


Eclipse ThermJet

Burners

Model TJ1000

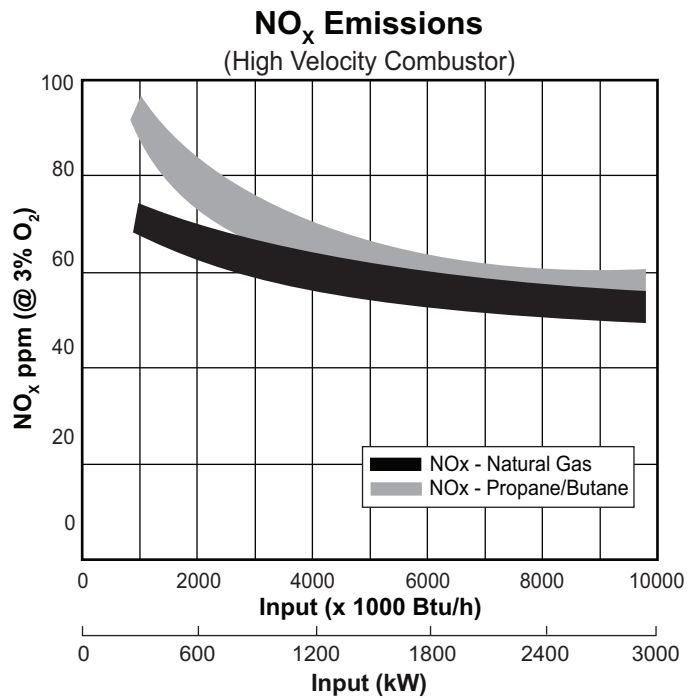
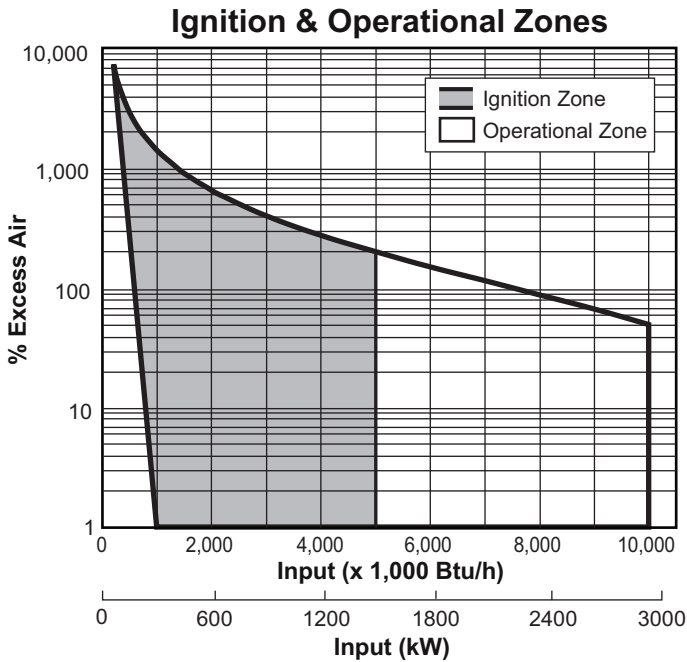
Version 2.7

Parameter	Burner Velocity	Model TJ1000	
Maximum Input, Btu/h (kW)	Medium & High Velocity	10,000,000 (2930)	
Minimum Input On-Ratio, Btu/h (kW)	Medium & High Velocity	1,000,000 (293)	
Minimum Input Fixed Air, Btu/h (kW)	Medium & High Velocity	200,000 (59)	
Gas Inlet Pressure Required, "w.c. (mbar) Tap B (see page 3)	High Velocity	Natural Gas	14.2 (35.4)
		Propane	14.2 (35.4)
		Butane	14.2 (35.4)
	Medium Velocity	Natural Gas	5.5 (13.7)
		Propane	5.5 (13.7)
		Butane	5.5 (13.7)
Air Inlet Pressure Required, "w.c. (mbar) 15% Excess Air at Maximum Input Tap A (see page 3)	High Velocity	Natural Gas	16.7 (41.6)
		Propane	16.7 (41.6)
		Butane	16.7 (41.6)
	Medium Velocity	Natural Gas	7.8 (19.4)
		Propane	7.8 (19.4)
		Butane	7.8 (19.4)
High Fire Flame Length, inches (mm) <i>Measured from the outlet end of the combustor</i>	High Velocity	Natural Gas	124 (3150)
		Propane	139 (3531)
		Butane	134 (3404)
	Medium Velocity	Natural Gas	149 (3785)
		Propane	149 (3785)
		Butane	154 (3912)
Approximate Flame Velocity, ft/s (m/s) 15% Excess Air at Maximum Input	High Velocity	380 (116)	
	Medium Velocity	280 (85)	
Maximum Combustion Air Temperature	300°F (149°C). For higher temperatures use TJPCA (Datasheet 206).		
Flame Detection	UV scanners can be used with all combustors.		
Fuel <i>For any other mixed gas, contact Eclipse, Inc.</i>	Natural gas, propane or butane ¹		
Approvals	 АИ30		

1. See Design Guide 205 for more information about typical fuel composition and properties

- All information is based on laboratory testing in neutral (0 "w.c., 0 mbar) pressure chamber. Different chamber 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 and standard conditions; 1 atmosphere, 70°F (21°C).
- 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

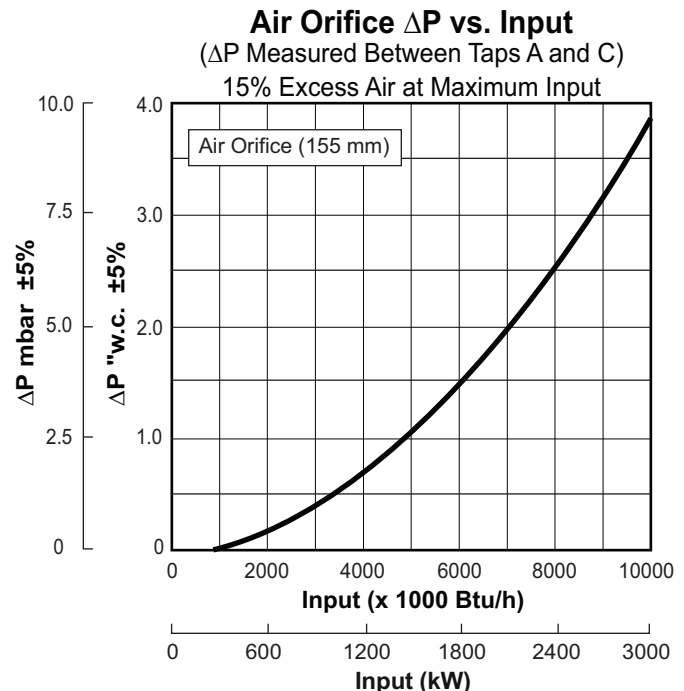
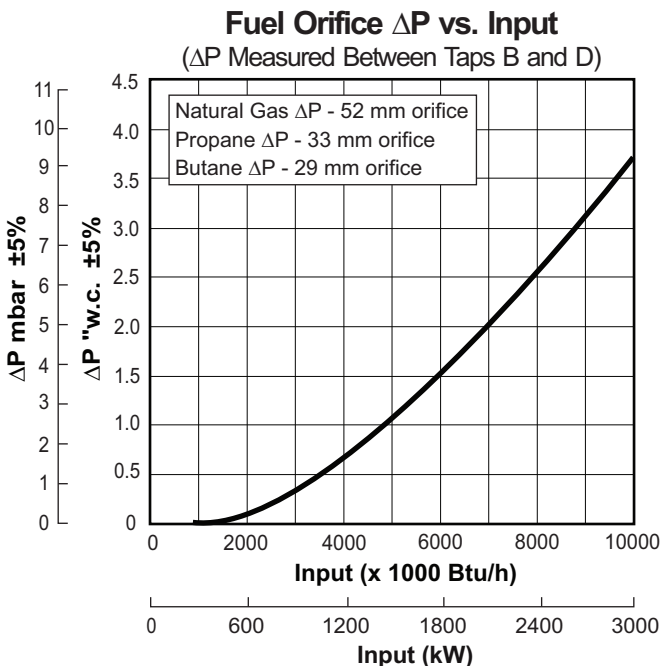


Emissions correction factor for medium velocity combustor is 1.20. Emissions data based on, on-ratio control firing at 15% excess air corrected to 3% O₂.

Emissions from the burner are influenced by:

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

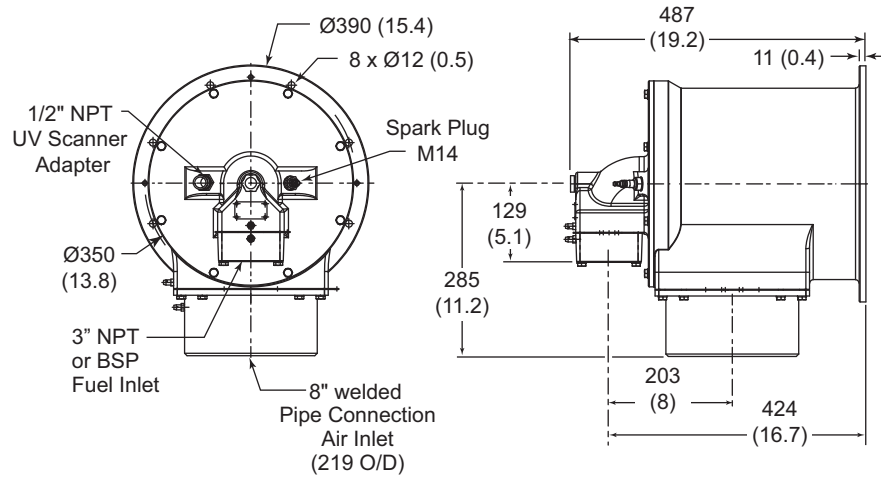
For estimates of other emissions, contact Eclipse.



Dimensions and Specifications

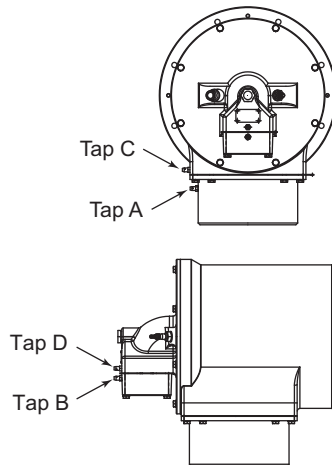
Dimensions in mm (inches)

Burner Housing



Burner weight less combustor: 133 lbs (60 kg)

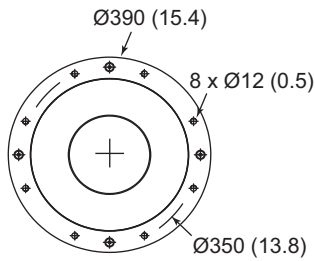
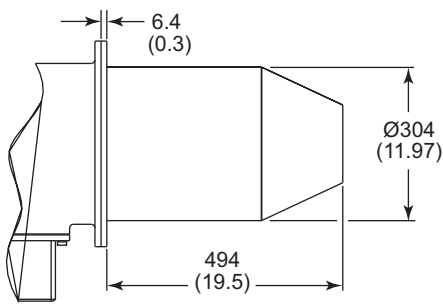
Tap Locations



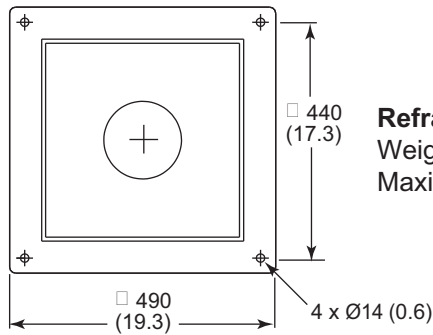
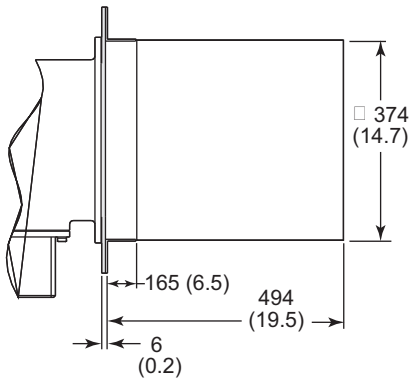
Dimensions and Specifications

Dimensions in mm (inches)

Combustors



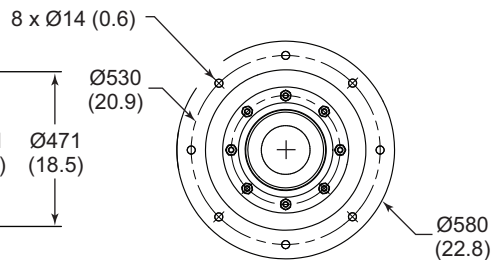
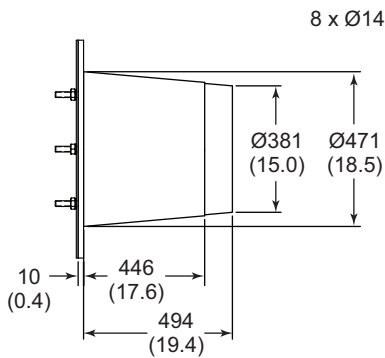
Alloy Combustor (AISI 310)
 Weight: 21 lbs (9.5 kg)
 Maximum Chamber Temp: 1,750°F (950°C)



Refractory Combustor with AISI 330 wrapper
 Weight: 310 lbs (141 kg)
 Maximum Chamber Temp: 2,800°F (1,535°C)

Exhaust Outlet Diameter:

High Velocity: Ø220 (8.7)
 Medium Velocity: Ø250 (9.8)



Down Firing Block with AISI 330 wrapper
 Weight: 290 lbs (132 kg)
 Maximum Chamber Temp: 2,800°F (1,535°C)