


# Eclipse RatioMatic

## Burners

Model RM0400

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><br><i>Contact factory for chamber pressures outside the given range, or varying chamber pressure conditions.</i> | -4.0 (-10.0)  | 4,500,000 (1310)       | 4,600,000 (1350) |
|   | -2.0 (-5.0)   | 4,280,000 (1250)       | 4,380,000 (1280) |
|   | 0.0 (0.0)   | 4,000,000 (1170)       | 4,100,000 (1200) |
|   | 2.0 (5.0)   | 3,700,000 (1080)       | 3,800,000 (1110) |
|   | 5.0 (12.4)  | 3,130,000 (910)        | 3,230,000 (940)  |
| <b>Minimum Input On-Ratio, Btu/h (kW)<sup>2</sup></b>   | 65,000 (19)   |                        |                  |
| <b>Main Gas Inlet Pressure, "w.c. (mbar)<sup>3</sup></b><br><i>Fuel pressure at ratio regulator inlet</i>   | Natural Gas   | 20 to 55 (50 to 140)   |                  |
|   | Propane/Butane  | 20 to 35 (50 to 90)    |                  |
| <b>High Fire Flame Length, inches (mm)</b><br><i>Measured from the outlet end of the combustor</i>  | Natural Gas   | 65 (1650)              |                  |
|   | Propane/Butane  | 70 (1780)              |                  |
| <b>Maximum Chamber Temperature, °F (°C)</b>   | Alloy Tube  | 1500 (815)             |                  |
|   | Block and Holder  | 1900 (1038)            |                  |
| <b>Flame Detection</b>  | Alloy Tube  | Flamerod or UV Scanner |                  |
|   | Block and Holder  | UV scanner only        |                  |
| <b>Fuels<sup>4</sup></b><br><i>For any other mixed gas, contact Eclipse, Inc.</i>   | Natural Gas, Propane, Butane  |                        |                  |
| <b>Blower Motor Power, Hp (kW)</b>  | 2.0 (1.5)   |                        |                  |
| <b>Weight, lbs (kg)<sup>5</sup></b>   | Alloy Tube  | 143 (65)               |                  |
|   | Refractory  | 267 (121)              |                  |
| <b>Approvals</b>  | <br>АИЗ0 |                        |                  |

<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> Turndown input based on neutral chamber conditions. Contact Eclipse for other chamber pressures.

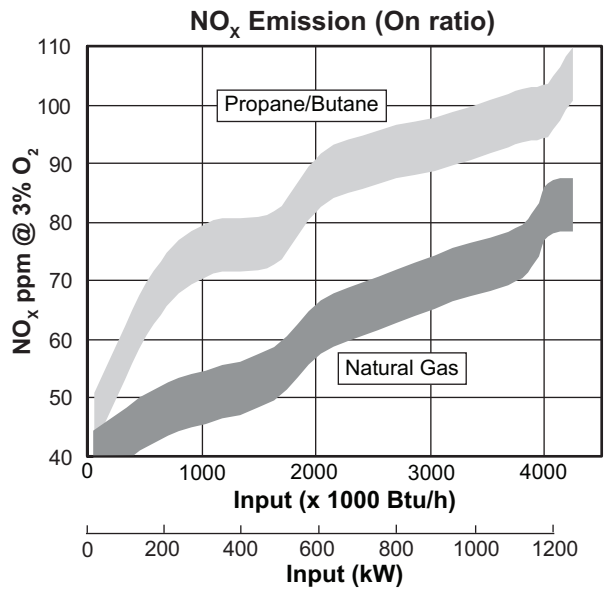
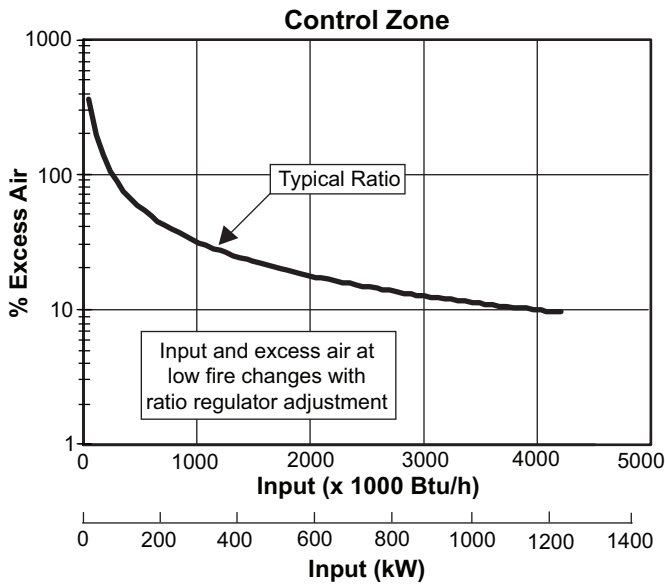
<sup>3</sup> For proper performance, this pressure must be kept constant across the burner operating range.

<sup>4</sup> See Design Guide 110 for more information about typical fuel composition and properties.

<sup>5</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



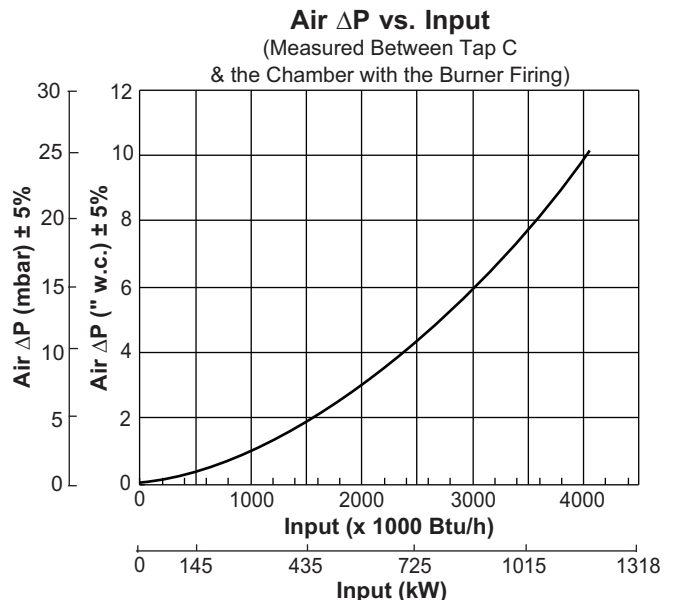
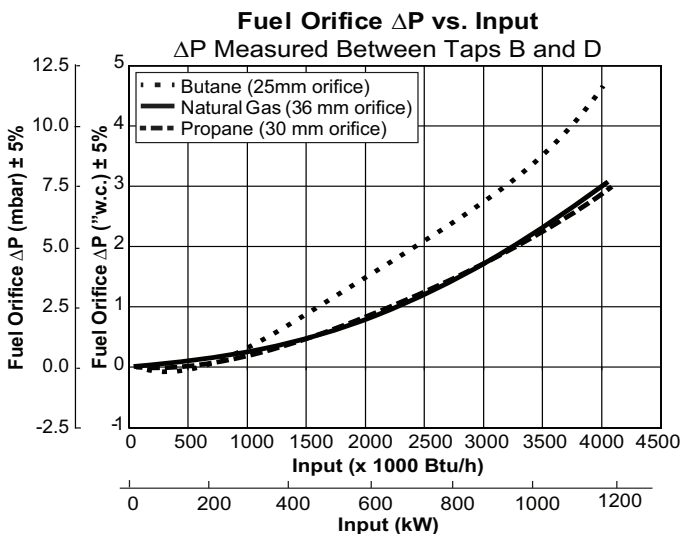
### NO<sub>x</sub> Emission data is given for:

- Ambient combustion air ~70°F (21°C)
- Less than 1000°F (540°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 65,000 Btu/h (19 kW)
- ppm volume, dry @ 3% O<sub>2</sub>
- Neutral chamber pressure

### Emissions from the burner are influenced by:

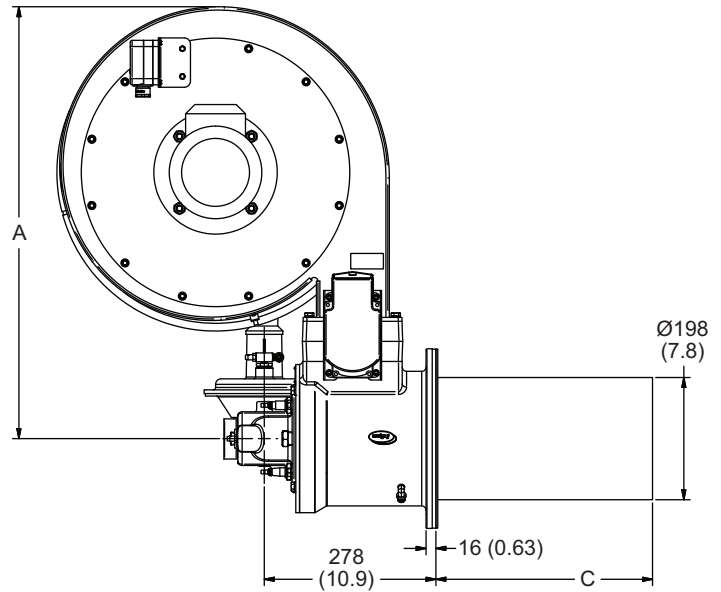
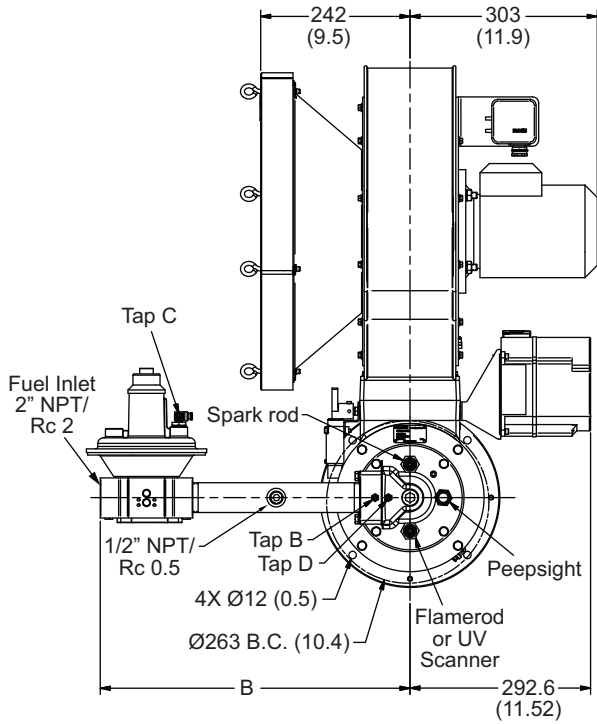
- Chamber conditions
- Fuel type
- Firing rate
- Ratio regulator adjustment
- Combustion air temperature

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



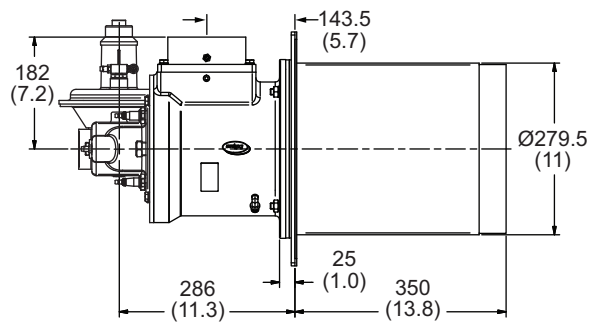
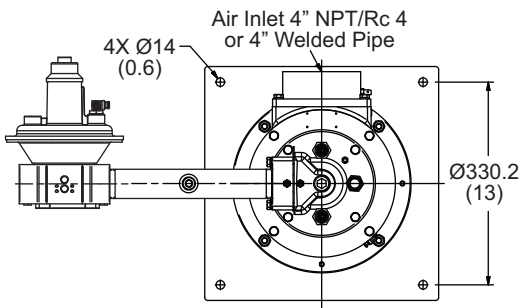
# Dimensions and Specifications

Dimensions in mm (in)

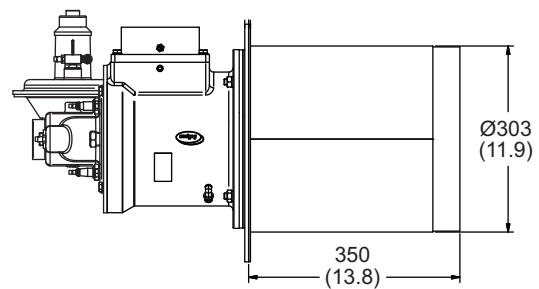
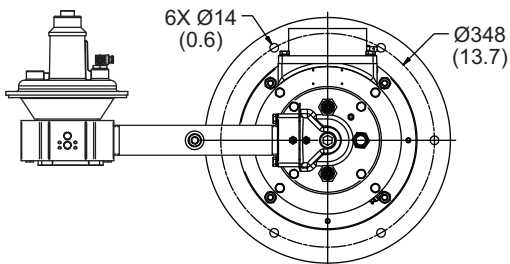


| Blower Size | A          |
|-------------|------------|
| 50 Hz       | 700 (27.6) |
| 60 Hz       | 663 (26.1) |

| Combustor Type                      | B          | C          |
|-------------------------------------|------------|------------|
| Straight Stainless Steel Alloy Tube | 521 (20.5) | 351 (13.8) |
| Straight Stainless Steel Alloy Tube | 521 (20.5) | 427 (16.8) |



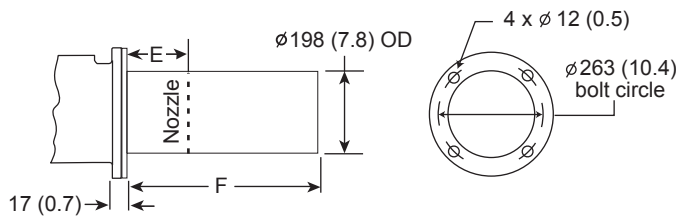
Square Block and Holder



Round Block and Holder

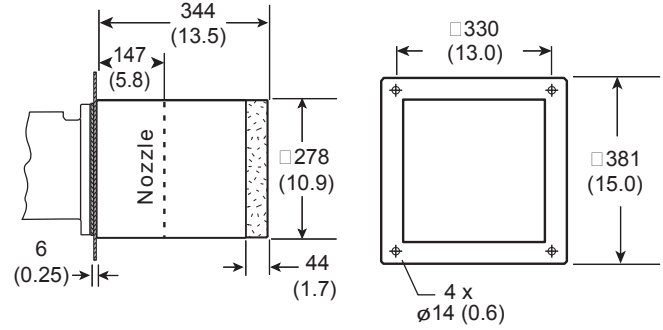
# Combustor Options

## Alloy Tube

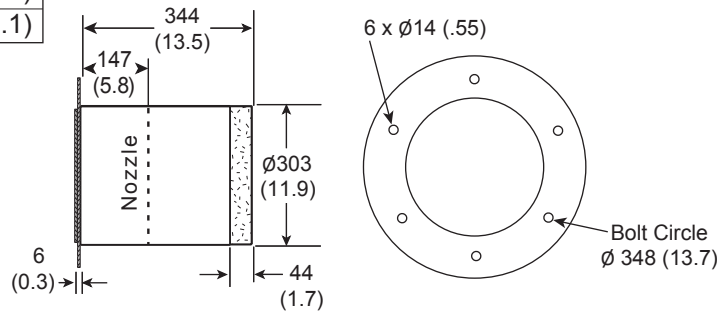


| F          | E         |
|------------|-----------|
| 350 (13.8) | 154 (6.1) |
| 426 (16.8) | 230 (9.1) |

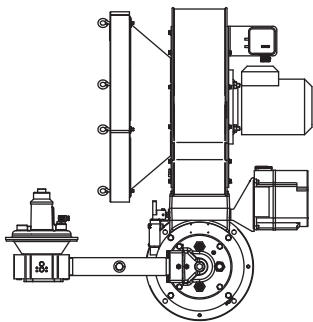
## Square Block & Holder



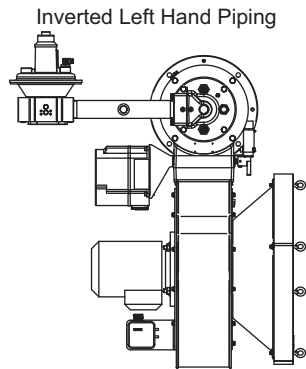
## Round Block & Holder



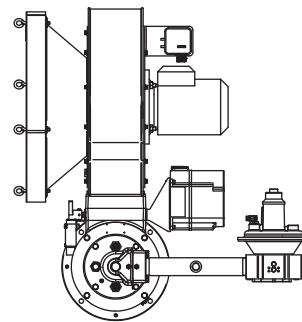
## Burner Configuration



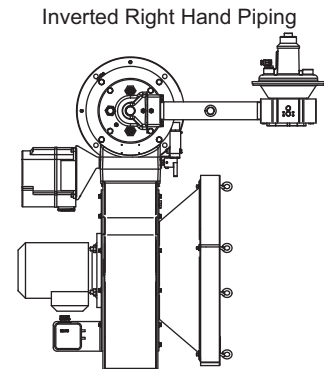
Upright Left Hand Piping



Inverted Left Hand Piping



Upright Right Hand Piping



Inverted Right Hand Piping

### Offered By:



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