


Eclipse Tube Firing

Burner

Model TFB075

Version 2

Parameter		Burner Input 1000's Btu/h (kW)			
		400 (117)	500 (146)	600 (176)	750 (220)
Low Firing Rate, Btu/h (kW) <i>At 100% excess air</i>	Without Flame Safety	5 (1.5)	5 (1.5)	5 (1.5)	5 (1.5)
	With Flame Safety	10 (2.9)	10 (2.9)	10 (2.9)	10 (2.9)
Differential Air Pressure, "w.c. (mbar) <i>Between Tap A and B (see page 3 and 4)</i>		8.4 (20.9)	8.3 (20.7)	5.7 (14.2)	6.2 (15.4)
Recommended Air Orifice Plate in (mm)		1.33 (33.8)	1.45 (36.8)	1.65 (41.9)	1.75 (44.5)
Air Flow, SCFH (Nm³/h) <i>At 15% excess air</i>		4600 (130.3)	5750 (162.8)	6900 (195.4)	8625 (244.2)
Differential Gas Pressure, "w.c. (mbar) <i>Between Tap C and D (see page 3 and 4)</i>	Natural Gas	4.3 (10.7)	3.2 (8.0)	2.8 (7.0)	4.4 (11.0)
	Propane	3.5 (8.7)	2.7 (6.7)	3.9 (9.7)	2.9 (7.2)
	Butane	2.8 (7.0)	4.3 (10.7)	3.1 (7.7)	4.8 (12.0)
Recommended Gas Orifice Plate, mm (in)	Natural Gas	10.8 (0.4)	12.7 (0.5)	14.0 (0.6)	14.0 (0.6)
	Propane	9.1 (0.4)	10.8 (0.4)	10.8 (0.4)	12.7 (0.5)
	Butane	9.1 (0.4)	9.1 (0.4)	10.8 (0.4)	10.8 (0.4)
Piping		NPT or BSP burner piping is available			
Flame Detection		UV Scanner*, Flamerod			
Ignition		Direct spark ignition (6 kVAC)			
Fuels <i>For any other mixed gas, contact Eclipse.</i>		Natural gas, propane, butane			
Approvals					

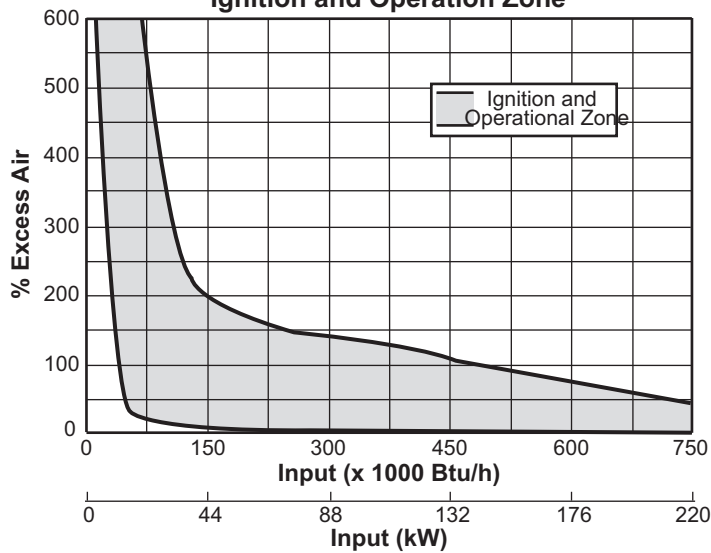
*When using the UV scanner, mounting adapter part number 10033 will prevent the UV scanner from detecting the ignition spark.

NOTE: Pressures shown are for system sizing only. The supply pressure at the burner inlets must be at least 3" w.c. higher than the differential pressure shown in the tables.

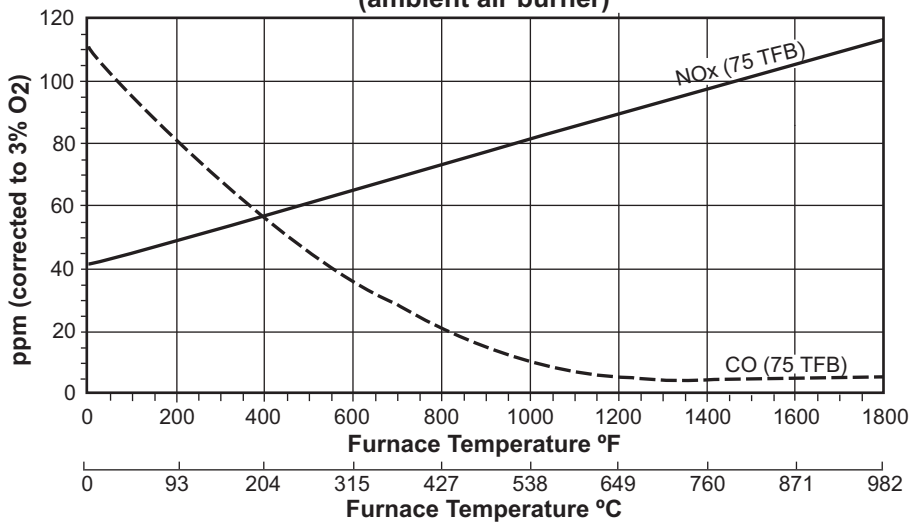
- The low firing rate represents the capability of the burner. Achievement of this rate will be affected by the control method and ratio regulator used in the system design.
- All inputs based on gross calorific values.
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obliged to adjust earlier supplies accordingly.
- Plumbing of air and gas will affect accuracy of orifice readings. All information is based on generally acceptable air and gas piping practices.

Performance Graphs

Ignition and Operation Zone



NO_x and CO Emissions (ambient air burner)

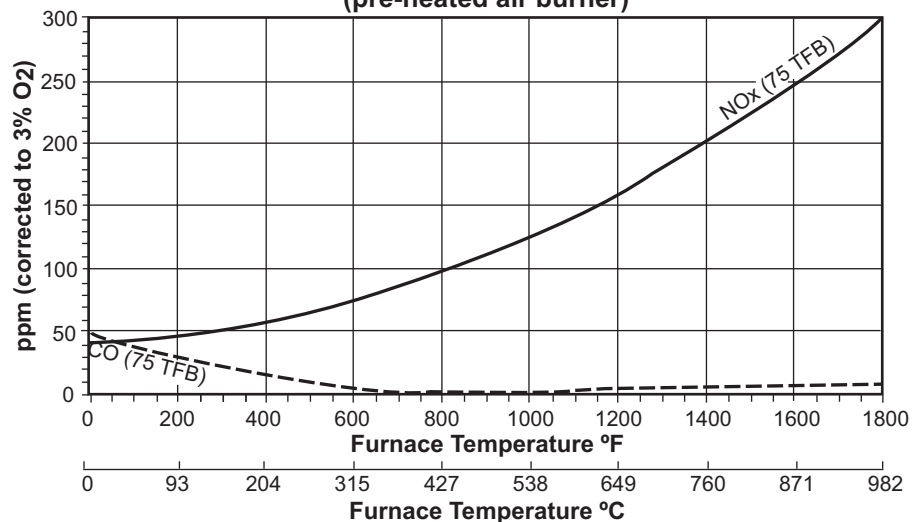


Emissions from the burner are influenced by:

- fuel type
- combustion air temperature
- chamber conditions
- percent of excess air

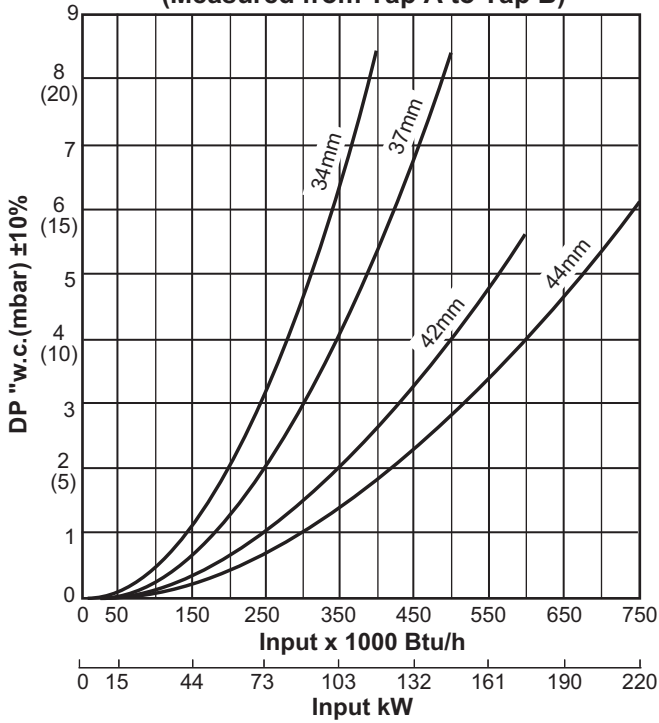
For estimates of other emissions, contact Eclipse Inc.

NO_x and CO Emissions (pre-heated air burner)

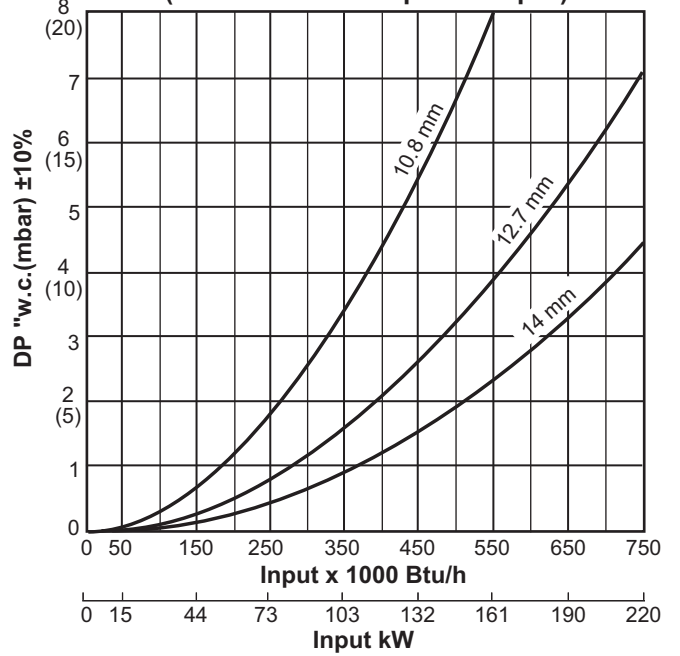


Performance Graphs (Continued)

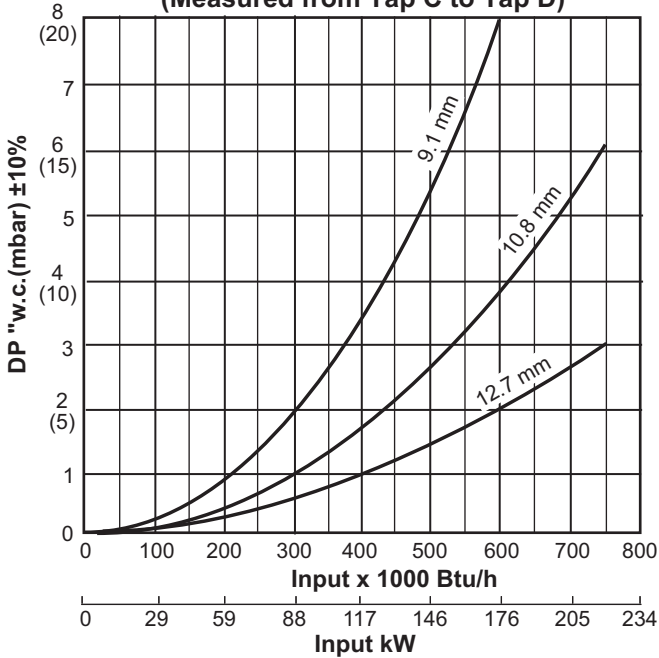
Air Orifice DP vs Input @ 3% O₂
(Measured from Tap A to Tap B)



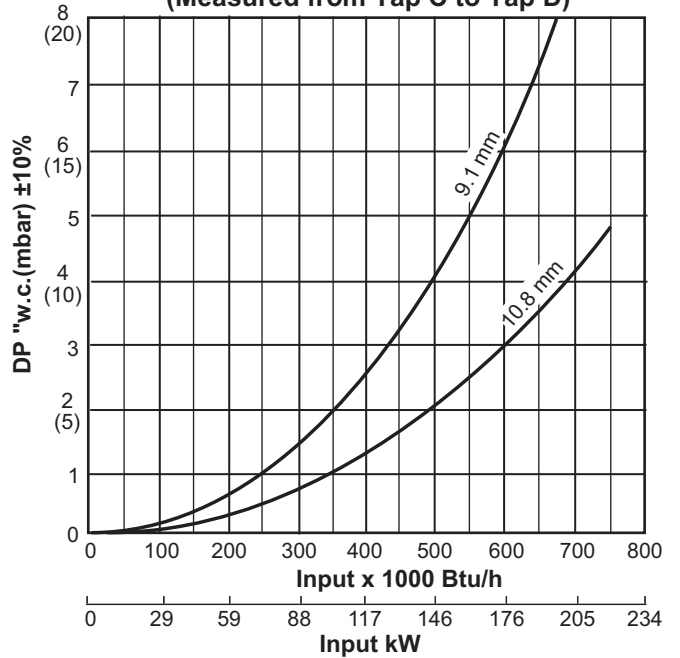
Natural Gas Orifice DP vs Input
(Measured from Tap C to Tap D)



Propane Orifice DP vs Input
(Measured from Tap C to Tap D)

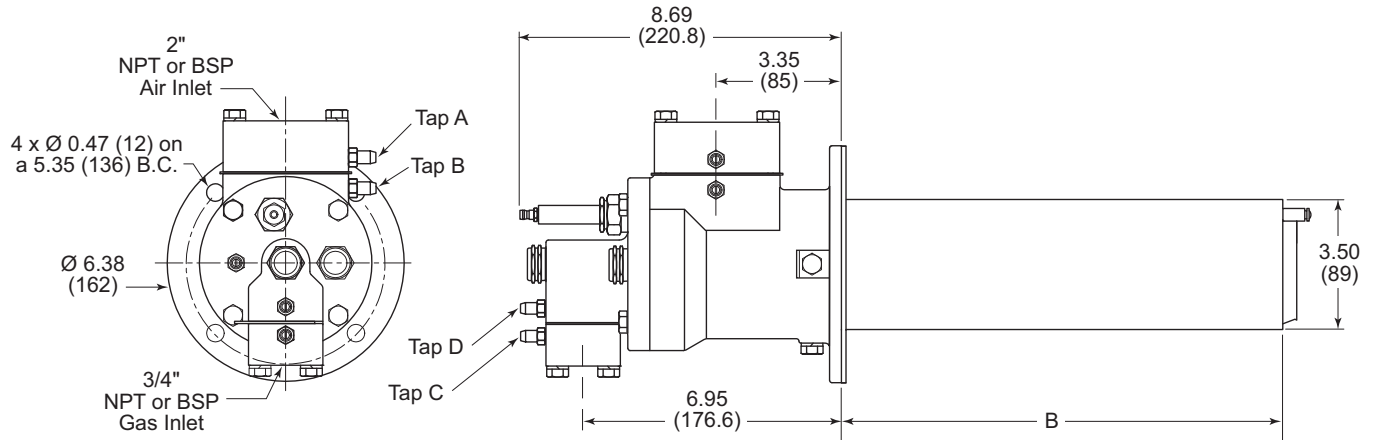


Butane Orifice DP vs Input
(Measured from Tap C to Tap D)



Dimensions & Specifications

Dimensions in inches (mm)



Total Weight 20-25 lb (9-11.3 kg)

Dimension B

Each ThermThief burner is available in a number of variants which have different air tube lengths (dimension B). Based on your application, choose the dimension closest to your requirements. Dimension B can range from 3" to 24" in one inch increments.