

# *Eclipse ThermJet Burners*

## *for preheated combustion air*

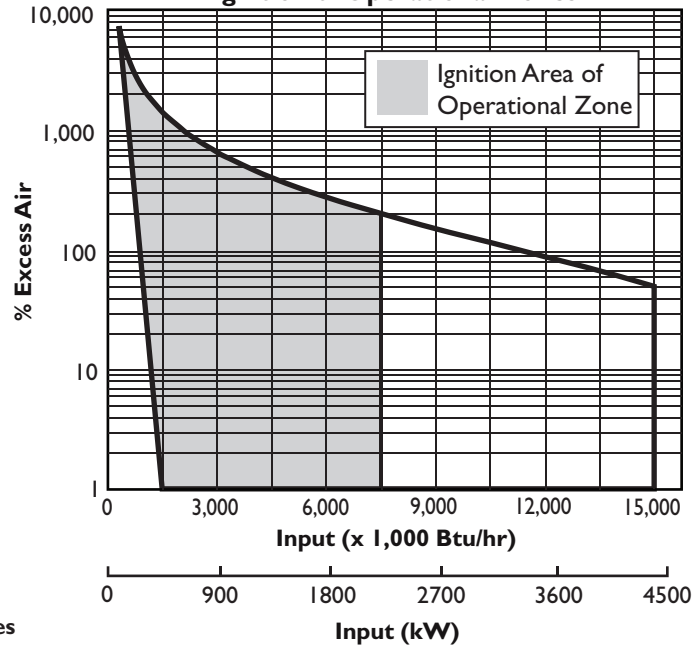
Model TJPCA1500  
Version 2

PARAMETER		SPECIFICATION		
		Nat. Gas	Propane	Butane
Maximum Input Btu/hr (kW)		15,000,000 (4395)	15,000,000 (4395)	15,000,000 (4395)
Minimum Input, On-ratio Btu/hr (kW)		1,500,000 (440)	1,500,000 (440)	1,500,000 (440)
Gas Inlet Pressure "w.c. (mbar) • Fuel pressure at gas inlet (Tap "B"— see page 3)	ambient	3.7 (9.2)	3.7 (9.2)	3.7 (9.2)
	300° F	5.5 (13.6)	5.5 (13.6)	5.5 (13.6)
	700° F	8.8 (21.7)	8.8 (21.7)	8.8 (21.7)
	1000° F	11.2 (27.8)	11.2 (27.8)	11.2 (27.8)
Air Inlet Pressure "w.c. (mbar) • 15% excess air at maximum input (Tap "A" – see page 3)	ambient	4.4 (10.9)	4.4 (10.9)	4.4 (10.9)
	300° F	6.2 (15.4)	6.2 (15.4)	6.2 (15.4)
	700° F	9.5 (23.5)	9.5 (23.5)	9.5 (23.5)
	1000° F	11.9 (29.5)	11.9 (29.5)	11.9 (29.5)
High Fire Flame Length Inches (mm)		<144 (3660)	<185 (4700)	<185 (4700)
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>		

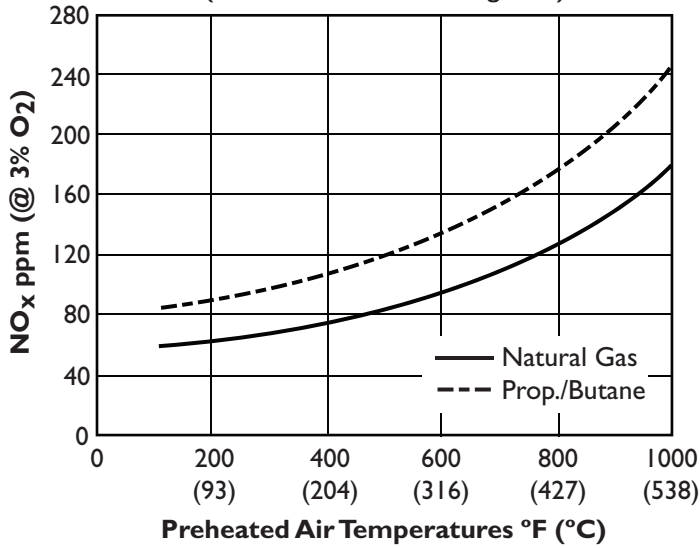
- All information is based on laboratory testing in neutral (0.0" w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in the combustor will alter performance and pressures.
- All inputs based upon gross calorific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

### Ignition & Operational Zones



### NO<sub>x</sub> vs Preheated Air Temperatures (Based on Maximum Firing Rate)

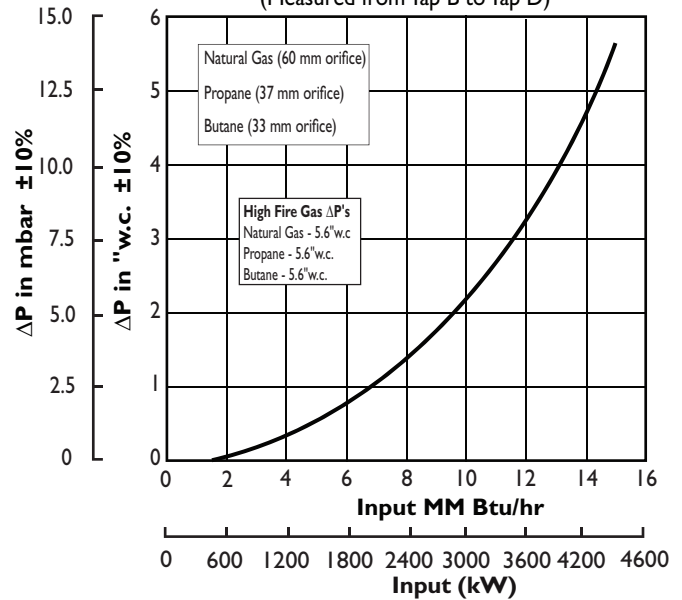


Emissions from the burner are influenced by:

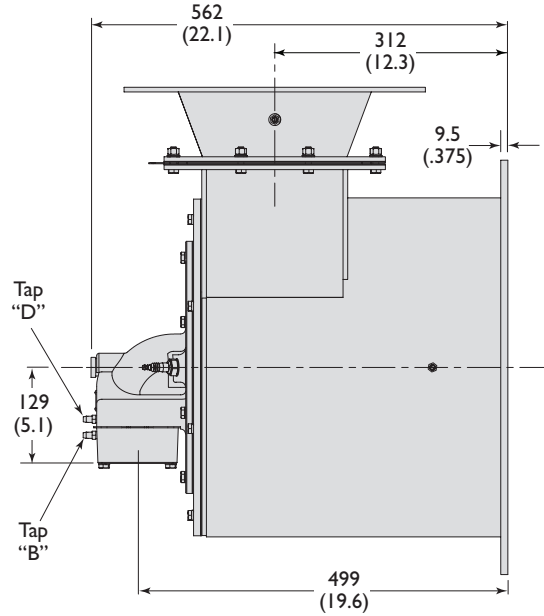
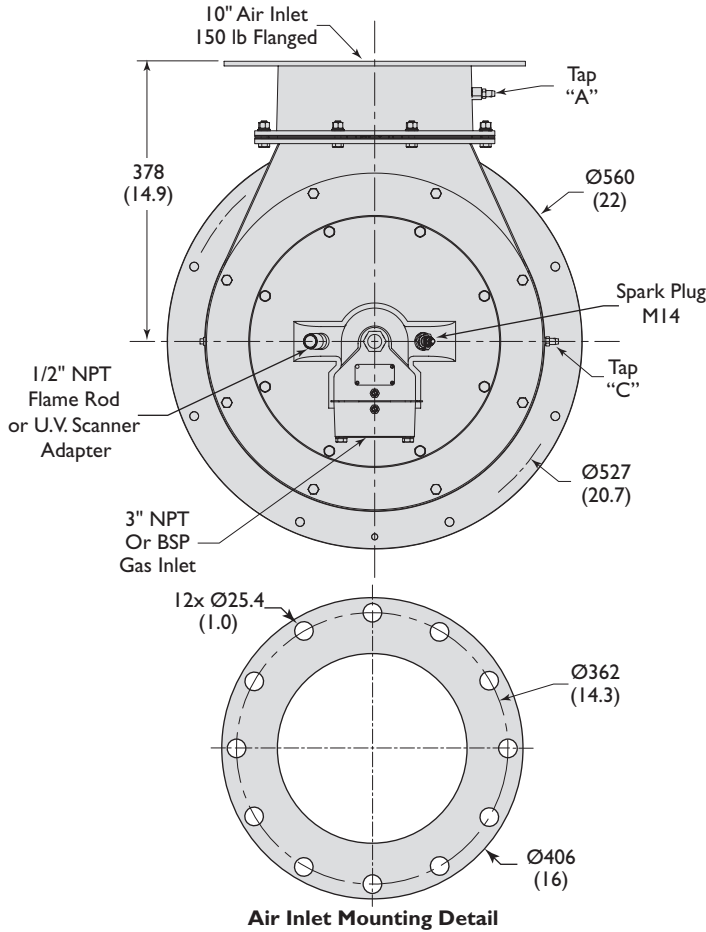
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber Conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.

### Gas Orifice ΔP vs. Input (Measured from Tap B to Tap D)

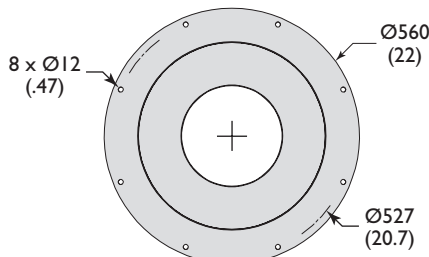
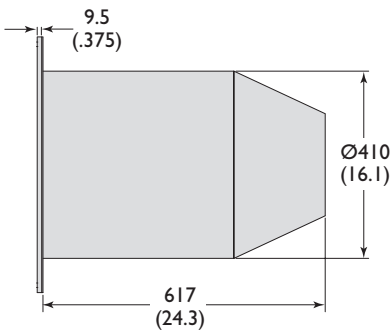


## Dimensions & Specifications Millimeters (Inches)

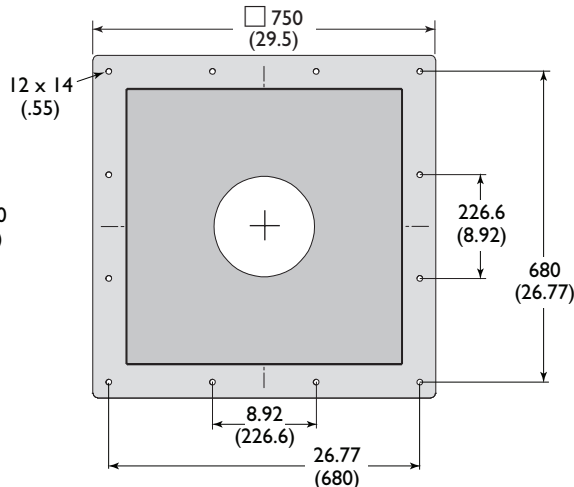
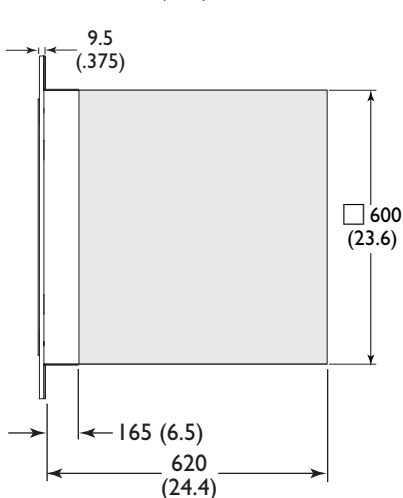


*Burner weight less combustor: 208 lb (95 kg)*

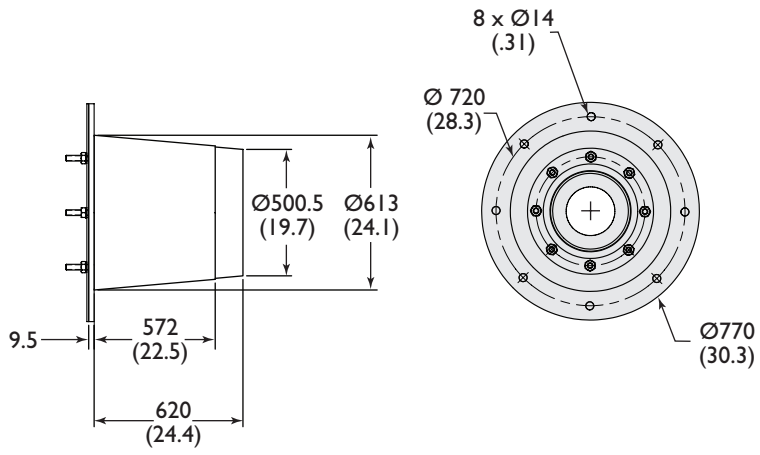
**Combustor**  
 Exhaust outlet diameter : High Velocity (tapered): Ø220 (8.66)  
 Medium Velocity (straight): Ø385 (15.16)



Alloy Tube (AISI 310)  
 Weight : 44 lb (20 kg)  
 Max. Chamber Temp : 1,750 °F (950°C)



Refractory Block  
 (w/ 330 SS wrapper)  
 Weight : 1000 lb (454 kg)  
 Max. Chamber Temp : 2,800 °F (1535°C)



**Down Firing Block**

Weight: 610 lb (276.69 kg)

Max. Chamber Temp: 2800°F (1535°C)



**Offered By:**

Power Equipment Company  
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Richmond, Virginia 23231  
Phone (804) 236-3800  
Fax (804) 236-3882

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