

# ECLIPSE RATIOMATIC BURNERS

Data 110-10

## Model 1000 RM –Version 1.01

6/29/04

For Serial Numbers 95-5500 & Above

### Specifications

<b>Input vs. Chamber Pressure</b>	12,500,000 Btu/hr. @ -5.0" w.c.	3664 kW @ -12.5 mbar
	11,600,000 Btu/hr. @ -3.0" w.c.	3400 kW @ -7.5 mbar
	10,500,000 Btu/hr. @ -1.0" w.c.	3107 kW @ -2.5 mbar
	<b>10,000,000 Btu/hr. @ 0.0" w.c.</b>	<b>2931 kW @ 0.0 mbar</b>
	9,400,000 Btu/hr. @ +1.0" w.c.	2755 kW @ +2.5 mbar
	8,800,000 Btu/hr. @ +2.0" w.c.	2579 kW @ +5.0 mbar

**Input may be increased by 20% if sufficient secondary air is available to complete combustion.**

**Minimum Input** 100,000 Btu/hr. (29.3 kW) with neutral chamber. Will be slightly higher with negative chamber pressure.

**Turndown** 100:1 with neutral chamber pressure.

<b>Configurations</b>	<b>Burner Configuration</b>	<b>Max. Chamber Temp.</b>
	Burner with alloy tube	1500° F (538° C)
	Burner with refractory block	1800° F (982° C)

Maximums shown are for average installations. Depending on conditions, higher temperatures can be obtained. Contact Eclipse for details.

**Fuel** Standard nozzle burns natural gas, propane, propane/air mixes without changing internals. Contact Eclipse for other fuels.

<b>Gas Inlet Pressure</b> at the proportionator inlet	Minimum: 14" w.c. (35 mbar)	natural gas, .65 s.g.
	Maximum: 2 psig (138 mbar)	natural gas, .65 s.g.

<b>Pilot Gas Pressure</b> at the pilot cock inlet	Minimum: 6" w.c. (15 mbar)	natural gas, .65 s.g.
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**High Fire Flame Length** 124" (3.15 m)  
Measured from the end of the firing tube, firing parallel to air flow with neutral chamber pressure. When firing perpendicular to air flow, flame length will be shorter. Contact your local Eclipse representative for details.

**Piloting** Integral spark-ignited pilot; ignition plug included.

**Flame Monitoring** By UV scanner only. Scanners & mounting kits are available from Eclipse.

**Control Motor Requirements** 90° travel with full stroke timing of 15 seconds or longer. Ovens with high chamber drafts or backpressures may require less than a full 90° stroke. In these cases, use adjustable stroke motors or motors equipped with travel-limiting auxiliary switches.

**Emissions** Ratiomatics produce low NO<sub>x</sub>, CO and aldehydes. Emissions performance depends not only on the burner, but also factors such as chamber temperature, chamber design, and heat loading. For estimates of Ratiomatic performance in your application, call Eclipse.

**Packaging Options** IRI or NFPA type valve trains, and UL recognized valve packages available.

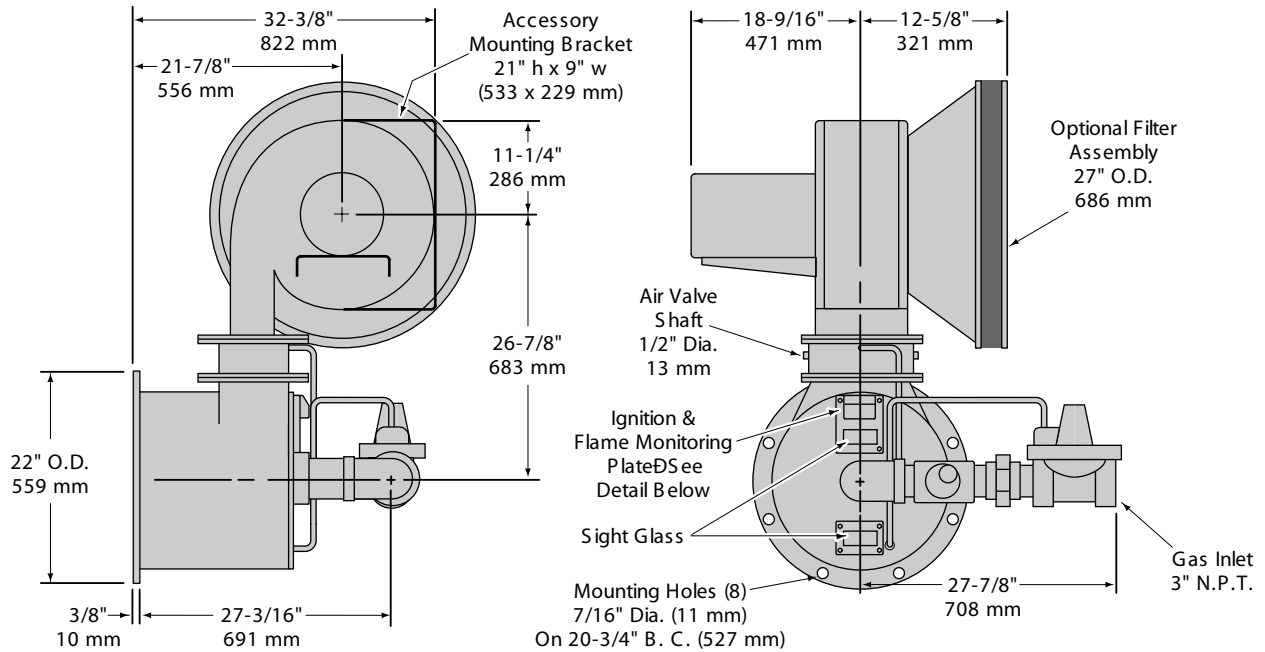
**CAUTION:** It is dangerous to use any fuel burning equipment unless it is equipped with suitable flame sensing devices and automatic fuel shut-off valves. Eclipse can supply such equipment or information on alternate sources.



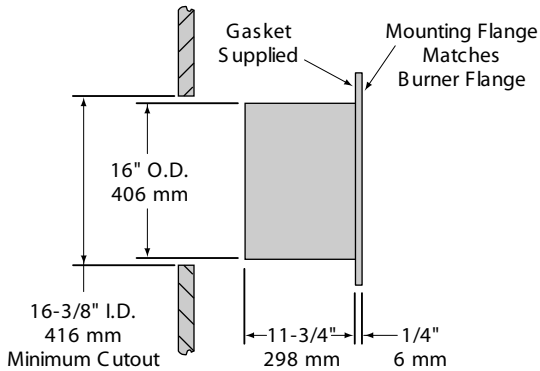
**ECLIPSE COMBUSTION**

## Dimensions, 1000 RM

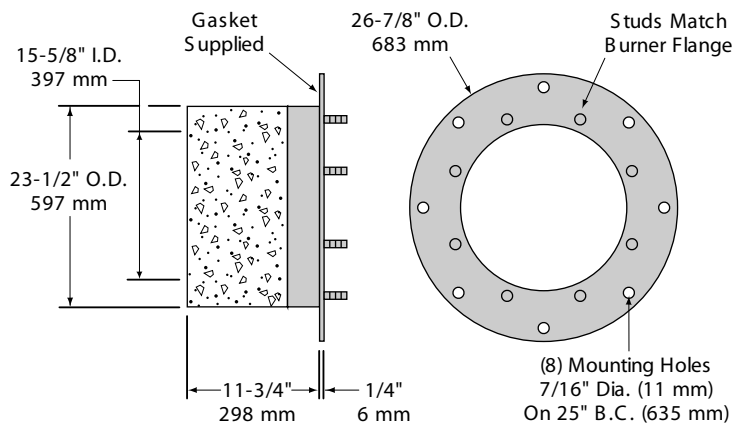
Dimensions are subject to change without notice. Contact Eclipse for certified prints prior to fabrication or installation.



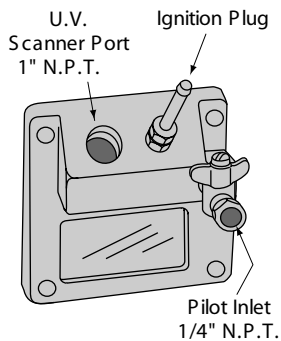
### Alloy Tube Assembly – #110265



### Block & Holder Assembly – #187296-61



### Flame Monitoring Plate Detail



### Component Information

Item	Description	Part #
1000 RM Burner Assembly		
	w/Alloy Tube; Left Hand Blower (shown)	110411
	w/Alloy Tube; Right Hand Blower (motor opposite side)	110401
	w/Block & Holder; Left Hand Blower (shown)	110441
	w/Block & Holder; Right Hand Blower (motor opposite side)	110431
Air Filter Assembly	Optional	110280
Replacement Filter Element	-	15608
Spark Plug <sup>1</sup>	For burner with tube or block.	150000-5
Blower Motor <sup>1</sup>	7.5 hp, 230/460/3/60 TEFC, 3600 RPM	11215
Proportionator <sup>1</sup>	Eclipse ES 369, 3"	10316
Pilot Cock <sup>1</sup>	Eclipse lever handle, 1/4"	12659
Gas Adjusting Butterfly <sup>1</sup>	Eclipse 112 BV, 3"	500993

<sup>1</sup> Included with burner assembly.

**Block & Holder and Alloy Tube are interchangeable in the field.**



**ECLIPSE COMBUSTION**



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