

# *Eclipse ThermJet Burners*

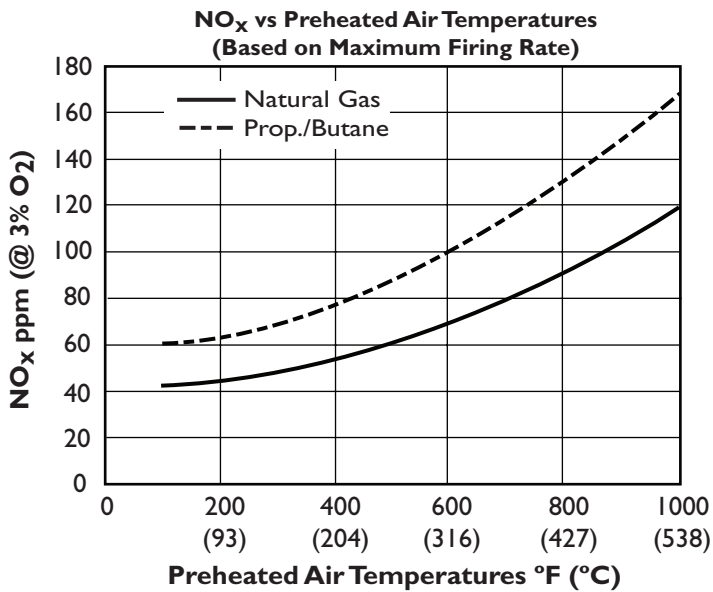
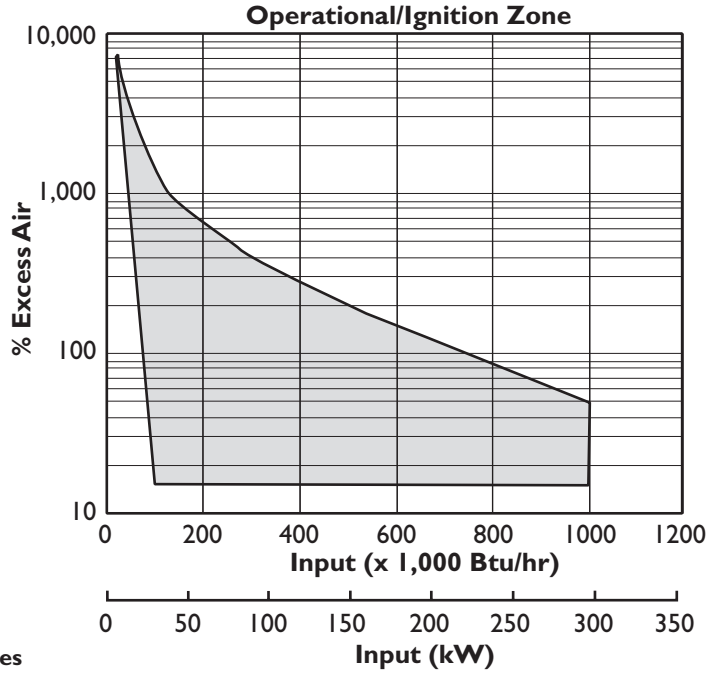
## *for preheated combustion air*

Model TJPCA0100  
Version 2

PARAMETER		SPECIFICATION		
		Nat. Gas	Propane	Butane
Maximum Input Btu/hr (kW)		1,000,000 (293)	1,000,000 (293)	1,000,000 (293)
Minimum Input, On-ratio Btu/hr (kW)		100,000 (29)	100,000 (29)	100,000 (29)
Gas Inlet Pressure "w.c. (mbar) • Fuel pressure at gas inlet (Tap "B"— see page 3)	ambient	5.5 (13.7)	8.0 (19.9)	7.5 (18.6)
	300° F	6.7 (16.7)	9.2 (22.9)	8.7 (21.7)
	700° F	8.9 (22.2)	11.4 (28.4)	10.9 (27.2)
	1000° F	10.6 (26.3)	13.1 (32.6)	12.6 (31.3)
Air Inlet Pressure "w.c. (mbar) • 15% excess air at maximum input (Tap "A" – see page 3)	ambient	3.0 (7.5)	3.0 (7.5)	3.0 (7.5)
	300° F	4.2 (10.5)	4.2 (10.5)	4.2 (10.5)
	700° F	6.4 (15.9)	6.4 (15.9)	6.4 (15.9)
	1000° F	8.1 (20.2)	8.1 (20.2)	8.1 (20.2)
High Fire Flame Length Inches (mm)		<38.0 (965)	<37.0 (940)	<42.0 (1065)
Flame Detection		U.V. scanner available for all combustors		
Fuel		Natural Gas, Propane, Butane <i>For any other mixed gas, contact Eclipse for orifice sizing.</i>		

- All information is based on laboratory testing in neutral (0.0"w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in the combustor will alter performance and pressures.
- All inputs based upon 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.

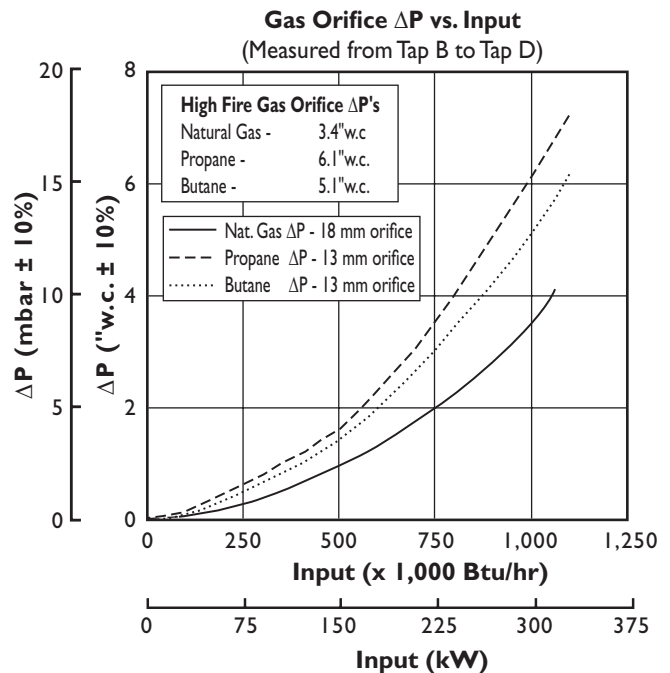
## Performance Graphs



Emissions from the burner are influenced by:

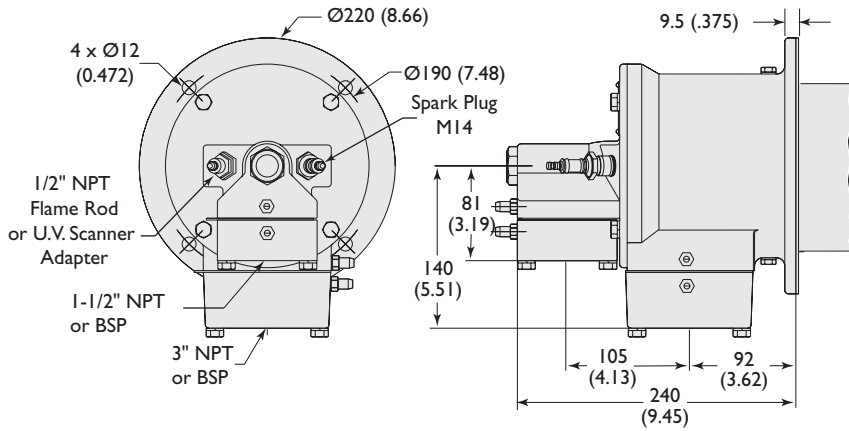
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber Conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.



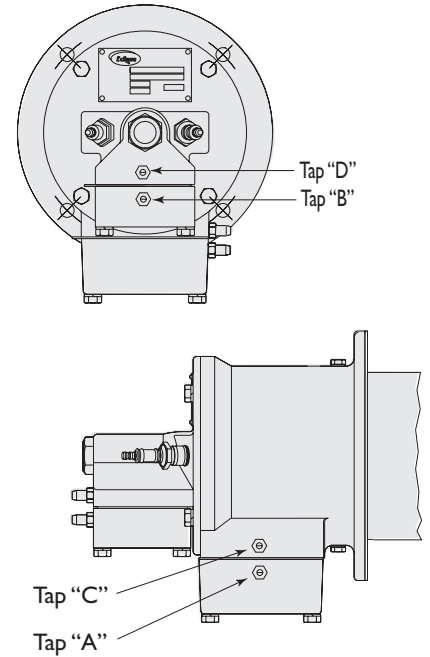
## Dimensions & Specifications Millimeters (Inches)

### Burner Housing



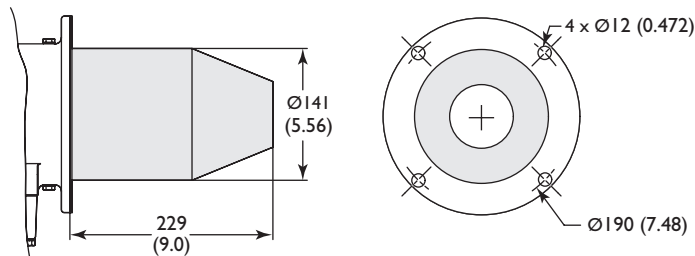
Burner weight less combustor: 42 lb (19 kg)

### Tap Locations



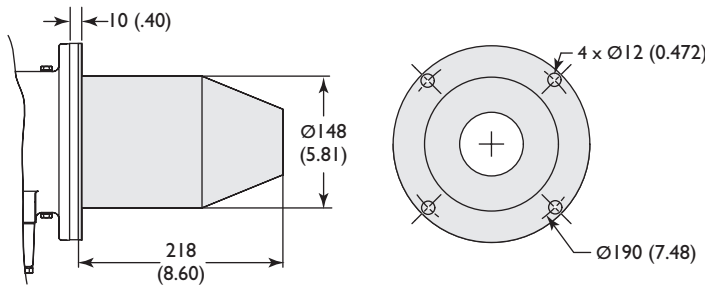
### Combustor

Exhaust outlet diameter : High Velocity :  $\text{Ø}54$  (2.125)  
Medium Velocity :  $\text{Ø}76.4$  (3.0)



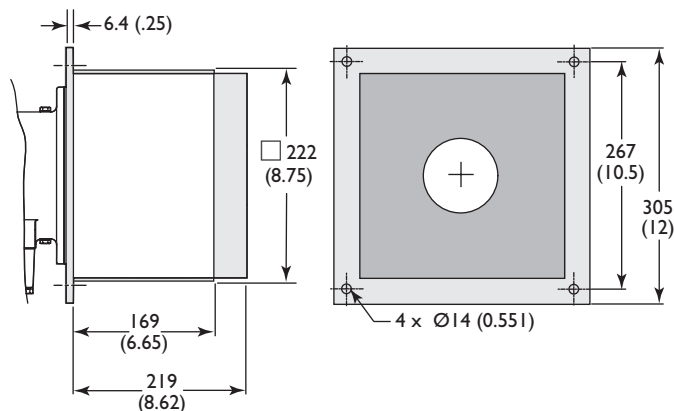
#### Alloy Tube (AISI 310)

Weight: 3.2 lb (1.45 kg)  
Max Chamber Temp: 1,750°F (950°C)



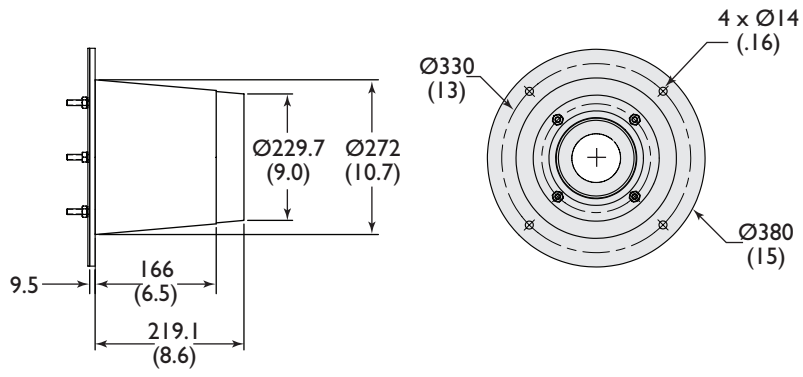
#### Silicon Carbide Tube

Weight: 3.2 lb (1.45 kg)  
Max Chamber Temp: 2,500°F (1371°C)



#### Refractory Block (w/RA330 wrapper)

Weight: 61.3 lb (28 kg)  
Max Chamber Temp: 2,800°F (1538°C)



**Down Firing Block**  
 Weight: 75 lb (34 kg)  
 Max. Chamber Temp: 2800°F (1535°C)



**Offered By:**

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