

ECLIPSE RATIOMATIC BURNERS

Data 110-7

Model 500 RM

10/93

Specifications

Input vs. Chamber Pressure	5,500,000 Btu/hr. @ -5.0" w.c.	1612 kW @ -12.5 mbar
	5,500,000 Btu/hr. @ -3.0" w.c.	1612 kW @ -7.5 mbar
	5,190,000 Btu/hr. @ -1.0" w.c.	1521 kW @ -2.5 mbar
	5,000,000 Btu/hr. @ 0.0" w.c.	1466 kW @ 0.0 mbar
	4,800,000 Btu/hr. @ +1.0" w.c.	1407 kW @ +2.5 mbar
	4,600,000 Btu/hr. @ +2.0" w.c.	1348 kW @ +5.0 mbar

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

Minimum Input	65,000 Btu/hr. (19.1 kW) With neutral chamber. Will be slightly higher with negative chamber pressure.
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Turndown	77:1 with neutral chamber pressure.
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Configurations	Burner Configuration	Max. Chamber Temp.	Assembly
	Cast head & alloy tube	1000° F (538° C)	110221
	Alloy head & alloy tube	1500° F (816° C)	110221-1
	Alloy head & refractory block	1800° F (982° C)	110234-1

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.
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Gas Inlet Pressure at porportionator inlet	Minimum: 14" w.c. (35 mbar)	natural gas, .65 s.g.
	Maximum: 2 psig (138 mbar)	natural gas, .65 s.g.

Pilot Gas Pressure at pilot cock inlet	Minimum: 6" w.c. (15 mbar)	natural gas, .65 s.g.
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High Fire Flame Length	60" (1.52 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.
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Piloting	Integral spark-ignited pilot; ignition plug included.
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Flame Monitoring	Flame rod included; UV scanners & mounting kits available.
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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. See Bulletin 720.
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Emissions	Ratiomatics produce low NO _x , 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.
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Packaging Options	Available with FM, IRI, or NFPA type valve trains. UL recognized and UL listed packages are also available.
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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.

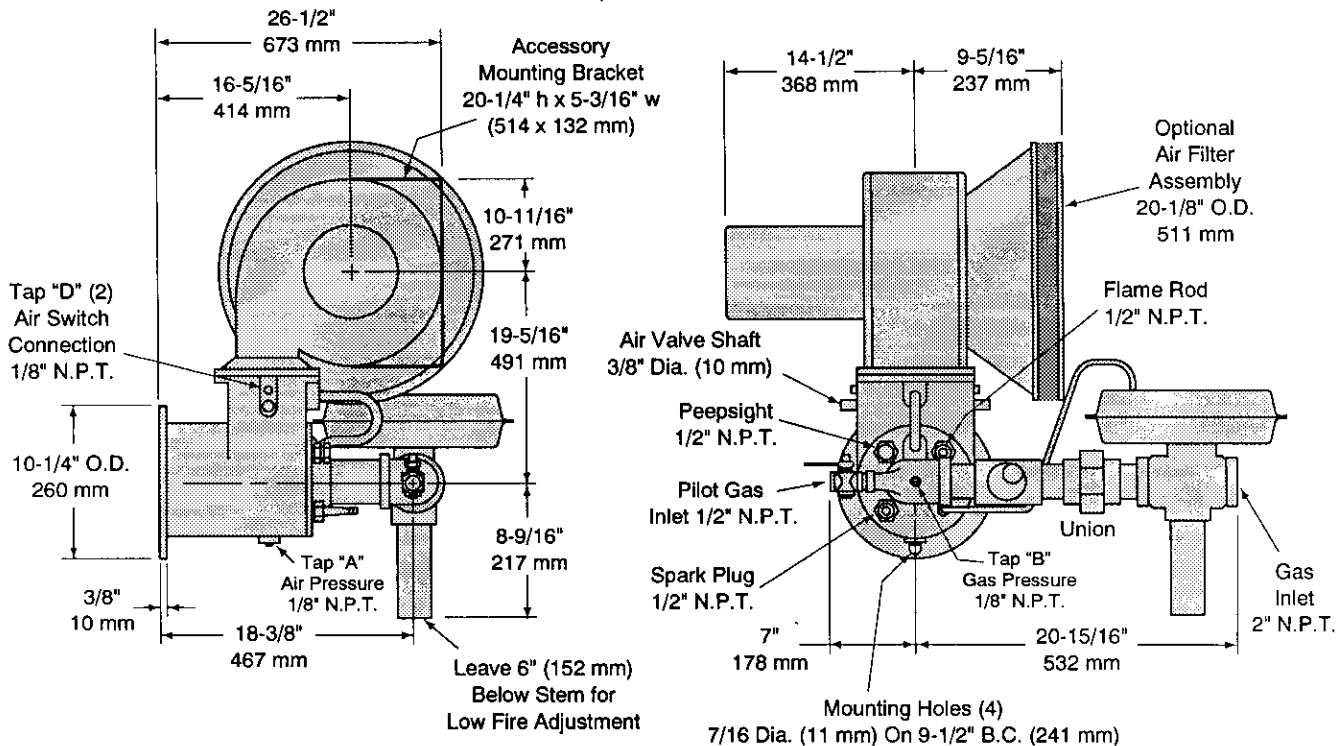


ECLIPSE COMBUSTION

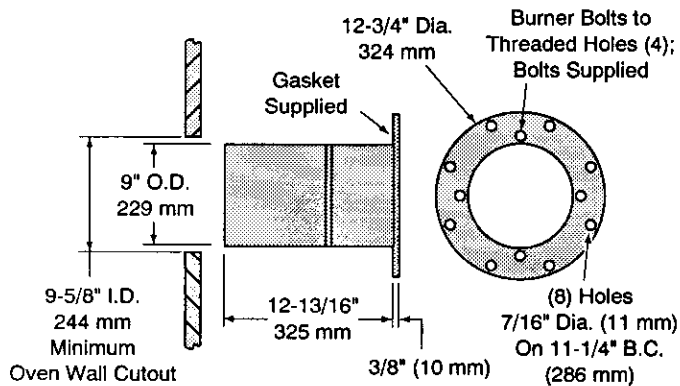
Dimensions, 500 RM

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

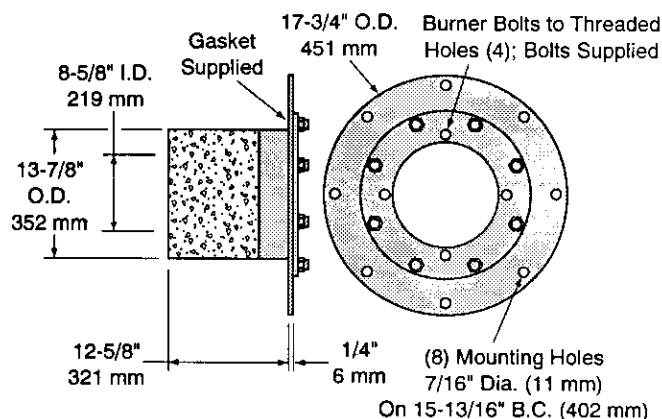
Blower motor and air filter positions can be reversed in the field.



Alloy Tube Assembly



Block & Holder Assembly



Component Information

Item	Description	Part #
500 RM Burner Assembly	With Standard Head and Alloy Tube Assembly	110221
	With Alloy Head and Alloy Tube Assembly	110221-1
	With Alloy Head and Block & Holder Assembly	110234-1
Air Filter Assembly	Optional	110282
Replacement Filter Element	---	11128
Spark Plug & Flame Rod ¹	For burner with tube or block.	13581
Alloy Tube Assembly ²	With two gaskets	110248
Block & Holder Assembly ²	---	187150-61
Blower Motor ¹	3 hp, 230/460/3/60 TEFC, 3600 RPM	16769
Proportionator ¹	Eclipse ABP, 2"	500627
Pilot Cock ¹	Eclipse lever handle, 1/2"	10627
Gas Adjusting Butterfly ¹	Eclipse 108 BV, 2"	500991

¹ Included with burner assembly.

² Not interchangeable in the field. Contact Eclipse to convert from tube to block or vice versa.



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