


# Eclipse ThermJet Burners

Model TJ0150

Data sheet Edition 11.14

Version 2

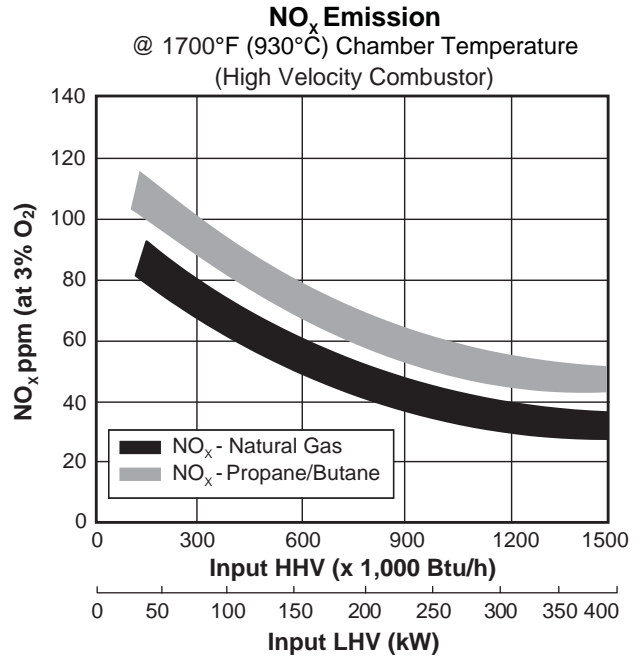
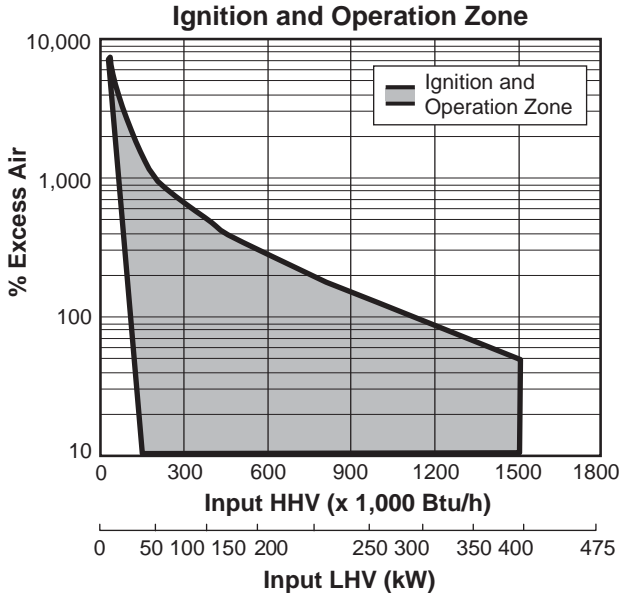
Parameter	Burner Velocity	Model TJ0150	
<b>Maximum Input, Btu/h (kW)<sup>1</sup></b>	Medium & High Velocity	1,500,000 (396)	
<b>Minimum Input, Btu/h (kW)<sup>1</sup></b> <i>For lower inputs, contact Eclipse, Inc.</i>	Medium & High Velocity	150,000 (40)	
<b>Minimum Input Fixed Air, Btu/h (kW)<sup>1</sup></b>	Medium & High Velocity	30,000 (8)	
<b>Main Gas Inlet Pressure, "w.c. (mbar)</b> <i>Fuel pressure at gas inlet Tap B (see page 3)</i>	High Velocity	Natural Gas	14.5 (36.0)
		Propane	15.0 (38.0)
		Butane	15.5 (39.0)
	Medium Velocity	Natural Gas	7.0 (17.5)
		Propane	6.0 (15.0)
		Butane	6.5 (16.0)
<b>Air Inlet Pressure, "w.c. (mbar)</b> <i>15% excess air at maximum input Tap A (see page 3)</i>	High Velocity	Natural Gas	17.5 (44.0)
		Propane	19.5 (49.0)
		Butane	19.5 (49.0)
	Medium Velocity	Natural Gas	9.5 (24.0)
		Propane	10.0 (25.0)
		Butane	10.5 (26.0)
<b>High Fire Visible Flame Length, inches (mm)</b> <i>Measured from the outlet end of the combustor</i>	High Velocity	Natural Gas	38 (965)
		Propane	42 (1065)
		Butane	43 (1090)
	Medium Velocity	Natural Gas	43 (1090)
		Propane	42 (1065)
		Butane	44 (1120)
<b>Approximate Flame Velocity, ft/s (m/s)</b> <i>Approximately 15% excess air at maximum input</i>	High Velocity	680 (207)	
	Medium Velocity	350 (107)	
<b>Maximum Combustion Air Temperature</b>	300° (149°C). For higher temperatures use TJPCA (Datasheet 206).		
<b>Flame Detection</b>	UV scanner standard. If flame rod is required, please contact Eclipse.		
<b>Fuels<sup>2</sup></b> <i>For any other mixed gas, contact Eclipse, Inc.</i>	Natural gas, Propane or Butane		
<b>Approvals</b>			

1. All imperial inputs based upon gross calorific values (HHV). All metric inputs based upon net calorific values (LHV).

2. 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 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

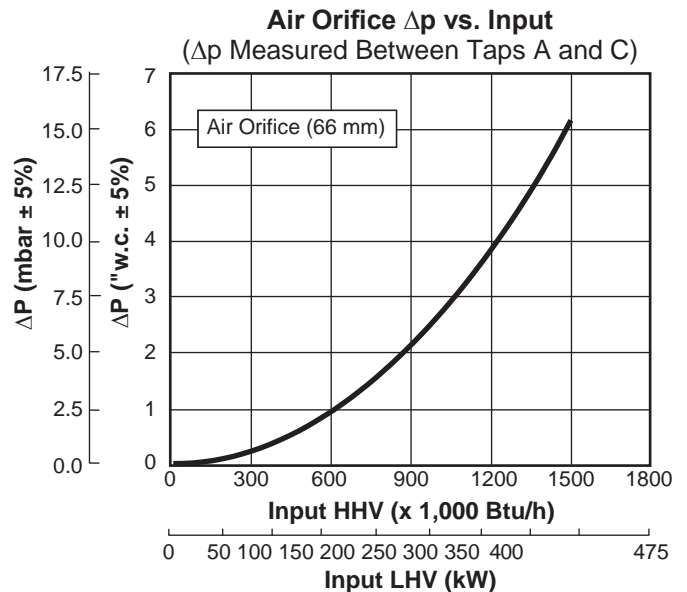
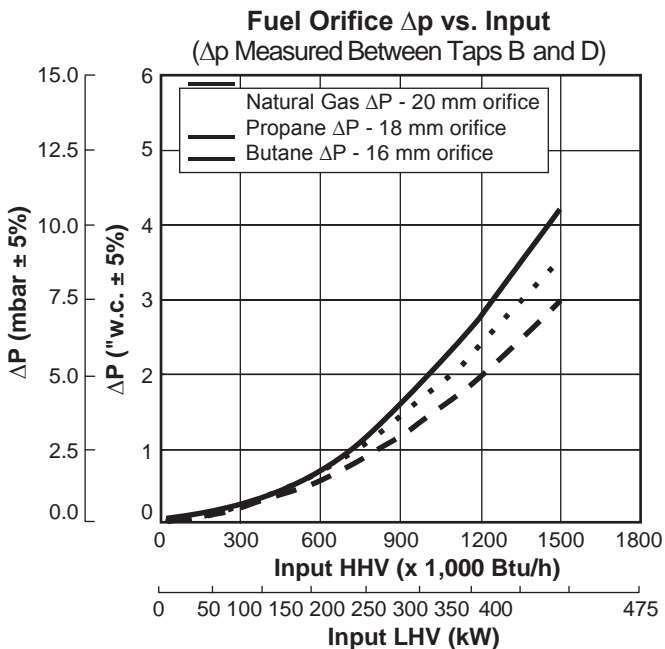


Emissions correction factor for medium velocity combustor is 1.20. Emissions data based on, on-ratio control firing at 15% excess air corrected to 3% O<sub>2</sub>.

Emissions from the burner are influenced by:

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

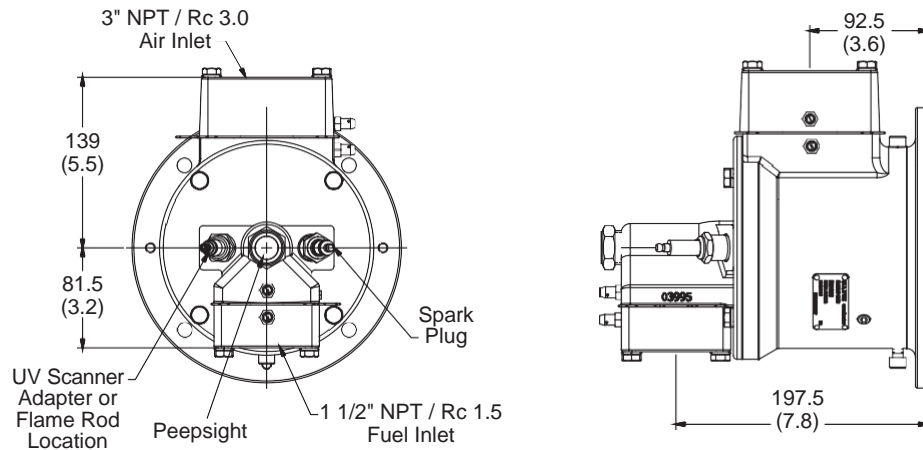
For estimates of other emissions, contact Eclipse.



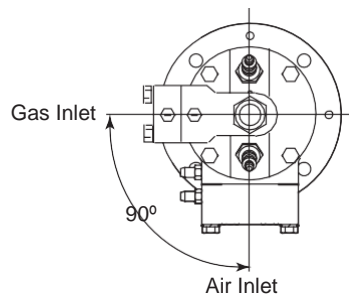
## Dimensions and Specifications

Dimensions in mm (inches)

### Burner Housing

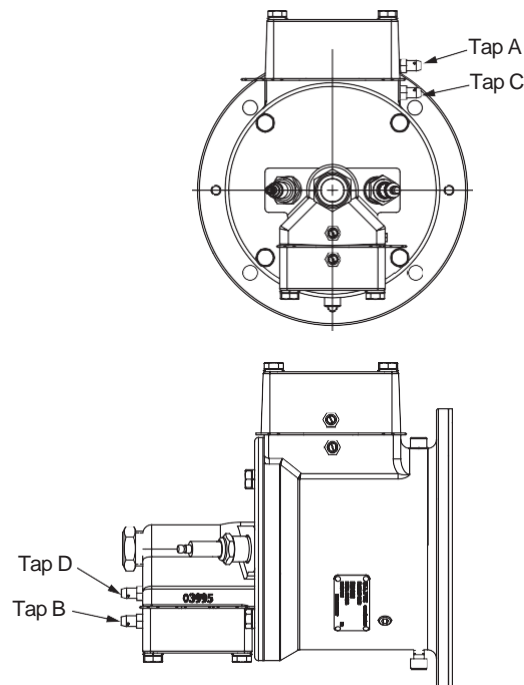


**Burner weight less combustor: 42 lbs (19 kg)**



If using a flame rod, do not install the burner with the gas inlet at 0° or rotated 90° clockwise with respect to the air inlet

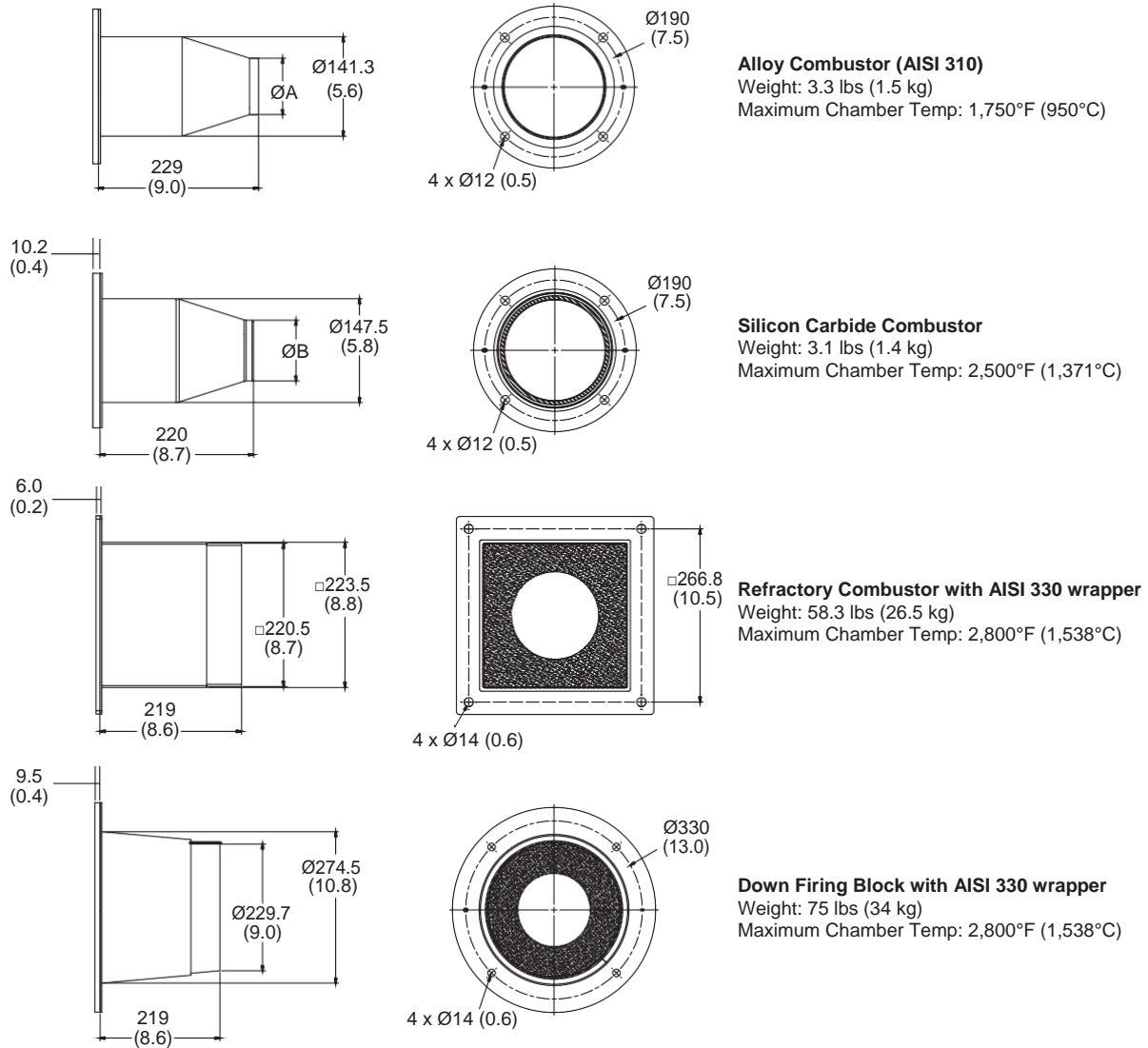
### Tap Locations



## Dimensions and Specifications

Dimensions in mm (inches)

### Combustors



**NOTE:** Mounting gasket shown on right side of combustor flange.  
 Dimensions shown do not account for mounting gasket.

Dimension	High Velocity	Medium Velocity
ØA	Ø67.3 (2.7)	Ø92.7 (3.7)
ØB	Ø73.5 (2.9)	Ø99 (3.9)