

ECLIPSE RATIONOMATIC BURNERS

Data 110-1

9/92

Model 50 RM

Specifications

Input vs. Chamber Pressure	700,000 Btu/hr. @ -5.0" w.c.	205 kW @ -12.5 mbar
	650,000 Btu/hr. @ -3.0" w.c.	191 kW @ -7.5 mbar
	550,000 Btu/hr. @ -1.0" w.c.	161 kW @ -2.5 mbar
	500,000 Btu/hr. @ 0.0" w.c.	147 kW @ 0.0 mbar
	450,000 Btu/hr. @ +1.0" w.c.	132 kW @ +2.5 mbar
	400,000 Btu/hr. @ +2.0" w.c.	117 kW @ +5.0 mbar

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

Minimum Input 35,000 Btu/hr. (10.3 kW)
With neutral chamber. Will be slightly higher with negative chamber pressure.

Turndown 14:1

Configurations	Burner Configuration	Max. Chamber Temp.	Assembly
	Cast head & alloy tube	1000° F (538° C)	110212
	Alloy head & alloy tube	1500° F (816° C)	110212-1
	Alloy head & refractory block	1800° F (982° C)	110160-1

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.

Gas Inlet Pressure at proportionator inlet
Minimum: 7" w.c. (17 mbar) natural gas, .65 s.g.
Maximum: 1 psig (69 mbar) natural gas, .65 s.g.

Pilot Gas Pressure at pilot cock inlet
Minimum: 6" w.c. (15 mbar) natural gas, .65 s.g.

High Fire Flame Length 24" (0.61 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 Flame rod included; UV scanners & mounting kits available.

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. For these cases, use adjustable stroke motors or motors equipped with travel-limiting auxiliary switches. See Bulletin 720.

Emissions Rationomatics produce low NO_x, CO and aldehydes. Emissions performance depends not only on the burner, but also other factors such as chamber temperature, chamber design, and heat loading. For estimates of Rationomatic performance in your application, call Eclipse.

Packaging Options Available with FM, IRI, or NFPA type valve trains. UL recognized and UL listed 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.

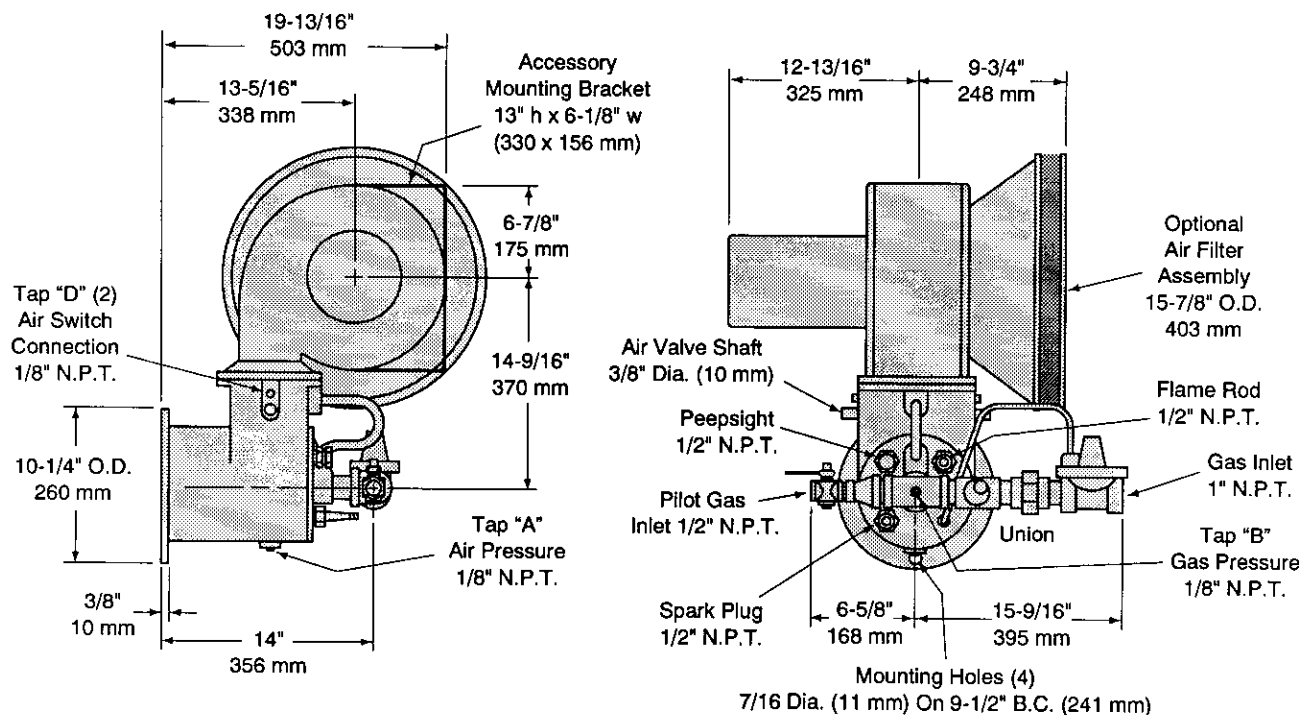


ECLIPSE COMBUSTION

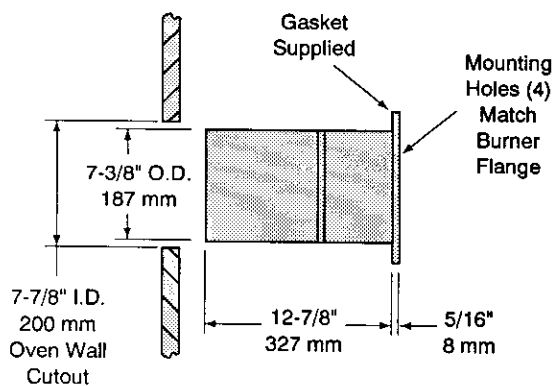
Dimensions, 50 RM

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

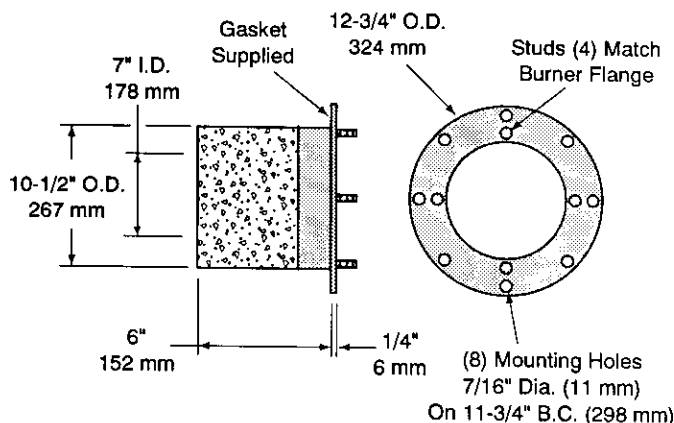
Blower motor and air filter positions can be reversed in the field.



Alloy Tube Assembly



Block & Holder Assembly



Component Information

Item	Description	Part #
50 RM Burner Assembly	With Standard Head and Alloy Tube Assembly	110212
	With Alloy Head and Alloy Tube Assembly	110212-1
	With Alloy Head and Block & Holder Assembly	110160-1
Air Filter Assembly	Optional	110298
Replacement Filter Element	---	11132
Spark Plug & Flame Rod ¹	For burner with tube.	13581
	For burner with block.	13837
Alloy Tube Assembly ²	With two gaskets	110184
Block & Holder Assembly ²	---	187327-61
Blower Motor ¹	1/3 hp, 230/460/3/60 TEFC, 3600 RPM	12109
Proportionator ¹	Maxitrol 600 SZ Zero Governor, 1"	11951
Pilot Cock ¹	Eclipse lever handle, 1/2"	10627
Gas Adjusting Butterfly ¹	Eclipse 104 BV, 1"	500988

¹ Included with burner assembly.

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



Offered By:

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