


Eclipse Winnox Burners

Model WX0850

Version 3

Parameter		Specifications	
Blower Type		Packaged Blower	Remote Blower
Maximum Input, Btu/h (kW)¹	Chamber Pressure "w.c. (mbar)	Nominal (60Hz)	Pressure at Air Inlet 1.5 psig (100 mbar)
<i>For chamber pressures outside the given range or for varying chamber pressure conditions, contact Eclipse, Inc.</i>	-5.0 (-12.5)	9,700,000 (2840)	13,600,000 (3985)
	-3.0 (-7.5)	9,200,000 (2694)	13,200,000 (3868)
	0.0	8,500,000 (2490)	12,500,000 (3660)
	1.0 (2.5)	8,200,000 (2416)	12,200,000 (3575)
	2.0 (5.0)	7,980,000 (2337)	12,000,000 (3516)
Minimum Input, Btu/h (kW)	Natural Gas	500,000 (146)	500,000 (146)
<i>For lower inputs, contact Eclipse, Inc.</i>	Propane, Butane	600,000 (175)	600,000 (175)
Main Gas Inlet Pressure, "w.c. (mbar)²	Maximum	82 (207)	82 (207)
<i>Fuel pressure at ratio regulator inlet</i>	Minimum	27.7 (69)	55.4 (138)
Maximum Chamber Temperature, °F (°C)	Standard combustion tube: 1300 (704)		
<i>Maximum tube temperatures should be reduced 150°F (66°C) when using propane or butane.</i>	High temperature combustion tube: 1400 (760)		
	Refractory plug: 1800 (982) ³		
High Fire Visible Flame Length, inches (mm)	Alloy Tube	Flame is inside tube at all times.	
<i>Measured from the outlet end of the combustor</i>			
% Excess Air at High Fire	40% - 70%		
Piping	NPT or BSP/DN Flange connections available.		
Flame Detection	Flame rod or UV scanner.		
Fuels⁴	Natural gas, Propane, Butane		
<i>For any other mixed gas, contact Eclipse, Inc.</i>			
Blower Motor Power, Hp	15		-
Weight, lbs (kg)⁵	1435 (651)		1135 (515)
Approvals	 AI30		

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

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

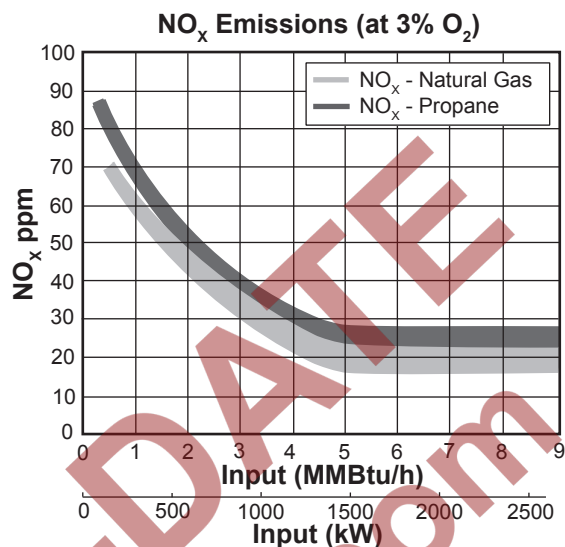
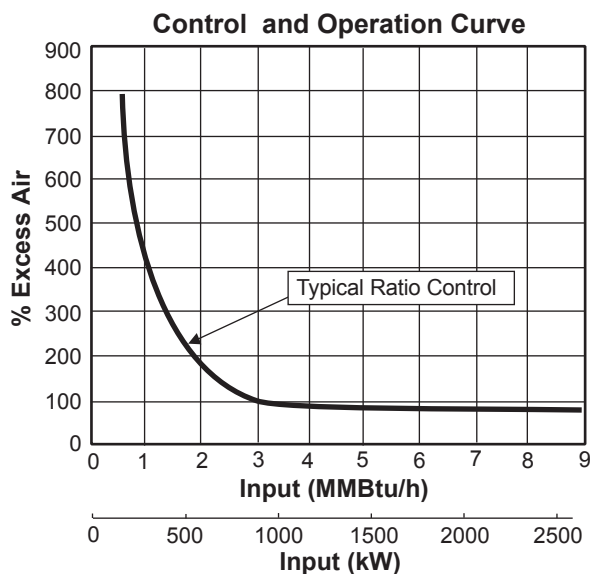
³ See page 3 of this datasheet and the "Refractory Plug" section of Installation Guide 111.

⁴ See Design Guide 111 for more information about typical fuel composition and properties.

⁵ 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 12-5 FOM (Fuel Orifice Meter) assembly number 302050-5 for natural gas. See Bulletin 930 for details.

Secondary By-Pass Fuel Setting:

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

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

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

NO_x emission data is given for:

- Ambient combustion air (~70°F, 21°C)
- Less than 1000°F (540°C) firing chamber
- Minimal process air velocity
- Low fire input adjusted to 500,000 BTU/hr (88 kW)
- Neutral chamber pressure

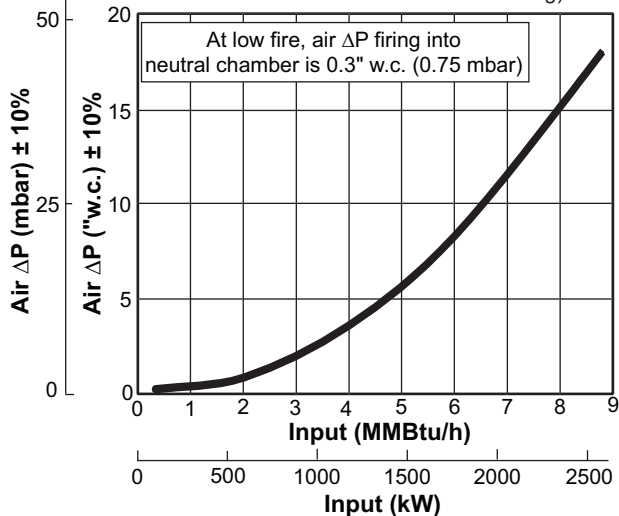
Emissions are influenced by:

- 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.

Air Δp vs. Input

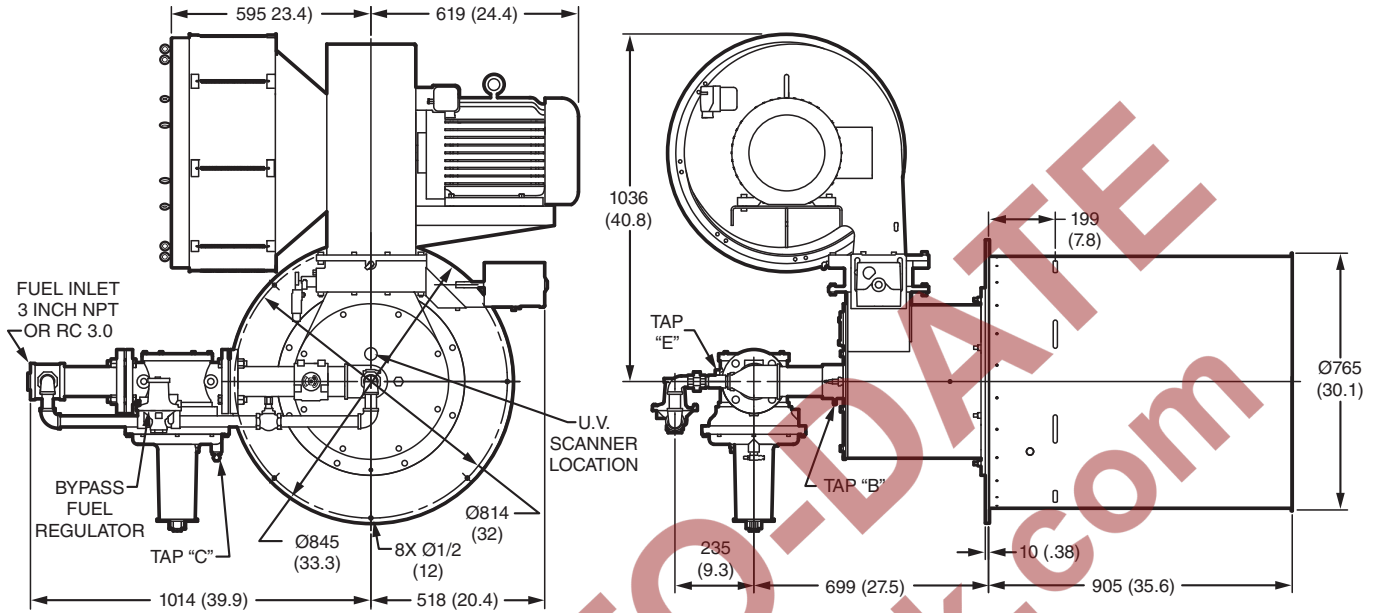
(Δp Measured Between Tap C and the Chamber with the Burner Firing)



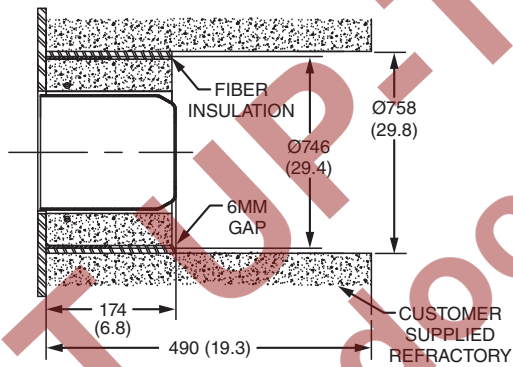
Dimensions and Specifications

Dimensions in mm (inches)

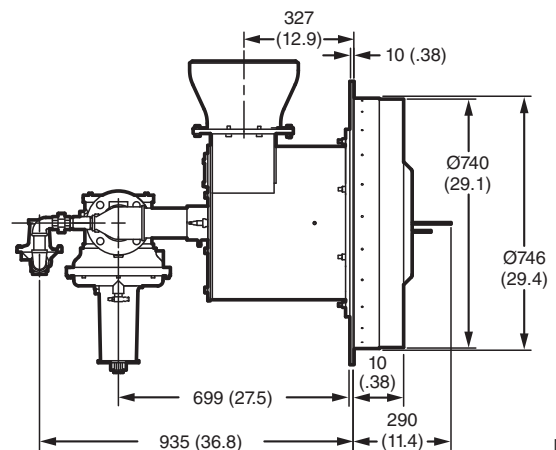
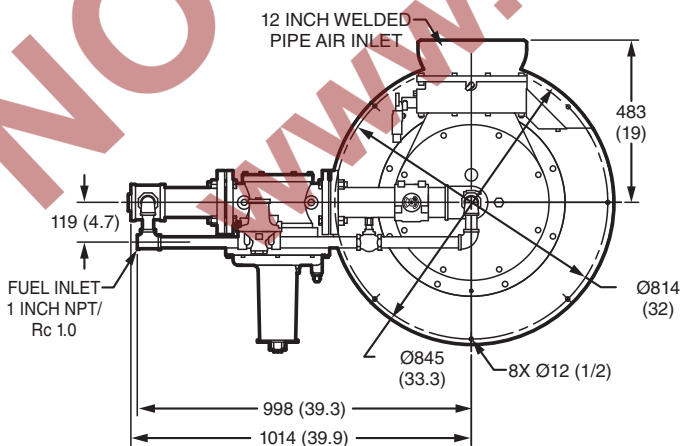
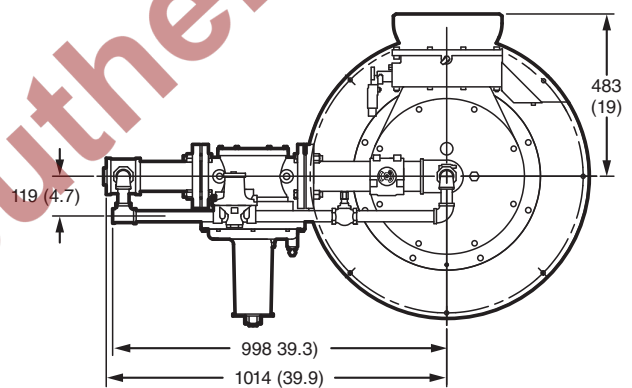
PACKAGED BLOWER



REFRACTORY PLUG



REMOTE BLOWER



M36826

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