Data 110-13 10/10/2008

# Eclipse Ratiomatic Burners

Model 2000 RM For Serial Numbers 95-5500 & Above

Version 1

Parameter	Specification		
Input vs. Chamber Pressure	23,200,000 BTU/hr @ -5.0" w.c.	6800 kW @ -12.5 mbar	
	22,000,000 BTU/hr @ -3.0" w.c.	6448 kW @ -7.5 mbar	
	20,700,000 BTU/hr @ -1.0" w.c.	6067 kW @ -2.5 mbar	
	20,000,000 BTU/hr @ 0.0" w.c.	5862 kW @ 0.0 mbar	
	19,300,000 BTU/hr @ +1.0" w.c.	5657 kW @ +2.5 mbar	
	18,600,000 BTU/hr @ +2.0" w.c.	5452 kW @ +5.0 mbar	
	Input may be increased by 20% if sufficient secondary air is available to complete combustion.		
Maximum Input	200,000 BTU/hr (58.6 kW) with neutral ch negative chamber pressure.	200,000 BTU/hr (58.6 kW) with neutral chamber. Will be slightly higher with negative chamber pressure.	
Turndown	100:1 with neutral chamber pressure	100:1 with neutral chamber pressure	
Configurations	Burner Configuration	Maximum Chamber Temperature	
	Burner with alloy tube	1500°F (816°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, propa internals. Contact Eclipse for other fuels.	Standard nozzle burns natural gas, propane, propane/air mixes without changing internals. Contact Eclipse for other fuels.	
Gas Inlet Pressure at the proportionator inlet	, , ,	Minimum: 30" w.c. (75 mbar) natural gas, .65 s.g. Maximum: 2 psig (138 mbar) natural gas, .65 s.g.	
Pilot Gas Pressure at the pilot cock inlet	Minimum: 6" w.c. (15 mbar) natural gas, .6	Minimum: 6" w.c. (15 mbar) natural gas, .65 s.g.	
High Fire Flame Length		150" (3.81 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 Eclipse for details.	
Piloting	Integral spark-ignited pilot; ignition plug in	Integral spark-ignited pilot; ignition plug included	
Flame Monitoring	By UV scanner only. Scanners & mounting	By UV scanner only. Scanners & mounting kits are available from Eclipse.	
Control Motor Requirements	drafts or backpressures may require less	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 travellimiting auxiliary switches.	
Emissions	pends not only on the burner, but also fac	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 reco	IRI or NFPA type valve trains, and UL recognized valve packages available.	



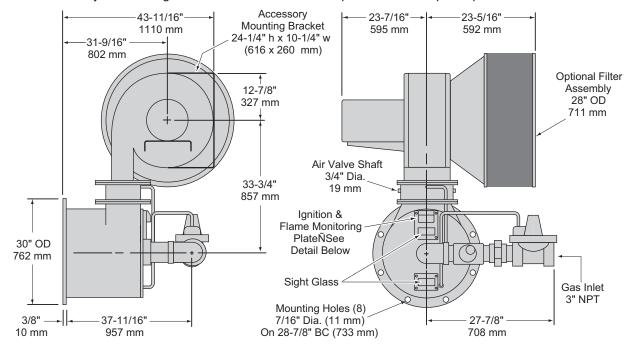
### **CAUTION:**

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.



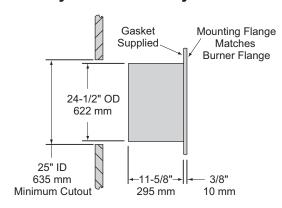
### **Dimensions**

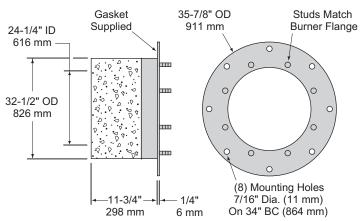
Dimensions are subject to change without notice. Contact Eclipse for certified prints prior to fabrication or installation.



## Alloy Tube Assembly – #110281

# Block & Holder Assembly - #187297-61



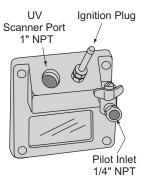


Item	Description	Part No.
2000 RM Burner Assembly	w/Alloy Tube; Left Hand Blower (shown)	110414
	w/Alloy Tube; Right Hand Blower (motor opposite side)	110404
	w/Block & Holder; Left Hand Blower (shown)	110444
	w/Block & Holder; Right Hand Blower (motor opposite side)	110434
Air Filter Assembly	Optional	110287
Replacement Filter Element	-	15608 & 10411
Spark Plug <sup>1</sup>	For burner with tube or block	150000-12
Blower Motor <sup>1</sup>	20 hp, 230/460/3/60 TEFC, 3600 RPM	19894
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>&</sup>lt;sup>1</sup> Included with burner assembly.

Block & Holder and Alloy Tubes are interchangeable in the field.

### Flame Monitoring Plate Detail





Data 110-13 10/10/2008 Litho in U.S.A.



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