

SUBMITTAL DATA



UNIT HEATER

(HSU50, HSU80, HSU125)

For Industrial/ Commercial Use

PROJECT	
ENGINEER	
CONTRACTOR	
DISTRIBUTOR	
HEATSTAR MODEL	
FUEL	<input type="checkbox"/> NATURAL GAS <input type="checkbox"/> LIQUID PROPANE GAS
APPROVED BY	
DATE	
APPROVAL #	

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HeatStar Unit Heater Specifications

1. Heater Specifications

- a. Gas fired vented infrared heaters shall be furnished and installed in accordance with local codes and as shown per building drawings.
- b. Heaters shall be Design Certified by C.S.A. (Canadian Gas Association) formally A.G.A. Under the American National Standard (ANSI) Z83.8-2016 • CSA 2.6-2016. The supplier shall provide C.S.A. certificate numbers and heaters shall bear the C.S.A. Seal of Certification.
- c. Manufacture shall warrant mechanical and electrical components per the owner's manual specifications.
- d. The supplier shall furnish owner/contractor with copies of engineering specification forms for each model, showing the physical dimensions, installation detail and recommendations, control wiring diagrams, and spare parts list.
- e. Heaters shall be so designed to satisfactory operate at a minimum inlet gas pressure of 5" NG / 11" LP inches W.C. to a maximum inlet gas pressure of 14" LP /NG inches W.C.
- f. Heater shall be certified for use with natural gas and will be designated type gas on heater per the nameplate. LP gas conversion kits are available for purchase for field conversion from natural to LP gas.

2. Heater Control System

- a. Unit heater shall be equipped with direct spark ignition control system and operate with 100% shut-off ignition device. Power supplied to each heater shall be 120 V, 60Hz, single phase. Burners shall be rated for 5 percent of the voltage rating of the heater and each phase must be balanced within 2 percent of each other. (HSU50-120V/2.3A/1H; HSU80-120V/2.3A/1H; HSU125-120V/3A/1H)
- b. Heater controls shall include a single pressure switch to provide complete unit shut off in the event of insufficient air or flue blockage.
- c. Heaters are equipped with a pressure switch which can determine if the vent system and heat exchanger are blocked.
- d. Heater shall be capable of being controlled with a low voltage (24 volt) thermostat without additional external, internal wiring, or relays.
- e. The burner control box shall be constructed of 18-gauge steel with an industrial powder coated finish.
- f. Refer to model number on the heater to determine the vent system: Units use an adapter for connecting the vent pipe (4" HSU50-125) Vertical Vent - (6" HSU50-HSU125) Horizontal Vent

3. Heater Construction

- a. The material used in the heater's heat exchanger are aluminized steel.
- b. Models HSU50 to HSU125 secure with supplied mounting brackets using the four mounting holes with screws on the top edge of unit.

4. Certification

- a. The heaters are design certified by C.S.A. (Canadian Gas Association) formally A.G.A. Under The American National Standard (ANSI) Z83.8-2016• CSA 2.6-2016.
- b. Heaters shall be certified with natural or LP (propane) gas and will be designated as such on the heater name plate.
- c. Heater is manufactured to be installed only in a level horizontal position or inverted to 180 degrees.
- d. Heater must be vented to the outdoors and must have proper air for combustion. Horizontal venting is Category III and must be vented in vent pipe to UL 1738 and vertical venting is Category I. Refer to installation manual for proper venting lengths/installation and refer to local/national codes.

5 Warranty

Heatstar Unit Heater series are warranted for a period of 3 years on parts (limited to 1 year in high humidity or caustic environments), 10 years on the Aluminized Steel Heat Exchanger (Limited to 5 years when installed in corrosive environments).

TABLE 1A: MODEL CONFIGURATIONS						
POWER VENTED COMBUSTION UNIT HEATER (Aluminized Steel Heat Exchanger)						
QUANTITY ON THIS PROJECT	STOCK #	MODEL #	DIMENSION W x H x D (inches)	SHIPPING WEIGHT (lbs.)	BTU	Flue Size (inches)
	F160551	HSU50NG	24.5" x 15" x 24.5"	56	50,000	4"
	F160561	HSU80NG	25.25" x 17" x 24.5"	79	80,000	4"
	F160491	HSU125NG	27.20" x 25.5" x 26.90	108	125,000	4"

Units shipped as Natural Gas with LP conversion kit

GAS PRESSURE & ELECTRICAL				
LINE MINIMUM	LINE MAXIMUM	MANIFOLD	ELECTRICAL	GAS CONNECTION
5" WC NG 11" WC LP	14" WC NG 14" WC LP	3.5" WC NG 10" WC LP	120V, 60 HZ.	½" INLET (HSU50-125)

TABLE 5: IGNITION INFORMATION	
COMPONENT	FUNCTION
Gas Valve 24VAC	15 second purge
Ignition module	LED diagnostic
Burner Box	Steel with power coated black finish
Rollout Switch and Pressure Switch	Safety Switches

TABLE 5: CLEARANCE TO COMBUSTIBLES					
MODEL	SUSPENDED HORIZONTALLY				
	TOP & BOTTOM	ACCESS SIDE	NON-ACCESS SIDE	REAR	MINIMUM HEIGHT INSTALL
HSU50	1"	18"	1"	18"	8 FT
HSU80	1"	18"	1"	18"	8 FT
HSU125	1"	18"	1"	18"	8 FT

REPLACEMENT PARTS – UNIT HEATER

Part #	Item Description	QTY	Part #	Item Description	QTY
60141	Electrode Sensor		60020	Combustion Blower (HSU50-HSU80)	
60139	Spark Igniter		60214	Combustion Blower (HSU125)	
00042	Gas Valve (NG) (HSU50, HSU80)		60022	Limit Sensor (HSU50)	
60493	Gas Valve (LP) (HSU50, HSU80)		60021	Limit Sensor (HSU80)	
00042	Gas Valve (NG) (HSU125)		60022	Limit Sensor (HSU125)	
60025	Transformer		60065	Heat Exchanger (HSU50)	
60147	Pressure Switch (HSU50)		60068	Heat Exchanger (HSU80)	
60146	Pressure Switch (HSU80)		60206	Heat Exchanger (HSU125)	
60147	Pressure Switch (HSU125)		60062	Manifold (HSU50)	
60031	High Limit Sensor (HSU50-HSU80)		60064	Manifold (HSU80)	
60015	High Limit Sensor (HSU50-HSU125)		60227	Manifold (HSU125)	
60105	Circuit Board		60140	Vent Adapter (HSU50,HSU80)	
60055	Fan Motor (HSU50)		60213	Vent Adapter (HSU125)	
60054	Fan Motor (HSU80)		60243	Louvers(HSU50, HSU80)	
60208	Fan Motor (HSU125)		60258	Louvers (HSU125)	

Power Vented Unit Heater

