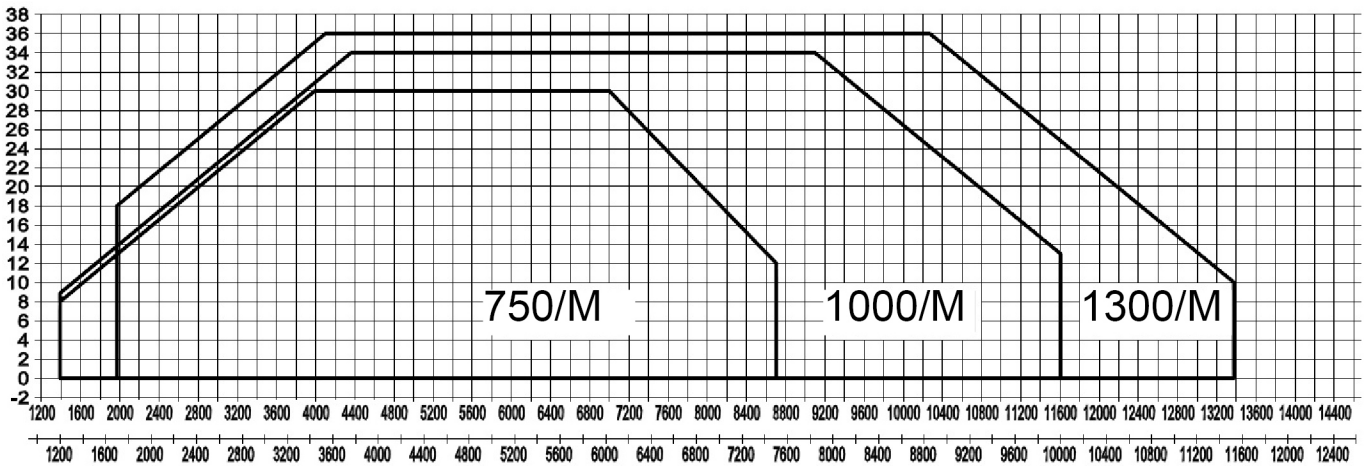


Fig. 1 X = Thermal power [kg/h - Mcal/h] Y = Pression in the combustion

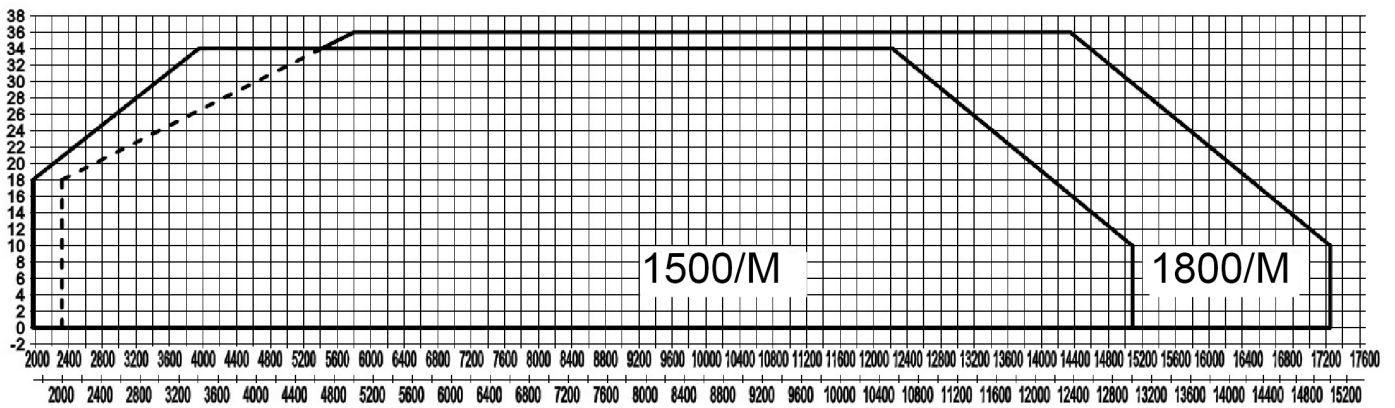
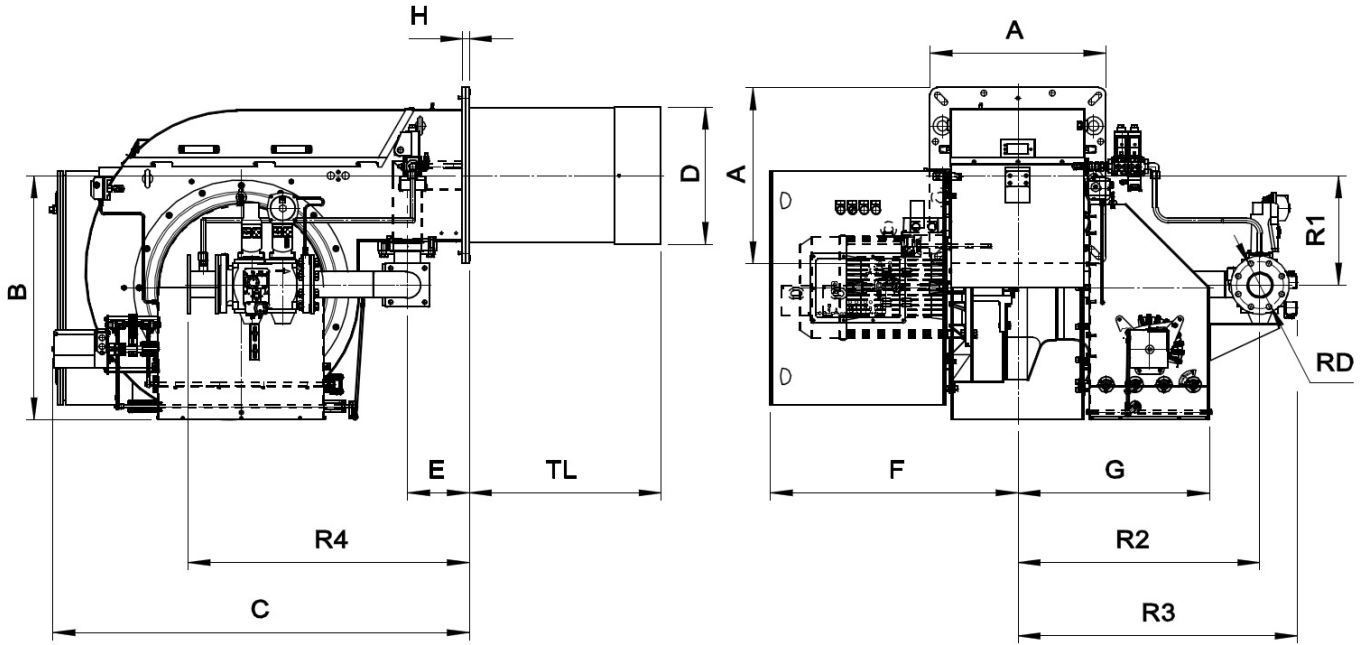


Fig. 2 X = Thermal power [kg/h - Mcal/h] Y = Pression in the combustion

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

DIMENSIONS [MM]



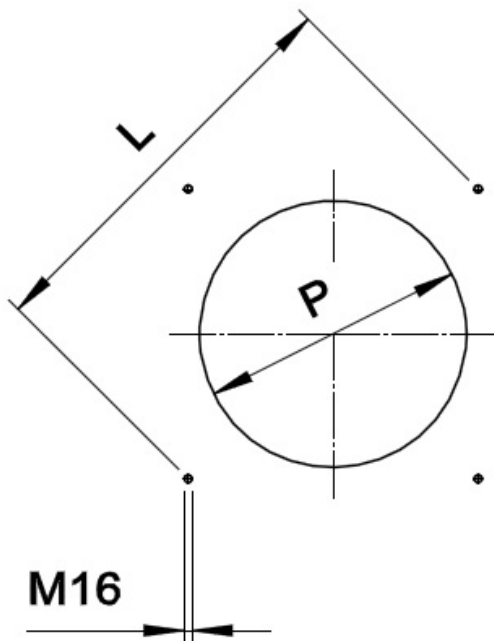
| MODEL | A | B | C | D | E | F | G | H |
|--------------------------|-----|-----|------|-----|-----|-----|-----|----|
| GAS P750/M CE-MEC-DN65 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P750/M CE-MEC-DN80 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P750/M CE-MEC-DN100 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P750/M CE-MEC-DN125 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P1000/M CE-MEC-DN80 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P1000/M CE-MEC-DN100 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P1000/M CE-MEC-DN125 | 600 | 832 | 1420 | 448 | 210 | 845 | 653 | 22 |
| GAS P1300/M CE-MEC-DN80 | 600 | 832 | 1420 | 499 | 210 | 845 | 653 | 22 |
| GAS P1300/M CE-MEC-DN100 | 600 | 832 | 1420 | 499 | 210 | 845 | 653 | 22 |
| GAS P1300/M CE-MEC-DN125 | 600 | 832 | 1420 | 499 | 210 | 845 | 653 | 22 |
| GAS P1500/M-MEC-DN80 | 600 | 832 | 1420 | 499 | 210 | 870 | 653 | 22 |
| GAS 1500/M-MEC-DN100 | 600 | 832 | 1420 | 499 | 210 | 870 | 653 | 22 |
| GAS P1500/M-MEC-DN125 | 600 | 832 | 1420 | 499 | 210 | 870 | 653 | 22 |
| GAS P1800/M-MEC-DN80 | 700 | 945 | 1585 | 540 | 222 | 908 | 690 | 22 |
| GAS 1800/M-MEC-DN100 | 700 | 945 | 1585 | 540 | 222 | 908 | 690 | 22 |
| GAS P1800/M-MEC-DN125 | 700 | 945 | 1585 | 540 | 222 | 908 | 690 | 22 |



| MODEL | TL | R1 | R2 | R3 | R4 | RD | Gas train weight |
|--------------------------|-----|-----|-----|------|------|-------|------------------|
| GAS P750/M CE-MEC-DN65 | 655 | 373 | 825 | 953 | 940 | DN65 | 22 kg |
| GAS P750/M CE-MEC-DN80 | 655 | 373 | 825 | 953 | 960 | DN80 | 24 kg |
| GAS P750/M CE-MEC-DN100 | 655 | 373 | 825 | 968 | 1000 | DN100 | 27 kg |
| GAS P750/M CE-MEC-DN125 | 655 | 373 | 825 | 982 | 1050 | DN125 | 32 kg |
| GAS P1000/M CE-MEC-DN80 | 655 | 373 | 825 | 953 | 960 | DN80 | 24 kg |
| GAS P1000/M CE-MEC-DN100 | 655 | 373 | 825 | 968 | 1000 | DN100 | 27 kg |
| GAS P1000/M CE-MEC-DN125 | 655 | 373 | 825 | 982 | 1050 | DN125 | 32 kg |
| GAS P1300/M CE-MEC-DN80 | 655 | 373 | 825 | 953 | 960 | DN80 | 24 kg |
| GAS P1300/M CE-MEC-DN100 | 655 | 373 | 825 | 968 | 1000 | DN100 | 27 kg |
| GAS P1300/M CE-MEC-DN125 | 655 | 373 | 825 | 982 | 1050 | DN125 | 32 kg |
| GAS P1500/M-MEC-DN80 | 655 | 373 | 825 | 953 | 960 | DN80 | 24 kg |
| GAS 1500/M-MEC-DN100 | 655 | 373 | 825 | 968 | 1000 | DN100 | 27 kg |
| GAS P1500/M-MEC-DN125 | 655 | 373 | 825 | 982 | 1050 | DN125 | 32 kg |
| GAS P1800/M-MEC-DN80 | 685 | 476 | 896 | 1025 | 971 | DN80 | 24 kg |
| GAS 1800/M-MEC-DN100 | 685 | 476 | 896 | 1040 | 1011 | DN100 | 27 kg |
| GAS P1800/M-MEC-DN125 | 685 | 476 | 896 | 1055 | 1061 | DN125 | 32 kg |

BOILER PLATE

The dimensions of the boiler plate must be as indicated in the drawing.





GAS BURNERS _ SERIE P

SK073042_en

| MODEL | L min | L max* | P min | P max |
|--------------------------|-------|--------|-------|-------|
| GAS P750/M CE-MEC-DN65 | 707 | 778 | 460 | 540 |
| GAS P750/M CE-MEC-DN80 | 707 | 778 | 460 | 540 |
| GAS P750/M CE-MEC-DN100 | 707 | 778 | 460 | 540 |
| GAS P750/M CE-MEC-DN125 | 707 | 778 | 460 | 540 |
| GAS P1000/M CE-MEC-DN80 | 707 | 778 | 480 | 540 |
| GAS P1000/M CE-MEC-DN100 | 707 | 778 | 480 | 540 |
| GAS P1000/M CE-MEC-DN125 | 707 | 778 | 480 | 540 |
| GAS P1300/M CE-MEC-DN80 | 707 | 778 | 510 | 540 |
| GAS P1300/M CE-MEC-DN100 | 707 | 778 | 510 | 540 |
| GAS P1300/M CE-MEC-DN125 | 707 | 778 | 510 | 540 |
| GAS P1500/M-MEC-DN80 | 707 | 778 | 510 | 540 |
| GAS 1500/M-MEC-DN100 | 707 | 778 | 510 | 540 |
| GAS P1500/M-MEC-DN125 | 707 | 778 | 510 | 540 |
| GAS P1800/M-MEC-DN80 | 806 | 890 | 550 | 630 |
| GAS P1800/M-MEC-DN100 | 806 | 890 | 550 | 630 |
| GAS P1800/M-MEC-DN125 | 806 | 890 | 550 | 630 |

* Suggested dimension of connection between burner and generator



PRODUCT SPECIFICATION

SHORT DESCRIPTION

Burners for gas two stages progressive (hi-low flame) or modulating (PID fully modulating) if equipped with addition of optional modulation kit and probe. Fan at high pressurisation, combustion head with adjustment at high efficiency and high flame stability. Equipped with ignition pilot flame.

DETAILED SPECIFICATION

Monoblock forced draught burners for gas with two stage progressive (hi-low flame) or modulating (PID fully modulating) operation, fully automatic, made up of:

- 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
- servomotor for air flaps and spherical gas valve
- moving shutter with total closure when idle in order to reduce at the least energy losses related to boiler cooling down
- ionisation probe for flame detection
- control panel
- high performance centrifugal fan with backward curved blades for low noise
- complete with A class safety gas valve and A class adjustment gas valve
- valve proving system
- 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
- IP 54 electric protection level
- 2006/42/EC directive (MD)
- 2004/108/EC directive (E.M.C.)
- 2006/95/EC directive (L.V.)
- 97/23/EC directive (PED)
- Approval: EN 746-2 (INDUSTRIAL THERMOPROCESSING EQUIPMENT)

OPTIONAL

- Power modulating kits for temperatures
- Power modulating kits for pressures
- Temperature probe 0°C-400°C (PT 100 Ω 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

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.