# ThermJet Burners
## Model TJ075  Version 1.00

### Main Specifications

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>BURNER VELOCITY</th>
<th>MODEL TJ075</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Input, (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>750,000</td>
</tr>
<tr>
<td>Minimum Input, on-ratio (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>75,000</td>
</tr>
<tr>
<td>Minimum Input, fixed air (Btu/hr)</td>
<td>Medium &amp; High Velocity</td>
<td>15,000</td>
</tr>
</tbody>
</table>

**Gas inlet pressure required ("w.c."
- Fuel pressure at gas inlet
(Tap "B" - see page 3)**

<table>
<thead>
<tr>
<th></th>
<th>High velocity</th>
<th>Medium velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nat.Gas</td>
<td>15</td>
<td>6.5</td>
</tr>
<tr>
<td>Propane</td>
<td>17</td>
<td>7.5</td>
</tr>
<tr>
<td>Butane</td>
<td>17</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**Air inlet pressure required ("w.c."
- 15% excess air, at maximum input
(Tap "A" - see page 3)**

<table>
<thead>
<tr>
<th></th>
<th>High velocity</th>
<th>Medium velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nat.Gas</td>
<td>16.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Propane</td>
<td>18.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Butane</td>
<td>19.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>

**High Fire Flame Length (in.)
(measured from end of combustor)**

<table>
<thead>
<tr>
<th></th>
<th>High velocity</th>
<th>Medium velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nat.Gas</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Propane</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Butane</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

**Maximum flame velocity (ft/s)
- 15% excess air, at maximum input**

<table>
<thead>
<tr>
<th></th>
<th>High velocity</th>
<th>Medium velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.V. scanner available for all combustors</td>
<td>500</td>
<td>250</td>
</tr>
</tbody>
</table>

**Flame detection**

- Flame rod available for use with alloy or silicon carbide combustors only

**Fuel**

- Natural Gas, Propane, Butane
  - For any other mixed gas, contact Eclipse for orifice sizing

---

- 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 the combustor will alter performance and pressures.
- All inputs based upon 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.
**TJ075 Dimensions & Specifications**

**Burner Housing**

- Diameter: 7.875" (Ø 7.875"
- Thickness: 0.354"
- Dimensions: 3.07" x 4.96" x 7.44"
- Tap Locations: Tap "D", Tap "B"

**Combustor**

- Alloy Tube (AISI 310)
  - Diameter: 4.795" (Ø 4.795"
  - Medium Velocity: 2.540" (Ø 7.165"
  - High Velocity: 1.875" (Ø 7.165"

- Silicon Carbide Tube
  - Diameter: 5.04" (Ø 5.04"
  - Medium Velocity: 2.540" (Ø 7.165"

- Refractory Block
  - Diameter: 8.75" (Ø 8.75"
  - Thickness: 0.25"

**Tap Locations**

- Burner weight: 37 lb (less combustor)

**Weights and Temperatures**

- Burner weight: 3.3 lb
- Max Chamber Temp: 2,500 °F

- Burner weight: 63 lb
- Max Chamber Temp: 2,800 °F

---

*Eclipse Model TJ075 v1.00, Data 205-4, 9/99*
Americas Region
Eclipse Combustion, Inc.
1665 Elmwood Road
Rockford, Illinois 61103
USA
Phone: 815-877-3031
Fax: 815-877-3336
E-mail: eclipse@eclipsenet.com
www.eclipsenet.com

Europe, Africa & Middle East Region
Eclipse Combustion bv
P.O. Box 37
2800 AA Gouda
The Netherlands
Phone: 31-182-515988
Fax: 31-182-533269
E-mail: eclipse@xs4all.nl
www.eclipsenet.com

Australia-Japan-India Region
Eclipse Combustion, Inc.
1665 Elmwood Road
Rockford, Illinois 61103
USA
Phone: 815-877-3031
Fax: 815-877-3336
E-mail: eclipse@eclipsenet.com
www.eclipsenet.com

Asia-Pacific Region
Korea, Taiwan, China, ASEAN Region
Eclipse Combustion, Inc.
1665 Elmwood Road
Rockford, Illinois 61103
USA
Phone: 815-877-3031
Fax: 815-877-3336
E-mail: jcate4455@aol.com
www.eclipsenet.com