# Eclipse ThermJet Burners

**for Preheated Combustion Air**

**Model TJPCA2000**

**Version 2**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specifications</th>
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</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Natural Gas</strong></td>
</tr>
<tr>
<td><strong>Maximum Input BTU/hr (kW)</strong></td>
<td>20,000,000 (5860)</td>
</tr>
<tr>
<td><strong>Minimum Input, On-Ratio BTU/hr (kW)</strong></td>
<td>2,000,000 (586)</td>
</tr>
<tr>
<td><strong>Gas Inlet Pressure Required &quot;w.c. (mbar) Fuel Pressure at Gas Inlet</strong> (Tap &quot;B&quot; - see page 3)</td>
<td><strong>Ambient</strong></td>
</tr>
<tr>
<td></td>
<td>3.6 (8.9)</td>
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<td></td>
<td>3.6 (8.9)</td>
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<tr>
<td><strong>Air Inlet Pressure Required &quot;w.c. (mbar) 15% Excess Air at Maximum Input</strong> (Tap &quot;A&quot; - see page 3)</td>
<td><strong>Ambient</strong></td>
</tr>
<tr>
<td></td>
<td>7.3 (18.2)</td>
</tr>
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<td></td>
<td>7.3 (18.2)</td>
</tr>
<tr>
<td><strong>High Fire Flame Length Inches (mm)</strong> (Measured from End of Combustor)</td>
<td>&lt;168.0 (4267)</td>
</tr>
<tr>
<td><strong>Flame Detection</strong></td>
<td>UV scanner available for all combustors.</td>
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<tr>
<td><strong>Fuel</strong></td>
<td>Natural gas, propane, or butane.</td>
</tr>
</tbody>
</table>

- 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

NOX 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.
Dimensions in inches (mm)

**Air Inlet Mounting Detail**

- Ø 16 (406)
- Ø 14.3 (362)
- 0.37 (9.5)
- 24.3 (617)

**Combustor**

- Exhaust Outlet Diameter - Medium Velocity (Straight): Ø 16 (406)
- Ø 20.7 (527)
- Tap "C"
- Spark Plug M14
- 3/4" NPT or BSP Gas Inlet

**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: 1,100 lbs (499 kg)
- Max. Chamber Temp: 2,800°F (1,535°C)

**Burner weight less combustor:** 208 lbs (95 kg)
Down Firing Block

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