

Eclipse RatioMatic Burners

Model RM0400

Data sheet Edition 08.15

Version 6

Parameter	Specifications		
Blower Type	Chamber Pressure "w.c. (mbar)	50 Hz	60 Hz
Maximum Input, Btu/h (kW)¹ <i>For chamber pressures outside the given range or for varying chamber pressure conditions, contact Eclipse, Inc.</i>	-4.0 (-10.0)	4,400,000 (1290)	4,500,000 (1310)
	-2.0 (-5.0)	4,180,000 (1225)	4,280,000 (1250)
	0.0 (0.0)	3,900,000 (1140)	4,000,000 (1170)
	2.0 (5.0)	3,600,000 (1055)	3,700,000 (1080)
	5.0 (12.4)	3,050,000 (895)	3,150,000 (920)
Minimum Input, Btu/h (kW)² <i>For lower inputs, contact Eclipse, Inc.</i>	65,000 (19)		
Main Gas Inlet Pressure, "w.c. (mbar)³ <i>Fuel pressure at ratio regulator inlet</i>	Natural Gas	20 to 55 (50 to 140)	
	Propane/Butane	20 to 35 (50 to 90)	
High Fire Visible Flame Length, inches (mm) <i>Measured from the outlet end of the combustor</i>	Natural Gas	65 (1650)	
	Propane/Butane	70 (1780)	
Maximum Chamber Temperature, °F (°C)	Alloy Tube	1500 (815)	
	Block and Holder	1900 (1038)	
Flame Detection	Alloy Tube	Flamerod or UV Scanner	
	Block and Holder	UV scanner only	
Fuels⁴ <i>For any other mixed gas, contact Eclipse, Inc.</i>	Natural Gas, Propane, Butane		
Blower Motor Power, Hp (kW)	2.0 (1.5)		
Weight, lbs (kg)⁵	Alloy Tube	143 (65)	
	Refractory	267 (121)	
Approvals			

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

² Turndown input based on neutral chamber conditions. Contact Eclipse for other chamber pressures.

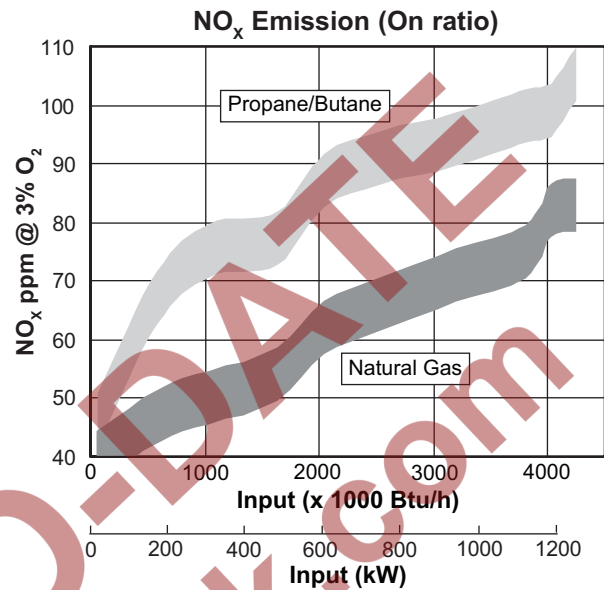
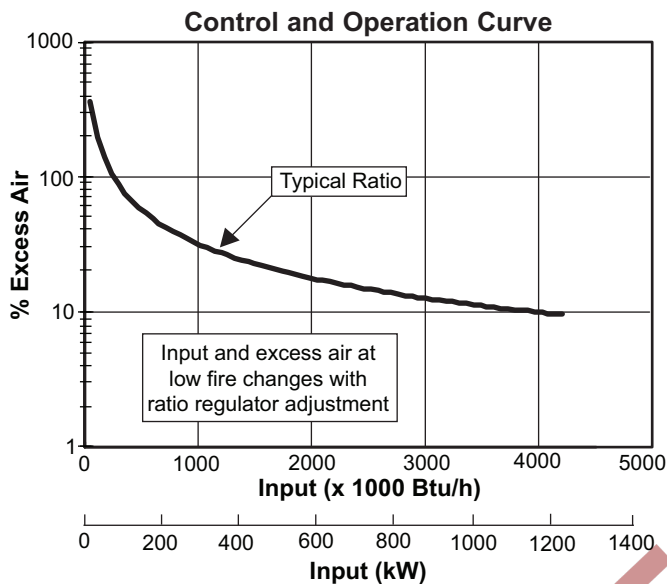
³ For proper performance, this pressure must be kept constant across the burner operating range.

⁴ See Design Guide 110 for more information about typical fuel composition and properties.

⁵ 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

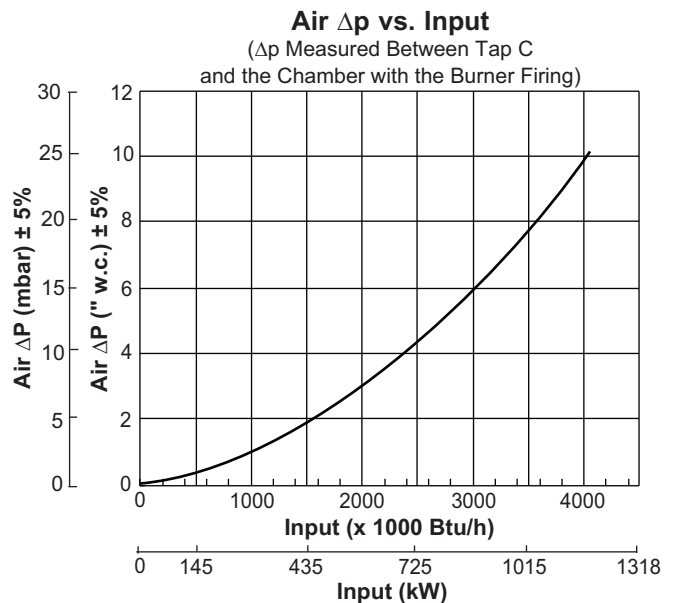
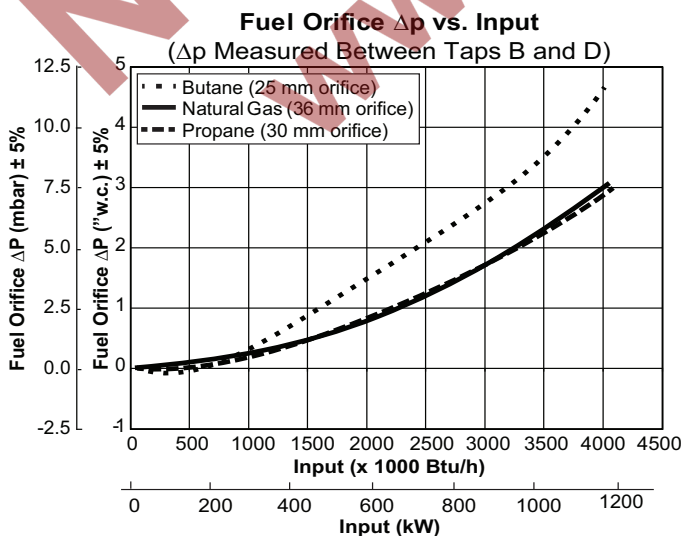
**NO_x Emission data is given for:**

- 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% O₂
- Neutral chamber pressure

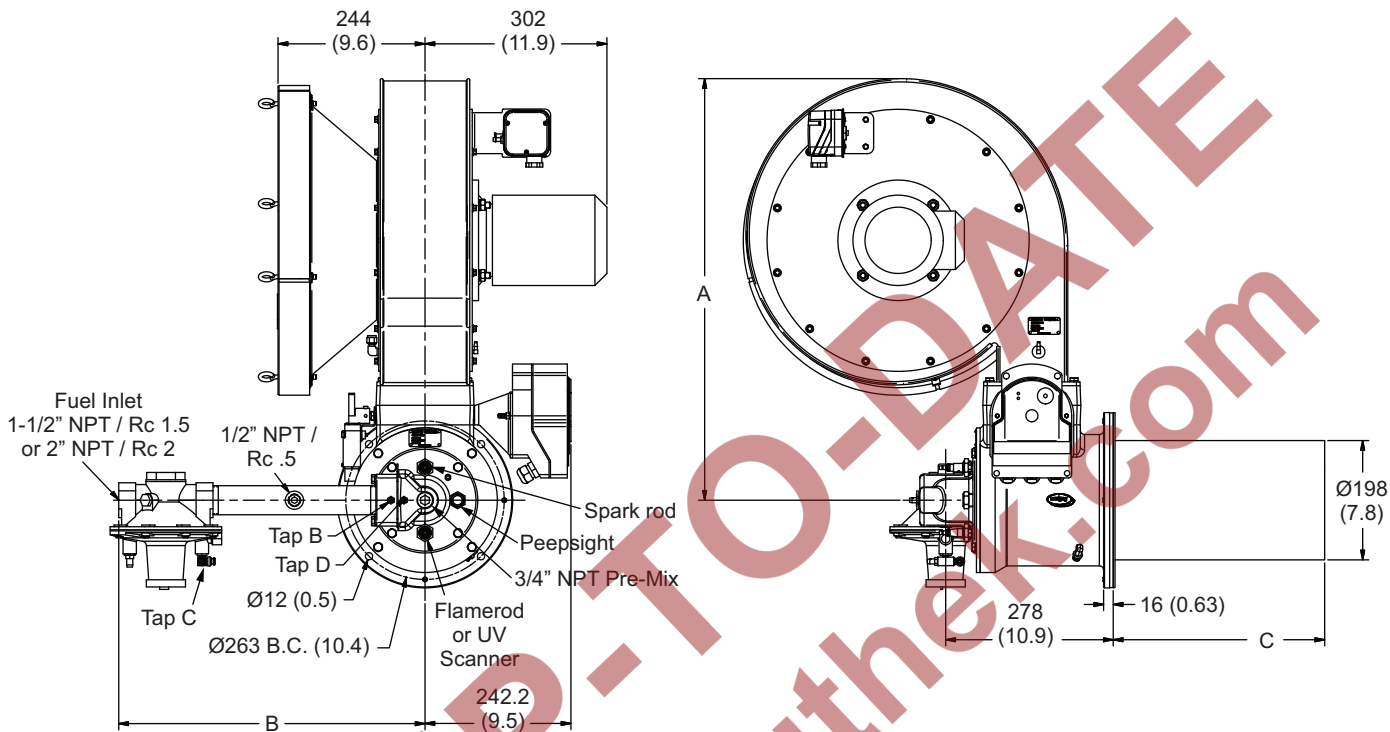
Emissions from the burner are influenced by:

- 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.

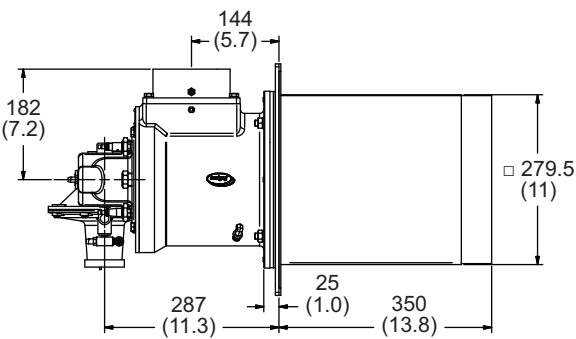
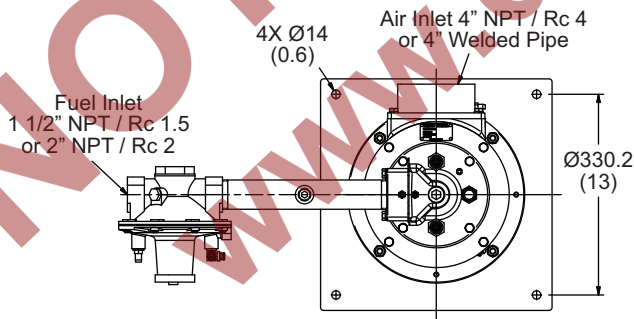


Dimensions and Specifications
Dimensions in mm (inches)

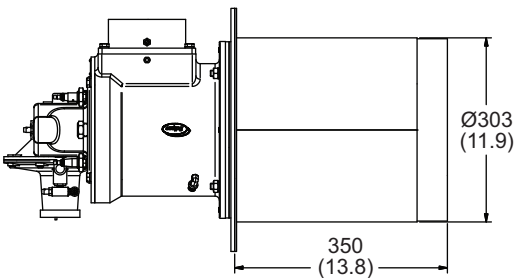
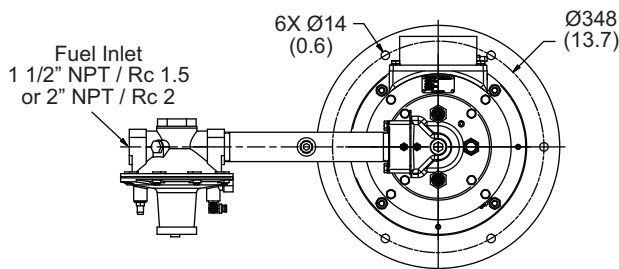


Blower Size	A
50 Hz	700 (27.6)
60 Hz	663 (26.1)

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)



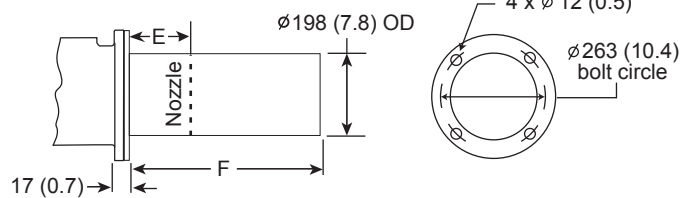
Square Block and Holder



Round Block and Holder

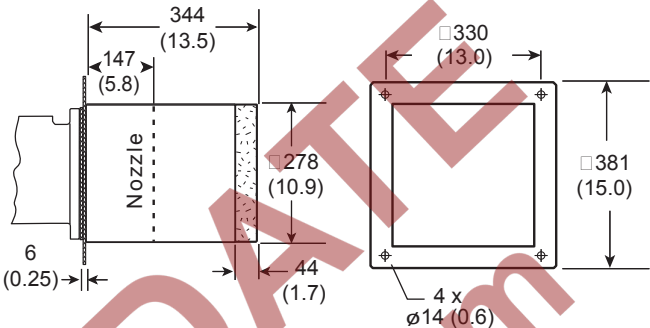
Combustor Options

Alloy Combustor

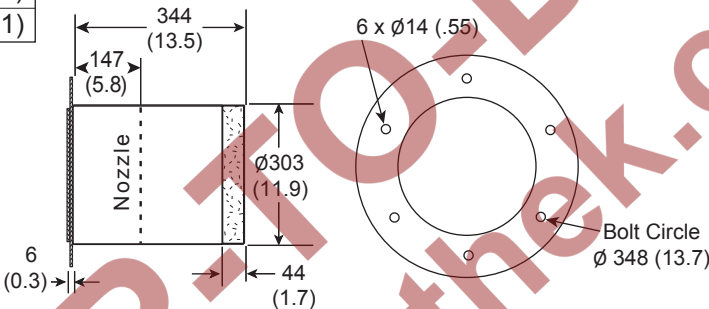


F	E
350 (13.8)	154 (6.1)
426 (16.8)	230 (9.1)

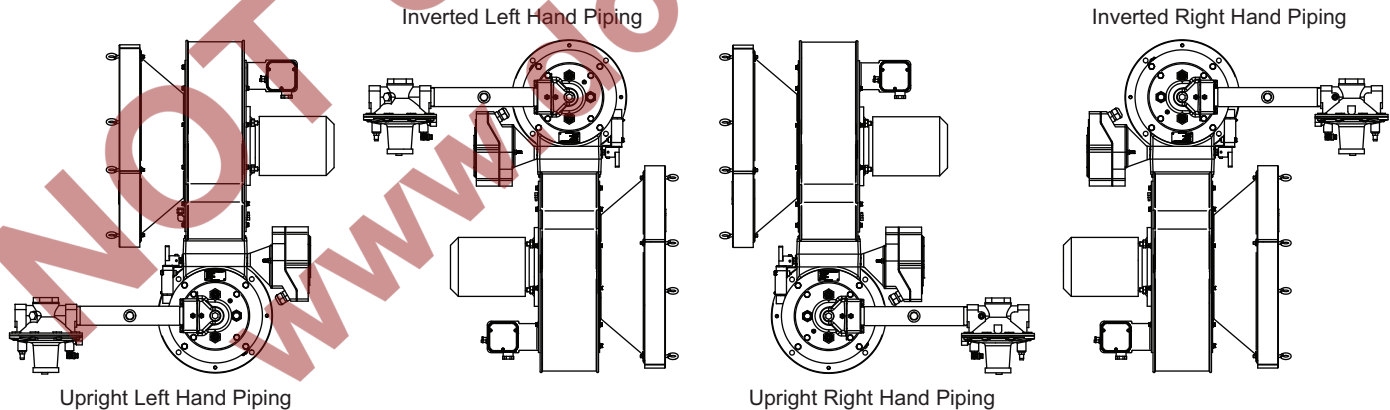
Square Block & Holder



Round Block & Holder



Burner Configurations



Even though the blower motor is on the "left" side of the inverted units, it is still a "right hand" motor in relationship to the blower assembly.