


# Eclipse Winnox Burners

Model WX0100

Version 2

| Parameter  |                                  | Specifications   |   |
|--|----------------------------------|--|---|
| <b>Blower Type</b>   |                                  | <b>Packaged Blower</b>   | <b>Remote Blower</b>                      |
| <b>Maximum Input, BTU/hr (kW)<sup>1</sup></b>  | Chamber Pressure<br>"w.c. (mbar) | Nominal<br>(60Hz)  | Pressure at Air Inlet<br>1 psig (70 mbar) |
| <i>Contact factory for chamber pressures outside the given range, or varying chamber pressure conditions.</i>                          | -5.0 (-12.5)                     | 1,130,000 (333)  | 1,300,000 (381)                           |
|  | -3.0 (-7.5)                      | 1,080,000 (316)  | 1,260,000 (371)                           |
|  | 0.0                              | 1,000,000 (293)  | 1,200,000 (352)                           |
|  | 1.0 (2.5)                        | 970,000 (284)  | 1,180,000 (346)                           |
|  | 2.0 (5.0)                        | 940,000 (275)  | 1,150,000 (338)                           |
| <b>Minimum Input, BTU/hr (kW)</b>  |                                  | 143,000 (42)   | 143,000 (42)                              |
| <b>Fuel Inlet Pressure at Ratio Regulator, "w.c. (mbar)<sup>2</sup></b>  |                                  | Maximum<br>27.7 (70)   | 27.7 (70)                                 |
|  |                                  | Minimum<br>22.0 (55)   | 26.0 (65)                                 |
| <b>Maximum Chamber Temperature, °F (°C)</b><br><i>Tube and plug temperatures should be reduced 150°F when using propane or butane.</i> |                                  | Standard combustion tube: 1300 (705)<br>High temperature combustion tube: 1550 (845)<br>Refractory plug: 1800 (985) <sup>3</sup> |   |
| <b>Flame Length</b>  | Alloy Tube                       | Flame is inside tube at all times.   |   |
| <b>Excess Air, % at High Fire</b>  |                                  | 40% - 70%  |   |
| <b>Pipe Connections</b>  |                                  | NPT or BSP connections available.  |   |
| <b>Flame Detection</b>   |                                  | Flame rod or UV scanner.   |   |
| <b>Fuels</b><br><i>For any other mixed gas, contact Eclipse Inc.</i>   |                                  | Natural gas and propane <sup>4</sup>   |   |
| <b>Blower Motor Power, Hp</b>  |                                  | 1.5  | -   |
| <b>Weight, lbs (kg)<sup>5</sup></b>  |                                  | Alloy Tube<br>192 (87)   | 124 (56)                                  |
|  |                                  | Refractory Plug<br>175 (79)  | 107 (48)                                  |
| <b>Approvals</b>   |                                  | <br>AN30                                    |   |

<sup>1</sup> Maximum inputs for packaged blower versions are given for the standard combustion air blower without an inlet air filter.

<sup>2</sup> For proper performance, this pressure must be kept constant across the burner operating range.

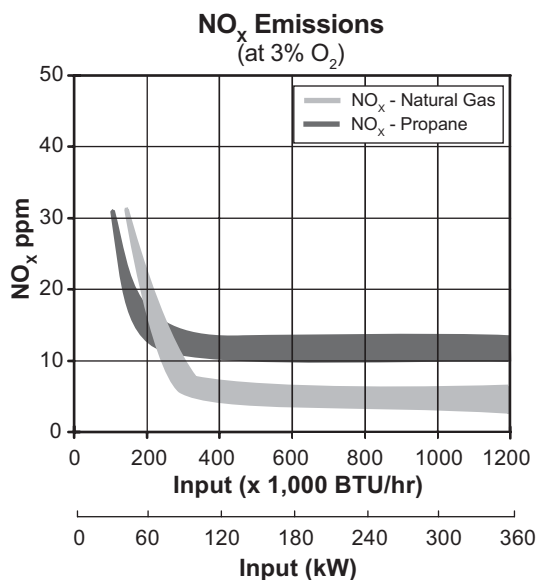
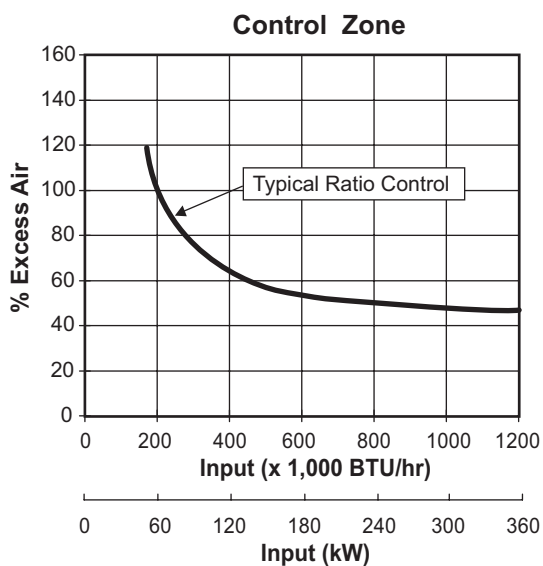
<sup>3</sup> See page 3 of this datasheet and Installation Guide 111 for "Refractory Plug Only" installation.

<sup>4</sup> See Design Guide 111 for more information about typical fuel composition and properties.

<sup>5</sup> All weights are approximate.

- All inputs are based on gross calorific values and standard conditions: one atmosphere, 70°F (21°C).
- All information is based on laboratory testing. Different chamber size and conditions will affect data.
- 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.

## Performance Graphs



### Fuel/Input Measurement

System design must include fuel flow measurement upstream of the burner. Eclipse recommends its 4-5 FOM (Fuel Orifice Meter) assembly number 302084-5 for natural gas. See Bulletin 930 for details.

### Secondary By-Pass Fuel Setting:

| Fuel        | $\Delta P$ "w.c. (mbar)* |
|-------------|--------------------------|
| Natural Gas | 4.0 (10.0)               |
| Propane     | 1.0 (2.5)                |

\*Measured between Tap "E" and the chamber @ low fire.

**NOTE:** Input at low fire changes with ratio regulator adjustment.

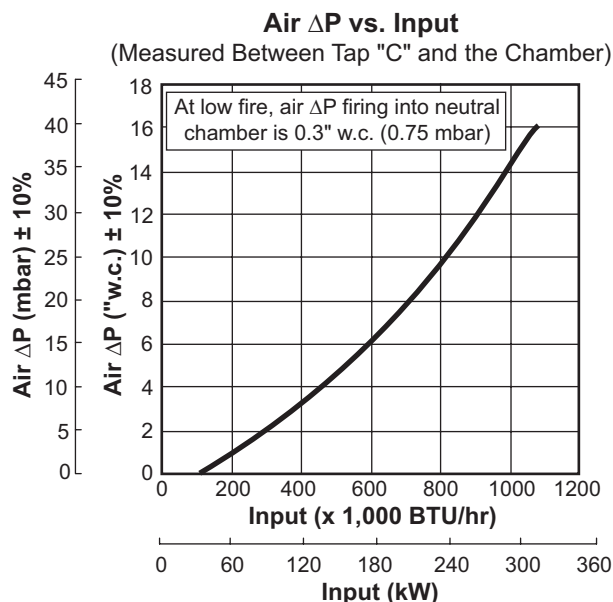
### NO<sub>x</sub> emission data is given for:

- Ambient combustion air (~70°F, 20°C)
- Less than 1000°F (540°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 143,000 BTU/hr (42 kW)
- Neutral chamber pressure

### Emissions are influenced by:

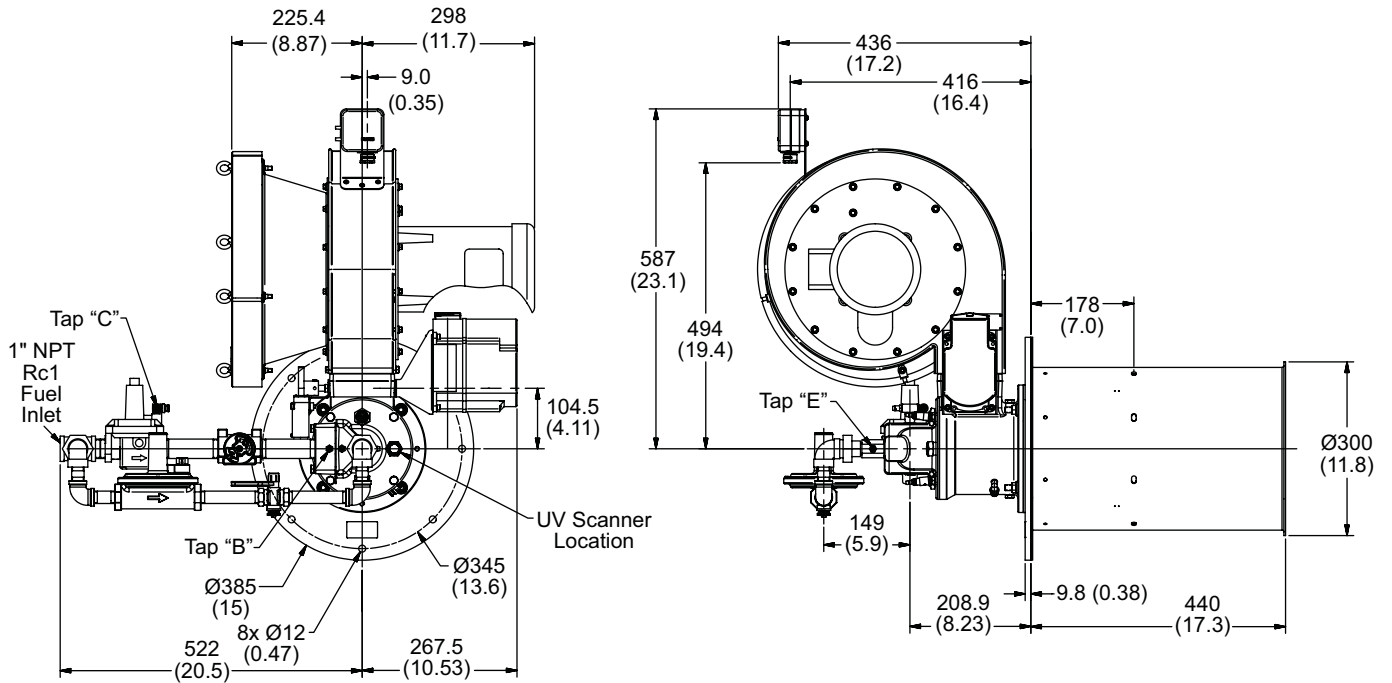
- Chamber conditions
- Fuel type
- Firing rate
- Ratio regulator adjustments
- Combustion air temperature

CO emissions are largely influenced by chamber conditions. Contact your local Eclipse representative for an estimate of CO emissions on your application.

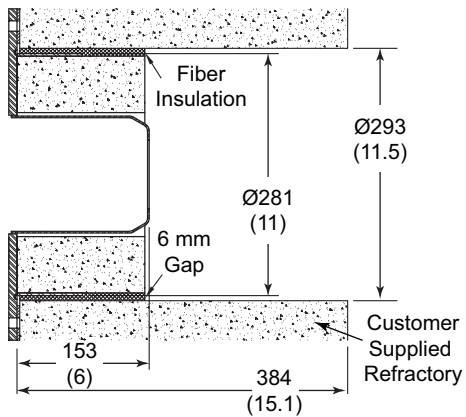


## Dimensions in mm (inches)

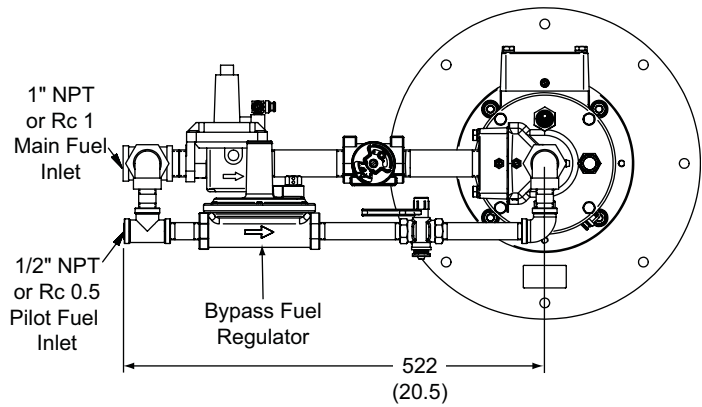
### Packaged Blower



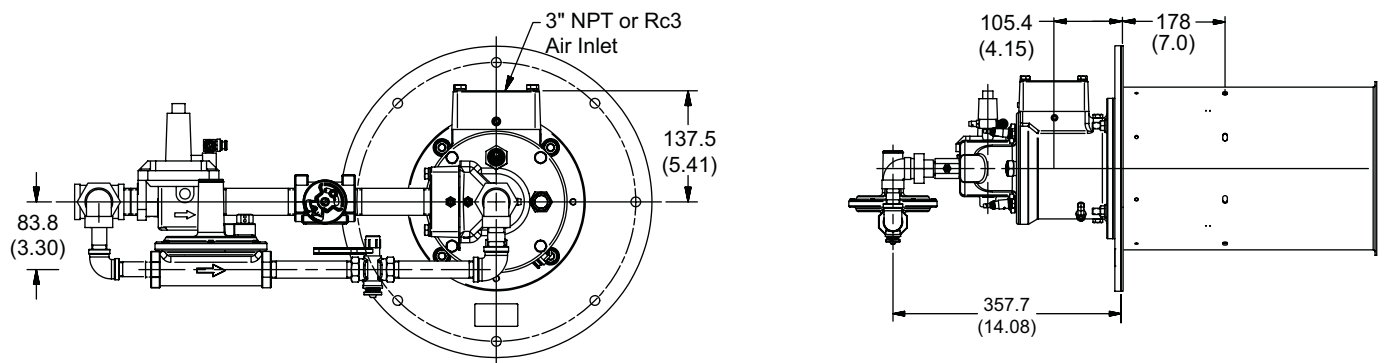
### Refractory Plug



### Pilot Ready Option (Shown with remote blower option)



### Remote Blower





**Offered By:**

Power Equipment Company  
2011 Williamsburg Road  
Richmond, Virginia 23231  
Phone (804) 236-3800  
Fax (804) 236-3882

---

[www.peconet.com](http://www.peconet.com)