



Specification Sheet
Models SH050 – SH075

Model Specifications

Model Parameter		SH050	SH075		
Maximum Input, BTU/hr To maintain 10% air with the standard air orifice and standard air blower. ¹		Straight	Straight	Medium Velocity	
		Modulating Air ⁴	N/A	725,000	700,000
		Fixed Air	550,000	700,000	570,000
Minimum Input, BTU/hr¹		6,500	30,000		
Regulator Inlet Pressure, “w.c.” Required Fuel Pressure at ratio regulator inlet ²		15			
Control Valve Inlet Pressure, “w.c.” Required Fuel Pressure at valve inlet when a regulator is not included. ⁵		4.45	3.2	3.65	
High Fire Visible Flame Length, inches Measured from the outlet end of the combustor		30	39	28	
Maximum Operating Temperature, °F	Alloy	1,500	1,500	1,750	
	SiC	1,900	1,900	2,500	
	Refractory	1,900	1,900	2,500	
Flame Detection	Flame Rod	For Temps up to 2,200°F			
	UV Scanner	½” or ¾” NPT adapters			
Fuels For any other mixed gas, contact Algas-SDI.		Natural Gas		Natural Gas and Propane	
Blower Motor Power, HP		0.5			
Blower Voltage, V³	1-Phase, 60Hz ⁵	115/230			
	3-Phase, 60Hz	230/460			
Blower Full Load Amps, A	1-Phase, 60Hz ⁵	7/3.5			
	3-Phase, 60Hz	1.6/0.8			
Fuel Control	Fixed Air	Valve & Actuator			
	Modulating Air	Ratio regulator with Manual Valve			
Burner Weight, lbs	With Blower	78			

¹ Inputs calculated using 1,070 BTU/SCF and 2,564 BTU/SCF heat capacity for natural gas and propane, respectively.

² Increasing or decreasing the inlet pressure to the ratio-regulator will affect the burner's maximum and minimum input (BTU/hr).

³ For motor phase and frequency other than specified, contact Algas-SDI.

⁴ Do not exceed blower max speed rating. Overspeed will cause permanent damage and risk of injury.

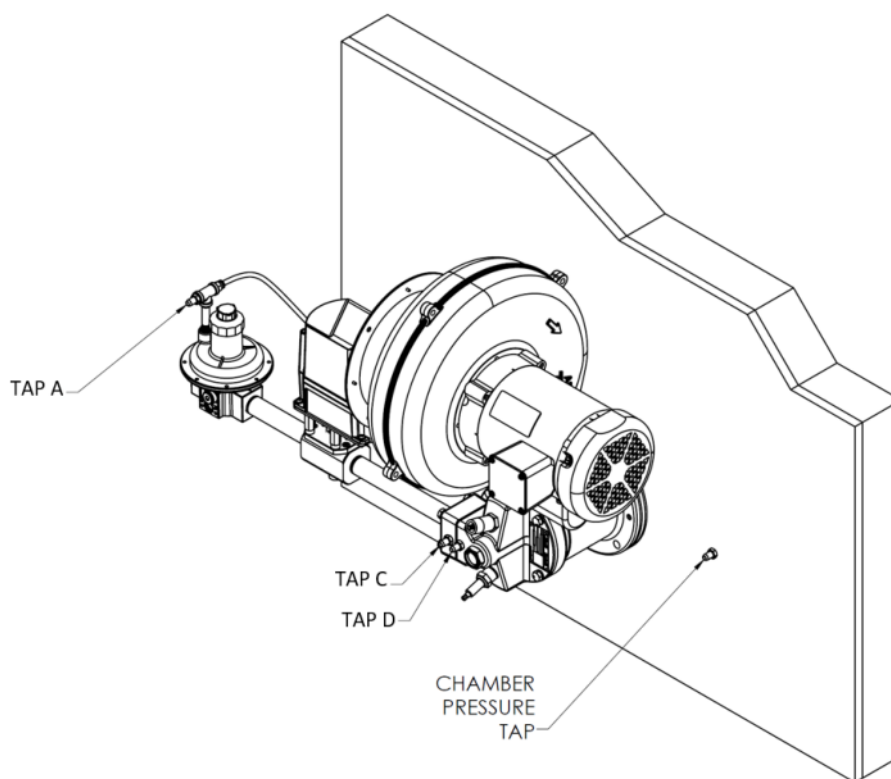
⁵ Fixed air configurations only. Higher pressure may result in incomplete combustion.

- All information is based on laboratory testing in neutral (0"w.c) pressure chamber. Different chamber conditions may affect the data.
- Maximum inputs are given for the standard combustion air blower without an air filter.
- All inputs based upon standard conditions; 1 atmosphere, 70°F, and higher heating values (HHV).
- Motors are designed for operation up to 3,300 ft above sea level and 104°F (40°C).
- Algas-SDI reserves the right to change the design and/or configuration of Algas-SDI products.
- For applications other than standard conditions or if operating outside of specified parameters, contact Algas-SDI.

Burners are supplied with these Regulators and Control Valves			
Size	Dungs® Ratio Regulator	SCC Inc.® Control Valve + 4-20 mA Actuator	SCC Inc.® Manual Control Valve
050	FRG 705/6	VA40.25-NF-075	N/A
075	FRG 707/6	VA40.25-NF-075	VKG10.020U-922

Pressure Tap Locations

Taps A, C, D, and Chamber



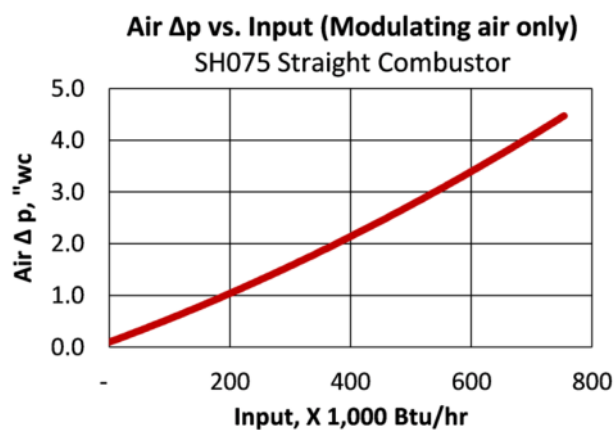
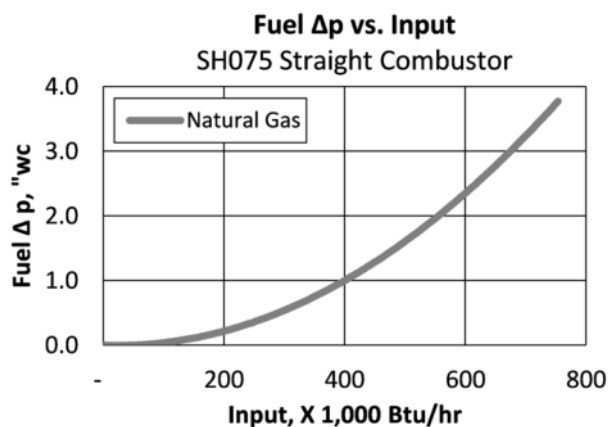
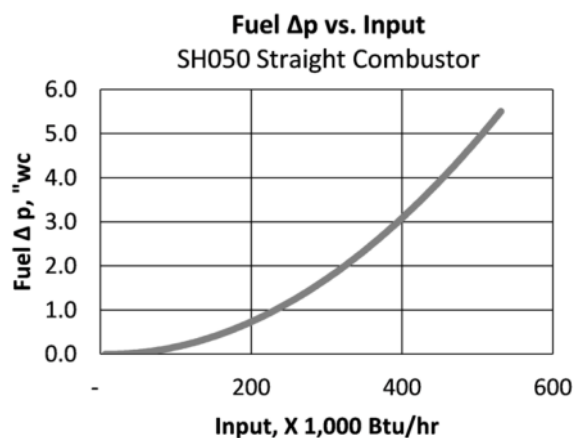
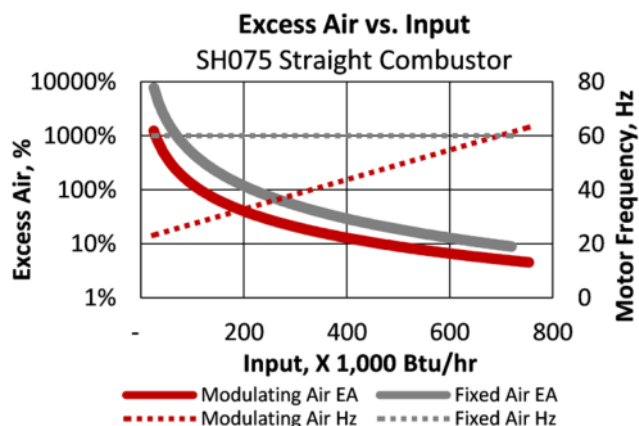
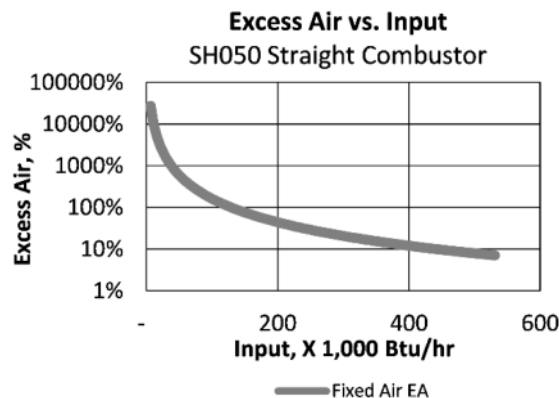
Fuel and Air Orifice

Burner Model	Fuel	Air Orifice	Fuel Orifice
SH050	Natural Gas	45 mm	11.5 mm
SH075	Natural Gas	60 mm	14.5 mm
	Propane		13 mm

Ratio Regulator Set Points

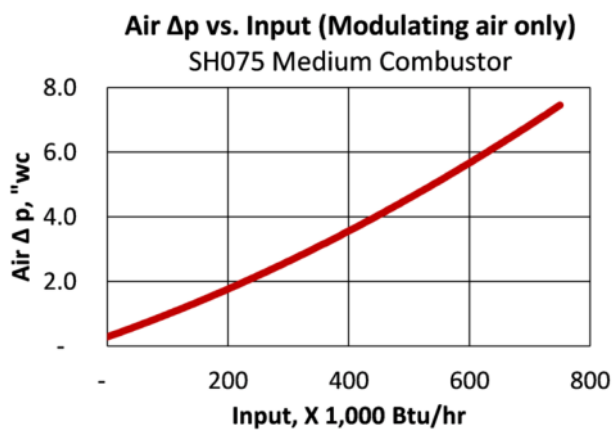
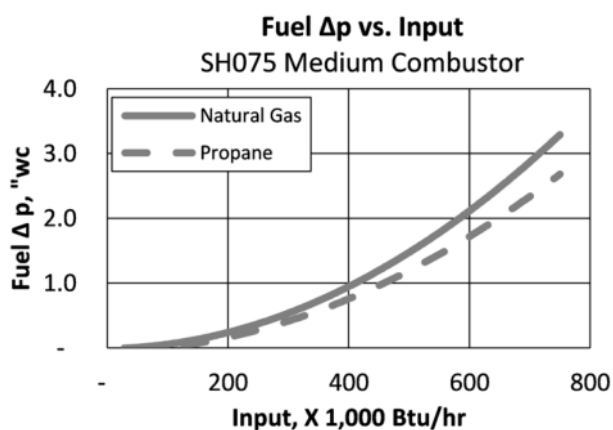
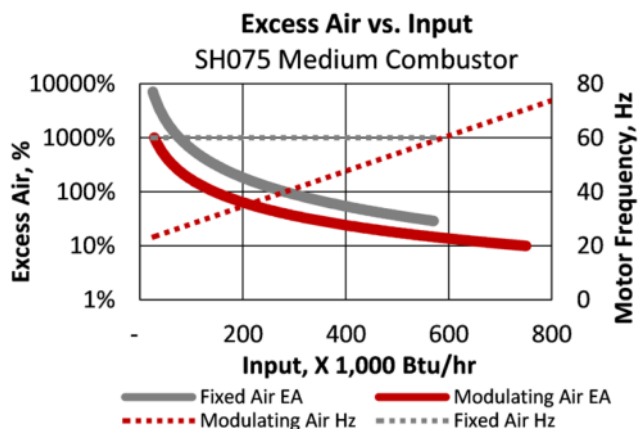
Burner	SH050	SH075		
Combustor Type	Straight Combustor	Straight Combustor	Medium Combustor	
Fuel	Natural Gas			Propane
Fixed Air (SH-FC)				
Ratio regulator Set Point Clockwise Rotations	32 half turns	15 half turns	15 half turns	15 half turns
Modulating Air (SH-VR)				
Ratio regulator Set Point Clockwise Rotations	N/A	15 half turns	15 half turns	N/A
Bypass Set Point Counter- Clockwise Rotations	N/A	1 half turn	1 half turn	N/A

SH Straight Combustor



- Measure fuel pressure between taps C and D and air pressure between tap A and the chamber
- VFD controlled modulating air configuration allows for motor overspeed passed 60 Hz.
- Do not exceed blower max speed rating.
- Plumbing of air and gas will affect accuracy of orifice readings.
- All information is based on acceptable/established air and gas piping practices.

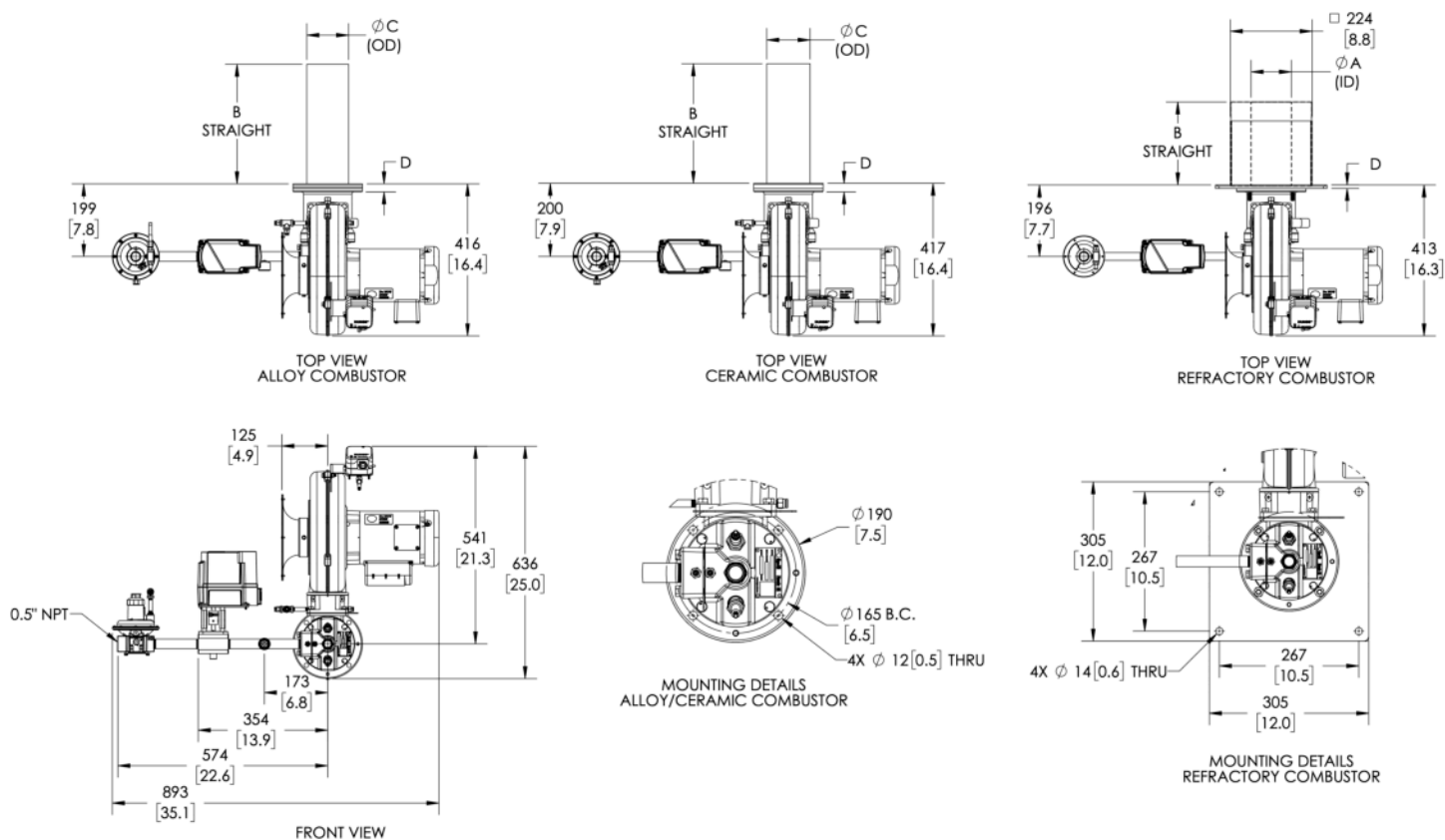
SH Medium Combustor



- Measure fuel pressure between taps C and D and air pressure between tap A and the chamber
- VFD controlled modulating air configuration allows for motor overspeed passed 60 Hz.
- Do not exceed blower max speed rating.
- Plumbing of air and gas will affect accuracy of orifice readings.
- All information is based on acceptable/established air and gas piping practices.

SH050 Product Dimensions

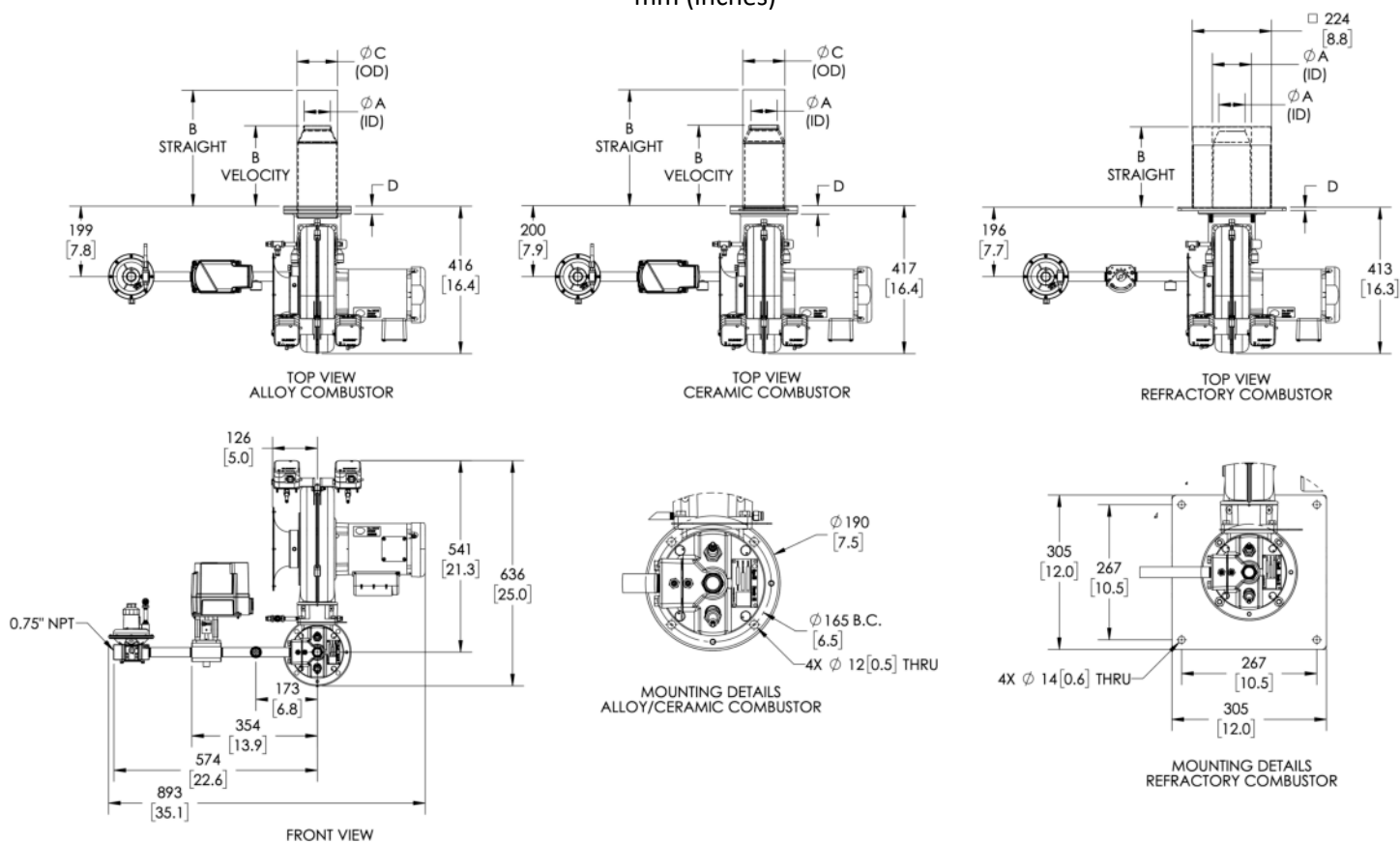
mm (inches)



Combustor Material	Combustor Outlet Diameter ("C")	Combustor length ("B")	Flange Thickness ("D")
Alloy Straight	$\phi 108$ [4.3]	327 [12.9]	22 [0.9]
SiC Straight	$\phi 108$ [4.3]	327 [12.9]	24 [0.9]
Refractory Straight	$\phi 101$ [4.0]	227 [8.9]	22 [0.9]

SH075 Product Dimensions

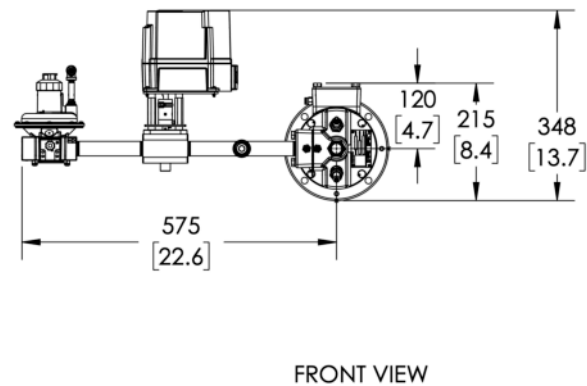
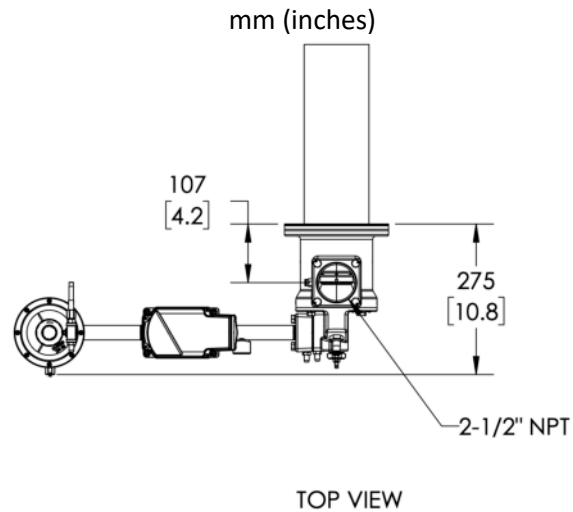
mm (inches)



Combustor Material	Medium Velocity Combustor Outlet Diameter ("A")	Medium Velocity Combustor Length ("B")	Straight Combustor Outlet Diameter ("C")	Straight Combustor Length ("B")	Flange Thickness ("D")
Alloy	Ø 74 [2.9]	227 [8.9]	Ø 108 [4.3]	327 [12.9]	22 [0.9]
SiC	Ø 74 [2.9]	227 [8.9]	Ø 108 [4.3]	327 [12.9]	24 [0.9]
Refractory	Ø 74 [2.9]	227 [8.9]	Ø 101 [4.0]	227 [8.9]	19 [.75]

Product Dimensions Remote Blower

2.5" NPT Air Inlet Block



2.5" NPT BLOWER CONNECTION

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