# Eclipse Winnox Burners

Model WX1000

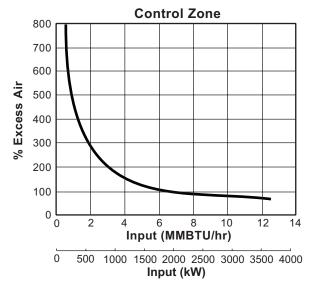
Version 1

Parameter		Specifications	
Blower Type		Packaged Blower	Remote Blower
Maximum Input, MMBTU/hr (kW)  NOTE: Capacities given without air filter. Contact factory for chamber	Chamber Pressure	Nominal	Pressure at Air Inlet
	"w.c. (mbar)	(60Hz)	1.5 psig (100 mbar)
	-5.0 (-12.5)	9.7 (2840)	13.6 (3985)
	-3.0 (-7.5)	9.2 (2694)	13.2 (3868)
pressures outside the given range,	0.0	8.5 (2490)	12.5 (3660)
or varying chamber pressure conditions.	1.0 (2.5)	8.25 (2416)	12.2 (3575)
	2.0 (5.0)	7.98 (2337)	12.0 (3516)
Minimum Input, BTU/hr (kW)	Natural Gas	300,000 (88)	300,000 (88)
	Propane, Butane	400,000 (117)	400,000 (117)
Fuel Inlet Pressure at Ratio	Maximum	3.0 (207)	5.0 (345)
Regulator, psi (mbar)¹	Minimum	1.0 (69)	2.0 (138)
Maximum Chamber Temperature, °F (°C)		Standard combustion tube: 1100 (593)	
<b>NOTE:</b> Tube and plug temperatures should be reduced 150°F when using propane or butane.		High temperature comb	ustion tube: 1400 (760)
Flame Length		Flame is inside tube at all times.	
Excess Air,% at High Fire		40% - 70%	
Piping		NPT burner piping available.	
Flame Detection		Flame rod or UV scanner.	
Fuels		Natural gas, Propane, Butane <sup>2</sup>	
		For any other mixed gas, contact Eclipse Inc.	
Weight, Ibs (kg)		1435 (651)	1135 (515)
Approvals		P	G
		AV	30

- 1 For proper performance, this pressure must be kept constant across the burner operating range.
- 2 See Design Guide for more information about typical fuel composition and properties.
- All information is based on laboratory testing. Different chamber size and conditions will affect data.
- Maximum inputs for packaged blower versions are given for the standard combustion air blower without an inlet air filter.
- All inputs are based on gross calorific values and standard conditions: one atmosphere, 70°F (21°C).
- 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**



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

#### Secondary By-Pass Fuel Setting:

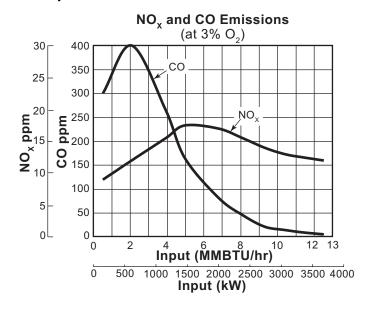
Fuel	∆P "w.c. (mbar)*
Natural Gas	4.0 (10.0)
Propane	4.0 (10.0)
Butane	4.0 (10.0)

<sup>\*</sup>Measured between Tap "E" and the chamber @ low fire.

## **Fuel/Input Measurement**

System design must include fuel flow measurement upstream of the burner. Recommended is the Eclipse 12-5 FOM (Fuel Orifice Meter) assembly number 302050-5 for natural gas. See Bulletin 930 for details.

**NOTE:** Insure burner inlet pressures are met.



#### $NO_x$ and CO emission data is given for:

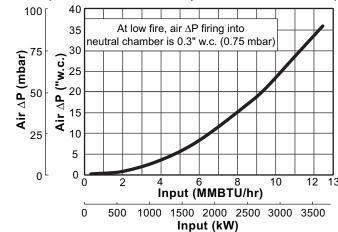
- Ambient combustion air (~70°F, 20°C)
- Less than 1000°F (540°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 300,000 BTU/hr (88 kW)
- Neutral chamber pressure
- Natural gas
- 70% excess air

#### Emissions are influenced by:

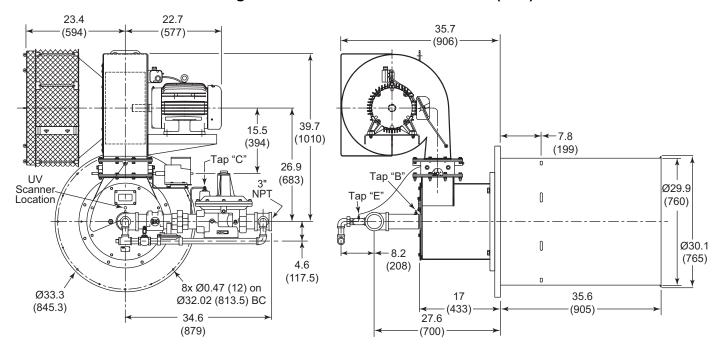
- Chamber conditions
- Fuel type
- Firing rate
- Ratio regulator adjustments
- Combustion air temperature
- Excess air

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

 $\label{eq:Air DeltaP vs. Input} \textbf{(Measured Between Tap "C" and the Chamber)}$ 

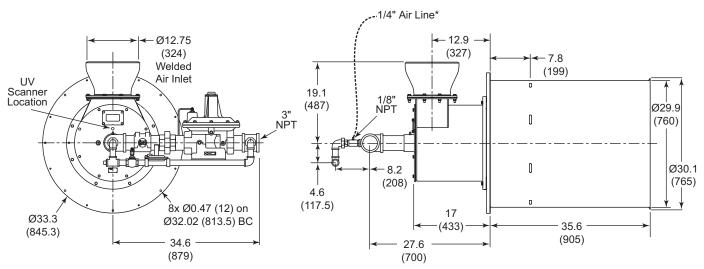


# Packaged Blower Dimensions in inches (mm)



## **Remote Blower**

**NOTE:** For Remote Blower applications, consult factory.



<sup>\*</sup> Recommended customer supplied 1/4" air line from upstream of the air control valve.



# Offered By:

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