

Eclipse AH-MA DualBlock Burners

Model DB0050L

Version 1

Parameter	Specifications
Maximum Input, Btu/h (kW)	500,000 (150)
Nominal Input, Btu/h (kW)	250,000 (75)
Minimum Input, Btu/h (kW)	12,500 (3.75)
Excess Air Flow	1.5 to 3.0
Standard Regulation (maximum)	20:1 (40:1)
Chamber Pressure, "w.c. (mbar)	-2.41 to 1.60 (-6 to 4)
Maximum Temperature Rise, °F (°C)	752 (400)
Duct Process Velocity ft/s (m/s)	16.4 to 66 (5 to 20)
Ignition	Direct Spark Ignition or Spark Ignited Pilot
Built-in Pilot	Interruptible Pilot for Natural Gas, Propane or Butane
Gas Pilot Pressure dP, "w.c. (mbar)	Natural Gas: 0.6 to 1.2 (1.5 to 3.0) Propane: 0.25 to 0.5 (0.6 to 1.2) Butane: 0.2 to 0.4 (0.5 to 1.0)
Gas Pilot Input, Btu/h (kW)	25,000 to 35,000 (7 to 10)
Flame Detection	Flame rod or UV Scanner
Flame Length, inches (mm)	20 to 50 (500 to 1250)
Pipe Threads	BSP or NPT
Fuels <i>For any other mixed gas, contact Eclipse, Inc.</i>	Natural Gas, Propane or Butane
Maximum Air Flow, m ³ /h	225
Blower Motor Input, HP (kW)	Low Pressure*: 0.24 (0.18) High Pressure**: 0.74 (0.55)
Minimum Blower Air Pressure, "w.c. (mbar)	Low Pressure*: 2.4 (6.0) High Pressure**: 3.2 (8.0)
Weight including Blower, lbs (kg)	Low Pressure*: 49 (22) High Pressure**: 62 (28)
Weight without Blower, lbs (kg)	37 (17)
Approvals	 API30

* Low Pressure= -2.4 "w.c. (-6 mbar) to 0.4 "w.c. (1 mbar).

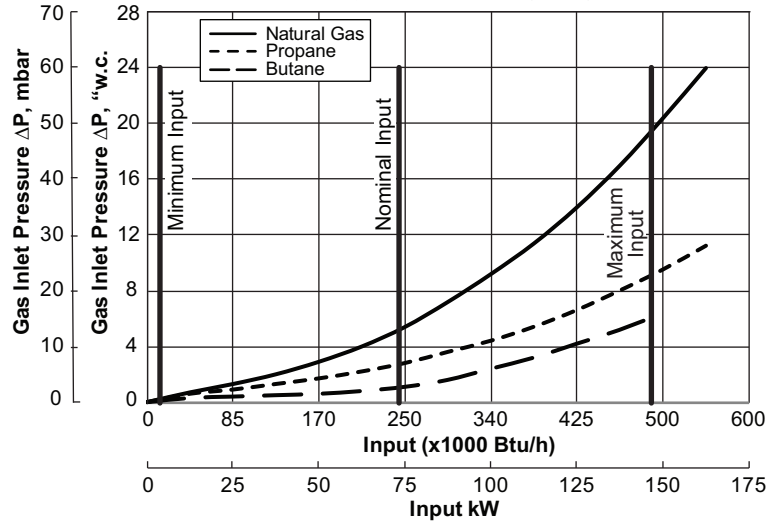
** High Pressure= 0.4 "w.c. (1 mbar) to 1.6 "w.c. (4 mbar).

- All information is based on laboratory testing in neutral (0.0"w.c./mbar) pressure chamber. Different chamber size and conditions may affect the data.
- All inputs based upon gross calorific values.
- 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.

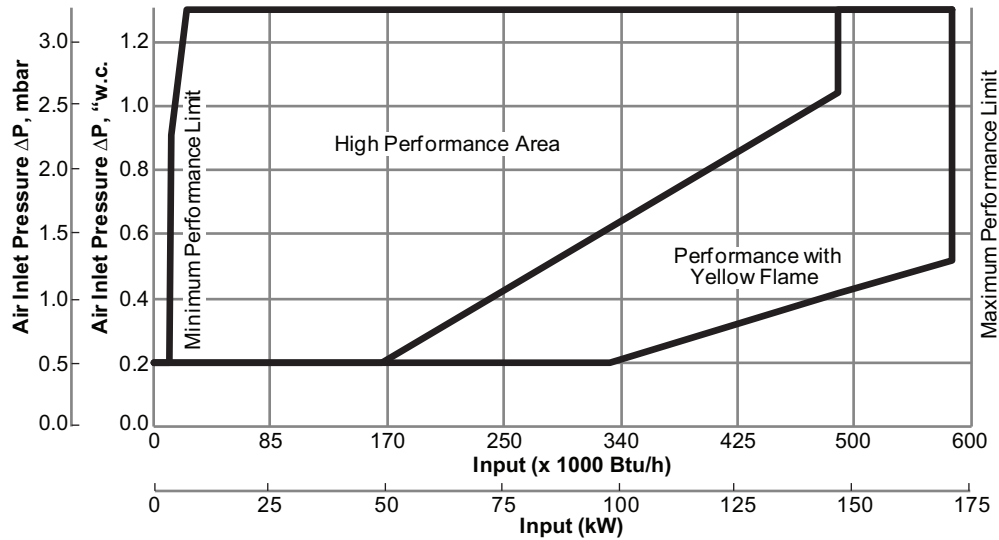
Specifications Graphs

Input vs. ΔP for AB0050L model

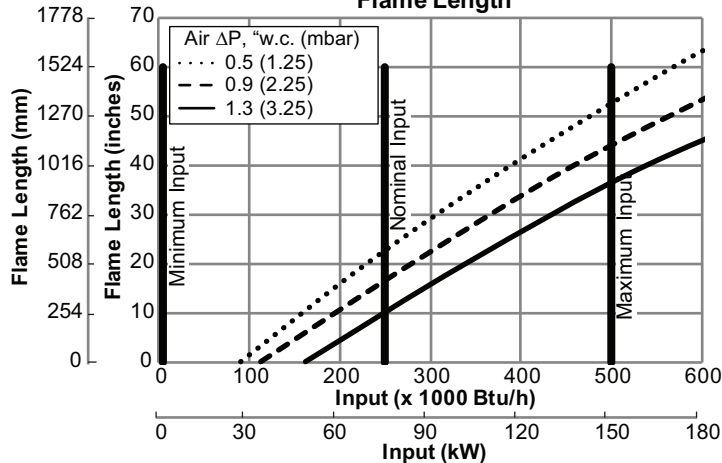
Based on $\varnothing$ 2.0mm Injector and 59°F (15°C) Air Temperature



Performance Area for AB0050L Model



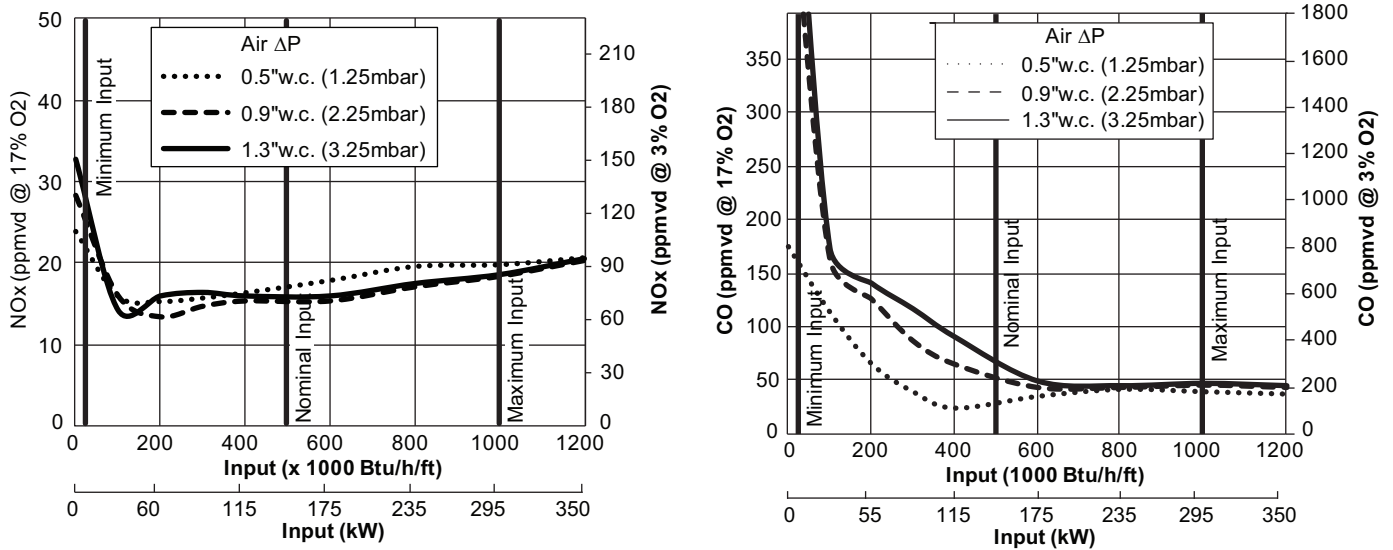
Flame Length



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

Air ΔP = Air "Burner + Internal Diffuser" pressure drop.

Emissions Data



NOx and CO emission data is given for:

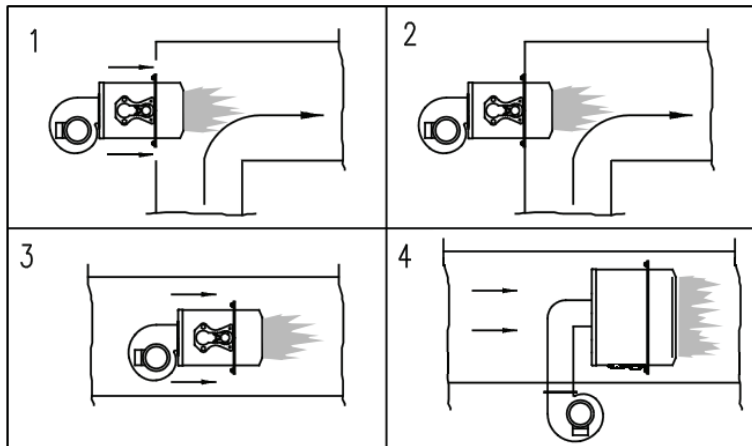
- Ambient combustion air ~70°F (21°C)
- Minimal process air velocity
- Neutral chamber pressure
- Natural gas

Emissions are influenced by:

- Chamber conditions
- Fuel type
- Firing rate

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

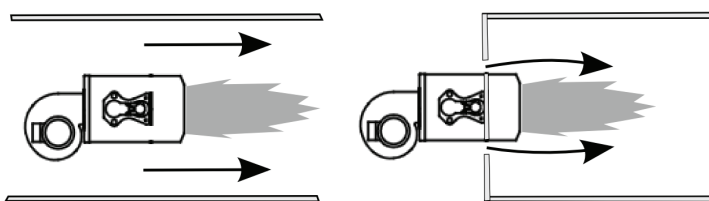
Process Flow Considerations



- 1 - External mounting, with air intake slot
- 2 - External mounting
- 3 - Internal mounting, fresh process air used
- 4 - Internal mounting, external air used

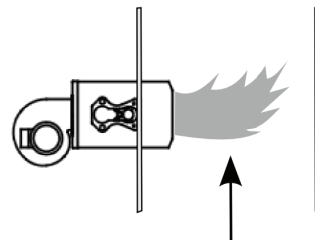
Contact Eclipse for other air conditions

Parallel Process Flow



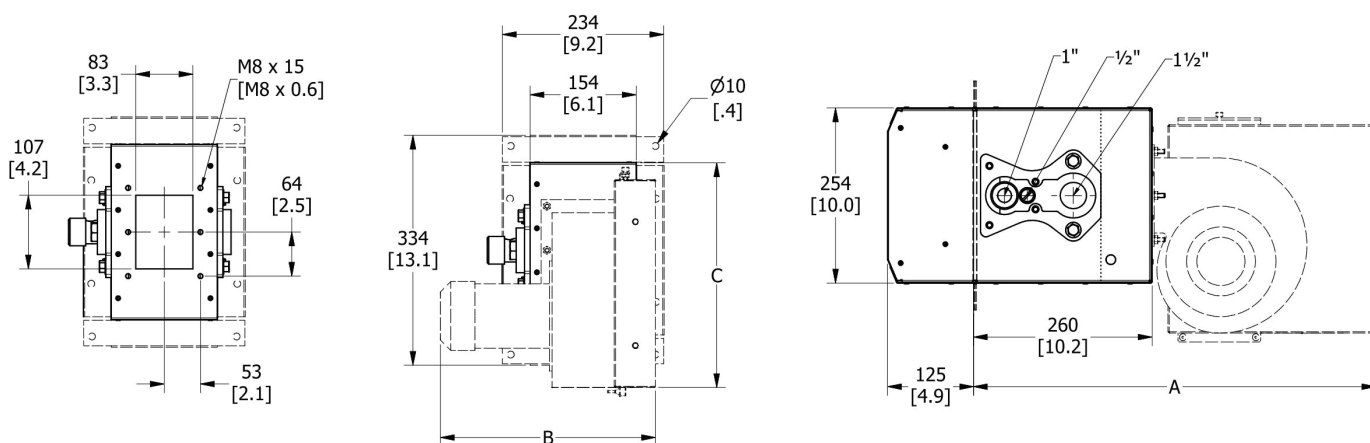
Minimum Velocity: 500 fpm (2.5 m/s)
Maximum Velocity: 6000 fpm (31 m/s)
Optimum Velocity: 1000 to 4000 fpm (5 to 20 m/s)

Perpendicular Process Flow

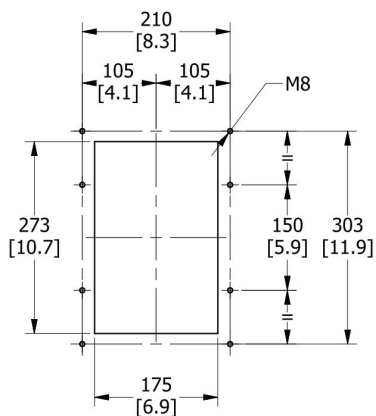


Minimum Velocity: 500 fpm (2.5 m/s)
Maximum Velocity: 1200 fpm (6 m/s)

Dimensions in mm (inches)



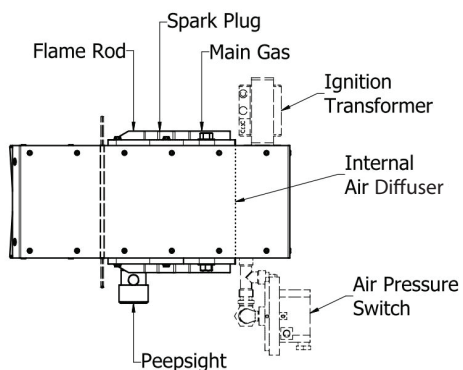
Wall Mounting Flanges (Customer Supplied)



Blower Dimensions, mm (inches)	Low Pressure (-6 to +1 mbar)	High Pressure (+1 to +4 mbar)
A	585 (23.0)	595 (23.4)
B	312 (12.3)	351 (13.8)
C	327 (12.9)	341 (13.4)

Connections and Components

Without Pilot Gas



Built-in Pilot Gas

