


Eclipse ThermJet Burners

for Preheated Combustion Air

Model TJPCA2000

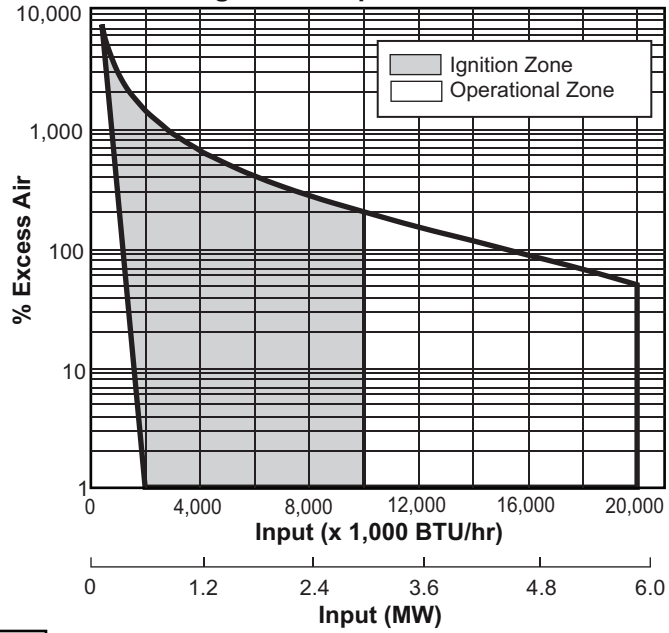
Version 2

Parameter			Specifications		
			Natural Gas	Propane	Butane
Maximum Input BTU/hr (kW)			20,000,000 (5860)	20,000,000 (5860)	20,000,000 (5860)
Minimum Input, On-Ratio BTU/hr (kW)			2,000,000 (586)	2,000,000 (586)	2,000,000 (586)
Gas Inlet Pressure Required "w.c. (mbar) Fuel Pressure at Gas Inlet <i>(Tap "B" - see page 3)</i>	Combustion Air Temp	Ambient	3.6 (8.9)	3.6 (8.9)	3.6 (8.9)
		300°F (150°C)	6.6 (16.3)	6.6 (16.3)	6.6 (16.3)
		700°F (370°C)	12.0 (29.7)	12.0 (29.7)	12.0 (29.7)
		1000°F (540°C)	16.0 (39.8)	16.0 (39.8)	16.0 (39.8)
Air Inlet Pressure Required "w.c. (mbar) 15% Excess Air at Maximum Input <i>(Tap "A" - see page 3)</i>	Combustion Air Temp	Ambient	7.3 (18.2)	7.3 (18.2)	7.3 (18.2)
		300°F (150°C)	10.3 (25.6)	10.3 (25.6)	10.3 (25.6)
		700°F (370°C)	15.7 (39.1)	15.7 (39.1)	15.7 (39.1)
		1000°F (540°C)	19.7 (49.1)	19.7 (49.1)	19.7 (49.1)
High Fire Flame Length Inches (mm) <i>(Measured from End of Combustor)</i>			<168.0 (4267)	<216.0 (5486)	<216.0 (5486)
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					

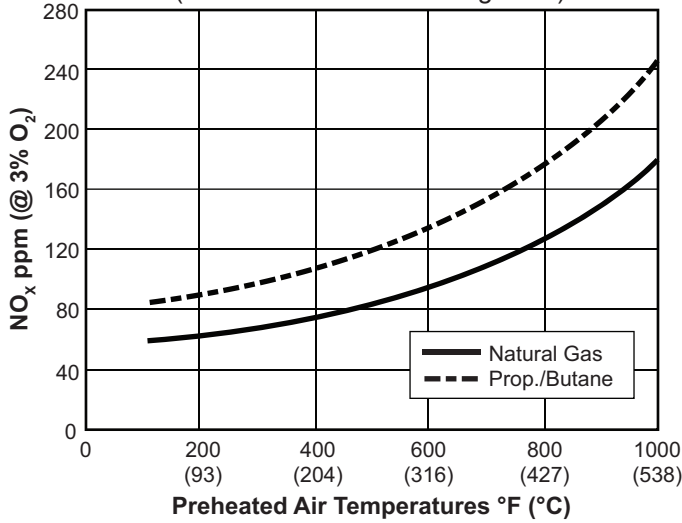
- All information is based on laboratory testing in neutral (0.0" w.c.) pressure chamber. Different chamber size and conditions may affect the data.
- All information is based on standard combustor design. Changes in combustor will alter performance and pressures.
- All inputs based upon gross calorific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

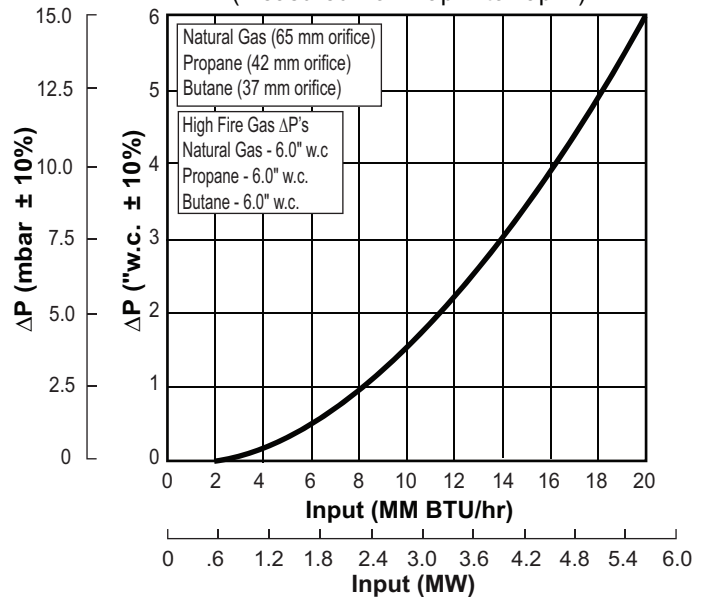


Emissions from the burner are influenced by:

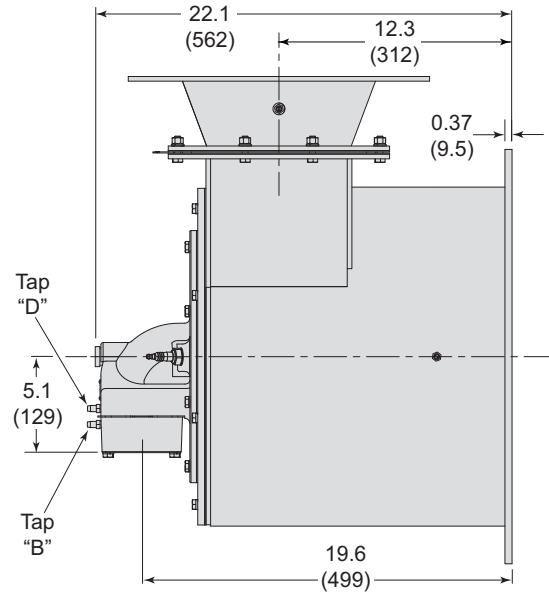
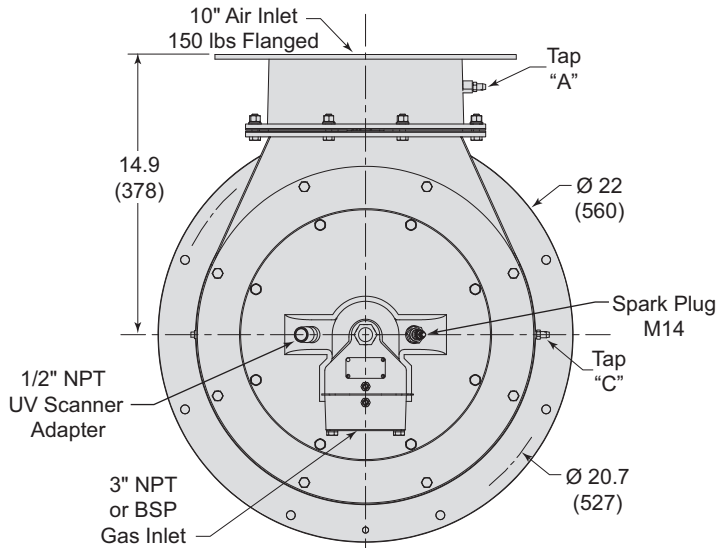
- Fuel type
- Combustion air temperature
- Firing rate
- Chamber conditions
- Percent of excess air

For estimates of other emissions, contact Eclipse.

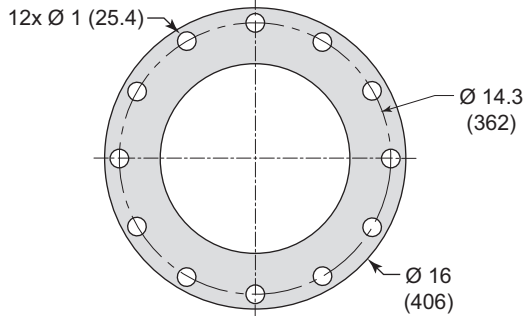
Gas Orifice ΔP vs. Input (Measured from Tap B to Tap D)



Dimensions in inches (mm)



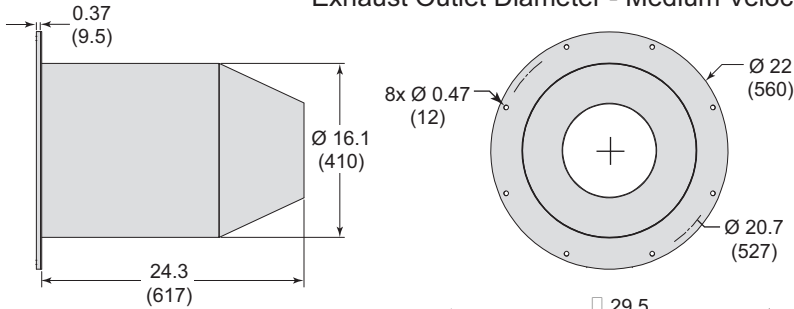
Burner weight less combustor: 208 lbs (95 kg)



Air Inlet Mounting Detail

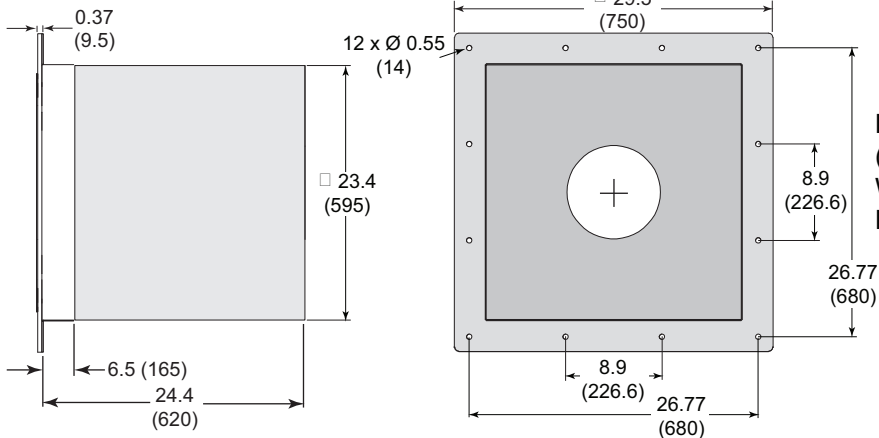
Combustor

Exhaust Outlet Diameter - Medium Velocity (Straight): Ø 16 (406)



Alloy Tube (AISI 310)

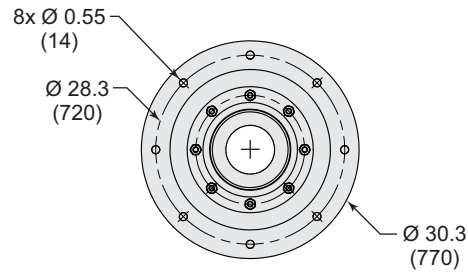
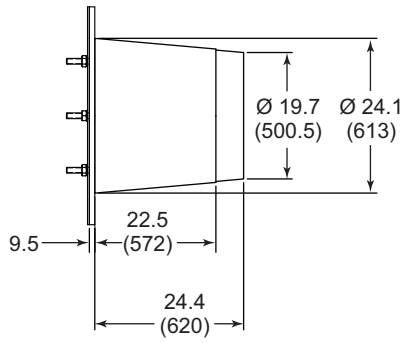
Weight : 44 lbs (20 kg)
Max. Chamber Temp: 1,750°F (950°C)
(Not suitable for preheated air over 700°F)



Refractory Block

(w/330 SS wrapper)
Weight: 1100 lbs (499 kg)
Max. Chamber Temp: 2,800°F (1,535°C)

Down Firing Block



Weight: 590 lbs (267.62 kg)
Max. Chamber Temp: 2800°F (1535°C)