Fusar Bassini Astorre e C. Snc
FLAT FLAME BURNERS "FP" SERIES

APPLICATIONS

The burner "FP" series are suitable for applications to industrial furnaces, for combustion with stoichiometric ratio or with excess of air; particularly indicated for applications on the aluminum melting furnaces, with assembly in flat and on furnaces for the ferrous alloy heat treatment. Burner FP is indicated for the application on furnaces with walls strongly radiation and considerably homogenous temperature, without the impact of the flame on the products to deal.

TECHNICAL CHARACTERISTICS

- Intense combustion
- High choking ratio
- Mixing head
- High flame stability
- Automatic lighting by pilot burner
- Micrometric gas metering device

CAPACITY

	BURNER TYPE	CAPACITY KW	CAPACITY Kcal/h
▷	FP5	50	43000
▷	FP10	100	86000
▷	FP22	200	172000
▷	FP30	290	250000
▷	FP37	350	300000

GENERAL

The burner "FP" series can burns natural gas or industrial LPG to the gaseous state. The comburent air and the combustible gas are mixed in the burner head avoiding in such way the phenomenon "backfire" and allowing a wide ratio of choking with a good flame stability. The refractory tile burner's internal shape made of high temperature refractory and the remarkable helicoidal movement of the combustion air flame of flat shape, generates in the walls of the furnace, assures a clean and complete combustion.

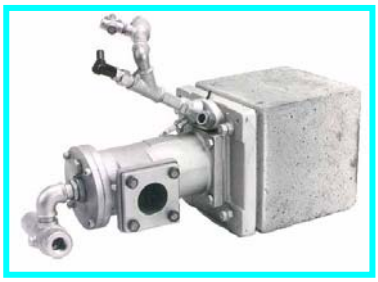
The threaded gas inlet can be easily turned according to one's own requirements. The air inlet fitted with a weld counter-flange can be rotated every 90°.

The burner "FP" series lighting always must be carried out in the minimum position by P0717 or P612 pilot which has ignition candle and electrode of detection. The burner "FP" series is fitted with three housing for observation port, pilot burner and UV detector.

Pilot burner, main burner and the automatic burner control unit must be designed, installed and setted meeting the law regulations in force.

The burner "FP" series can be automatically controlled by regulating and controlling the comburent air and the combustible gas.

The required air-gas ratio can be maintained by the air zero governor in every regulation area. The pre-setting of the required air-gas ratio is much easier if you know the flow rates of the air and of the combustible gas; the flow rate of gas can be measured by the diaphragms set to gas supply; the air flow rate can be measured by the pressure present in the air inlet at the burner or by the diaphragms set to air supply.



TENDING OF THE BURNER

The minimum supply pressure of the combustible gas inside the system can be determined by calculating all the resistance due to the piping and to the accessories.

Before starting the burner, be sure that the safety valves for the gas supply are closed. Set the gas adjuster device to the minimum gas flow rate, start the combustion air fan and upon completion of the washing phase, regulate the control valve for the zone air to the low flame position (opening set to 1/4 or less with respect to the maximum position).

Excite the gas solenoid valve on the pilot burner and light it. The flame must be rigid and blue and can be adjusted by the gas adjuster devices assembled on the pilot burner pre-mixer; ensure that the flame retention on the pilot burner head functions correctly (this is absolutely necessary to be sure the flame stability in the pilot burner). Repeat the pilot burner's lighting more times in order to check the setting in working conditions.

Connect the air zero governor's reference line to the air pressure intake and discharge the air up to the gas pressure at the zero governor ZG inlet is over 10 mbar than the maximum pressure of the air supply to the burner: so the gas flow rate is always maintained proportional to the comburent air; the regulation of the heat potentiality can be performed by a air control valve. Excite the main solenoid valve for the gas supply and light the main burner at the minimum flow rate. Then gradually open the manual butterfly valve for the combustion air and the manual gas adjuster device to the burner up to obtaining the maximum potentiality condition required; after this initial pre-setting the regulation will be automatically maintained.

CAUTION: The combustion system must be designed and installed meeting the law regulations in force. If the installation, the use and the maintenance are not carried out correctly, severe damages to things or persons might occur.

Fusar Bassini Astorre e C. Snc
GAS BURNERS AND COMPONENTS FOR COMBUSTION SYSTEMS
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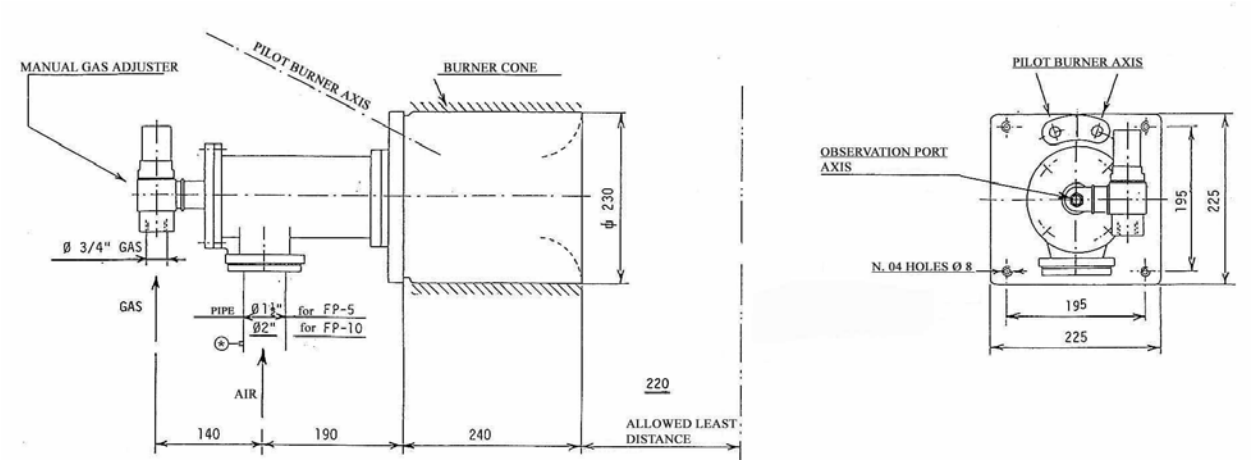
FP-5 AND FP-10 BURNER



FLAT FLAME BURNER FP-5 and FP-10

GASES: * Natural gas
* Liquid gas – LPG

to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the burner

FP-5 BURNER BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O												
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600	700
NATURAL GAS	8000	12400	17600	24800	30400	35200	39200	43200	49600	55200	60800	65600
LPG	7400	11500	16300	23000	28000	32600	36300	40000	46000	51100	56300	60700

FP-10 BURNER BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O												
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600	700
NATURAL GAS	14400	22400	32000	44800	54800	63200	71200	77600	89600	100800	110400	119200
LPG	13300	20700	29600	41500	50700	58500	65900	71800	83000	93300	102200	110400

Weight: Kg. 40

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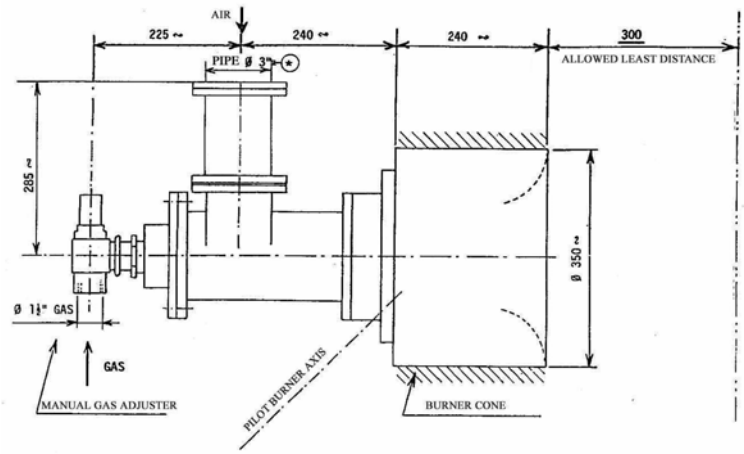
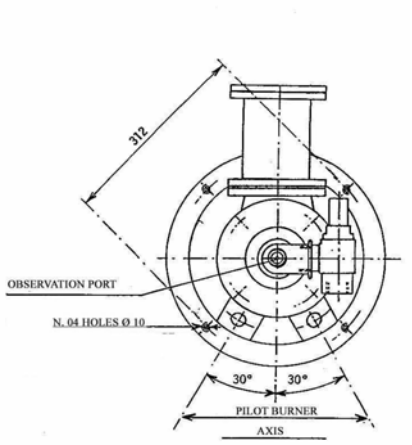
FP-22 AND FP-30 BURNER





FLAT FLAME BURNER FP-22 and FP-30

GASES: * Natural gas
* Liquid gas – LPG

to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the burner

FP-22 BURNER BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O												
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600	700
NATURAL GAS	25600	40800	57600	81600	100000	116000	129600	141600	163200	183200	200000	216000
LPG	23700	37800	53300	75600	92600	107400	120000	131000	151000	169600	185200	200000

FP-30 BURNER BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O												
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600	700
NATURAL GAS	34400	54400	76800	108800	133600	153600	172000	188000	217600	243200	266400	288000
LPG	31800	50400	71100	100700	123700	142200	159300	174100	201500	225200	246700	266700

Weight: Kg. 82

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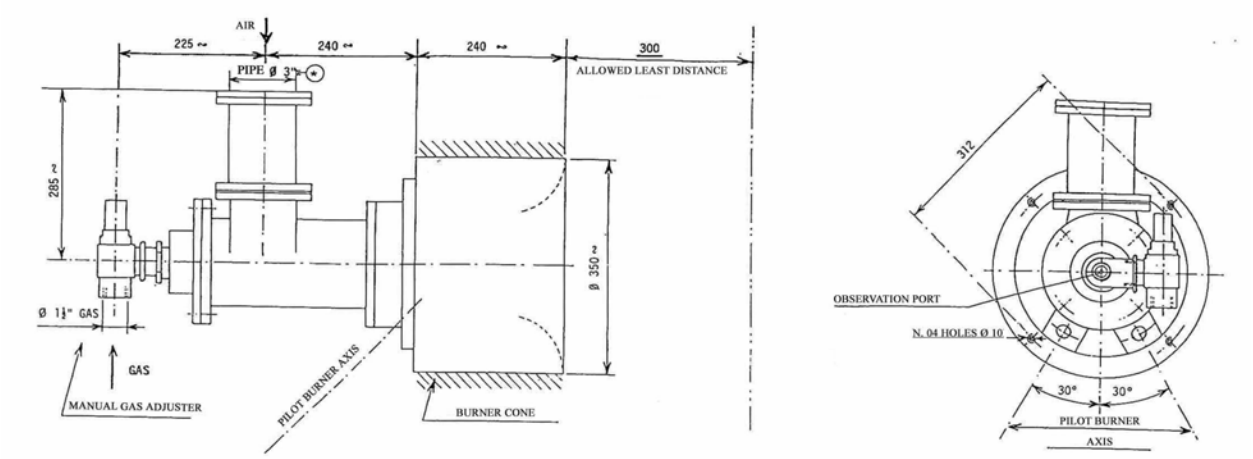
FP-37 BURNER



FLAT FLAME BURNER FP-37

GASES: * Natural gas
* Liquid gas – LPG

to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the burner

FP-37 BURNER	BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O											
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600	700
NATURAL GAS	46600	71000	100000	141000	173000	199000	223000	244000	282000	315000	345000	373000
LPG	41200	65000	92000	130000	160000	184000	206000	226000	261000	292000	270000	345000

Weight: Kg. 82

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