

Eclipse ThermJet Burners

for Preheated Combustion Air

Model TJPCA0050

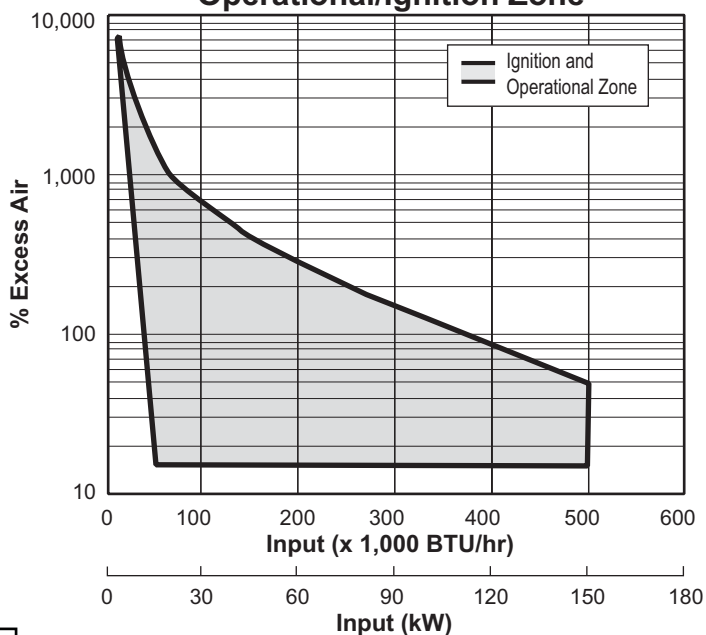
Version 2

Parameter			Specifications		
			Natural Gas	Propane	Butane
Maximum Input BTU/hr (kW)			500,000 (146.5)	500,000 (146.5)	500,000 (146.5)
Minimum Input, On-Ratio BTU/hr (kW)			50,000 (14.6)	50,000 (14.6)	50,000 (14.6)
Gas Inlet Pressure Required "w.c. (mbar) Fuel Pressure at Gas Inlet <i>(Tap "B" - see page 3)</i>	Combustion Air Temp	Ambient	8.9 (22.1)	11.4 (28.3)	9.6 (23.8)
		300°F (150°C)	10.9 (27.0)	13.8 (34.2)	11.8 (29.3)
		700°F (370°C)	14.4 (35.8)	18.1 (44.8)	15.8 (39.2)
		1000°F (540°C)	17.1 (42.4)	21.3 (52.8)	18.8 (46.7)
Air Inlet Pressure Required "w.c. (mbar) 15% Excess Air at Maximum Input <i>(Tap "A" - see page 3)</i>	Combustion Air Temp	Ambient	5.2 (13)	5.2 (13)	5.2 (13)
		300°F (150°C)	7.5 (18.7)	7.5 (18.7)	7.5 (18.7)
		700°F (370°C)	11.4 (28.4)	11.4 (28.4)	11.4 (28.4)
		1000°F (540°C)	14.3 (35.6)	14.3 (35.6)	14.3 (35.6)
High Fire Flame Length Inches (mm) <i>(Measured from End of Combustor)</i>			<28.0 (711)	<36.0 (914)	<39.0 (991)
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		

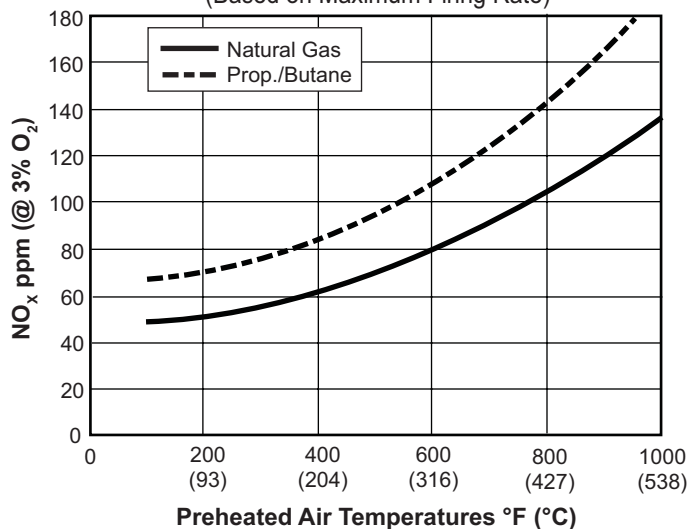
- All information is based on laboratory testing in neutral (0.0" w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in combustor will alter performance and pressures.
- All inputs based upon gross calorific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

Operational/Ignition Zone



NO_x vs Preheated Air Temperatures (Based on Maximum Firing Rate)

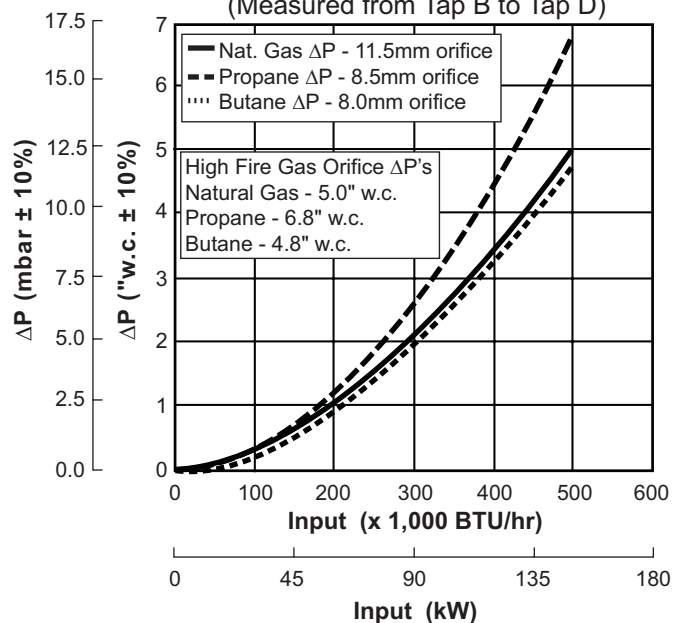


Emissions from the burner are influenced by:

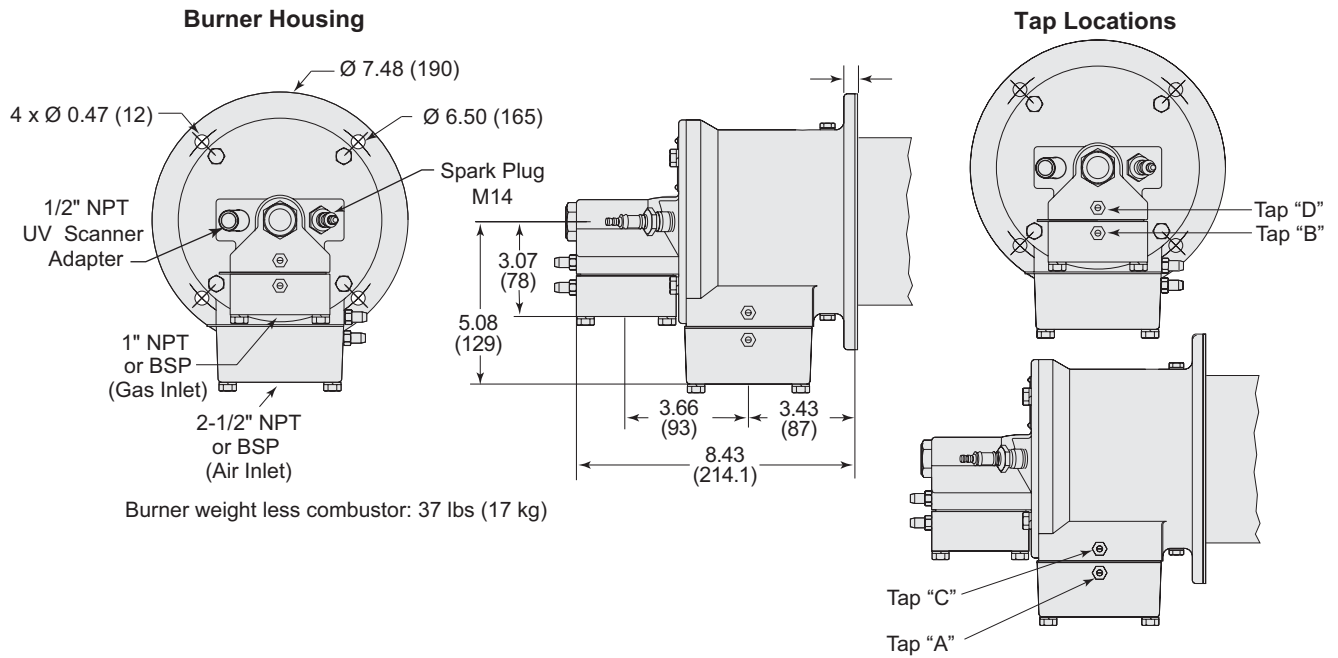
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.

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

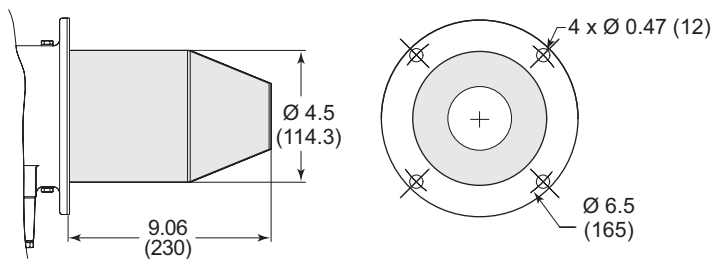


Dimensions in inches (mm)



Combustor

Exhaust Outlet Diameter - Medium Velocity: $\text{Ø } 2.11$ (53.5)

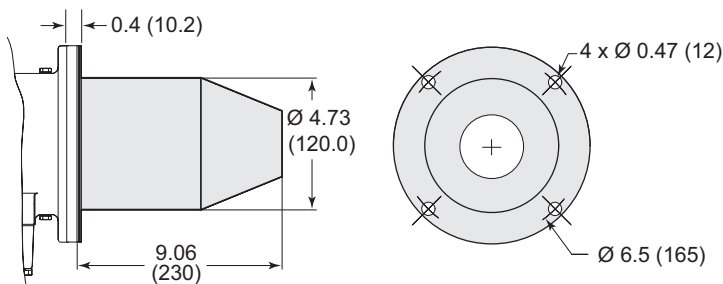


Alloy Tube (AISI 310)

Weight: 3.0 lbs 1.36 kg

Max Chamber Temp: 1,750°F (950°C)

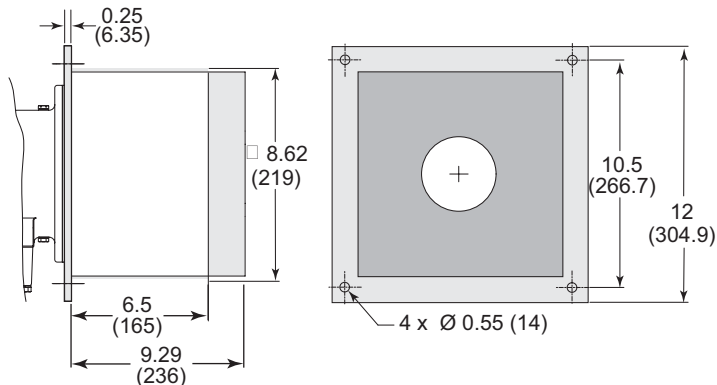
(Not suitable for preheated air over 700°F)



Silicon Carbide Tube

Weight: 3.3 lbs (1.5 kg)

Max. Chamber Temp: 2,200°F (1200°C)



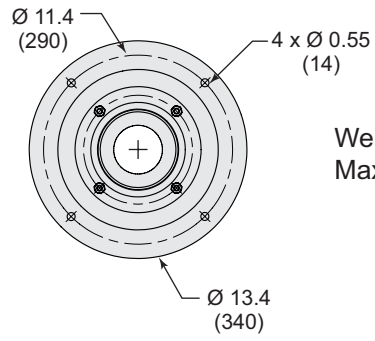
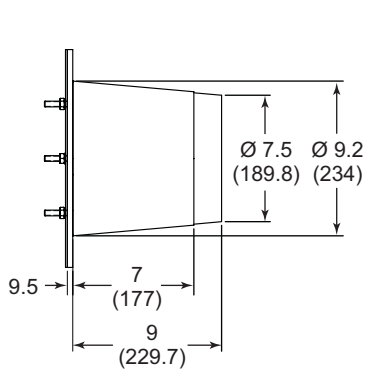
Refractory Block

(w/RA330 wrapper)

Weight: 62.5 lbs (28.3 kg)

Max Chamber Temp: 2,800°F (1538°C)

Down Firing Block



Weight: 60 lbs (27.22 kg)
Max. Chamber Temp: 2800°F (1535°C)



Offered By:

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