

SUBMITTAL DATA

Schwank
INNOVATIVE HEATING SOLUTIONS



SEM & SEMU

POSITIVE PRESSURE SERIES GAS FIRED INFRA-RED TUBE HEATERS

PROJECT:	
ENGINEER:	
CONTRACTOR:	
DISTRIBUTOR:	
SCHWANK MODEL #:	
FUEL:	☐ N.G. ☐ L.P.G.
APPROVED BY:	
DATE:	
APPROVAL #:	



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QUANTITY ON THIS PROJECT	<u>TABLE 1:</u> <u>MODEL</u> <u>CONFIGURATIONS</u>	OVERALL HEATER LENGTH	BTU/HOUR INPUT 0 TO 4500 FT ABOVE SEA LEVEL	TURBULATOR REQUIRED LENGTH	GAS PRESSURE & ELECTRICAL	SHIPPING WEIGHT (LBS.)
	SEM 200-70	69' 4"	200,000	10'	<u>LINE</u> <u>MINIMUM</u> 5" W.C. N.G. 11" W.C. L.P.	240
	SEM 200-60	59' 8"		10'		210
	SEM 200-50	50' 0"		10'		180
	SEMU 200-30	31' 11"		10'		210
	SEM 175-70	69' 4"	175,000	10'	<u>LINE</u> <u>MAXIMUM</u> 14" W.C. N.G. 14" W.C. L.P.	240
	SEM 175-60	59' 8"		10'		210
	SEM 175-50	50' 0"		10'		180
	SEMU 175-30	31' 11"		10'		210
	SEM 155-60	59' 8"	155,000	Not Required	<u>MANIFOLD</u> 3.5" W.C. N.G. 10" W.C. L.P. ½" INLET	210
	SEM 155-50	50' 0"		Not Required		180
	SEM 155-40	40' 4"		10'		150
	SEMU 155-30	31' 11"		Not Required		210
	SEMU 155-20	22' 3"		10'		150
	SEM 130-50	50' 0"	130,000	Not Required	ELECTRICAL 120V, 60 HZ	180
	SEM 130-40	40' 4"		10'		150
	SEM 130-30	30' 8"		14'		120
	SEMU 130-20	22' 3"		10'		150
	SEMU 130-15	17' 3"		14'		120
	SEM 110-50	50' 0"	110,000	Not Required		180
	SEM 110-40	40' 4"		10'		150
	SEM 110-30	30' 8"		14'		120
	SEMU 110-20	22' 3"		10'		150
	SEMU 110-15	17' 3"		14'		120
	SEM 100-20	21' 0"	100,000	10'		90
	SEM 80-40	40' 4"	80,000	10'		150
	SEM 80-30	30' 8"		14'		120
	SEM 80-20	21' 0"		14'		90
	SEMU 80-15	17' 3"		14'		120
	SEMU 80-10	12' 7"		14'		90
	SEM 60-30	30' 8"	60,000	14'		120
	SEM 60-20	21' 0"		14'		90
	SEMU 60-10	12' 7"		14'		90

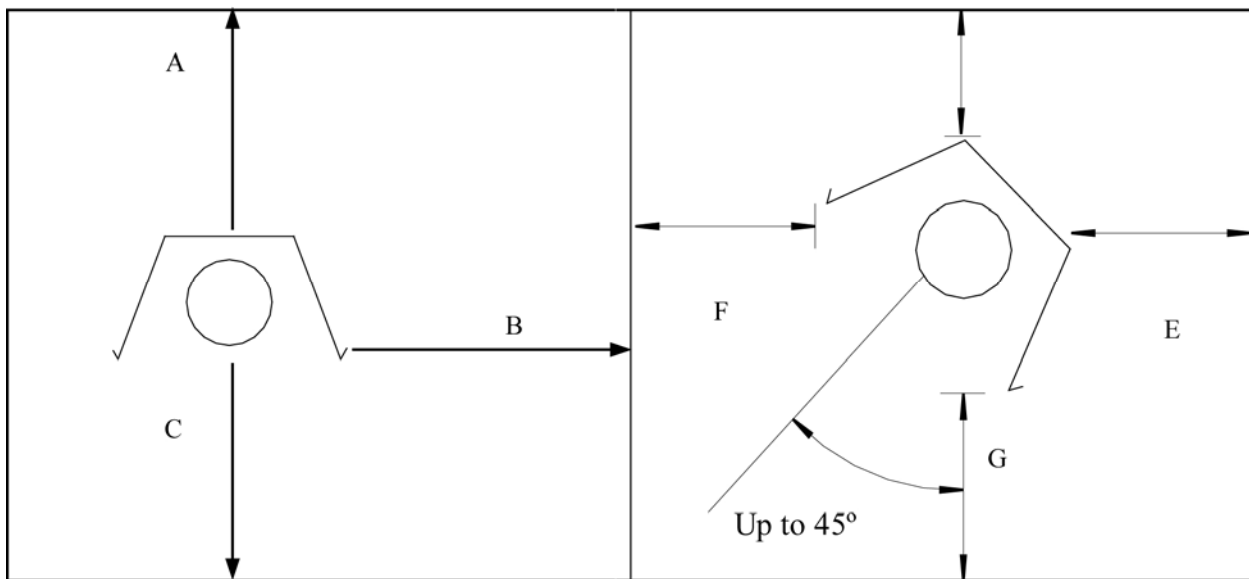
NOTE: Where required, the series SEM/U heaters will be supplied with the turbulators, snugly installed into the end tube(s) of the system configurations.

<u>TABLE 2: COMPONENT QUANTITIES PER HEATER MODEL</u>	<u>SEM 60-20 80-20</u>	<u>SEM 100-20</u>	<u>SEM 60-30 80-30 110-30</u>	<u>SEM 80-40 110-40 130-40</u>	<u>SEM 110-50 130-50 155-50</u>	<u>SEM 175-50 200-50</u>	<u>SEM 155-60</u>	<u>SEM 175-60 200-60</u>	<u>SEM 175-70 200-70</u>
HEATERS ON THIS PROJECT									
10' ALUMA-THERM TUBE w/ FLANGE	0	0	0	0	0	1	0	1	1
10' ALUMINIZED TUBE w/ FLANGE	1	1	1	1	1	0	1	0	0
10' ALUMINIZED TUBE	0	0	0	0	0	1	0	1	1
10' STEEL TUBE	1	1	2	3	4	3	5	4	5
10' REFLECTOR	2	2	3	4	5	5	6	6	7
REFLECTOR END CAP	2	2	2	2	2	2	2	2	2
TORCTITE COUPLER	1	0	2	3	4	3	5	4	5
ACCUSEAL TUBE CLAMP	0	1	0	0	0	1	0	1	1
TUBE / REFLECTOR WIRE HANGER	4	4	6	8	10	10	12	12	14
10' STAINLESS STEEL TURBULATOR	0	1	0	0	0	0	0	0	0
10' ALUMINIZED STEEL TURBULATOR	1	0	1	1	0	1	0	1	1
4' ALUMINIZED STEEL TURBULATOR	1	0	1	0	0	0	0	0	0

<u>TABLE 2: COMPONENT QUANTITIES PER HEATER MODEL</u>	<u>SEMU 60-10 80-10</u>	<u>SEMU 110-15 130-15 80-15</u>	<u>SEMU 110-20 130-20 155-20</u>	<u>SEMU 155-30</u>	<u>SEMU 175-30 200-30</u>
HEATERS ON THIS PROJECT					
10' ALUMA-THERM TUBE w/ FLANGE	0	0	0	0	1
10' ALUMINIZED TUBE w/ FLANGE	1	1	1	1	0
10' ALUMINIZED TUBE	0	0	0	0	1
10' STEEL TUBE	1	1	3	5	4
5' STEEL TUBE	0	2	0	0	0
10' REFLECTOR	1	2	2	3	3
5' REFLECTOR	0	2	0	0	0
REFLECTOR END CAP	2	2	2	2	2
TORCTITE COUPLER	2	4	4	6	5
ACCUSEAL TUBE CLAMP	0	0	0	0	1
TUBE / REFLECTOR WIRE HANGER	2	4	4	6	6
10' ALUMINIZED STEEL TURBULATOR	1	1	1	0	1
4' ALUMINIZED STEEL TURBULATOR	1	1	0	0	0
180 DEGREE TURN-AROUND BOX	1	1	1	1	1

TABLE 3: APPROVED MINIMUM CLEARANCES TO COMBUSTIBLES

QUANTITY ON THIS PROJECT	MODEL	SUSPENDED HORIZONTALLY			SUSPENDED AT AN ANGLE DEGREES UP TO 45			
		TOP	SIDE	BELOW	TOP	REAR	FRONT	BELOW
		A	B	C	D	E	F	G
	SEM 200	7"	22"	68"	7"	1"	57"	68"
	SEM 175	6.5"	20"	68"	6.5"	1"	47"	68"
	SEM 155	6"	19"	64"	6"	1"	44"	64"
	SEM 130	4"	11"	60"	5'	1"	35"	56"
	SEM 110	3"	10"	60"	4.5"	1"	26"	54"
	SEM 100	7"	22"	68"	7"	1"	57"	68"
	SEM 80	2.5"	6"	42"	3.5"	1"	23"	38"
	SEM 60	2.5"	5.5"	34"	3"	1"	17"	34"



SECTION DETAILS

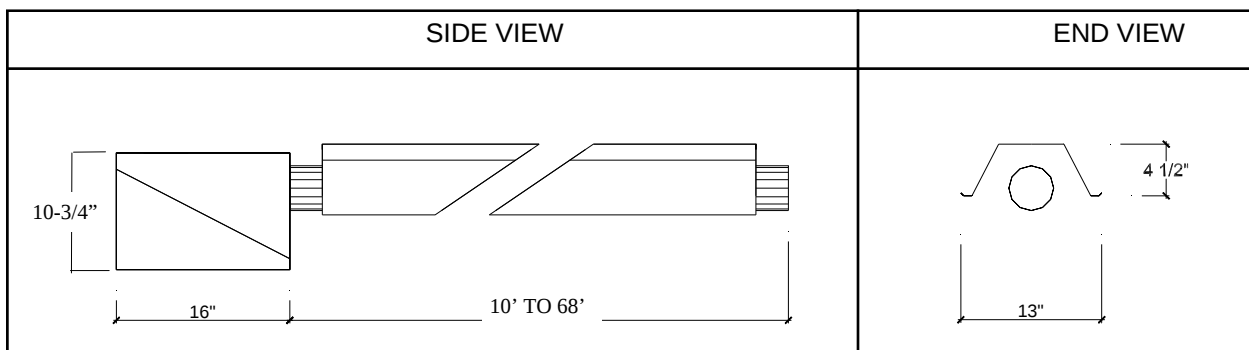
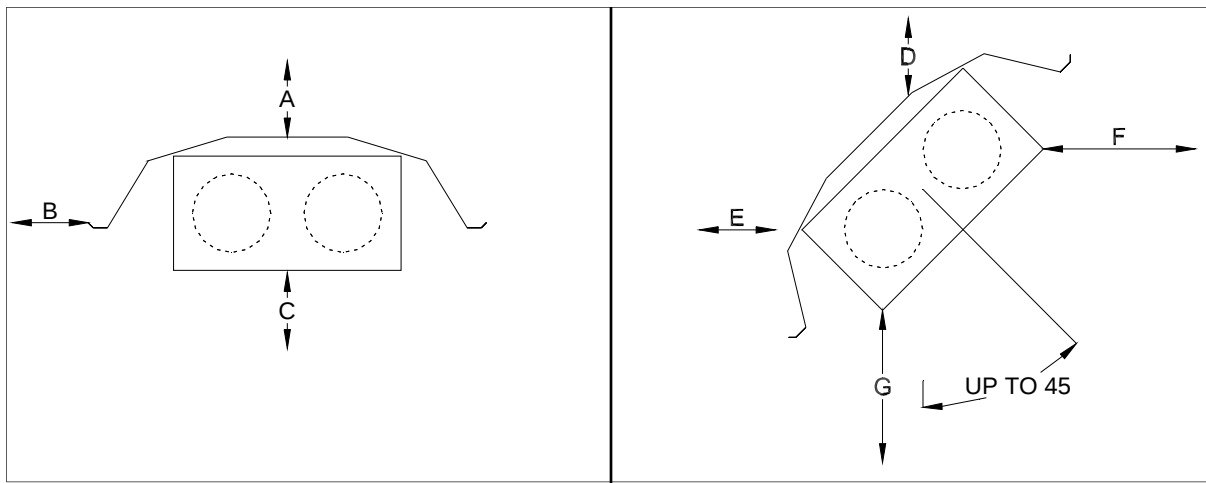


TABLE 3: APPROVED MINIMUM CLEARANCES TO COMBUSTIBLES

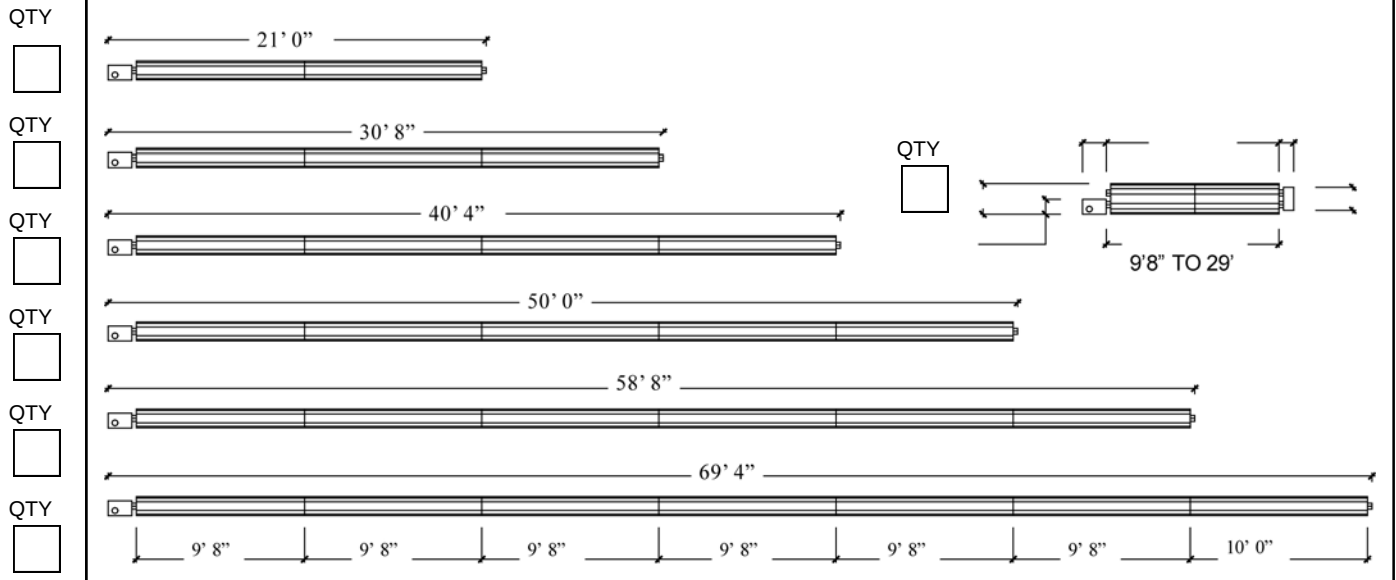
QUANTITY ON THIS PROJECT	MODEL	SUSPENDED HORIZONTALLY			SUSPENDED AT AN ANGLE UP TO 45 DEGREES			
		TOP	SIDE	BELOW	TOP	REAR	FRONT	BELOW
		A	B	C	D	E	F	G
	SEMU 200	7"	22"	68"	7"	1"	57"	68"
	SEMU 175	6.5"	20"	68"	6.5"	1"	47"	68"
	SEMU 155	6"	19"	64"	6"	1"	44"	64"
	SEMU 130	4"	11"	60"	5'	1"	35"	56"
	SEMU 110	3"	10"	60"	4.5"	1"	26"	54"
	SEMU 80	2.5"	6"	42"	3.5"	1"	23"	38"
	SEMU 60	2.5"	5.5"	33"	3"	1"	17"	34"



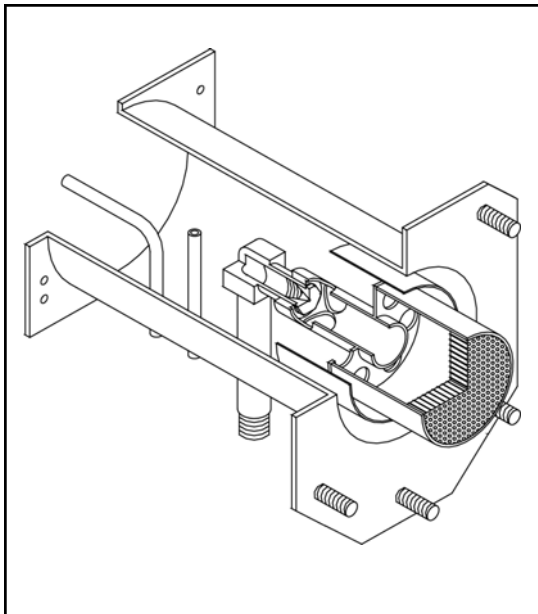
SECTION DETAILS

SIDE VIEW	END VIEW
Side view diagram showing dimensions: 10 3/4" height, 16" width, 9' 8" TO 29' length, and 10" width.	End view diagram showing dimensions: 21" width and 4 1/2" height.

TOP VIEWS OF SYSTEMS



CUT-AWAY BURNER VIEW



OPTIONAL ACCESSORIES		PROJECT QTY
90 DEGREE ELBOW KIT	JM-0508-KT	
1 ELBOW, 2 REFLECTOR END CAPS, 1 CLAMP.		
180 DEGREE ELBOW KIT	JM-0513-KT	
1 ELBOW, 2 REFLECTOR END CAPS, 1 CLAMP.		
4" FRESH AIR INTAKE ADAPTER	JS-0532-SE	
4" FRESH AIR INTAKE CAP	JS-0532-VC	
4" ROOF FLUE VENT TERMINAL	JA-0530-XX	
6" ROOF FLUE VENT TERMINAL	JA-0531-XX	
4" WALL FLUE VENT TERMINAL	JA-0528-XX	
6" WALL FLUE VENT TERMINAL	JA-0529-XX	
FLUE VENT TEE (4" x 4" x 6")	JA-0514-AA	
USA ONLY:		
FLEX GAS CONNECTOR 1/2" x 24"		
45,000 TO 155,000 BTUH	JL-0771-XX	
FLEX GAS CONNECTOR 3/4" x 24"		
175,000 TO 200,000 BTUH	JL-0771-XX	
CANADA ONLY:		
HOSE GAS CONNECTOR 1/2" x 36"		
45,000 TO 155,000 BTUH	JL-0771-RC	
HOSE GAS CONNECTOR 3/4" x 36"		
175,000 TO 200,000 BTUH	JL-0771-RB	
THERMOSTAT 120 VOLT	JL-0772-XX	
THERMOSTAT 24 VOLT DIGITAL	JL-0569-WR	
24V THERMOSTAT RELAY KITS:		
Single Heater per 24V T-stat	JM-0568-KT	
Multiple Heaters per 24V T-stat	JM-0303-KT	

COMPONENT DESCRIPTION - SEM & SEMU

QTY			
	IGNITION	DIRECT SPARK MODULE	FENWALL JS-0573-RP
	ELBOWS	90 DEGREE ELBOW 4" DIAMETER, 16 GA. ALUMINIZED STEEL, 8 ½" CENTRE RADIUS WITH ONE SWAGED END. 180 DEGREE ALUMINIZED STEEL TURN-AROUND BOX WITH ONE SWAGED END.	
	TUBES 60 THRU 155 MBTUH INPUT	FIRST SECTION IS 10' LONG, 4" DIAMETER, 16 GA. ALUMINIZED STEEL WITH ONE SWAGED END' EACH ADDITIONAL SECTION IS 10' LONG, 4" DIAMETER, 16 GA. HOT ROLLED STEEL AND ONE SWAGED END EXCEPT FOR 15' SYSTEMS WHICH WILL ALSO HAVE 5' TUBES	
	TUBES 175 & 200 MBTUH INPUT	FIRST SECTION IS 10' LONG, 4" DIAMETER, 16 GA. ALUMA-THERM WITH ONE SWAGED END. SECOND SECTION IS 10' LONG, 4" DIAMETER, 16 GA. ALUMINIZED STEEL WITH ONE SWAGED END. EACH ADDITIONAL SECTION IS 10' LONG, 4" DIAMETER, 16 GA. HOT ROLLED STEEL WITH ONE SWAGED END.	
	COMBINATION GAS VALVE	HONEYWELL 120 VOLT	-NATURAL GAS 3.5" W.C. MANIFOLD PRESSURE -PROPANE 10" W.C. MANIFOLD PRESSURE
	REFLECTORS	10' LONG, OVERLAPPING ENTIRE LENGTH OF THE HEATER- EXCEPT FOR 15' SYSTEMS WHICH WILL ALSO HAVE 5' REFLECTORS	
	REFLECTOR END CAPS	ALUMINIZED STEEL	
	HANGERS	TWO HANGERS SUPPORT EACH LENGTH OF TUBE / REFLECTOR	
	COUPLING KIT	TORCTITE COUPLER C/W 2 BOLTS 100,000, 175,000, & 200,000 Btuh HAVE ACCUSEAL TUBE CLAMP AT JUNCTION OF FIRST TO SECOND TUBE	
	BURNER HOUSING	BOTTOM FOLDS AWAY, PROVIDING ACCESS FROM TWO SIDES, END, AND BOTTOM	
	BURNER	INCORPORATES EFFECTILE CERAMIC BURNER HEAD.	
	SAFETY SWITCHES	TWO SEPARATE AIR PRESSURE SWITCHES SENSE ADEQUATE COMBUSTION AIR AND POTENTIAL BLOCKED FLUE	
	BLOWER	3300 RPM 110 VOLT	