



The Pyr-o-Mix burner provides a range of simple, low cost burners for general purpose use, offering solutions to a wide range of applications for both high and low temperature processes.

The design of the burner utilises the energy of the incoming high pressure gas to inspire the necessary air for combustion. This high velocity gas stream creates a negative pressure in the burner venturi to induce the correct amount of air for combustion, mixes it thoroughly with the gas and delivers it, at the correct pressure, to the burner head.

As the air is naturally inspired, no combustion air fan is required. The burner will operate on most commercial gases, and is supplied with a single, direct spark ignitor/flame ionisation rod, flame tube, venturi mixer and gas pressure gauge.

Typical Applications

- Kilns
- Heat treatment furnaces
- Crucible and bale-out furnaces
- Air heaters
- Ladle drying / pre-heating
- Process heating

Burner Design

The PMX burner is based on the SGRN gas retention nozzle and SHGM high pressure gas venturi mixer. The nozzle is housed in a stainless steel tube, although other materials can be supplied for high

PMX – Features

- No air fan required
- Wide range of applications
- Cost effective
- Simple, robust design
- Low maintenance
- Manual or automatic operation via single control valve
- Use with most commercial fuel gases

temperature processes. The burner is factory fitted with a single spark ignition/flame ionisation rod with the option for fitting a UV scanner, if preferred. The nozzle itself is manufactured from cast iron with the option for using a high temperature alloy, depending on the process temperature.

The PMX burner relies on induced air using high pressure gas. Therefore, the burner/combustion chamber cannot be purged in the conventional way. Care must be taken to adequately purge the combustion chamber prior to burner ignition.

Ordering Information

The burner is designed to be sealed to the heating chamber. The maximum chamber pressure should not exceed 0.2 mbar. To ensure that the burner is correctly specified, please provide the following information:

- a) Available gas pressure (2.5bar max / 0.1bar min)
- b) Burner capacity required
- c) Application temperature
- d) Calorific value of the specified fuel
- e) Specific gravity of the specified fuel
- f) Fuel analysis.

Important Note:

Since this burner relies on combustion air being induced by the high pressure gas, care must be taken to adequately purge the combustion chamber prior to burner ignition.

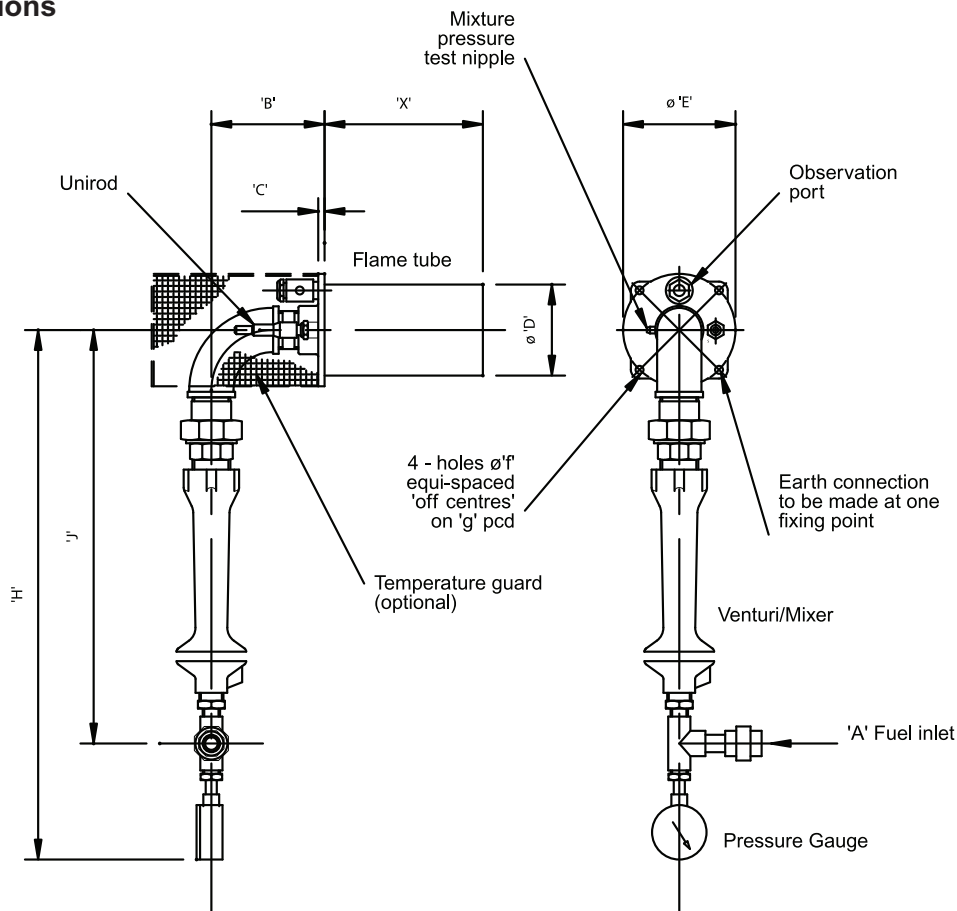
Dimensions and Capacities

Capacities and Specifications

| Model No. | Design Capacity (kW) | Design Gas Pressure (bar) | Minimum Gas Pressure (bar) |
|-----------|----------------------|---------------------------|----------------------------|
| PMX 75 | 75 | 2.5 | 0.1 |
| PMX 115 | 115 | 2.5 | 0.1 |
| PMX 200 | 200 | 2.5 | 0.1 |

- Note 1: Design capacity based on 2.5 bar gas pressure and chamber pressure of +0.2mbar max.
 Note 2: Maximum burner turn-down - 5:1 from design capacity.
 Note 3: Mixture pressure range is 3 to 7mbar at design capacity.
 Note 4: At gas pressures less than 2.5bar, the burner capacity will be reduced below the design value.
 Note 5: For capacities other than shown above, please contact FNAC.

Dimensions



| Model No. | Part No. | Dimensions (mm) | | | | | | | | | | Weight (kg) |
|-----------|----------|-----------------|-----|---|-----|-----|----|-----|-----|-----|--------|-------------|
| | | A | B | C | D | E | F | G | H | J | X Min* | |
| PMX 75 | 2.28.400 | Rc1/2 | 150 | 6 | 115 | 142 | 10 | 142 | 600 | 500 | 200 | 9 |
| PMX 115 | 2.28.401 | Rc1/2 | 160 | 6 | 115 | 142 | 10 | 142 | 630 | 530 | 200 | 10.5 |
| PMX 200 | 2.28.402 | Rc3/4 | 180 | 6 | 141 | 190 | 12 | 180 | 700 | 600 | 300 | 15 |

Note 1: * Min length supplied as standard.

WARNING: The data outlined is for information only and does not form part of any contract. Our policy is one of continuous improvement and we therefore reserve the right to modify specifications or dimensions without prior warning. Situations dangerous to personnel and property can develop from incorrect installation and operation of combustion equipment. Fives North American Combustion UK, Ltd urges compliance with International, National and Local Safety Standards and that installation is carried out by properly qualified personnel.

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