


Eclipse ThermJet Burners

for Preheated Combustion Air

Model TJPCA0300

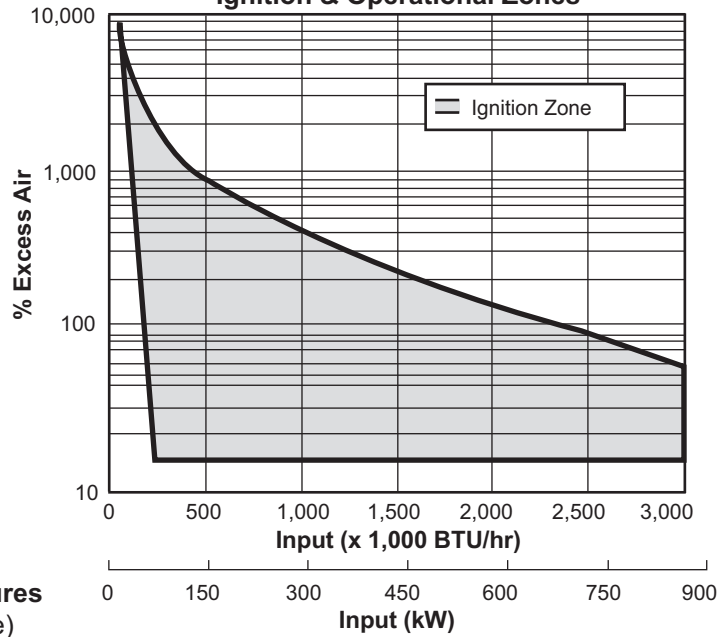
Version 2

Parameter			Specifications		
			Natural Gas	Propane	Butane
Maximum Input BTU/hr (kW)			3,000,000 (879)	3,000,000 (879)	3,000,000 (879)
Minimum Input, On-Ratio BTU/hr (kW)			300,000 (88)	300,000 (88)	300,000 (88)
Gas Inlet Pressure Required "w.c. (mbar) Fuel Pressure at Gas Inlet (Tap "B" - see page 3)	Combustion Air Temp	Ambient	6.0 (14.9)	6.8 (16.9)	6.0 (14.9)
		300°F (150°C)	7.8 (19.5)	8.6 (21.4)	7.8 (19.5)
		700°F (370°C)	11.2 (27.7)	12.0 (29.7)	11.2 (27.7)
		1000°F (540°C)	13.7 (34.1)	14.5 (35.9)	13.7 (34.1)
Air Inlet Pressure Required "w.c. (mbar) 15% Excess Air at Maximum Input (Tap "A" - see page 3)	Combustion Air Temp	Ambient	4.5 (11.2)	4.5 (11.2)	4.5 (11.2)
		300°F (150°C)	6.3 (15.7)	6.3 (15.7)	6.3 (15.7)
		700°F (370°C)	9.7 (24.2)	9.7 (24.2)	9.7 (24.2)
		1000°F (540°C)	12.2 (30.4)	12.2 (30.4)	12.2 (30.4)
High Fire Flame Length Inches (mm) (Measured from End of Combustor)			<64.0 (1630)	<66.0 (1675)	<68.0 (1730)
Flame Detection			UV scanner available for all combustors.		
Fuel For any other mixed gas, contact Eclipse for orifice sizing.			Natural gas, propane, or butane		
Approvals			 AI30		

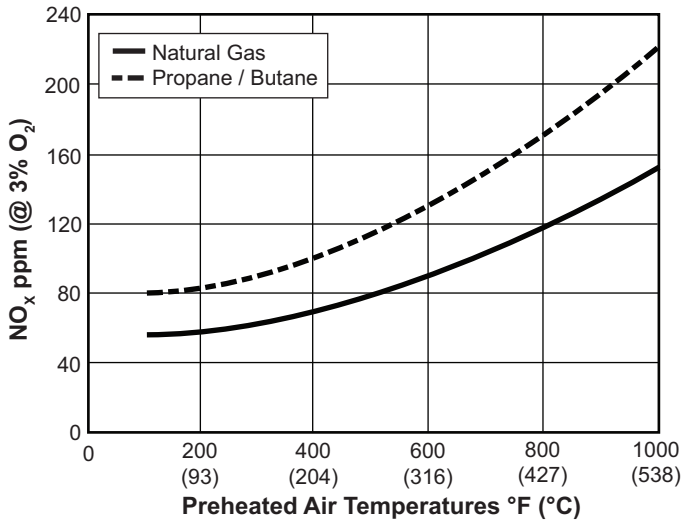
- All information is based on laboratory testing in neutral (0.0" w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in combustor will alter performance and pressures.
- All inputs based upon gross calorific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

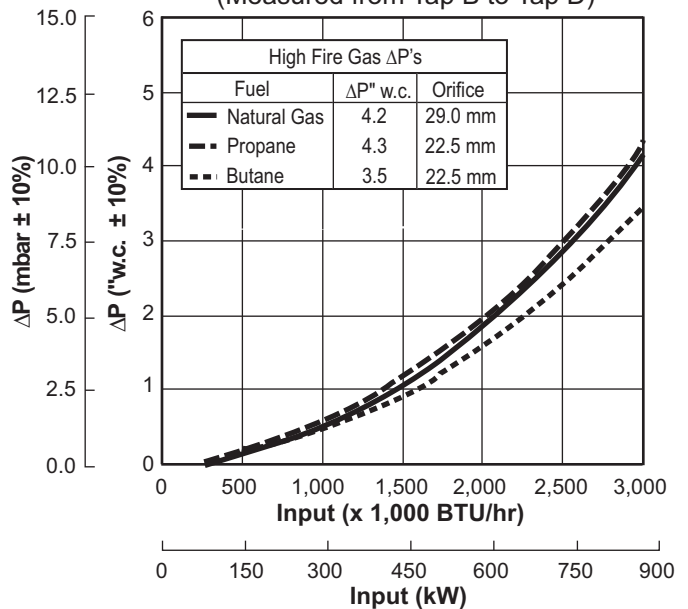


Emissions from the burner are influenced by:

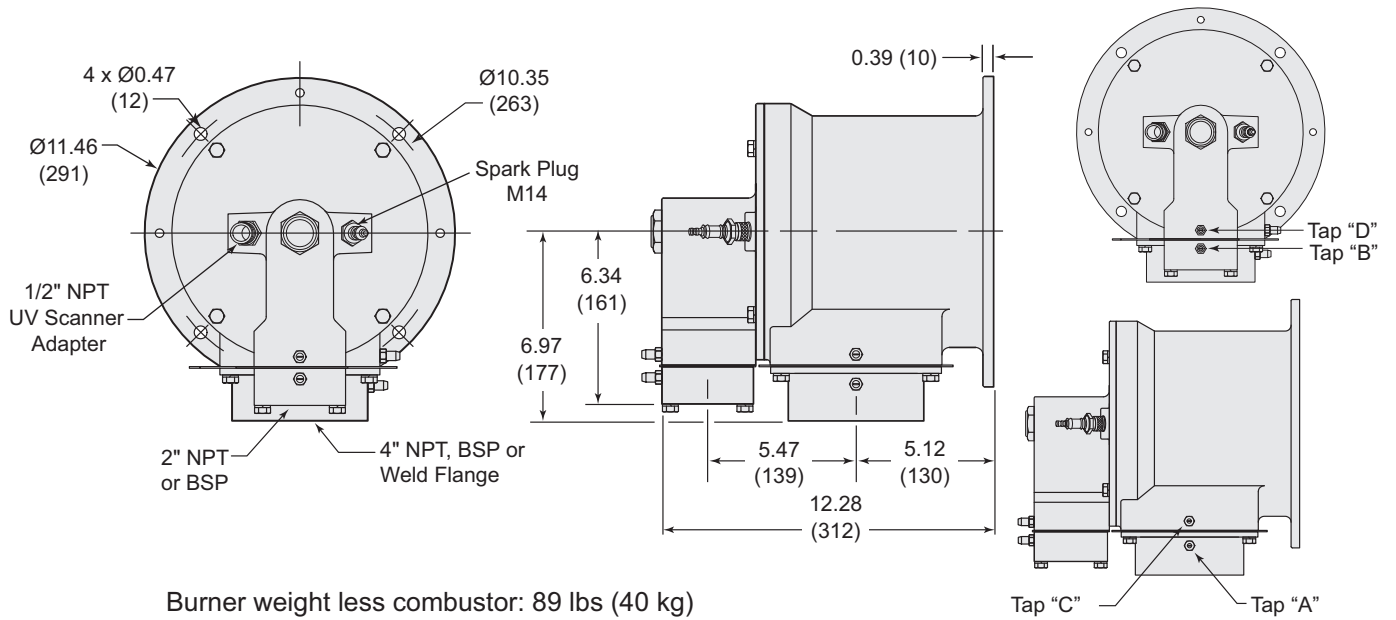
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.

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

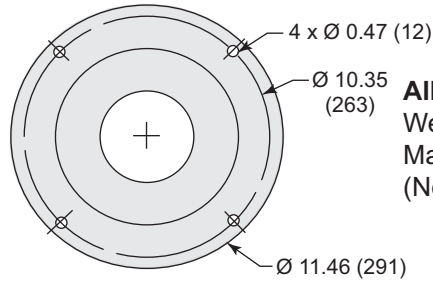
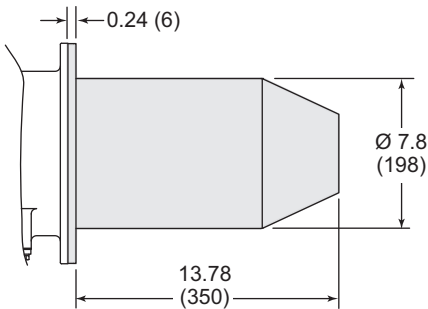


Dimensions in inches (mm)



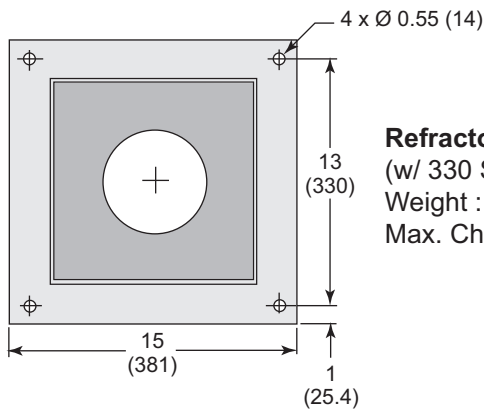
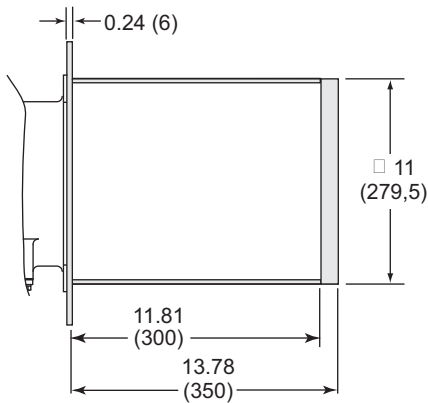
Combustor

Exhaust Outlet Diameter - Medium Velocity: $\text{Ø}5.31$ (135)



Alloy Tube (AISI 310)

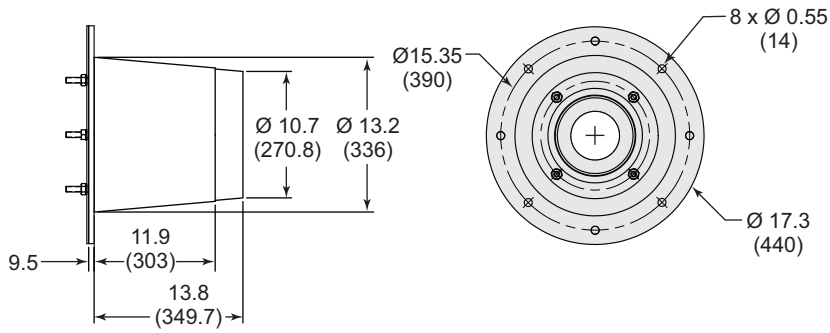
Weight : 13.5 lbs (6 kg)
 Max. Chamber Temp: 1,750°F (950°C)
 (Not suitable for preheated air over 700°F)



Refractory Block

(w/ 330 SS wrapper)
 Weight : 131.4 lbs (60 kg)
 Max. Chamber Temp: 2,800°F (1535°C)

Down Firing Block



Weight: 135 lbs (61.23 kg)
Max. Chamber Temp: 2800°F (1535°C)