

SUBMITTAL DATA



GAS-FIRED INFRARED RADIANT TUBE HEATERS

CAR WASH / HARSH ENVIRONMENT TWO-STAGE HEATERS

STWS2 SERIES

- 2-STAGE
- 304 GRADE STAINLESS STEEL
 - BURNER HOUSING
 - TUBE / REFLECTOR SYSTEM

PROJECT:	
ENGINEER:	
CONTRACTOR:	
DISTRIBUTOR:	
SCHWANK MODEL #:	
FUEL:	<input type="checkbox"/> N.G. <input type="checkbox"/> L.P.G.
APPROVED BY:	
DATE:	
APPROVAL #:	



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QTY ON PROJECT	MODEL	TOTAL HEATER LENGTH	Btu/hr Up to 4500 ft [1373 meters] ABOVE SEA LEVEL	FLUE & AIR VENT	SHIPPING WEIGHT
	STWS2-200-60	60'0" [18,288mm]	195/140,000 NG or LP	4" 101.6 mm (4")	290 lbs [132 kg]
	STWS2-175-60	60'0" [18,288mm]	162/115,000 NG or LP		290 lbs [132 kg]
	STWS2-155-50	50' 4" [15,342mm]	150/110,000 NG or LP		247 lbs [112 kg]
	STWS2-130-40	40' 8" [12,395mm]	120/85,000 NG or LP		205 lbs [93 kg]
	STWS2-110-40	40' 8" [12,395mm]	110/80,000 NG 108/70,000 LP		205 lbs [93 kg]
	STWS2-80-30	31'0" [9,450mm]	78/58,000 NG or LP		162 lbs [74 kg]

GAS SUPPLY MINIMUM PRESSURE: 5" w.c. NG (12.45mbar NG); 11" wc. LP (27.39mbar LP)

GAS SUPPLY MAXIMUM PRESSURE: N.G. or L.P. : 14" w.c. (34.86 mbar)





GAS MANIFOLD PRESSURE: 3½" w.c. NG (8.71 mbar NG); 10" wc. L.P (24.9 mbar LP)

GAS INLET DIAMETER: ½" NPT

ELECTRICAL: 120V, 60 HZ, 145 VA

THERMOSTAT: Factory ready for 24V or 120V thermostat

STWS2 TOP VIEWS OF SYSTEMS

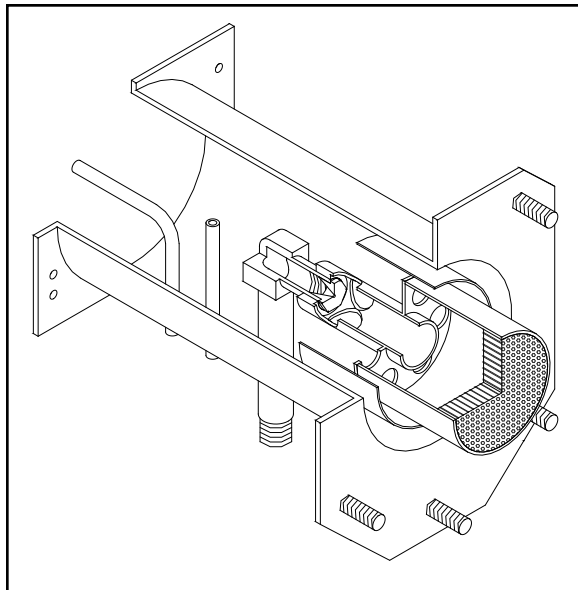
QTY		
<input type="text"/>	30 FT	 9,450 mm (31')
<input type="text"/>	40 FT	 12,395 mm (40' 8")
<input type="text"/>	50 FT	 15,342 mm (50' 4")
<input type="text"/>	60 FT	 18,288 mm (60')

STAINLESS STEEL COMPONENT QUANTITIES PER HEATER MODEL	STWS2 80-30	STWS2 110-40 130-40	STWS2 155-50	STWS2 175-60 200-60
QUANTITY OF HEATERS ON THIS PROJECT				
10' [3048 mm] 304 GRADE STAINLESS STEEL SWAGED TUBE c/w FLANGE	1	1	1	1
10' [3048 mm] 304 GRADE STAINLESS STEEL SWAGED TUBE	2	3	4	5
9' 8" [2946 mm] 304 GRADE STAINLESS STEEL FOCUS SHIELD REFLECTOR	3	4	5	6
STAINLESS STEEL COUPLER	2	3	4	5
END WEBBED PLATE HANGER	2	2	2	2
TUBE / REFLECTOR WEBBED HANGER	2	3	4	5
REFLECTOR STABILIZER	9	12	15	18

NOTE:

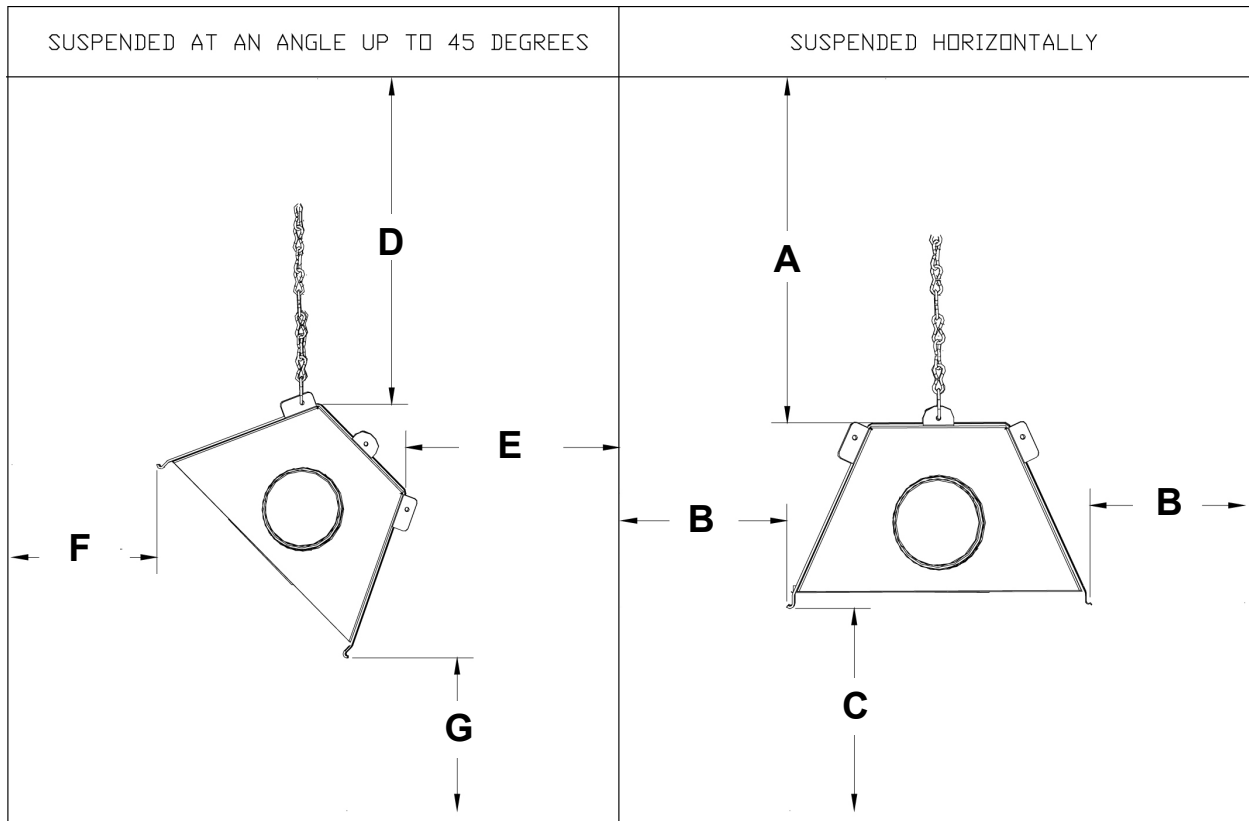
- CANADA: TYPE 1 HOSE GAS CONNECTOR IS INCLUDED WITH EACH BURNER KIT
1/2" X 30" 45,000 TO 125,000
3/4" X 30" 155,000 TO 200,000
- USA : FLEXIBLE GAS CONNECTOR IS INCLUDED WITH EACH BURNER KIT
1/2" x 24" 45,000 TO 125,000
3/4" X 24" 155,000 TO 200,000

CUT-AWAY BURNER VIEW



<u>OPTIONAL ACCESSORIES</u>	QUANTITIES ON THIS PROJECT
90 DEGREE SWAGED ELBOW KIT 1 elbow, 2 end hangers, 1 coupler	
180 DEGREE SWAGED ELBOW KIT 2 x 90 degree elbow kits - 3 webbed hangers, 2 couplers	
100 mm (4") ROOF FLUE VENT TERMINAL	
150 mm (6") ROOF FLUE VENT TERMINAL	
100 mm (4") WALL FLUE VENT TERMINAL	
150 mm (6") WALL FLUE VENT TERMINAL	
FLUE VENT TEE 100 mm x 100 mm x 150 mm (4" x 4" x 6")	
STAINLESS STEEL COUPLING KIT FOR TEE	
NEMA 4X THERMOSTAT— JS-0570-XX	

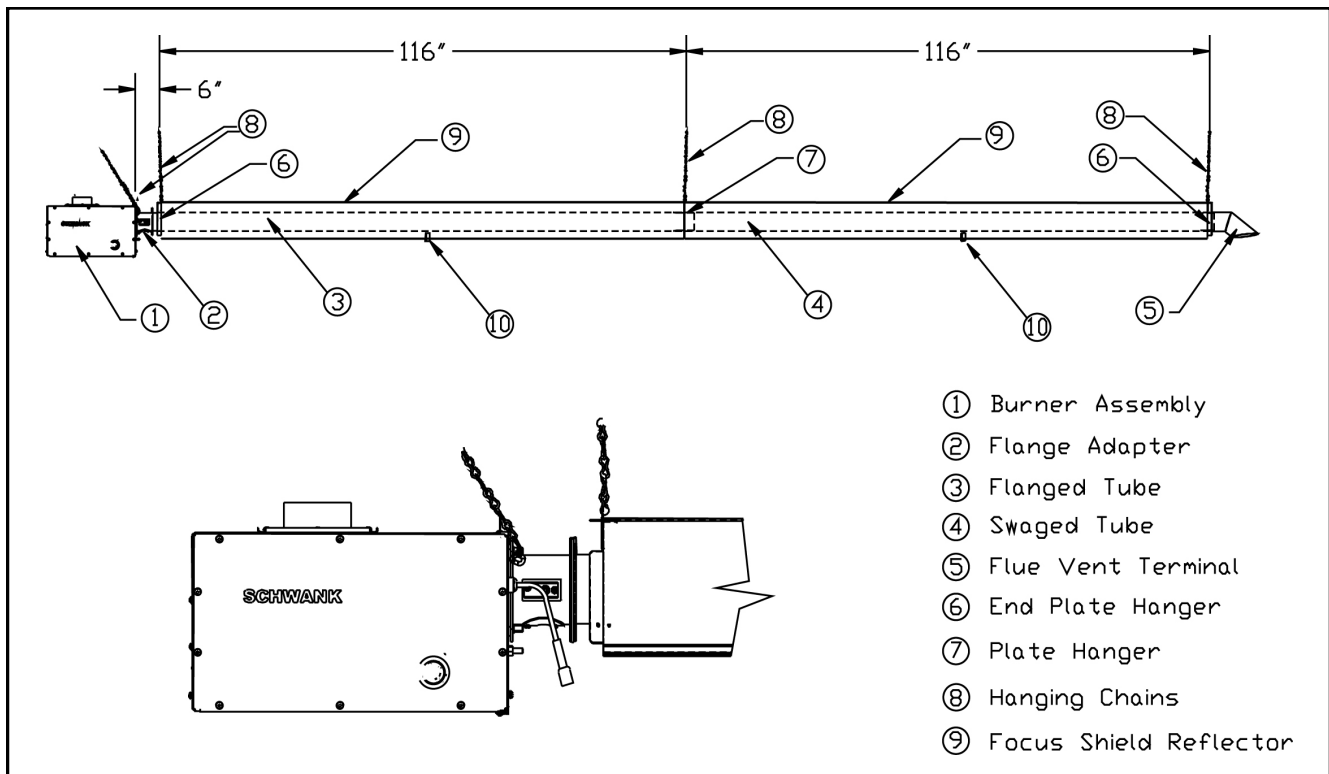
MINIMUM CLEARANCES TO COMBUSTIBLES



QTY	MODEL	SUSPENDED AT AN ANGLE UP TO 45 DEGREES				SUSPENDED HORIZONTALLY		
		D	E	F	G	A	B	C
	STWS2-200	6.5"	1"	57"	68"	6"	22"	68"
	STWS2-175	5.5"	1"	47"	68"	4.5"	20"	68"
	STWS2-155	5.5"	1"	44"	64"	3.5"	19"	64"
	STWS2-130	4.5"	1"	35"	56"	3.3"	11"	60"
	STWS2-110	3.5"	1"	26"	54"	2"	10"	54"
	STWS2-80	3"	1"	23"	38"	1.75"	6.0"	36"

The clearances to combustibles are established at points reaching a surface temperature of 90°F above ambient air temperature. Some materials such as awnings or plastic may require higher clearances. Maintain at least the minimum clearances as shown above.

TYPICAL HANGER & SUPPORT SPACING RECOMMENDATIONS



REFLECTOR STABILIZER

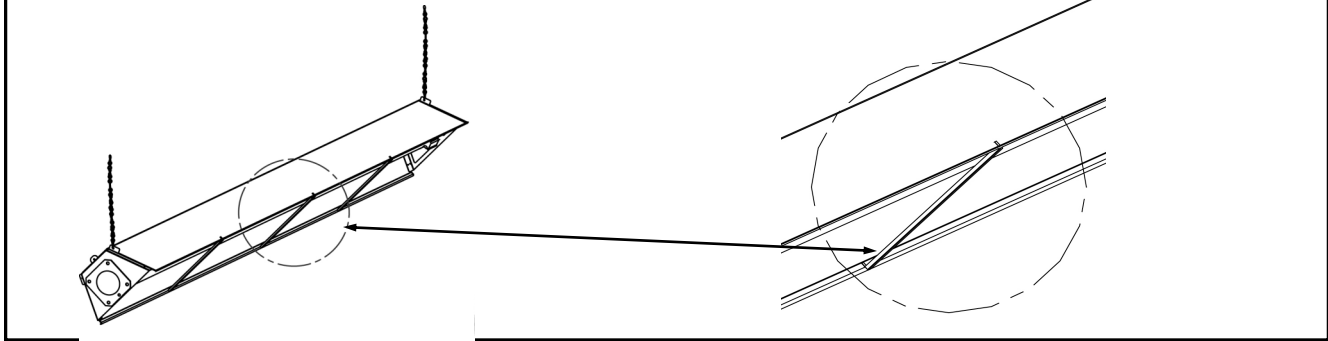
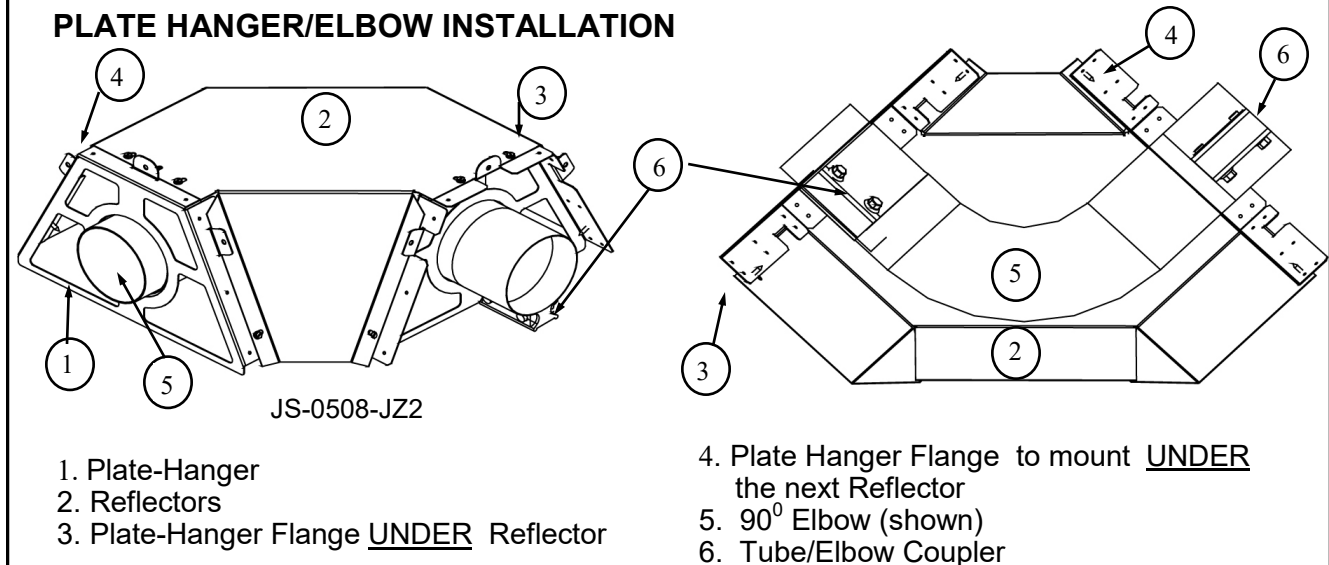


PLATE HANGER/ELBOW INSTALLATION



COMPONENT DESCRIPTION

	IGNITION	DIRECT SPARK IGNITION MODULE
	THERMOSTAT OPTIONS	SCHWANK TRUTEMP SET BACK THERMOSTAT WITH RADIANT & AMBIENT SENSORS, AND AUTOMATIC UNOCCUPIED SETBACK MODE
		NEMA 4X THERMOSTAT: 24V-120V
		THERMOCONTROL PLUS
	ELBOWS	90 DEGREE ELBOW 4" DIAMETER, 16 GA, 304 GRADE STAINLESS STEEL, 8 ½" CENTRE RADIUS SWAGED ONE END
		180 DEGREE ELBOW (ASSEMBLY OF TWO 90 DEGREE ELBOW KITS): 4" DIAMETER, 16 GA, 304 GRADE STAINLESS STEEL, 8 ½" CENTRE RADIUS EACH 90 DEGREE ELBOW

	COMBINATION GAS VALVE	24 VOLT NATURAL GAS 3.5" w.c. MANIFOLD PRESSURE PROPANE 10" w.c. MANIFOLD PRESSURE
	REFLECTORS	304 GRADE STAINLESS STEEL REFLECTORS PROTRUDE 1-5/8" (38) mm BELOW BOTTOM SURFACE OF TUBE
		REFLECTORS ARE CLOSED AT START AND END OF EACH STRAIGHT RUN OF TUBES BY MEANS OF END PLATE HANGERS
	TUBES ALL INPUTS	THE FIRST SECTION IS 10 ft x 4" DIAMETER - 16 GA 304 GRADE STAINLESS STEEL SWAGED ONE END WITH A FLANGE TO MOUNT THE BURNER AT THE OPPOSITE END
		EACH ADDITIONAL TUBE SECTION IS 10 ft x 4" DIAMETER, 16 GA 304 GRADE STAINLESS STEEL SWAGED ONE END
	HANGERS	304 GRADE STAINLESS STEEL: ONE WEBBED HANGER SUPPORTS EACH 10 ft SECTION OF TUBE, EXCEPT THE FIRST AND LAST TUBES WHICH HAVE ONE WEBBED HANGER AND ONE END PLATE HANGER.
	COUPLING KIT	STAINLESS STEEL COUPLER
	BURNER HOUSING	304 GRADE STAINLESS STEEL, WEATHER-PROOF WITH TWO SIDE ACCESS PANELS.
	BURNER	INCORPORATES EFFECTILE CERAMIC BURNER HEAD WITH MINIMUM OF 835 FLAME PORTS
	SAFETY SWITCHES	SEPARATE AIR PRESSURE SWITCHES SENSE ADEQUATE COMBUSTION AIR AND BLOCKED FLUE CONDITION
	COMBUSTION AIR	COMBUSTION AIR DUCTED DIRECTLY TO INTAKE OF BLOWER
	TERMINAL BLOCK	ALL WIRING CONNECTIONS BY MEANS OF ONE COMMON TERMINAL BLOCK; JUMPER FOR 120V / 24V THERMOSTAT CONTROL
	ELECTRICAL CORD	4' LENGTH 16/3 ELECTRICAL SUPPLY CORD WITH 3 PIN GROUNDED PLUG