# ThermJet Burners

## Model TJ 015  Version 1.00

**Main Specifications**

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>BURNER VELOCITY</th>
<th>MODEL TJ 015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum input (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>150,000</td>
</tr>
<tr>
<td>Minimum Input, on-ratio (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>15,000</td>
</tr>
<tr>
<td>Minimum Input, fixed air (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>3,000</td>
</tr>
<tr>
<td>Gas Inlet Pressure (&quot;w.c.)</td>
<td>High Velocity</td>
<td></td>
</tr>
<tr>
<td>• Fuel pressure at gas inlet (Tap &quot;B&quot;– see page 3)</td>
<td>Nat. Gas</td>
<td>13.0</td>
</tr>
<tr>
<td>• Fuel pressure at gas inlet (Tap &quot;B&quot;– see page 3)</td>
<td>Propane</td>
<td>15.0</td>
</tr>
<tr>
<td>• Fuel pressure at gas inlet (Tap &quot;B&quot;– see page 3)</td>
<td>Butane</td>
<td>15.0</td>
</tr>
<tr>
<td>Medium Velocity</td>
<td>Nat. Gas</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Propane</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Butane</td>
<td>7.5</td>
</tr>
<tr>
<td>Air Inlet Pressure (&quot;w.c)</td>
<td>High Velocity</td>
<td></td>
</tr>
<tr>
<td>• Air pressure required at air inlet (Tap &quot;A&quot; – see page 3)</td>
<td>Nat. Gas</td>
<td>17.0</td>
</tr>
<tr>
<td>• Air pressure required at air inlet (Tap &quot;A&quot; – see page 3)</td>
<td>Propane</td>
<td>18.0</td>
</tr>
<tr>
<td>• Air pressure required at air inlet (Tap &quot;A&quot; – see page 3)</td>
<td>Butane</td>
<td>18.0</td>
</tr>
<tr>
<td>Medium Velocity</td>
<td>Nat. Gas</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Propane</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Butane</td>
<td>11.0</td>
</tr>
<tr>
<td>High Fire Flame Length (In.)</td>
<td>High Velocity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nat. Gas</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>Propane</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>Butane</td>
<td>9.0</td>
</tr>
<tr>
<td>Medium Velocity</td>
<td>Nat. Gas</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>Propane</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Butane</td>
<td>11.0</td>
</tr>
<tr>
<td>Maximum flame velocity (ft/s)</td>
<td>High Velocity</td>
<td>500</td>
</tr>
<tr>
<td>• 15% excess air, at maximum input</td>
<td>Medium Velocity</td>
<td>250</td>
</tr>
<tr>
<td>Flame detection</td>
<td>U.V. scanner available for all combustors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flame Rod available for use with alloy or silicon carbide combustors only</td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td>Natural Gas, Propane, Butane</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>For any other mixed gas, contact Eclipse for orifice sizing.</em></td>
<td></td>
</tr>
</tbody>
</table>

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

Burner Housing

Tap "C"
Tap "A"
Tap "D"
Tap "B"

Burner weight:
17.9 lb (without combustor)

1/2" NPT or BSP (Gas Inlet)

1-1/2" NPT or BSP (Air Inlet)

Alloy Tube (AISI 310)
Weight: 2.1 lbs.
Max. Chamber Temp: 1,950°F

Silicon Carbide Tube
Weight: 3.6 lb
Max. Chamber Temp: 2,500°F

Refractory Block (w/330 SS wrapper)
Weight: 14 lb
Max. Chamber Temp: 2,800°F

Combustor
Exhaust outlet diameter:
High Velocity: Ø 0.98"
Medium Velocity: Ø 1.26"

Eclipse Model TJ 015 v1.00, Data 205-1, 7/98
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