



# ThermAir Burners

Model TA500

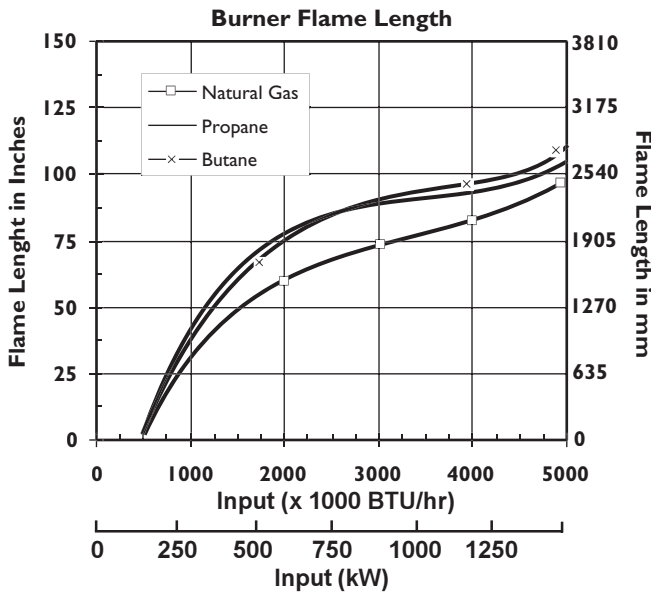
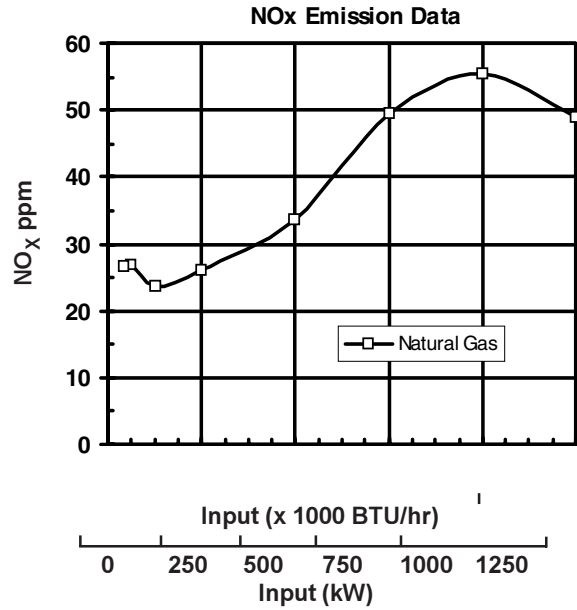
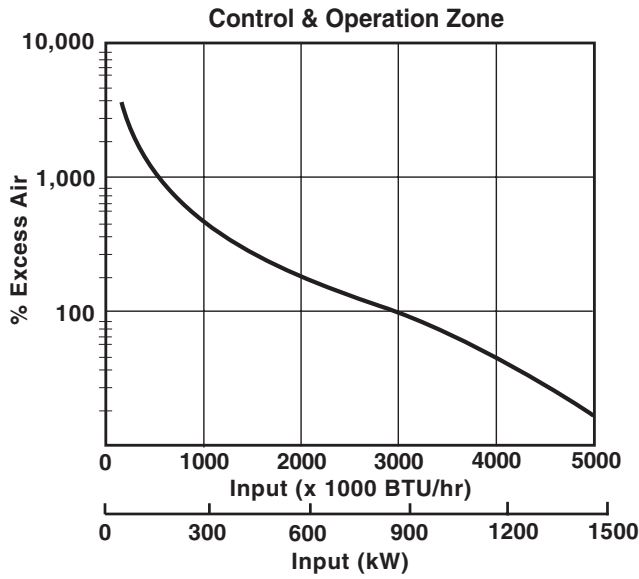
Version 1.10

## Main Specifications - TA500

| PARAMETER   | SPECIFICATIONS   |               |              |             |             |  |
|---|--|---------------|--------------|-------------|-------------|--|
| <b>Maximum input</b><br><br><i>(To maintain 15% excess air with the standard air orifice and standard combustion air blower.)</i> | <b>Frequency</b>   | <b>Btu/hr</b> | <b>"w.c.</b> | <b>kW</b>   | <b>mbar</b> |  |
|   | 60 Hz packaged blower  | 5,277,000     | -1.0         | 1547        | -2,5        |  |
|   |  | 5,000,000     | 0.0          | 1467        | 0,0         |  |
|   |  | 4,773,000     | 1.0          | 1400        | 2,5         |  |
|   | 50 Hz packaged blower  | 5,315,000     | -1.0         | 1556        | -2,5        |  |
|   |  | 5,074,000     | 0.0          | 1486        | 0,0         |  |
| 4,821,000   |  | 1.0           | 1412         | 2,5         |             |  |
| <b>Minimum input</b><br>Natural Gas, Propane or Butane  | <u>BTU/hr</u>  |               | <u>kW</u>    |             |             |  |
|   |  | 167,000       | 49,0         |             |             |  |
| <b>Main gas inlet pressure</b><br>• fuel pressure at gas inlet (Tap "B")  | Natural Gas<br>Propane<br>Butane   | <u>"w.c.</u>  |              | <u>mbar</u> |             |  |
|   |  | 8.2           | 20           |             |             |  |
|   |  | 8.6           | 21           |             |             |  |
|   |  | 8.7           | 21           |             |             |  |
| <b>High fire flame length</b><br>• measured from the outlet end of combustor.   | Natural Gas<br>Propane<br>Butane   | <u>inches</u> |              | <u>mm</u>   |             |  |
|   |  | 97            | 2464         |             |             |  |
|   |  | 107           | 2718         |             |             |  |
|   |  | 112           | 2845         |             |             |  |
| <b>Maximum Chamber Temperature</b><br>(AlloyTubes & Block & Holder) <i>Note: For higher temperatures, contact Eclipse.</i>        | <u>°F</u>  |               | <u>°C</u>    |             |             |  |
|   |  | 1500          | 820          |             |             |  |
| <b>Flame detection</b>  | UV scanner only  |               |              |             |             |  |
| <b>Fuel</b>   | Natural Gas, Propane or Butane.<br><i>(For any other mixed gas, contact Eclipse for orifice sizing.)</i> |               |              |             |             |  |

- All information is based on laboratory testing in neutral (0.0" w.c.) chamber with standard combustor design. Different chamber conditions and/or combustor design will affect the data.
- Maximum inputs are given for the standard combustion air blower without an air filter.
- All inputs based upon gross calorific values and standard conditions: 1 atmosphere, 70°F (21°C).
- Blower motor service factors greater than 1.0 may be required when firing into negative chamber pressure applications. For specific application questions, contact your Eclipse Combustion representative.
- 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.

## Performance Graphs ThermAir TA500



**Notes on emission data**

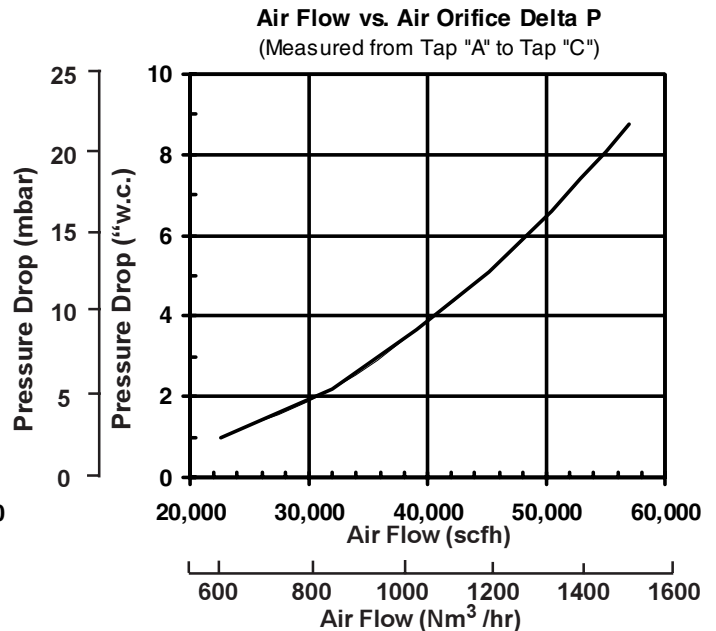
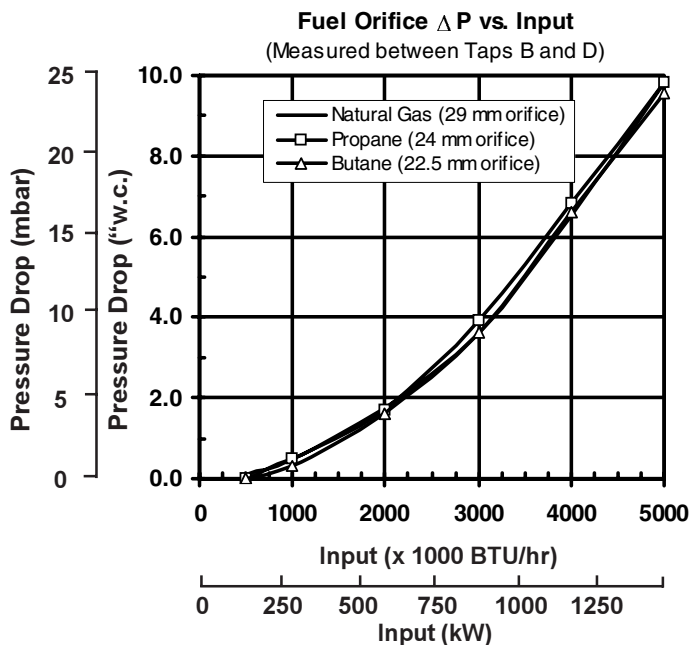
**NOx emission data is given for:**

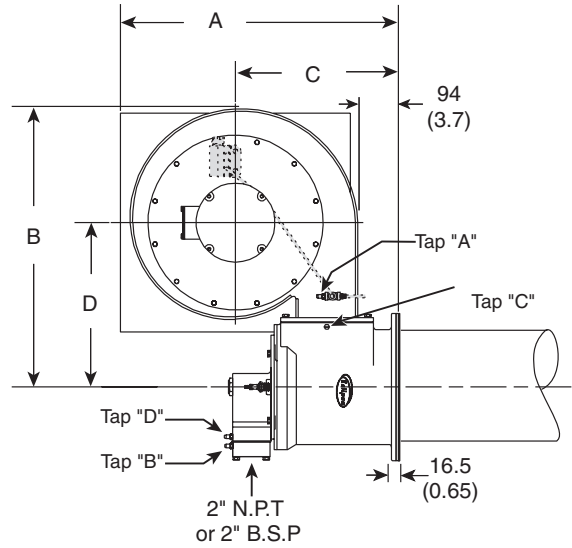
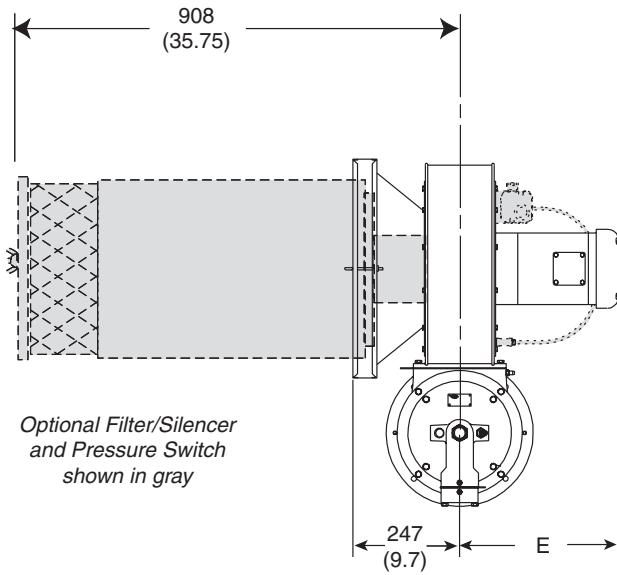
- Ambient combustion air ~70° F (20° C)
- Minimal process air velocity
- ppm volume dry at 3% O<sub>2</sub>
- Neutral chamber pressure

**Emissions are influenced by:**

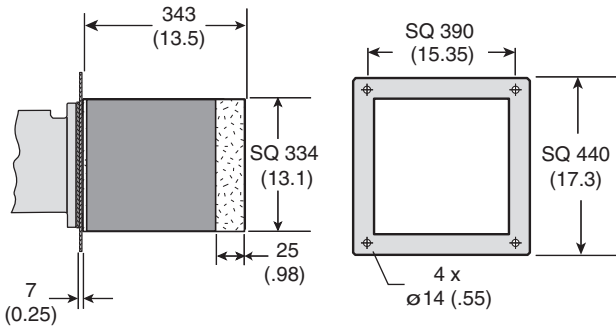
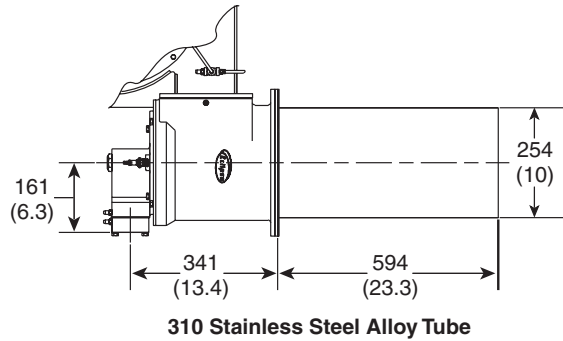
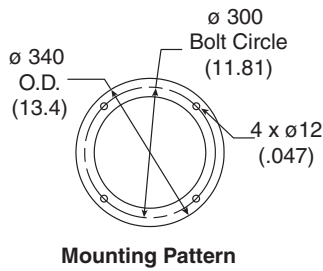
- Chamber conditions
- Fuel type
- Firing rate
- Combustion air temperature

**CO emission is largely influenced by chamber conditions. Contact your local Eclipse Combustion representative for an estimate of CO emission on your application.**



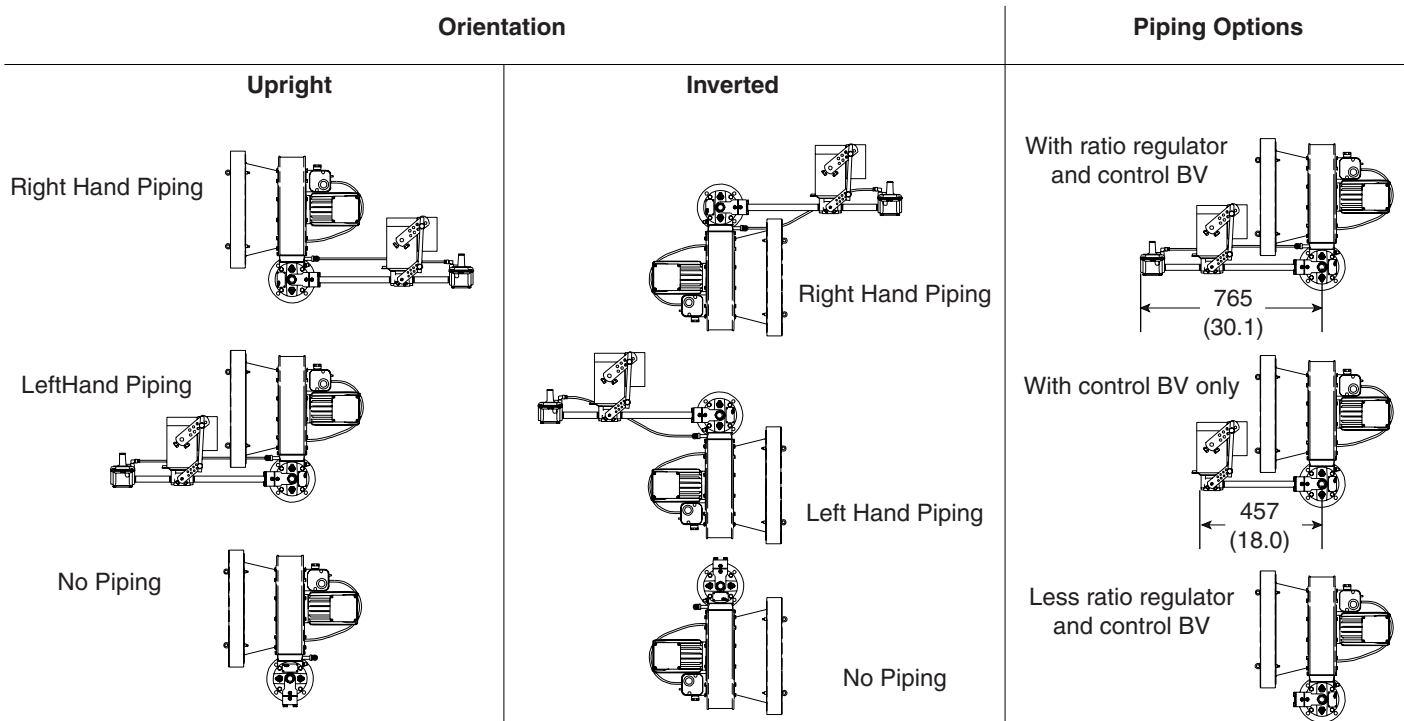


| Port Connection     |             |       |
|---------------------|-------------|-------|
| Sparkplug           | 14mm        |       |
| Flamerod or scanner | 0.5" N.P.T. |       |
| Peepsight           | 1" N.P.T.   |       |
| Weights             |             |       |
| Burner, w/ blower   | 163 lb      | 74 kg |
| Burner, less blower | 90 lb       | 41 kg |
| Filter/Silencer     | 52 lb       | 24 kg |



| Blower 10" w.c. |     |      |     |      |     |      |     |      |     |      |
|-----------------|-----|------|-----|------|-----|------|-----|------|-----|------|
|                 | A   |      | B   |      | C   |      | D   |      | E   |      |
| Hz              | mm  | in   | mm  | in   | mm  | in   | mm  | in   | mm  | in   |
| 50              | 614 | 24.2 | 636 | 25.0 | 359 | 14.1 | 367 | 14.4 | 362 | 14.3 |
| 60              | 597 | 23.5 | 582 | 22.9 | 331 | 13.0 | 342 | 13.5 | 333 | 13.1 |

# Piping



**Eclipse Combustion**



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