# Eclipse ThermJet Burners
for Preheated Combustion Air

**Model TJPCA0500**

<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>Max. Input BTU/hr (kW)</td>
<td>5,000,000 (1465)</td>
</tr>
<tr>
<td>Min. Input, On-Ratio BTU/hr (kW)</td>
<td>500,000 (146)</td>
</tr>
<tr>
<td>Gas Inlet Pressure Required &quot;w.c. (mbar) Fuel Pressure at Gas Inlet (Tap &quot;B&quot; - see page 3)</td>
<td>Ambient</td>
</tr>
<tr>
<td></td>
<td>300°F (150°C)</td>
</tr>
<tr>
<td></td>
<td>700°F (370°C)</td>
</tr>
<tr>
<td>Air Inlet Pressure Required &quot;w.c. (mbar) 15% Excess Air at Maximum Input (Tap &quot;A&quot; - see page 3)</td>
<td>Ambient</td>
</tr>
<tr>
<td></td>
<td>300°F (150°C)</td>
</tr>
<tr>
<td></td>
<td>700°F (370°C)</td>
</tr>
<tr>
<td>Max. Preheated Air Temperature</td>
<td>700°F (370°C)</td>
</tr>
<tr>
<td>High Fire Flame Length Inches (mm) (Measured from End of Combustor)</td>
<td>&lt;100.0 (2550)</td>
</tr>
<tr>
<td>Flame Detection</td>
<td>UV scanner available for all combustors.</td>
</tr>
<tr>
<td>Fuel</td>
<td>Natural gas, propane, or butane.</td>
</tr>
<tr>
<td>Approvals</td>
<td><img src="image" alt="PC3 AM30" /></td>
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</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.
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)**

**Burner Housing**

- Ø 13.39 (340)
- Ø 11.81 (300)
- 1/2" NPT UV Scanner Adapter
- 2" NPT or BSP Gas Inlet

**Tap Locations**

- Tap “C”
- Tap “A”
- Tap “D”
- Tap “B”

Burner weight less combustor: 93 lbs (42 kg)

**Combustor**

Exhaust Outlet Diameter - Medium Velocity: Ø 6.97 (177)

**Alloy Tube (AISI 310)**

- Weight: 14.5 lbs (6.6 kg)
- Max. Chamber Temp: 1,750°F (950°C)
- (Not suitable for preheated air over 700°F)

**Refractory Block**

- (w/ 330 SS wrapper)
- Weight: 160 lbs (73 kg)
- Max. Chamber Temp: 2,800°F (1535°C)
Down Firing Block

- Ø 17.7 (450)
- Ø 19.68 (500)
- 8 x Ø 0.55 (14)

Weight: 185 lbs (83.91 kg)
Max. Chamber Temp: 2800°F (1535°C)