


# Eclipse ThermJet Burners for Preheated Combustion Air

Model TJPCA0750

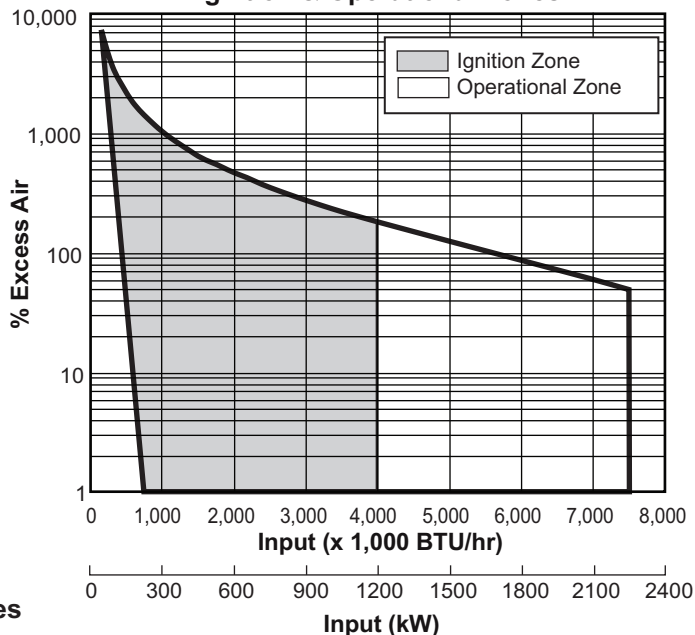
Version 2

Parameter		Specifications			
		Natural Gas	Propane	Butane	
Maximum Input BTU/hr (kW)		7,500,000 (2198)	7,500,000 (2198)	7,500,000 (2198)	
Minimum Input, On-Ratio BTU/hr (kW)		750,000 (220)	750,000 (220)	750,000 (220)	
Gas Inlet Pressure Required "w.c. (mbar) Fuel Pressure at Gas Inlet <i>(Tap "B" - see page 3)</i>	Combustion Air Temp	Ambient	6.7 (16.6)	6.7 (16.6)	6.7 (16.6)
		300°F (150°C)	9.3 (23.0)	9.3 (23.0)	9.3 (23.0)
		700°F (370°C)	13.9 (34.6)	13.9 (34.6)	13.9 (34.6)
Air Inlet Pressure Required "w.c. (mbar) 15% Excess Air at Maximum Input <i>(tap "a" - see page 3)</i>	Combustion Air Temp	Ambient	6.3 (15.7)	6.3 (15.7)	6.3 (15.7)
		300°F (150°C)	8.9 (22.2)	8.9 (22.2)	8.9 (22.2)
		700°F (370°C)	13.5 (33.6)	13.5 (33.6)	13.5 (33.6)
Maximum Preheated Air Temperature		700°F (370°C)			
High Fire Flame Length Inches (mm) <i>(Measured from End of Combustor)</i>		<125.0 (3175)	<125.0 (3175)	<130.0 (3302)	
Flame Detection		UV scanner available for all combustors.			
Fuel <i>For any other mixed gas, contact Eclipse for orifice sizing.</i>		Natural gas, propane, or butane.			
Approvals		 AI30			

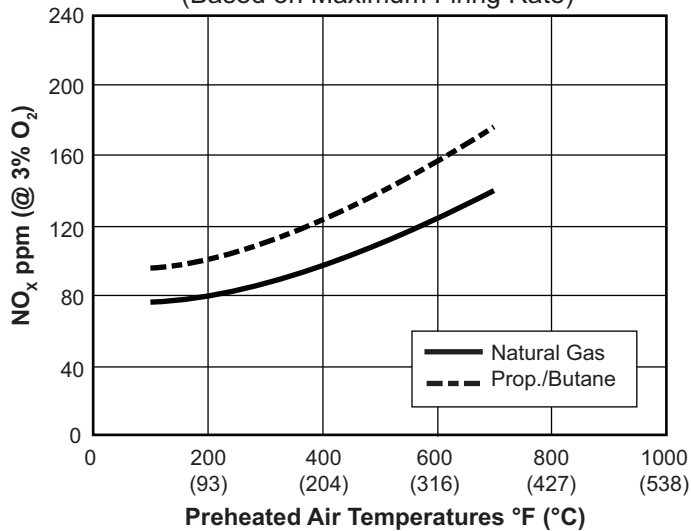
- All information is based on laboratory testing in neutral (0.0" w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in combustor will alter performance and pressures.
- All inputs based upon gross calorific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

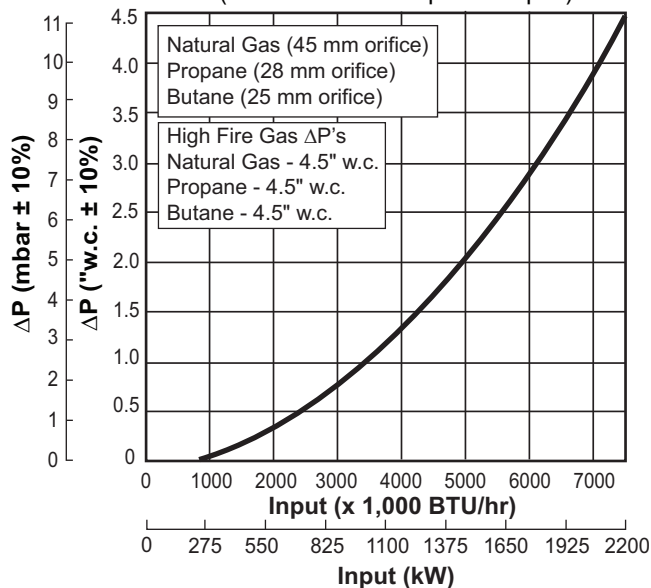


Emissions from the burner are influenced by:

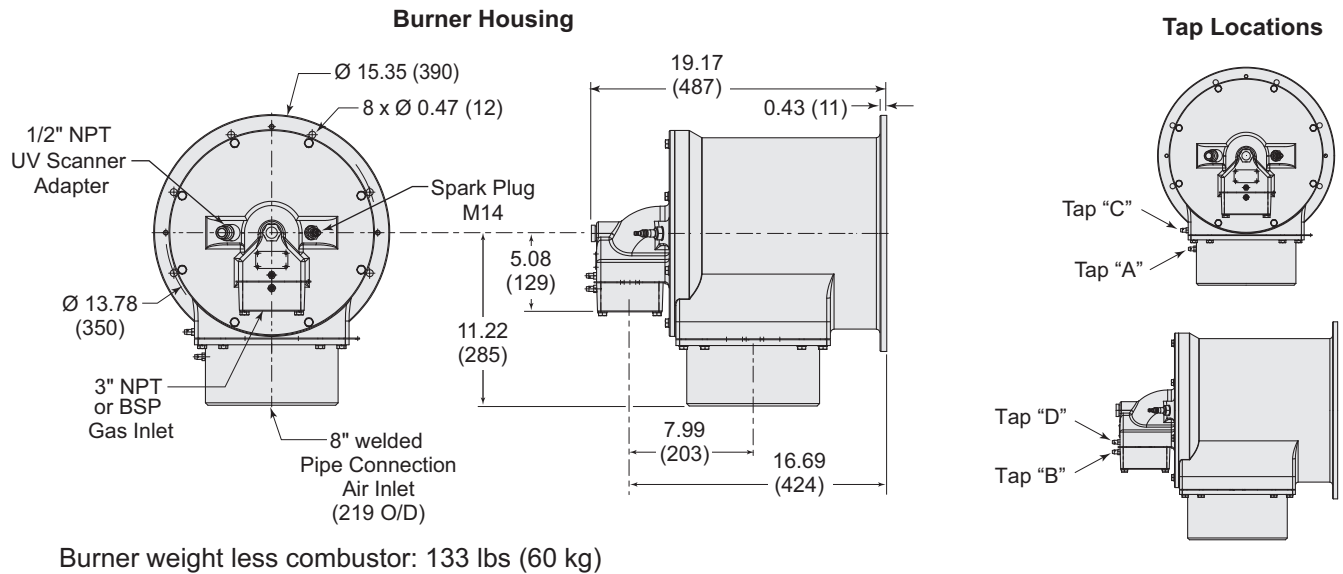
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.

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

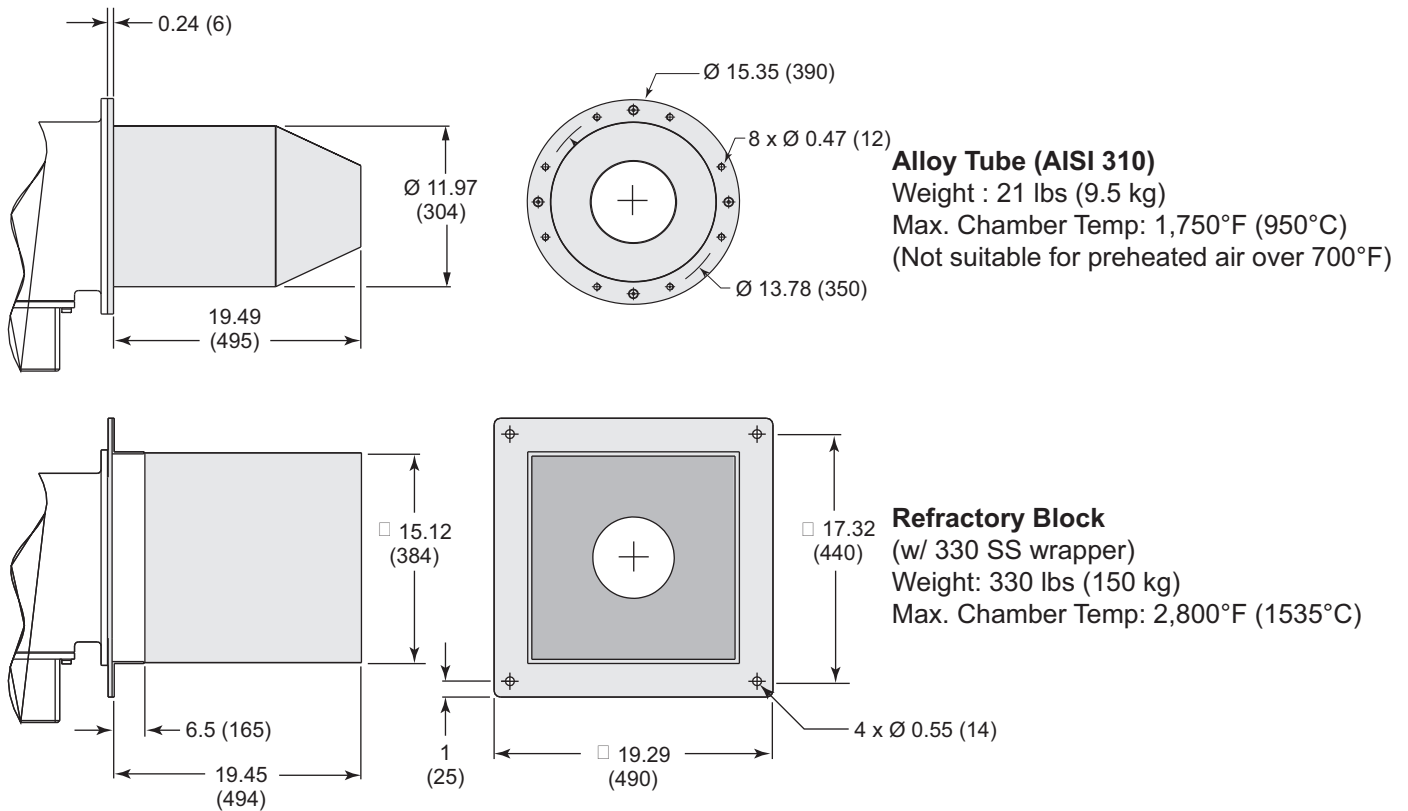


## Dimensions in inches (mm)

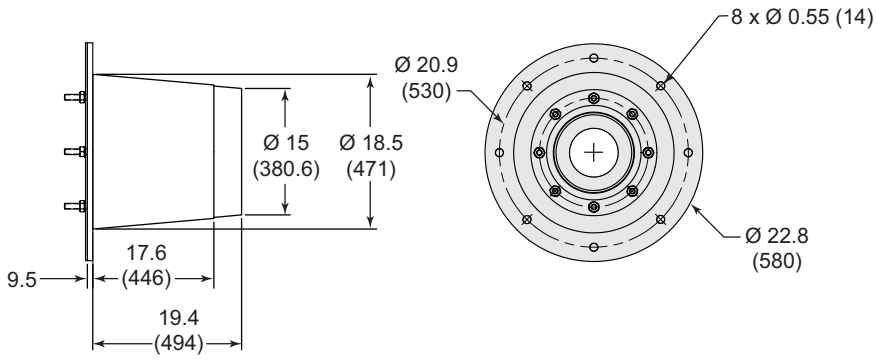


## Combustor

Exhaust Outlet Diameter - Medium Velocity:  $\text{Ø } 8.66$  (220)



# Down Firing Block



Weight: 310 lbs (140.61 kg)  
Max. Chamber Temp: 2800°F (1535°C)