ECLIPSE AH-MA BURNERS
Air Make-Up Burners

Designed for trouble-free make-up or process air heating.

Eclipse AH-MA burners produce a uniform, odorless, and smokeless flame ideal for heating fresh air in make-up and process air heating applications. The AH-MA design provides stable operation over a wide range of velocities, inputs and fuels.

AH-MA easily passes all global standards for indoor air quality through a wide operational range. It is ETL listed, complying with ANSI Z21.20 design standards, and is used in systems which meet ANSI Z83.4 / CGA 3.7 emissions standards for NOx and CO.

The new aluminum burner body creates a lightweight, corrosion resistant burner. Cast iron and corrosion resistant cast iron bodies are also available. Divergent air wings are made of stainless steel. The burner bodies supply fuel to the center of the air wings to control the air and fuel mixture inside the burner and to optimize emissions and efficiency.

Low pressure models require only a 6.0" w.c. ΔP natural gas at 800,000 Btu/hr/LF, making them ideal for use with the Maxitrol Selectra control valve.

Ready for the world

AH-MA burners combine advanced engineering with installation and operational features that are truly world class.

- Assembled from straight sections, tees and crosses to produce nearly any configuration required.
- Inputs up to 1,200,000 Btu/hr/LF
- Up to 30:1 turndown
- Up to 450°F upstream air temperature.
- Up to 850°F downstream air temperature.
- Multi-fuel capability (natural gas, propane and butane)

In addition to the many user-preferred features of AH-MA, Eclipse offers you a comprehensive, global network of service with more years of air-heating experience than any other burner manufacturer.
AH-MA Burners

Ideal for make-up air heating applications
Burners over 5 lineal feet include flame supervision at the far end. If pilot ignition is being used, two flame supervision units are required; one for the pilot and one for the far end. If using direct spark on the main flame, only flame supervision at the far end is required providing ignition can be accomplished within 15 seconds. (Reference NFPA Requirement 5-9.2.2)

Eclipse reserves the right to change the construction and/or configurations of our products at any time without being obliged to adjust earlier supplies accordingly.

All information is based on laboratory testing. Different chamber size and air flow conditions may affect the data.

All information is based on standard conditions (70°F at sea level). Contact Eclipse for performance data above ambient temperature.

All inputs based on gross caloric values.
Operating Range & Duct Pressure Measurement

Inlet Air Temperature Correction

<table>
<thead>
<tr>
<th>Air Inlet Temp. (°F)</th>
<th>0</th>
<th>30</th>
<th>70</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>350</th>
<th>400</th>
<th>450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correction Factor</td>
<td>0.87</td>
<td>0.92</td>
<td>1.00</td>
<td>1.15</td>
<td>1.25</td>
<td>1.34</td>
<td>1.43</td>
<td>1.53</td>
<td>1.62</td>
<td>1.72</td>
</tr>
</tbody>
</table>

Air Velocity Calculation

\[
\text{Air Velocity (fpm)} = 1096.2 \frac{\sqrt{\text{Air Pressure Drop (w.c.)}}}{\text{Air Density (lbs./cubic ft.)}}
\]
Differential Pressure Measurement & Burner Gas Pressure Drops

Main gas differential pressure measured between “A” and “D”

Note:
Flame length may vary slightly from these values depending on actual fuel, air handling system, duct configurations and profile plates uses.

Flame Lengths

Emissions Data