


# Eclipse RatioMatic

## Burners

Model RM0075

Version 5

| Parameter   | Specification   |                 |                 |
|---|---|-----------------|-----------------|
|   | Chamber Pressure<br>"w.c. (mbar)  | 50 Hz           | 60 Hz           |
| <b>Blower Type</b>  |   |                 |                 |
| <b>Maximum Input, Btu/h (kW)<sup>1</sup></b>  | -2.0 (-5.0)   | 1,070,000 (313) | 1,070,000 (313) |
| <i>Contact factory for chamber pressures outside the given range, or varying chamber pressure conditions.</i> | -1.0 (-2.5)   | 990,000 (290)   | 990,000 (290)   |
|   | 0.0 (0.0)   | 900,000 (263)   | 900,000 (263)   |
|   | 1.0 (2.5)   | 800,000 (234)   | 800,000 (234)   |
|   | 2.0 (5.0)   | 680,000 (199)   | 680,000 (199)   |
|   |   |                 |                 |
| <b>Minimum Input On-Ratio, Btu/h (kW)</b><br><i>Lower inputs may be achieved. Contact factory.</i>            | with high turndown ratio regulator  | 30,000 (9)      |                 |
|   | with standard ratio regulator   | 40,000 (12)     |                 |
| <b>Main Gas Inlet Pressure, "w.c. (mbar)<sup>2</sup></b><br><i>Fuel pressure at ratio regulator inlet</i>     | 10 to 20 (25 to 50)   |                 |                 |
| <b>High Fire Flame Length, inches (mm)</b><br><i>Measured from the outlet end of the combustor</i>            | Natural Gas   | 30 (762)        |                 |
|   | Propane / Butane  | 36 (914)        |                 |
| <b>Maximum Chamber Temperature, °F (°C)</b>   | Alloy Tube  | 1500 (815)      |                 |
|   | SiC Tube  | 1900 (1038)     |                 |
| <b>Flame Detection</b>  | Flame rod or UV Scanner   |                 |                 |
| <b>Fuel</b><br><i>For any other mixed gas, contact Eclipse, Inc.</i>  | Natural Gas, Propane, Butane <sup>3</sup>   |                 |                 |
| <b>Blower Motor Power, Hp</b>   | 0.5   |                 |                 |
| <b>Weight, lbs (kg)<sup>4</sup></b>   | 88 (40)   |                 |                 |
| <b>Approvals</b>  | <br>AN30 |                 |                 |

<sup>1</sup> Maximum inputs for packaged blower versions are given for the standard combustion air blower without an inlet air filter.

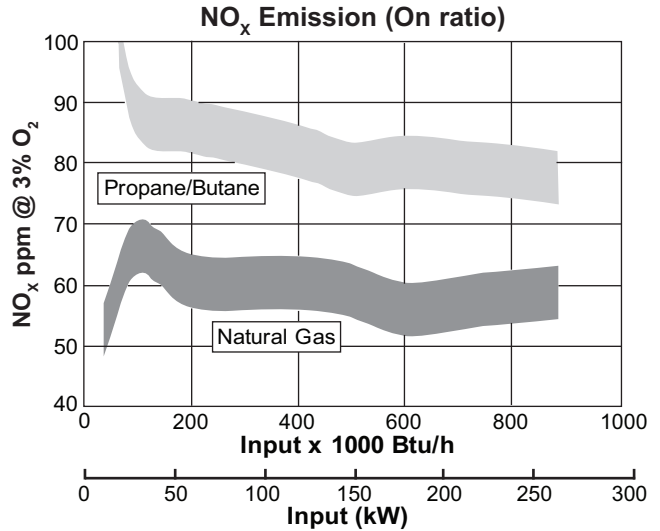
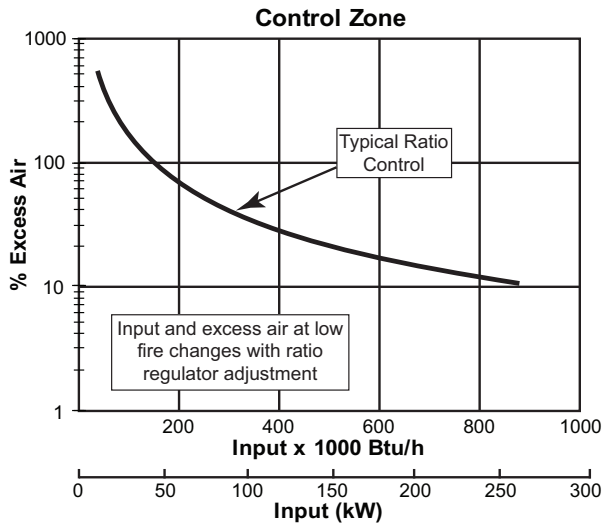
<sup>2</sup> For proper performance, this pressure must be kept constant across the burner operating range.

<sup>3</sup> See Design Guide 110 for more information about typical fuel composition and properties.

<sup>4</sup> All weights are approximate.

- All information is based on laboratory testing. Different chamber conditions will affect the data.
- All inputs based upon gross calorific values and standard conditions; 1 atmosphere, 70°F (21°C).
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obliged to adjust earlier supplies accordingly.

## Performance Graphs



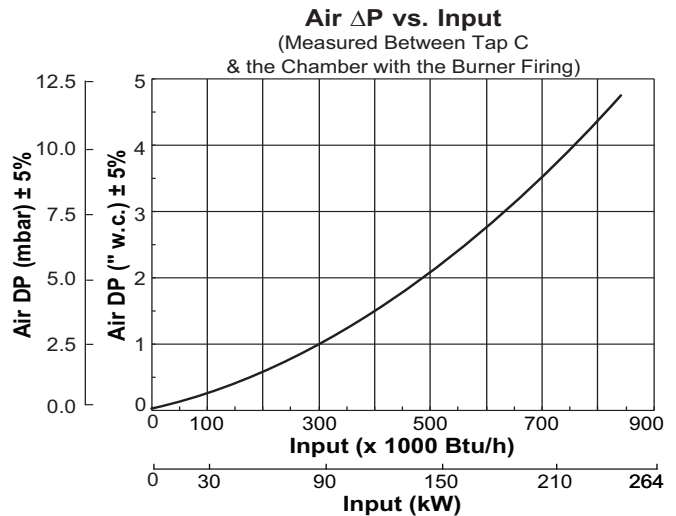
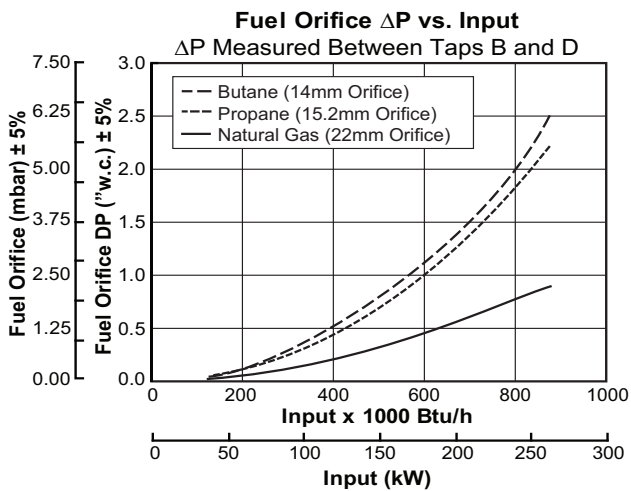
### NO<sub>x</sub> Emission data is given for:

- Ambient combustion air ~70°F (21°C)
- Less than 700°F (370°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 20,000 Btu/h (6 kW)
- ppm volume, dry @ 3% O<sub>2</sub>
- Neutral chamber pressure

### Emissions from the burner are influenced by:

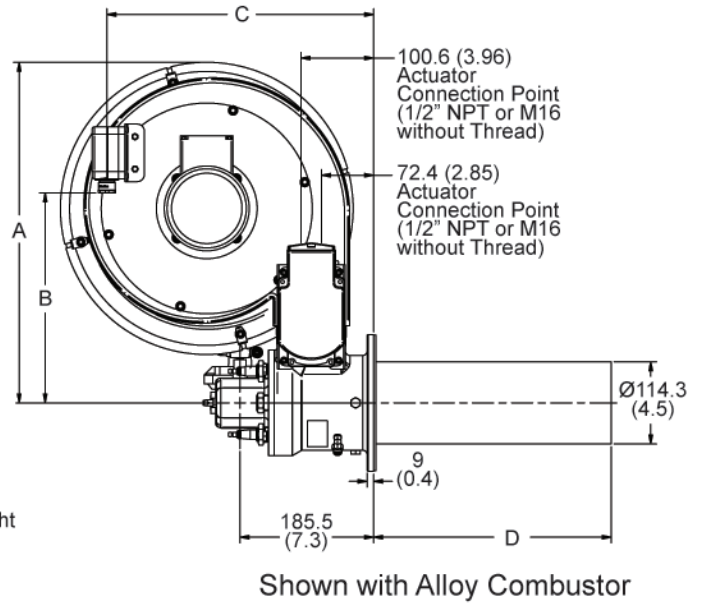
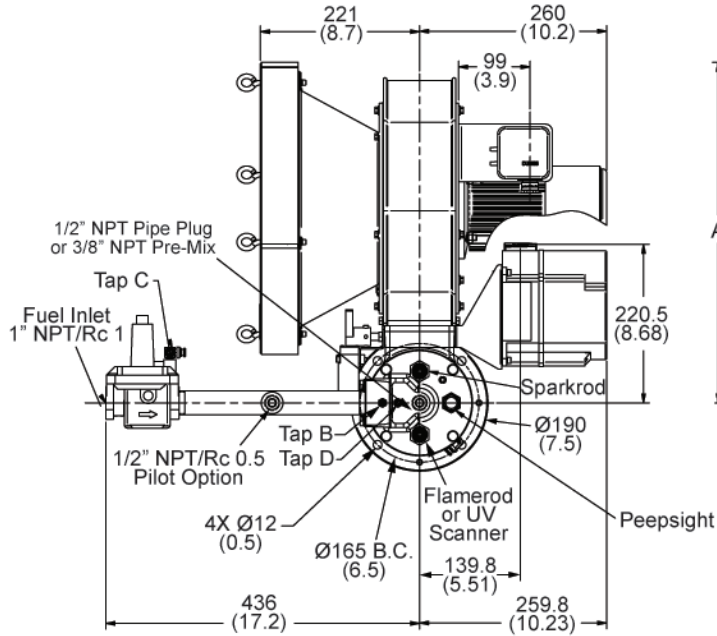
- Chamber conditions
- Fuel type
- Firing rate
- Ratio regulator adjustment
- Combustion air temperature

CO emission is largely influenced by chamber conditions. Contact your local Eclipse representative for an estimate of CO emission on your application.



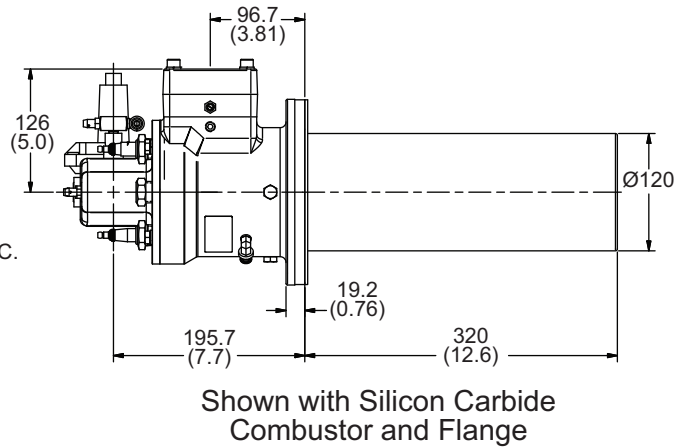
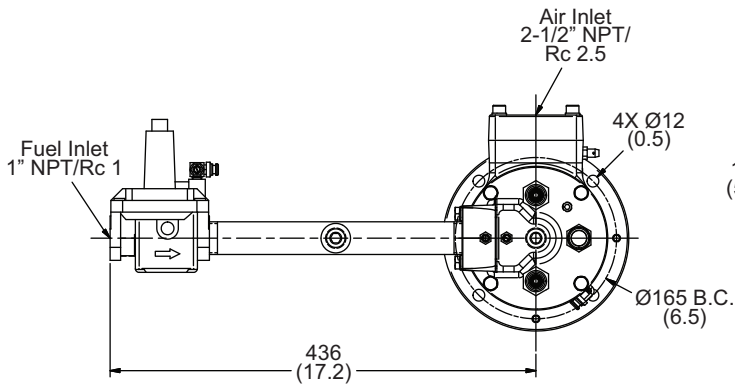
## Dimensions and Specifications

Dimensions in mm (in)



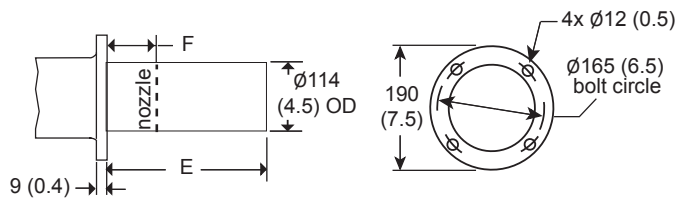
| Blower Size | A          | B          | C          |
|-------------|------------|------------|------------|
| 50 Hz       | 474 (18.7) | 292 (11.5) | 370 (14.6) |
| 60 Hz       | 429 (16.9) | 228 (9.0)  | 336 (13.2) |

| Combustor Type                      | D        |
|-------------------------------------|----------|
| Straight Stainless Steel Alloy Tube | 254 (10) |
| Straight Stainless Steel Alloy Tube | 330 (13) |
| Straight Stainless Steel Alloy Tube | 406 (16) |

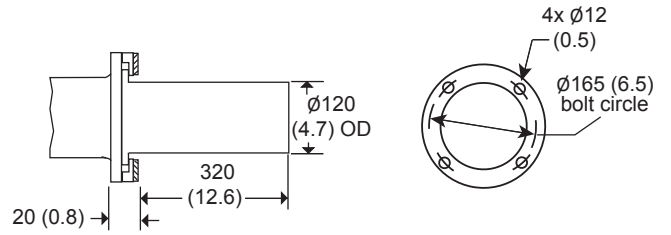


## Combustor Options

### Alloy Combustor



### Silicon Carbide Combustor



| E          | F         |
|------------|-----------|
| 254 (10.0) | 84 (3.3)  |
| 330 (13.0) | 160 (6.3) |
| 406 (16.0) | 236 (9.3) |

## Burner Configurations

