



Submittal Data

builderSchwank S100 & S100U Series

Positive pressure series gas fired infrared tube heaters

Project

Schwank models #

Fuel

Date submitted

Features

Approvals / Certificates

UL Certification.

Warranty; 5-year tube & burner cup,
2-year components.

Burner/Motor

Housing: The clam shell, provides
access from the 2 sides, end, and
bottom.

Head: Incorporates effective
ceramic burner head with minimum
835 flame ports.

Transformer

120/24VAC; 20VA

Safety Switch

Two separate air pressure switches
sense adequate combustion air and
blocked flue.

Electrical Power Supply

Line Voltage (hard-wired) Power
supply.

Gas connection included

USA: Flexible stainless steel gas
connector required by code:
supplied with burner.

CANADA: Type 1 gas hose
connector required by code:
supplied with burner.

Combination Gas Valve

Honeywell 24 Volt.

Natural Gas: 3 1/2" W.C. Manifold
Propane: 10" W.C. Manifold.

Reflector

26 GA. The aluminized steel reflector
extends below the bottom of the
tube surface. Reflectors are closed
at the start and end of each straight
run of tubes by means of end plate
hangers.

Controls/Thermostat

Factory ready for 24VAC or 120VAC
control. Schwank TruTemp 24V set
back thermostat with radiant &
ambient sensors and automatic
unoccupied setback mode.

ThermoControlPlus.

24V Digital thermostat. Note:
Multiple heaters per 24V thermostat
require relay control center kit.



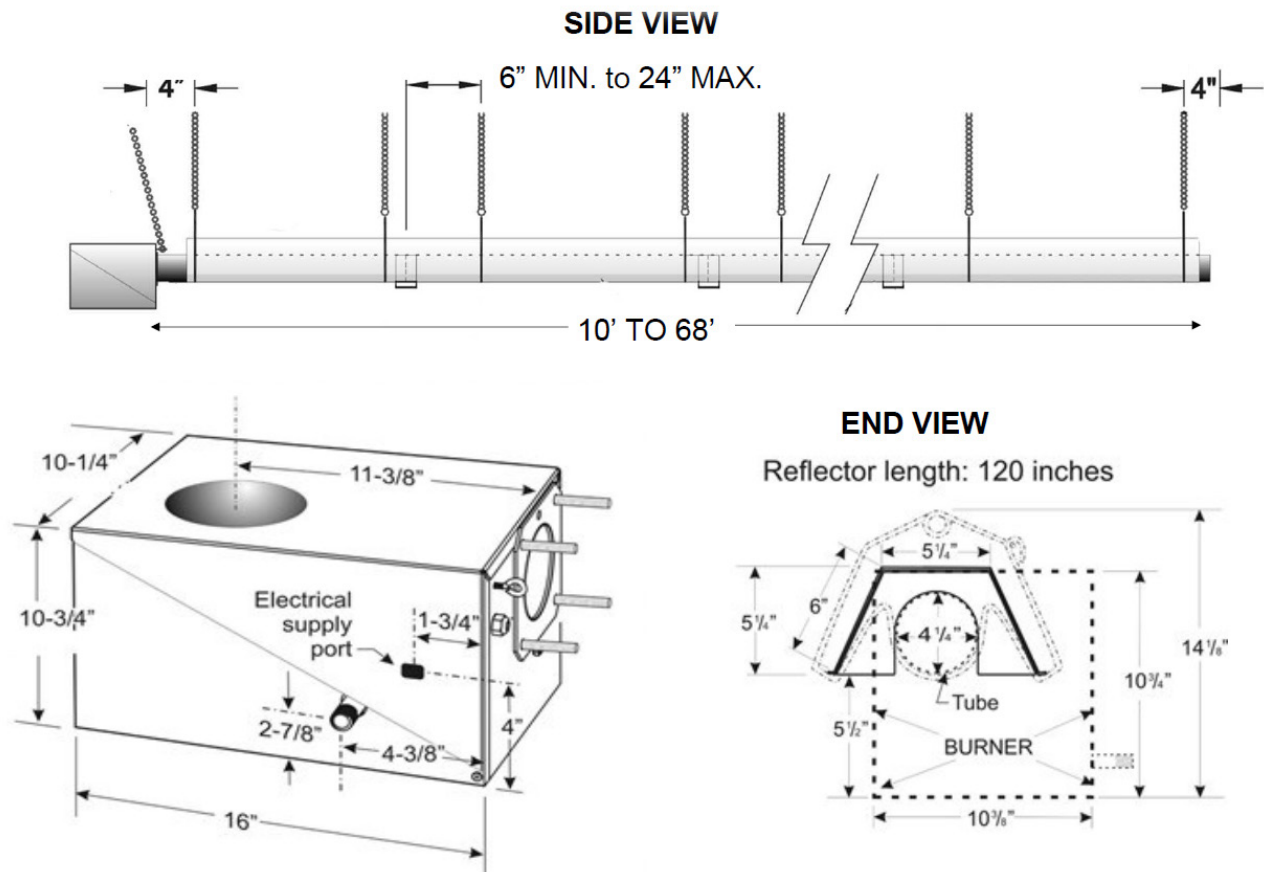
Read the
I&O Manual

Performance

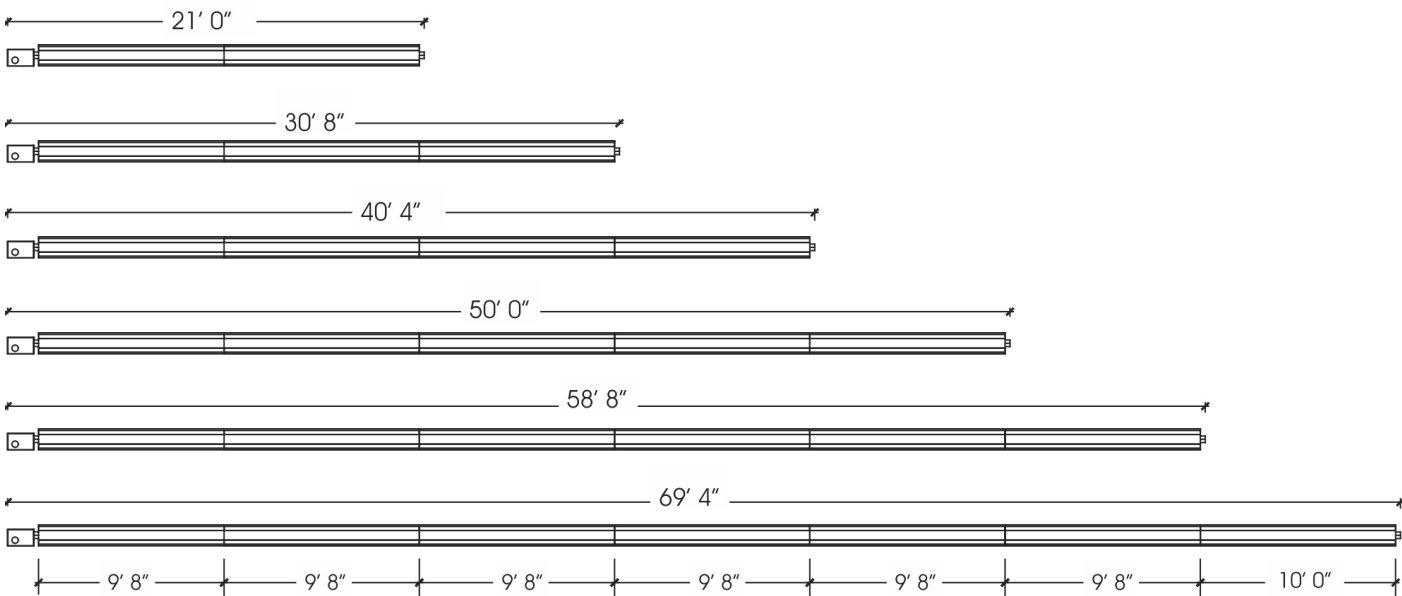
Tag	Qty	Model	Total Heater Length	Input (BTU/HR)	Turbulator Length	Line Pressure NG/LP	Manifold Pressure NG/LP	Air / Vent Duct Diameter	Shipping Weight (lbs.)
		S100 200-70	69' 4"	200,000 Btu/hr 59 Kw	40" + 72"			5.0" / 4.0"	240
		S100 200-60	59' 8"		40" + 72"				210
		S100 200-50	50' 0"		40" + 72"				180
		S100U 200-30	31' 11"		40" + 72"				210
		S100 175-70	69' 4"	175,000 Btu/hr 51 Kw	40" + 72"				240
		S100 175-60	59' 8"		40" + 72"				210
		S100 175-50	50' 0"		40" + 72"				180
		S100U 175-30	31' 11"		40" + 72"				210
		S100 155-60	59' 8"	150,000 Btu/hr 44 kW	24" (3rd Tube)				210
		S100 155-50	50' 0"		24" (3rd Tube)				180
		S100 155-40	40' 4"		24" + 109"				150
		S100U 155-30	31' 11"		Not Required				210
		S100U 155-20	22' 3"		24" + 96"				150
		S100 130-50	50' 0"	125,000 Btu/hr 37 kW	24" (3rd Tube)	Line minimum: 5" W.C NG 11" W.C LP	3½" W.C NG 10" W.C LP	4.0" / 4.0" or 5.0" / 4.0"	180
		S100 130-40	40' 4"		24" + 109"				150
		S100 130-30	30' 8"		60" + 96"	Line Maximum:			120
		S100U 130-20	22' 3"		24" + 96"				150
		S100U 130-15	17' 3"		60" + 96"				120
		S100 110-50	50' 0"	110,000 Btu/hr 32 kW	24" (3rd Tube)	NG or LP 14" W.C			180
		S100 110-40	40' 4"		24" + 109"				150
		S100 110-30	30' 8"		60" + 96"				120
		S100U 110-20	22' 3"		24" + 96"				150
		S100U 110-15	17' 3"		60" + 96"				120
		S100 100-20	21' 0"	100,000 Btu/hr 29 kW	Stamped S/S				90
		S100 80-40	40' 4"	80,000 Btu/hr 23 kW	24" + 109"				150
		S100 80-30	30' 8"		96"				120
		S100 80-20	21' 0"		39" + 96"				90
		S100U 80-15	17' 3"		96"				120
		S100U 80-10	12' 7"		39" + 96"				90
		S100 60-30	30' 8"	60,000 Btu/hr 18 kW	96"				120
		S100 60-20	21' 0"		39" + 96"				90
		S100U 60-10	12' 7"		39" + 96"				90
		S100 45-20	21' 0"		45,000 Btu/hr 13 kW				39" + 96"

For all the heaters above; Gas Inlet is 1/2" NPT. For heaters above 150,000-200,000 Btu/hr; Gas Inlet is 3/4 NPT. Electrical is 120V-60Hz, 145 VA. For 200,000 Btu/hr heaters: Flue & Air Vents 5" fresh air combustion

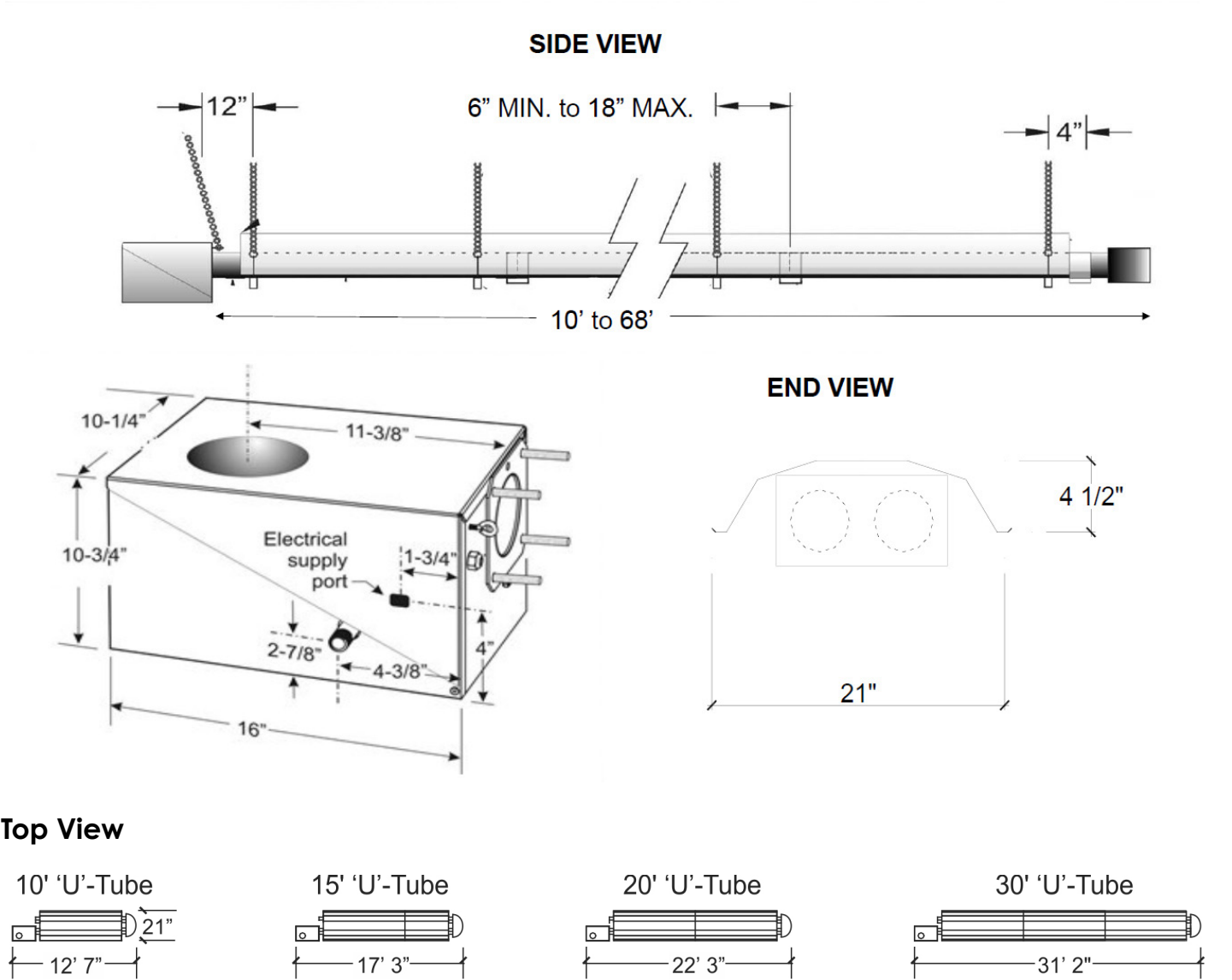
Straight Tube Dimensions



Top View

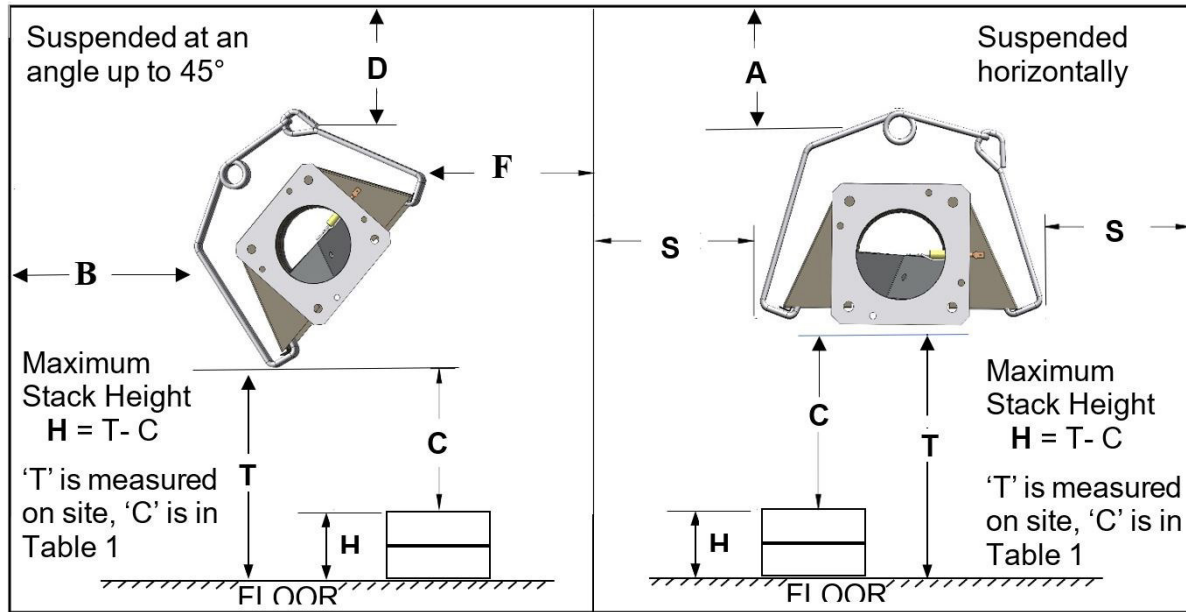


U-Tube Dimensions



Clearance to Combustibles:

The clearance to combustible material represents the minimum distance that must be maintained between heater and a nearby combustible surface. The stated clearance to combustibles represents a surface temperature of 90°F (50°C) above room temperature. Some materials such as awnings or plastic may require higher clearances. It is the installer's responsibility to ensure that building materials with a low heat tolerance which may degrade at lower temperature are protected to prevent degradation.



S100 Minimum Clearances to Combustibles

MODEL

S100 Input Rate (BTUH)

SUSPENDED AT AN ANGLE UP TO 45 DEGREES

SUSPENDED HORIZONTALLY

Inches	D	B	F	C	A	S	C
S100(U)/ITB(U) (200)	13	6	74	70	14	44	76
S100(U)/ITB(U) (175)	12	6	72	68	13	42	74
S100(U)/ITB(U) (155)	10	4	50	64	11	34	70
S100(U)/ITB(U) (130)	10	3	45	60	10	32	65
S100(U)/ITB(U) (110)	9	3	36	54	9	30	60
S100(U)/ITB(U) (80)	7	2	31	38	7	24	42
S100(U)/ITB(U) (60)	7	2	25	34	7	20	34
S100/ITB (45)	7	2	29	32	7	16	32
S100/ITB (100)	10	4	57	68	11	32	68

Controls & Control Accessories

Tag	Qty	Item Number	Description
		JM-0504-TKX	Thermocontrol Plus Controller (See Separate Detailed ThermoControl Plus Submittal Document)
		JM-0150-XX	Trutemp Thermostat 24V. Black Bulb Sensor
		JM-0180-XX	Set Of 2 Trutemp Tamperproof Screws + 1 Tool
		JM-0180-AA	Set Of 2 Trutemp Tamperproof Screws Only
		JS-0569-CC	24V Thermostat Relay Switch (For Additional Heaters On A Single Thermostat)
		JL-0772-XX	Line Voltage Thermostat
		JS-0569-WR	24V Digital Thermostat
		JS-0569-WR-P	Low Volage 24V Programmable Digital Thermostat

Additional Accessories

Tag	Qty	Item Number	Description
		JS-0508-SM	90 Degree swaged elbow kit 1 elbow, 1 reflector cap, 1 webbed hanger, 1 coupler
	2 x	JS-0508-SM	180 Degree swaged elbow kit 2 x 90 degree elbow kits - 2 webbed hangers, 2 couplers
		JS-0532-VC	Fresh air intake wall hood
		JA-0528-XX	Wall vent terminal 102 mm (4")
		JA-0514-AA	Common flue vent tee
		JL-0800-XX	#2 Lion chain - 200 Ft roll
		JL-0800-SH	2" Safety snap hooks: PKG of 24
		JL-0800-SH-B	2" Safety snap hooks: PKG of 100
		JS-0509-KT	Reflector Side Extension
		JA-0780-XS	Tube Protection Screen

Additional Items

Tag	Qty	Part #	Description

S100 Straight Tube System

COMPONENT QUANTITIES PER HEATER MODEL	S100 45-20	S100 60-20 80-20	S100 100-20	S100 60-30 80-30 110-30 130-30	S100 80-40 110-40 130-40 155-40	S100 110-50 130-50 155-50	S100 175-50 200-50	S100 155-60	S100 175-60 200-60	S100 175-70 200-70
10' Alumatherm Tube W/ Flange	0	0	0	0	0	0	1	0	1	1
10' Aluminized Tube W/ Flange	1	1	1	1	1	1	0	1	0	0
10' Aluminized Tube	0	0	0	0	0	0	1	0	1	1
10' Steel Tube	1	1	1	2	3	4	3	5	4	5
10' Reflector	2	2	2	3	4	5	5	6	6	7
Reflector End Cap	2	2	2	2	2	2	2	2	2	2
Torcite Coupler	1	1	0	2	3	4	3	5	4	5
Accuseal Tube Clamp	0	0	1	0	0	0	1	0	1	1
Tube / Reflector Wire Hanger	4	4	4	6	8	10	10	12	12	14
5' (1,524 Mm) Stainless Steel Turbulator	0	0	0	0	0	0	0	0	0	0
10' (3,048 Mm) Stainless Steel Turbulator	0	0	1	0	0	0	0	0	0	0
10' (3,048 Mm) Aluminized Steel Turbulator	1	1	0	1	1	0	1	0	1	1
4' (1,219 Mm) Aluminized Steel Turbulator	1	1	0	1	0	0	0	0	0	0

S100 U-Tube System

COMPONENT QUANTITIES PER HEATER MODEL	S100U 60-10 80-10	S100U 80-15 110-15 130-15	S100 U 110-20 130-20 155-20	S100U 175-30 200-30
10' (3,048 Mm) Aluma-Therm Tube W/ Flange	0	0	0	1
10' (3,048 Mm) Aluminized Tube W/ Flange	1	1	1	0
10' (3,048 Mm) Aluminized Tube	0	0	0	1
10' (3,048 Mm) Steel Tube	1	1	3	4
5' (1,524 Mm) Steel Tube	0	2	0	0
10' (3,048 Mm) Reflector	1	2	2	3
5' (1,524 Mm) Reflector	0	2	0	0
Reflector End Cap	2	2	2	2
Torcite Coupler	2	4	4	5
Accuseal Tube Clamp	0	0	0	1
Tube / Reflector Wire Hanger	2	4	4	6
10' Aluminized Steel Turbulator	1	1	1	1
4' Aluminized Steel Turbulator	1	1	0	0
180 Degree Turn-Around Box	1	1	1	1