



ThermAir Burners

Model TA100

Version 1.10

Main Specification – TA100

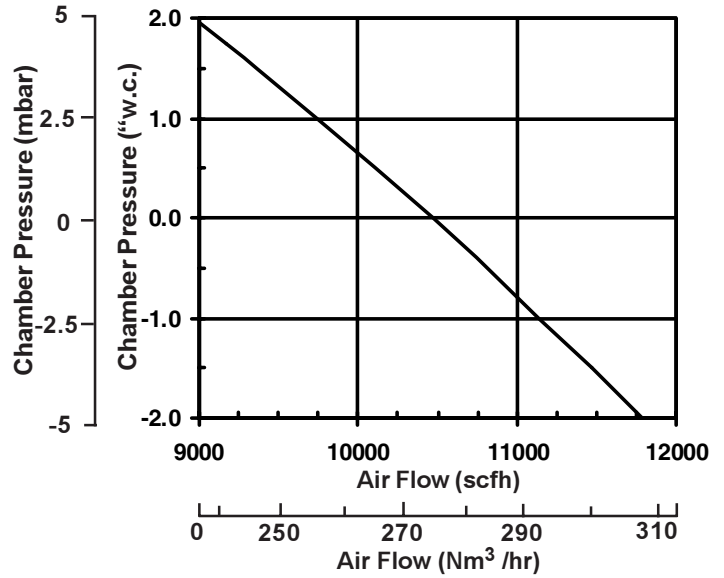
PARAMETER	BLOWER SIZE								
	Frequency	3"w.c. Packaged				6"w.c. Packaged			
Maximum input (Btu/hr) <i>(To maintain 15% excess air with standard air orifice and standard combustion air blower)</i>		Capacity at Chamber Pressure				Capacity at Chamber Pressure			
		BTU/hr	"w.c.	kW	mbar	BTU/hr	"w.c.	kW	mbar
	60 Hz Packaged Blower	1,141,000	-1.0	334	-2,5	1,030,000	-1.0	302	-2,5
		1,000,000	0.0	293	0,0	1,000,000	0.0	293	0,0
		835,000	1.0	244	2,5	900,000	1.0	264	2,5
	50 Hz Packaged Blower	Not Available				1,075,000	-1.0	315	-2,5
						1,007,000	0.0	295	0,0
						934,000	1.0	274	2,5
Minimum input		BTU/hr		kW		BTU/hr		kW	
		Natural gas	26,000	7,6	33,000	9,7			
		Propane	28,000	8,2	33,000	9,7			
		Butane	30,000	8,8	33,000	9,7			
Main Gas Inlet Pressure <i>• Fuel pressure at gas inlet (Tap "B")</i>		" w.c.		mbar		" w.c.		mbar	
		Natural gas	7.2	17,9	6.3	16			
		Propane	9.8	24,1	5.4	13			
		Butane	8.0	18,6	5.9	15			
High Fire Flame Length <i>• Measured from the outlet end of combustor</i>		inches		mm		inches		mm	
		Natural gas	47	1194	45	1140			
		Propane	51	1295	45	1140			
		Butane	51	1295	46	1170			
Maximum Chamber Temperature <i>(Alloy & SIC Tubes) Note: For higher temperatures, contact Eclipse.</i>			°F	°C					
			1500	820					
Flame Detection	Flame rod or UV scanner								
Fuel	Natural gas, Propane, or Butane. <i>For any other mixed gas, contact Eclipse Combustion 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.

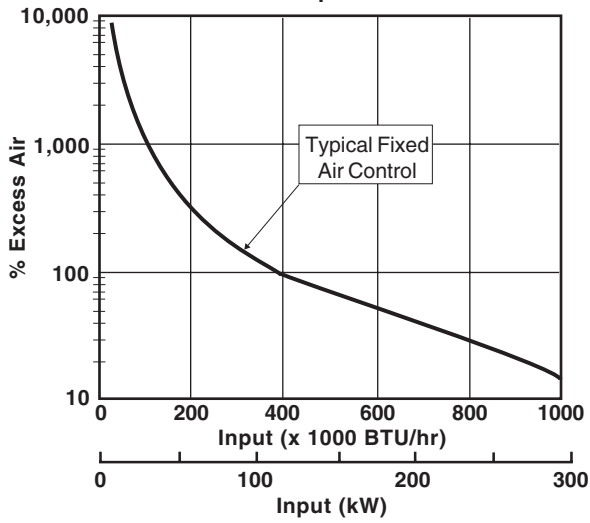
Performance Graphs

ThermAir TA100

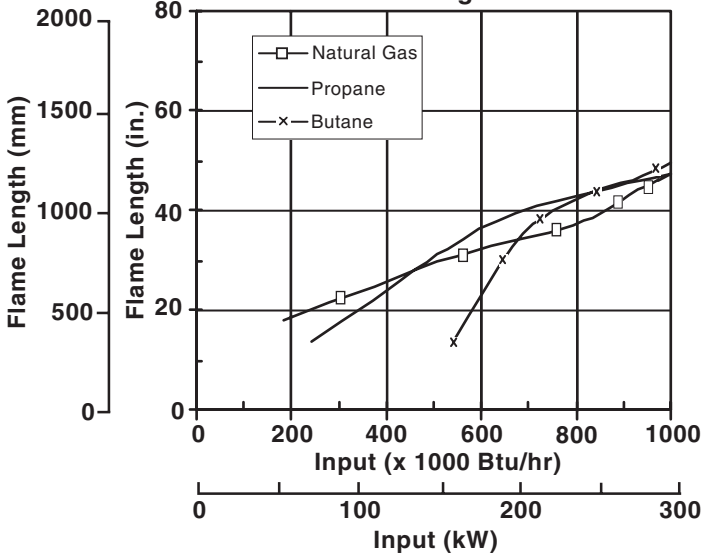
Air Flow vs. Chamber Pressure



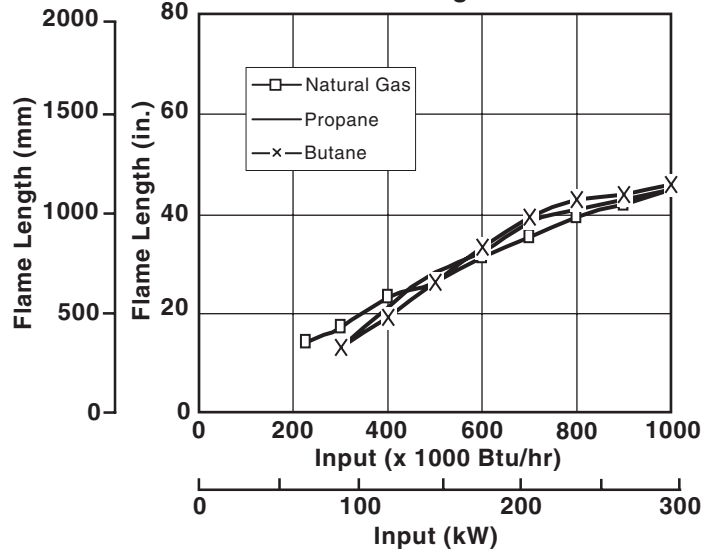
Control & Operation Zone



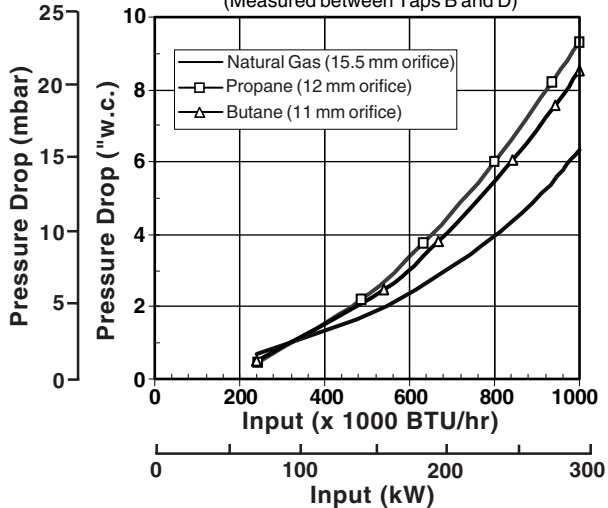
Burner Flame Length - 3\" Blower



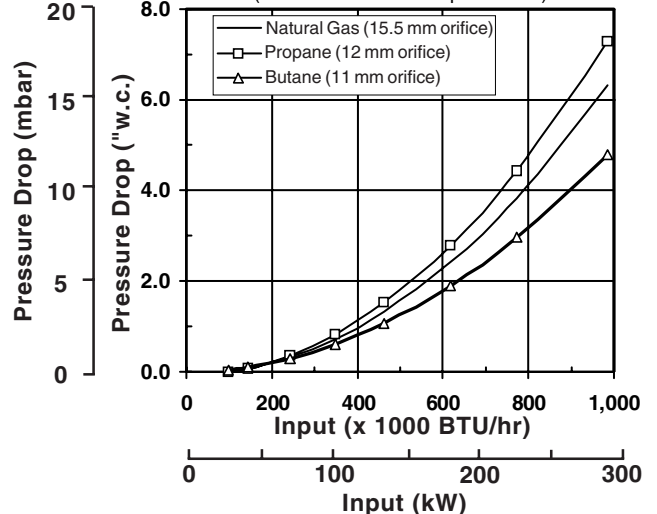
Burner Flame Length - 6\" Blower



Fuel Orifice ΔP vs. Input - 3\" Blower (Measured between Taps B and D)

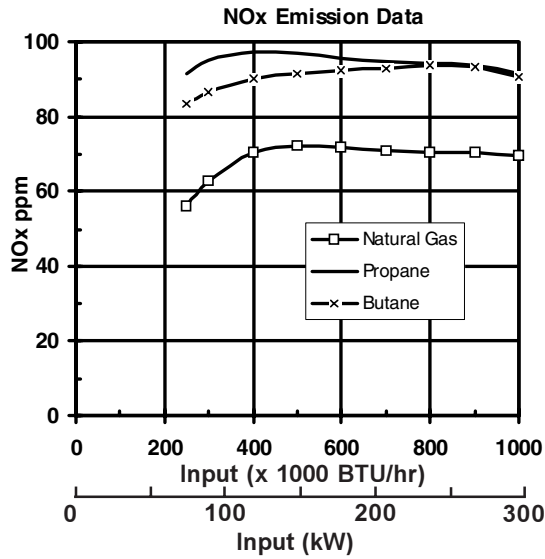


Fuel Orifice ΔP vs. Input - 6\" Blower (Measured between Taps B and D)



Performance Graphs (Continued)

ThermAir TA 100



Notes on emission data

NOx emission data is given for:

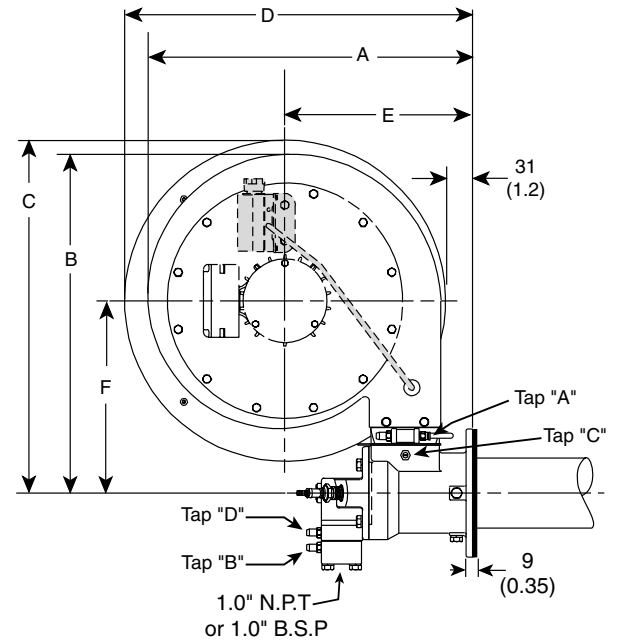
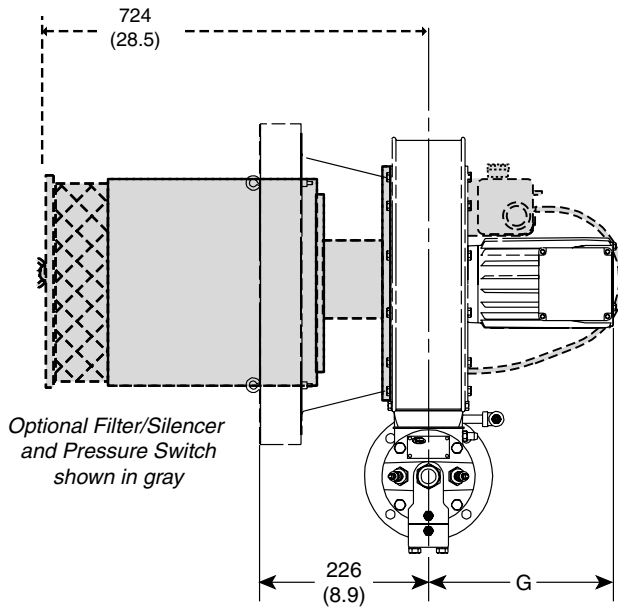
- Ambient combustion air ~70° F (20° C)
- Minimal process air velocity
- ppm volume dry at 3% O₂
- Neutral chamber pressure

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.

Dimensions-TA 100

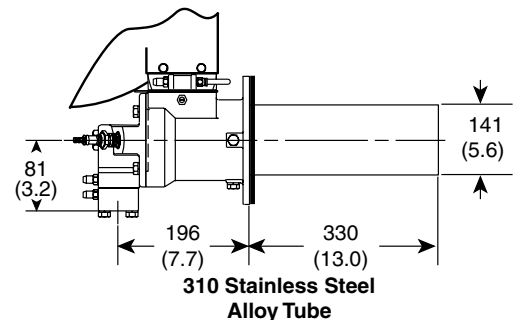
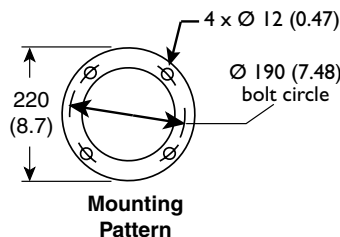
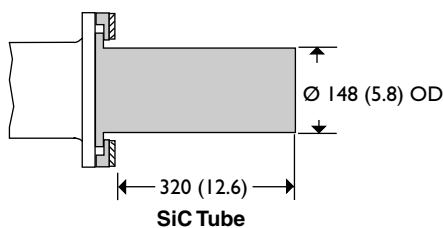


Port Connection	
Sparkplug	14mm
Flamerod or scanner	0.5" N.P.T.
Peepsight	0.75" N.P.T.

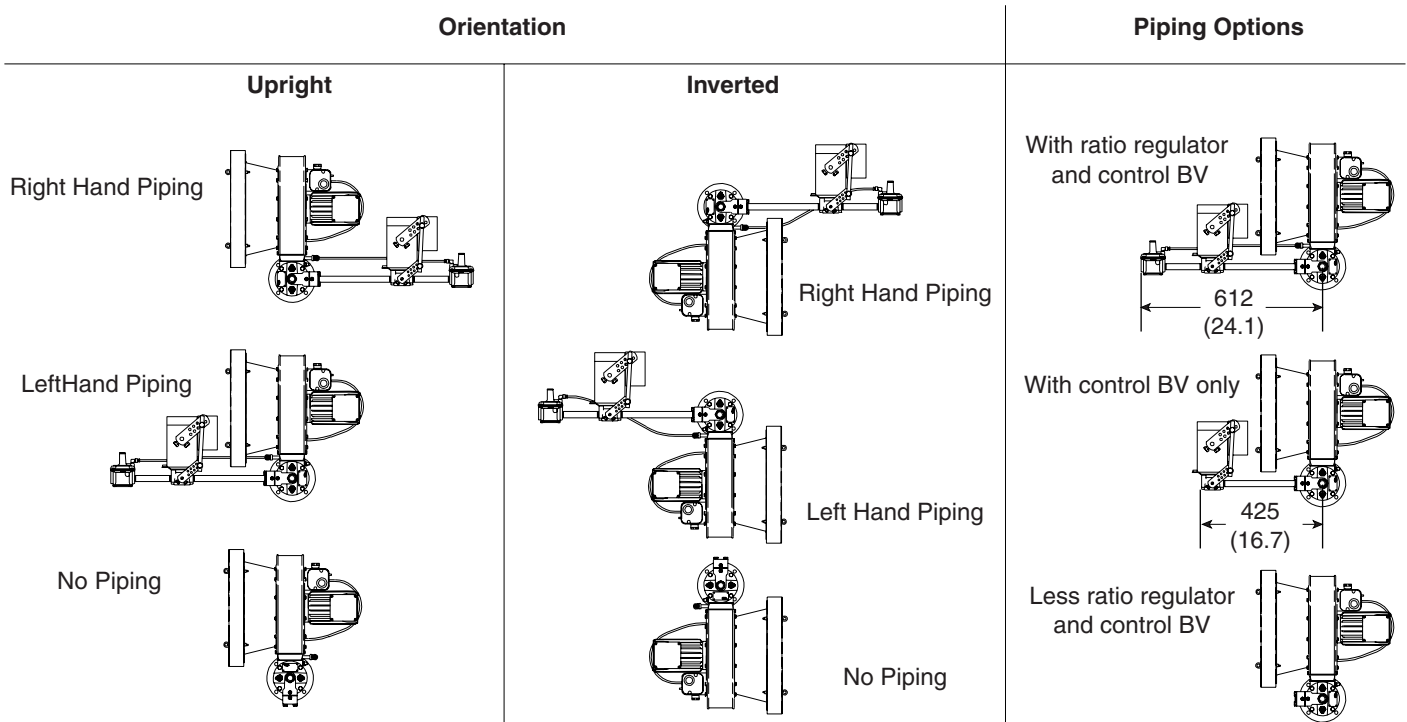
Weights		
	lb	kg
Burner, w/ blower	99	45
Burner, less blower	47	21
Filter/Silencer	41	19

Blower 6" w.c.														
	A		B		C		D		E		F		G	
Hz	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
50	484	19.0	532	20.9	N/A	N/A	N/A	N/A	272	10.7	309	12.2	291	11.5
60	443	17.4	517	20.4	578	22.7	537	21.1	255	10.0	312	12.3	298	11.7

Blower 3" w.c.														
	A		B		C		D		E		F		G	
Hz	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
60	354	13.9	428	16.9	N/A	N/A	N/A	N/A	212	8.3	257	10.1	301	11.9



Piping



Eclipse Combustion



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