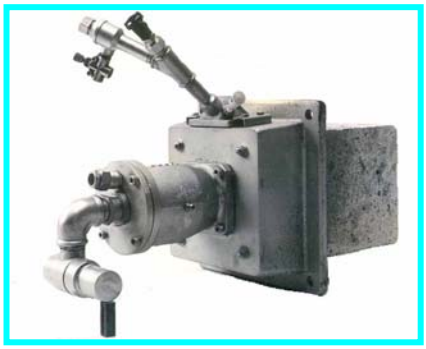
Fusar Bassini Astorre e C. Snc
SOFT FLAME BURNERS "G" SERIES

APPLICATIONS
The burner "G" series is suitable for applications to industrial furnaces, for combustion with stoichiometric ratio or with excess of air.



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

CAPACITY

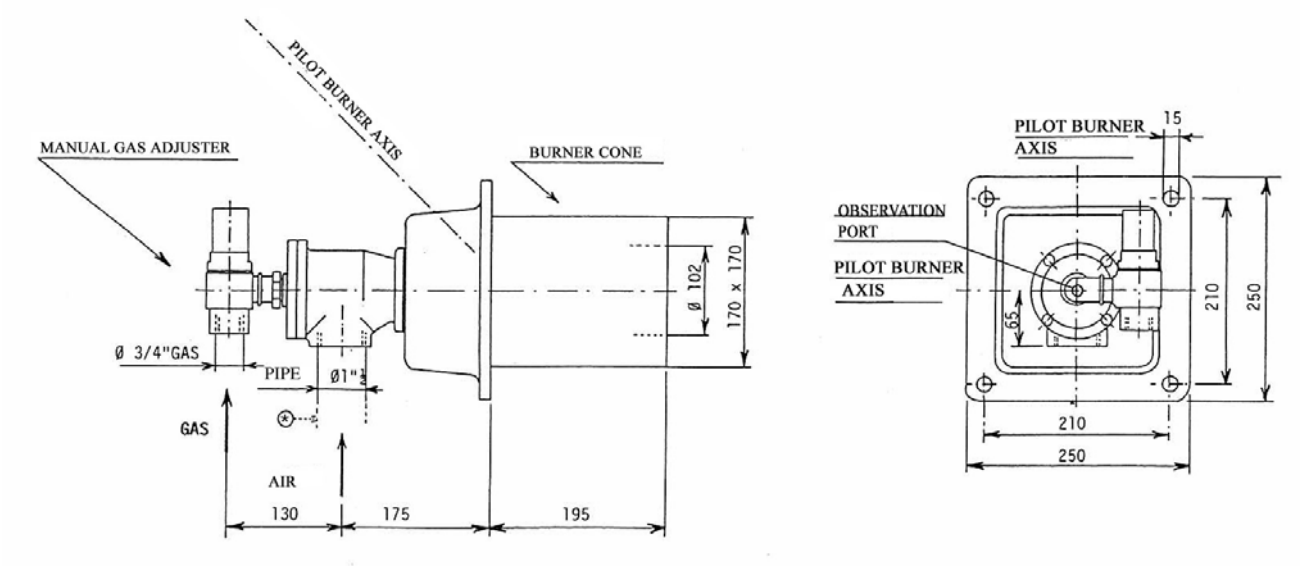
	BURNER TYPE	CAPACITY KW	CAPACITY Kcal/h
▷	G8	75	65000
▷	G12	110	100000
▷	G20	190	160000
▷	G30	280	240000
▷	G40	380	330000
▷	G60	570	490000
▷	G120	1140	980000

GENERAL
The burner "G" series can burns natural gas or industrial LPG. 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 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 "G" series lighting always must be carried out in the minimum position by the pilot burner P0717-N.
The burner "G" series is fitted with two housing for 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 "G" 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 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; be sure that the flame retention on the pilot burner head functions correctly (this is absolutely necessary to ensure 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 to the burner up to obtaining the maximum potentiality condition required; the flow rate of combustion air can be known by measuring the air pressure in the burner's inlet; the flow rate of gas can be measured by the diaphragms set to gas supply. 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
Via Ferrè 14 -26013 CREMA (CR) Tel/Fax 0373-257594 web: www.fusarbassini.it e-mail: info@fusarbassini.it



G-8 BURNER

GASES: * Natural gas
* Liquid gas – LPG

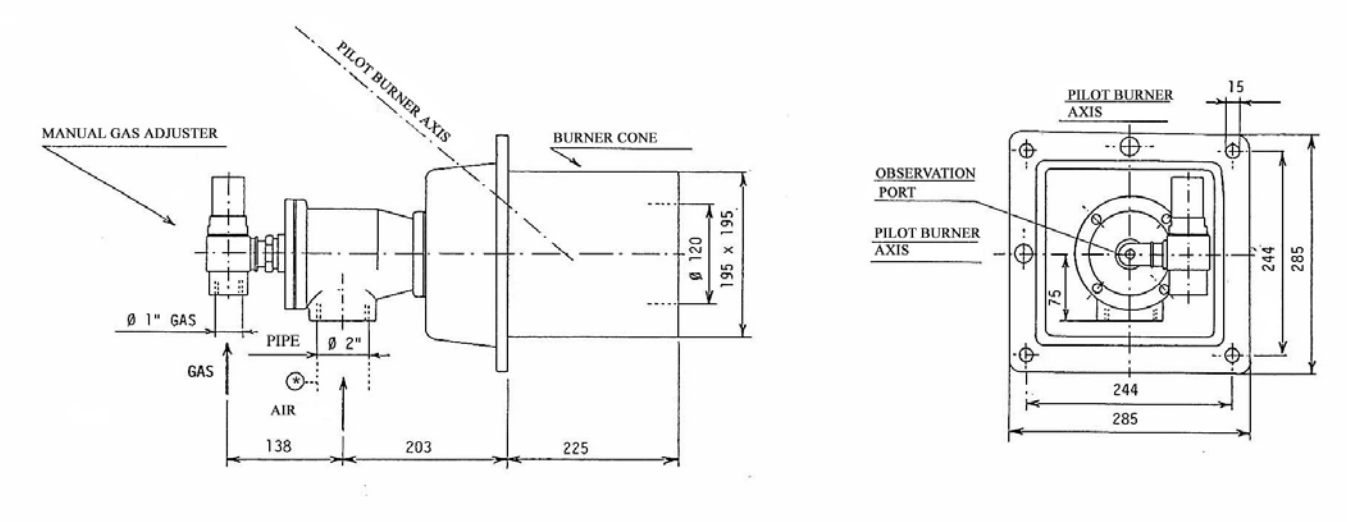
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

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	13500	21400	30300	42800	52400	60500	67700	74100	85600	95700	104800	113200
LPG	12500	19800	28000	39700	48600	56100	62700	68700	79300	88700	97200	105000

Weight: Kg. 30



G-12 BURNER

GASES: * Natural gas
* Liquid gas – LPG

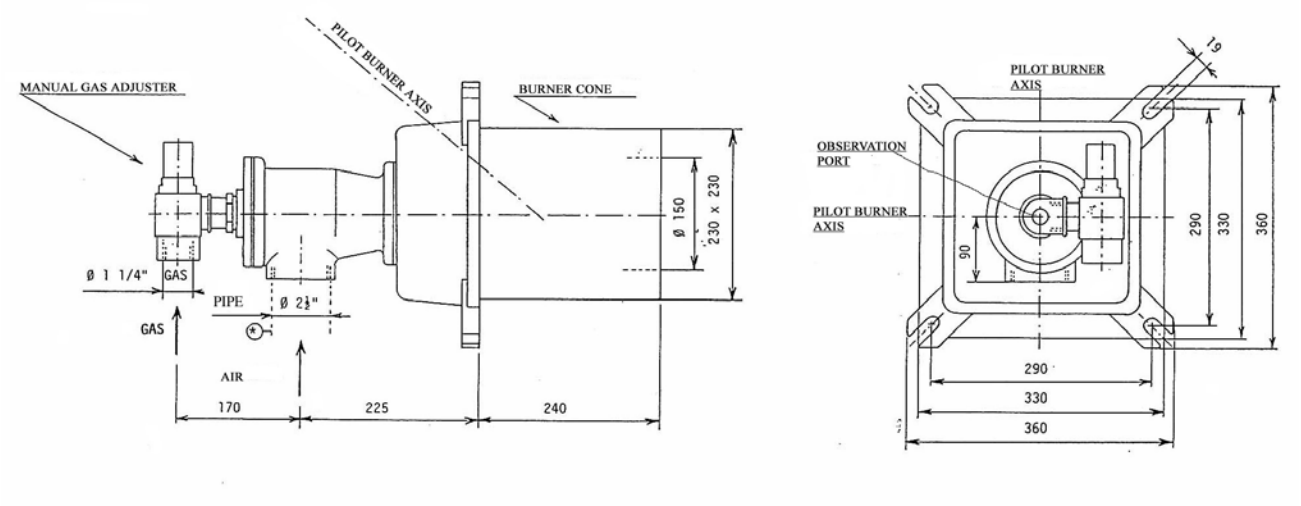
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

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	16000	33000	50000	80000	90000	97000	109000	125000	139000	150000	160000	170000
LPG	15000	31000	46000	74000	83000	90000	101000	116000	129000	139000	148000	158000

Weight: Kg. 40



G-20 BURNER

GASES: * Natural gas
* Liquid gas – LPG

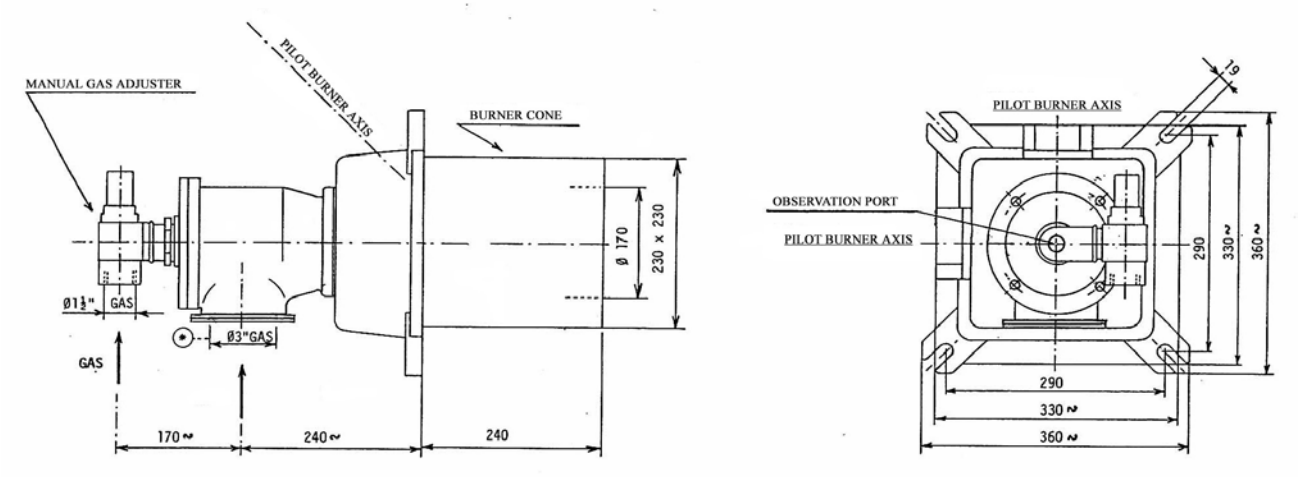
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

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	20000	36000	56000	84000	104000	123000	132000	150000	170000	190000	200000	210000
LPG	18500	33000	52000	78000	96000	114000	122000	139000	158000	176000	185000	195000

Weight: Kg. 65



G-30 BURNER

GASES: * Natural gas
* Liquid gas – LPG

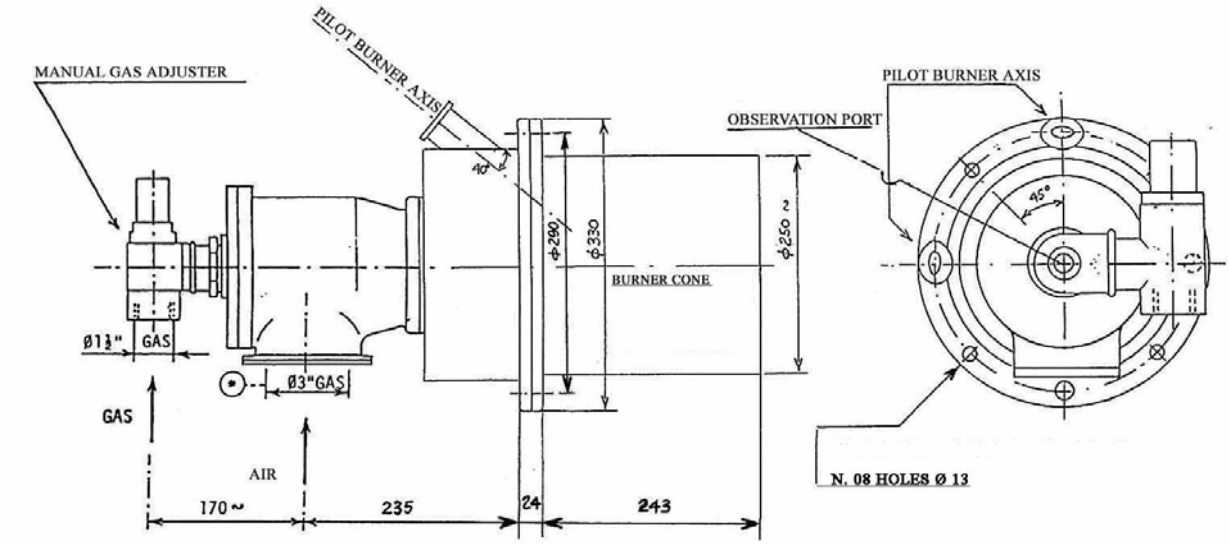
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O											
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600
NATURAL GAS	39000	61000	87000	123000	151000	174000	199000	213000	246000	275000	300000
LPG	36000	57000	81000	114000	140000	162000	185000	198000	228000	255000	279000

Weight: Kg. 65



G-30-R BURNER

GASES: * Natural gas
* Liquid gas – LPG

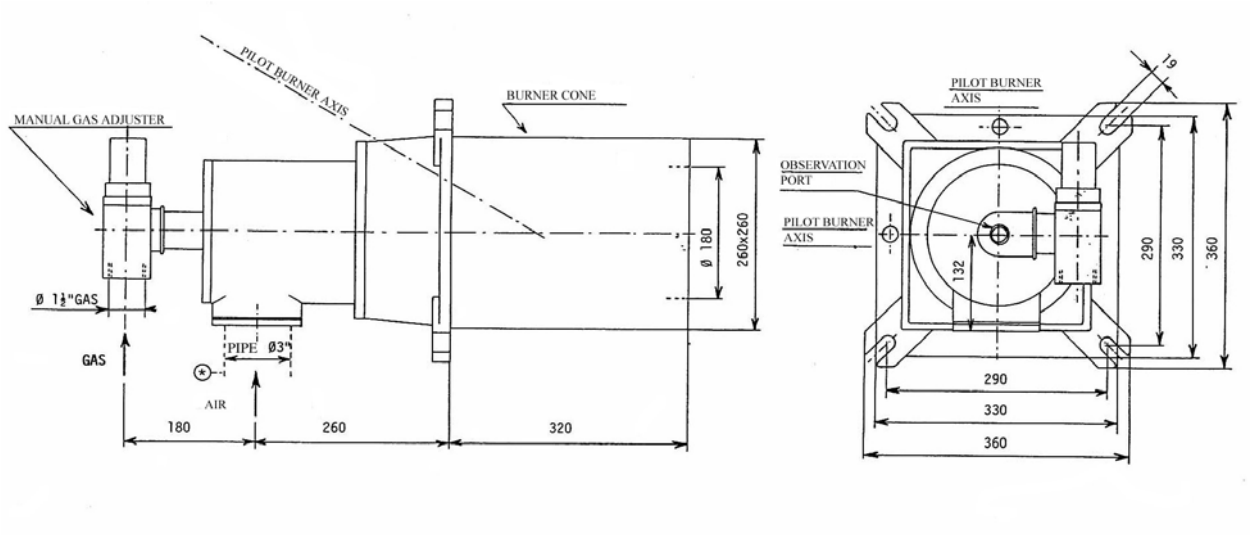
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O											
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600
NATURAL GAS	39000	61000	87000	123000	151000	174000	199000	213000	246000	275000	300000
LPG	36000	57000	81000	114000	140000	162000	185000	198000	228000	255000	279000

Weight: Kg. 65



BURNER G-40

GASES: * Natural gas
* Liquid gas – LPG

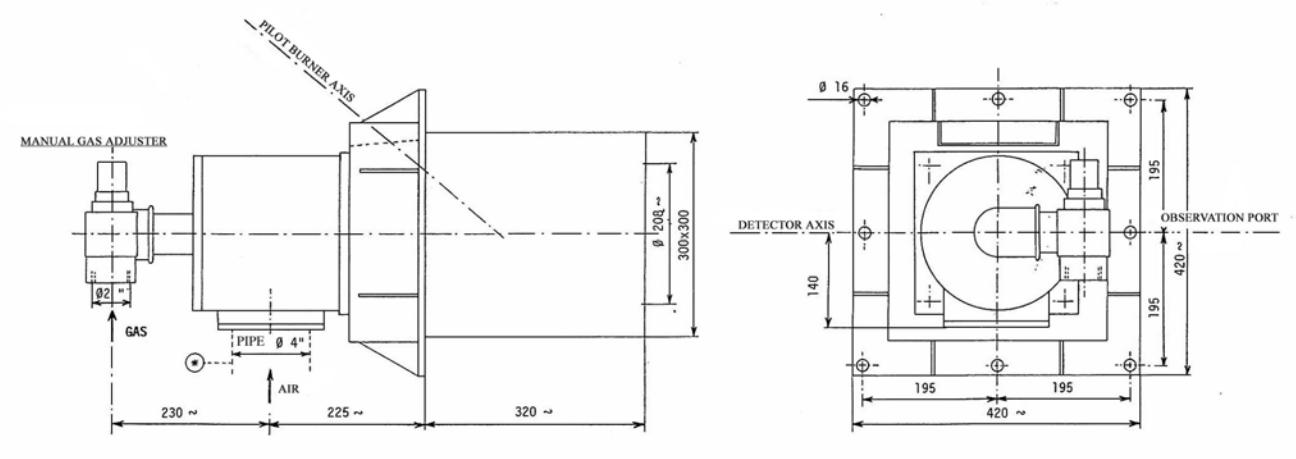
to be specified with order

GAS PRESSURE: 300 – 500 mm H_2O

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

BURNER CAPACITY Kcak/h WITH AIR PRESSURE IN mm H2O											
AIR PRESSURE	10	25	50	100	150	200	250	300	400	500	600
NATURAL GAS	56000	96000	140000	196000	236000	268000	300000	328000	372000	392000	400000
LPG	52000	89000	130000	181000	218000	248000	278000	304000	344000	363000	370000

Weight: Kg. 90



G-60 BURNER

GASES: * Natural gas
* Liquid gas – LPG

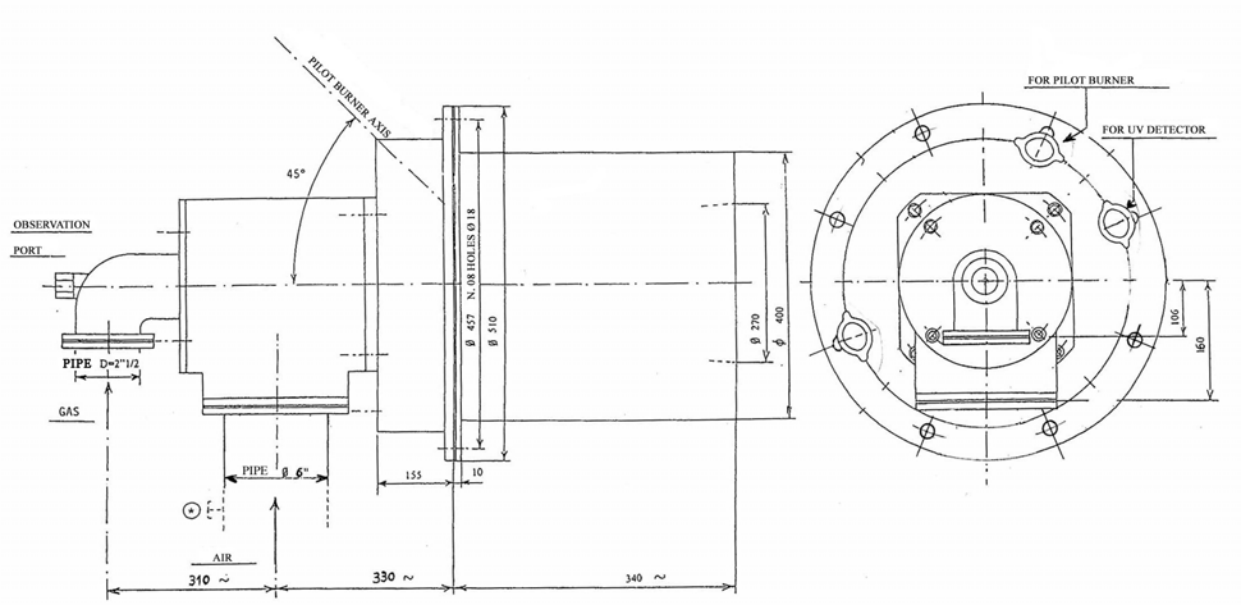
to be specified with order

GAS PRESSURE: 500 – 600 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the 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	60000	104000	160000	224000	288000	340000	384000	424000	500000	536000	560000	576000
LPG	55600	96000	148000	207000	267000	315000	356000	393000	463000	496000	519000	533000

Weight: Kg. 124



G-120 BURNER

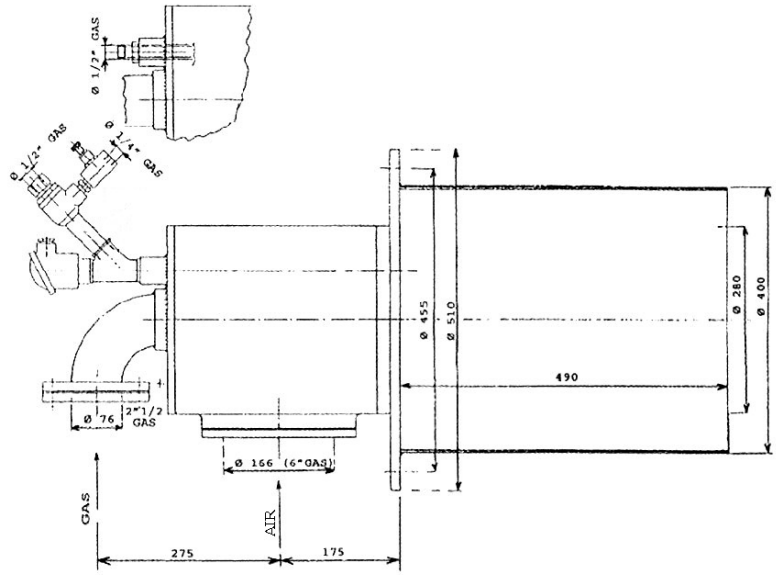
GASES: * Natural gas
* Liquid gas – LPG

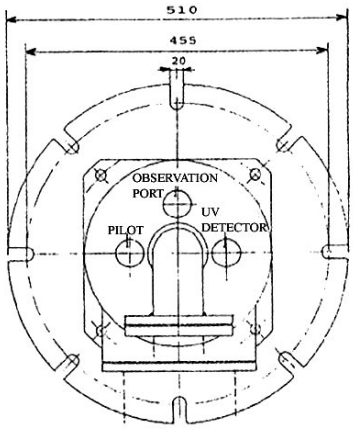
to be specified with order

GAS PRESSURE: 700 – 800 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the 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	172000	272000	385000	545000	667000	771000	862000	945000	1091000	1219000	1336000	1443000
LPG	159000	252000	356000	505000	618000	714000	806000	875000	1010000	1129000	1237000	1336000





G-120 A BURNER

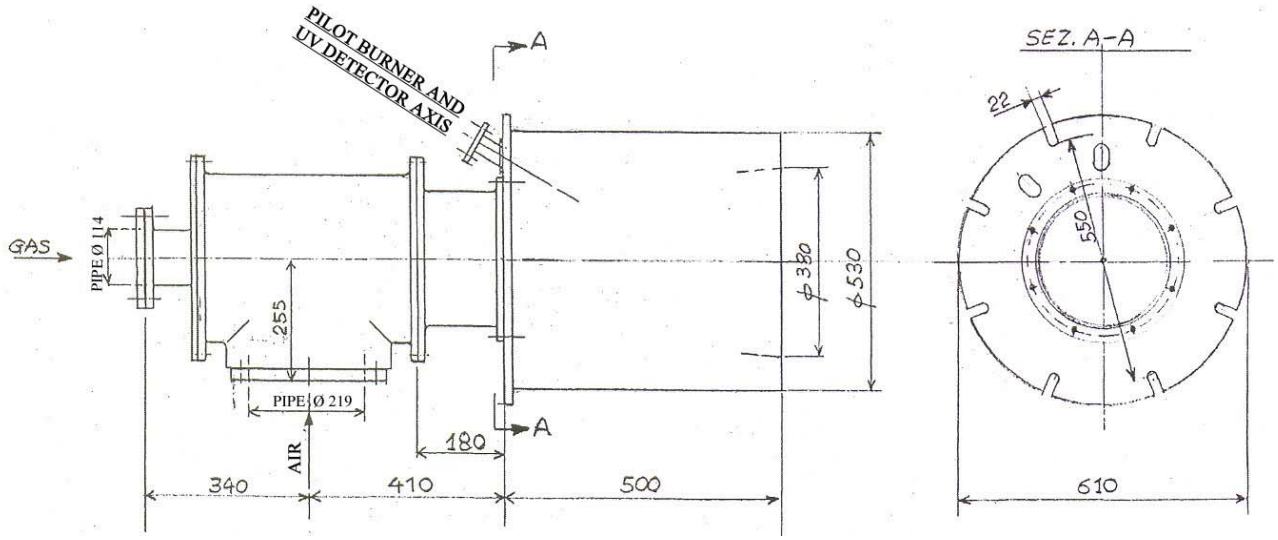
GASES: * Natural gas
* Liquid gas – LPG

to be specified with order

GAS PRESSURE: 700 – 800 mm H_2O

CAPACITY: The burner capacity depends EXCLUSIVELY by air pressure, gauged upstream of the 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	172000	272000	385000	545000	667000	771000	862000	945000	1091000	1219000	1336000	1443000
LPG	159000	252000	356000	505000	618000	714000	806000	875000	1010000	1129000	1237000	1336000



G-230 BURNER

GASES: Natural gas, LPG

GAS PRESSURE: 700 mm H_2O

COMBUSTION AIR PRESSURE: 700 mm H_2O

MAXIMUM POWER GAS: Natural gas 230 Nm3/h
LPG 92 Nm3/h

MAXIMUM POWER COMBUSTION AIR PRESSURE: 2500 Nm3/h