


# Eclipse RatioMatic

## Burners

Model RM0500

Version 5

Parameter	Specification		
	Chamber Pressure "w.c. (mbar)	50 Hz	60 Hz
<b>Blower Type</b>			
<b>Maximum Input, Btu/h (kW)<sup>1</sup></b> <i>Contact factory for chamber pressures outside the given range, or varying chamber pressure conditions.</i>	-5.0 (-12.4)	5,700,000 (1670)	5,780,000 (1690)
	-2.0 (-5.0)	5,300,000 (1550)	5,380,000 (1580)
	0.0 (0.0)	5,010,000 (1470)	5,100,000 (1490)
	2.0 (5.0)	4,710,000 (1380)	4,800,000 (1410)
	5.0 (12.4)	4,210,000 (1230)	4,310,000 (1260)
<b>Minimum Input On-Ratio, Btu/h (kW)</b> <i>Lower inputs may be achieved. Contact factory.</i>	75,000 (22)		
<b>Main Gas Inlet Pressure, psig (mbar)<sup>2</sup></b> <i>Fuel pressure at ratio regulator inlet</i>	Natural Gas	1.0 to 2.0 (70 to 140)	
	Propane/Butane	1.0 to 1.5 (70 to 105)	
<b>High Fire Flame Length, inches (mm)</b> <i>Measured from the outlet end of the combustor</i>	Natural Gas	56 (1430)	
	Propane/Butane	64 (1630)	
<b>Maximum Chamber Temperature, °F (°C)</b>	Alloy Tube	1500 (815)	
	Block & Holder	1900 (1038)	
<b>Flame Detection</b>	Alloy Tube	Flamerod or UV Scanner	
	Block & Holder	UV scanner only	
<b>Fuel</b> <i>For any other mixed gas, contact Eclipse, Inc.</i>	Natural Gas, Propane, Butane <sup>3</sup>		
<b>Blower Motor Power, Hp</b>	5.0		
<b>Weight, lbs (kg)<sup>4</sup></b>	Alloy Tube	410 (186)	
	Refractory	556 (252)	
<b>Approvals</b>			

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

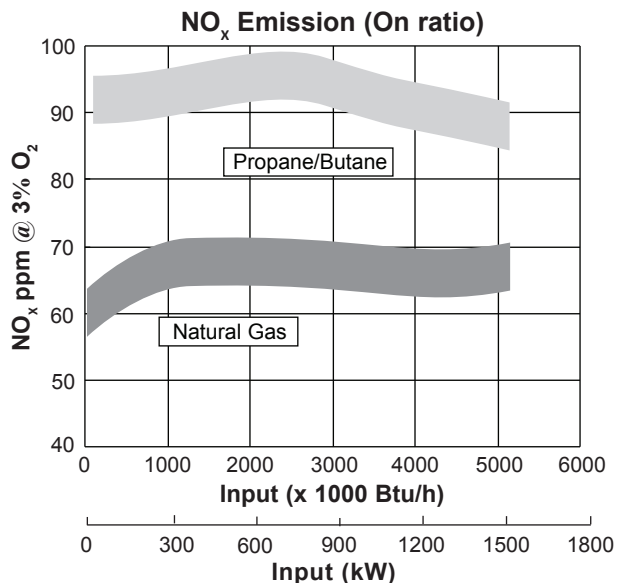
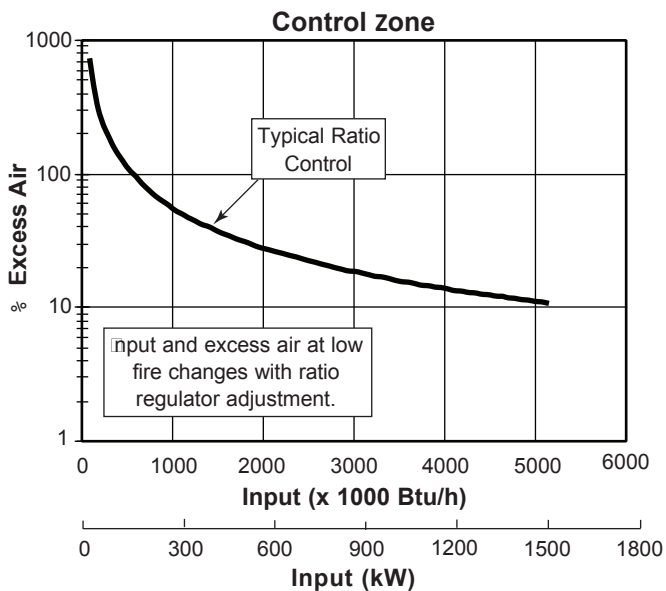
<sup>2</sup> For proper performance, this pressure must be kept constant across the burner operating range.

<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



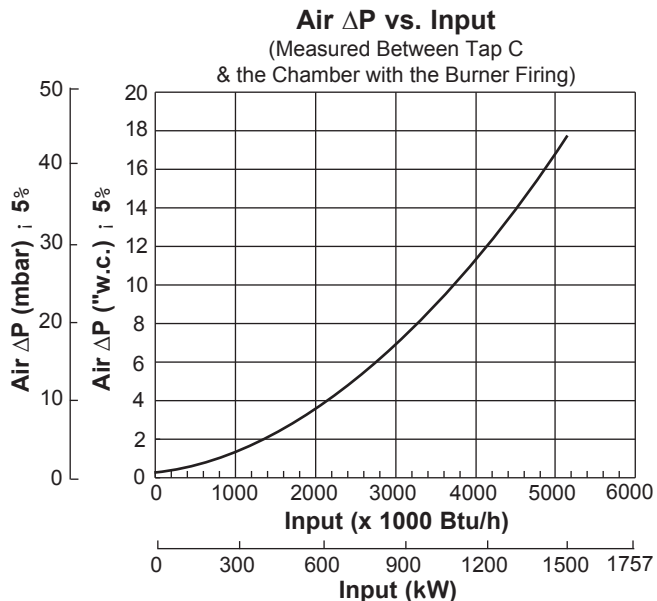
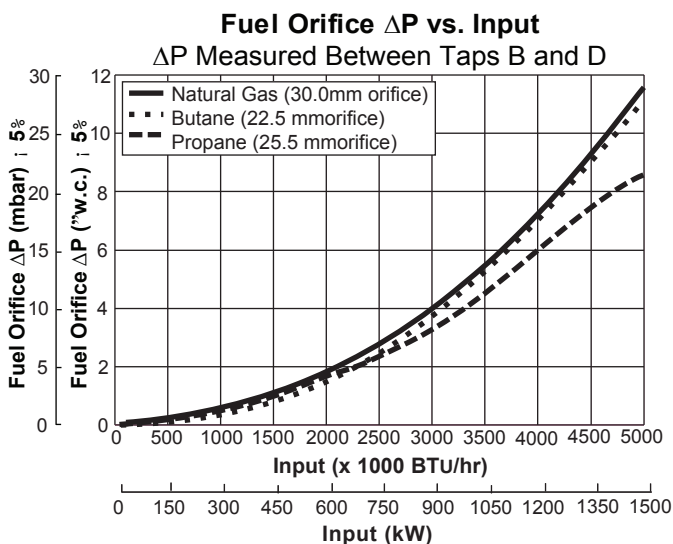
### NOx Emission data is given for:

- Ambient combustion air ~70°F (21°C)
- Less than 1000°F (540°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 75,000 Btu/h (22 kW)
- ppm volume, dry @ 3% O<sub>2</sub>
- Neutral chamber pressure

### Emissions from the burner are influenced by:

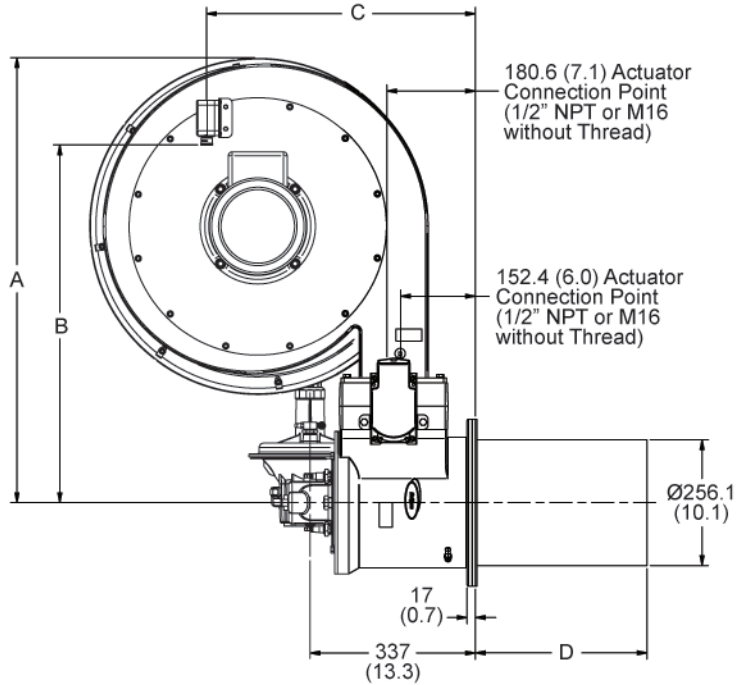
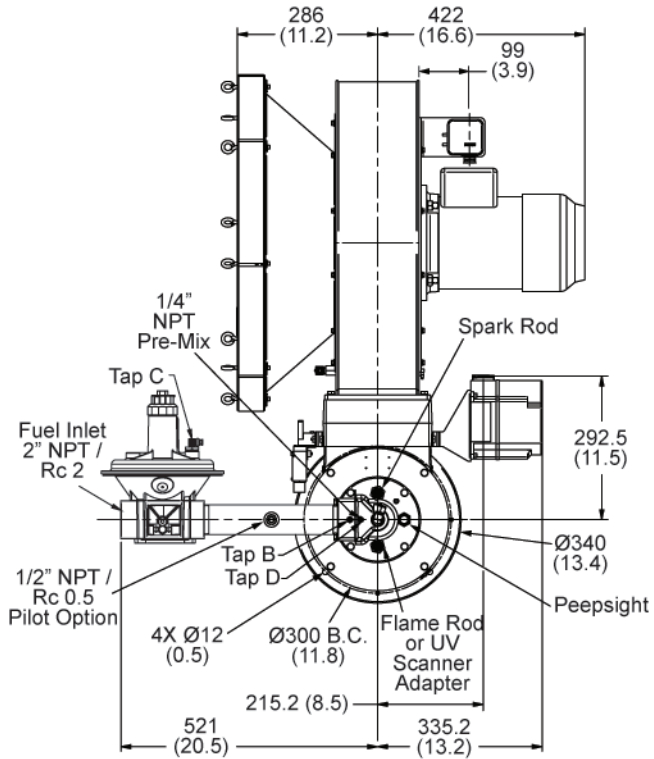
- Chamber conditions
- Fuel type
- Firing rate
- Ratio regulator adjustment
- Combustion air temperature

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



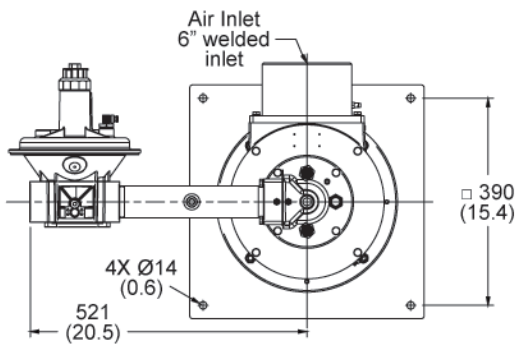
# Dimensions and Specifications

Dimensions in mm (in)

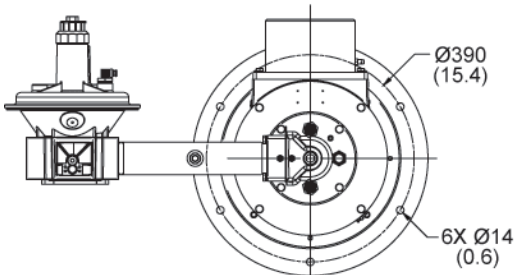
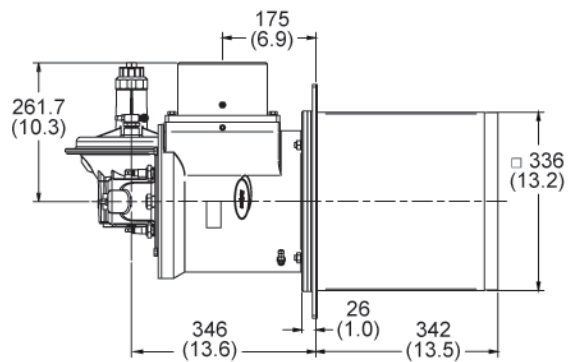


Blower Size	A	B	C
50 Hz	907 (35.7)	713 (28.1)	492 (19.4)
60 Hz	857 (33.7)	626 (24.7)	459 (18.1)

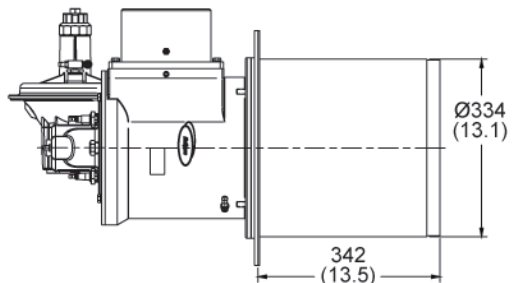
Combustor Type	D
Straight Stainless Steel Alloy Tube	349.6 (13.8)
Straight Stainless Steel Alloy Tube	425.6 (16.8)



Square Block and Holder

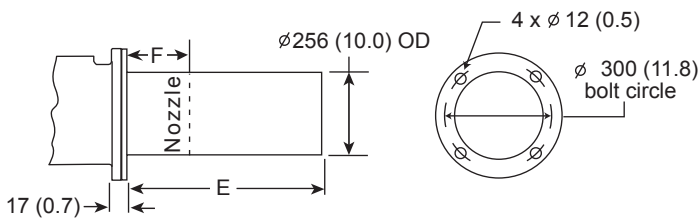


Round Block and Holder



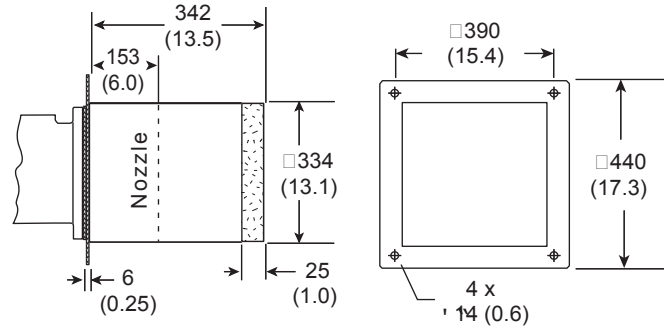
## Combustor Options

### Alloy Tube

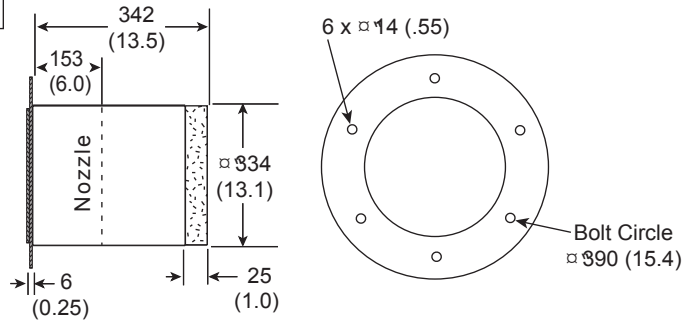


E	F
350 (13.8)	153 (6.0)
426 (16.8)	229 (9.0)

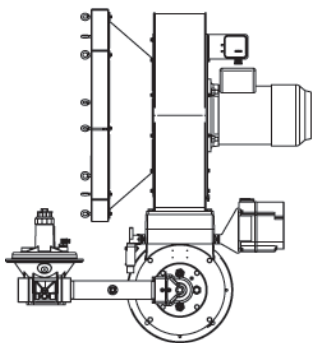
### Square Block & Holder



### Round Block & Holder

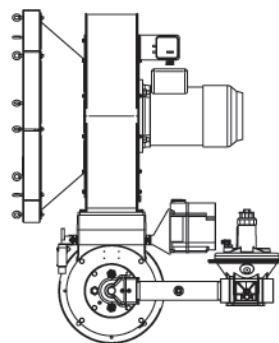
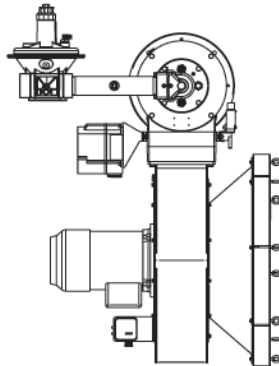


## Burner Configuration



Upright Left Hand Piping

Inverted Left Hand Piping



Upright Right Hand Piping

Inverted Right Hand Piping

