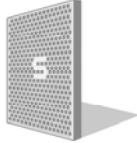


SUBMITTAL DATA

Schwank
INNOVATIVE HEATING SOLUTIONS



Premier Series Model IQ

POSITIVE PRESSURE SERIES GAS FIRED
INFRA-RED TUBE HEATERS

PROJECT:	
ENGINEER:	
CONTRACTOR:	
DISTRIBUTOR:	
INFRASAVE MODEL #:	
FUEL:	NG LPG
APPROVED BY:	
DATE:	
APPROVAL #:	

Model IQ is certified by CSA International to:
ANSI Z83.20 / CSA 2.34 Standard for Gas-Fired Low Intensity Tube Heaters

www.Infrasave.com



NOTICE:

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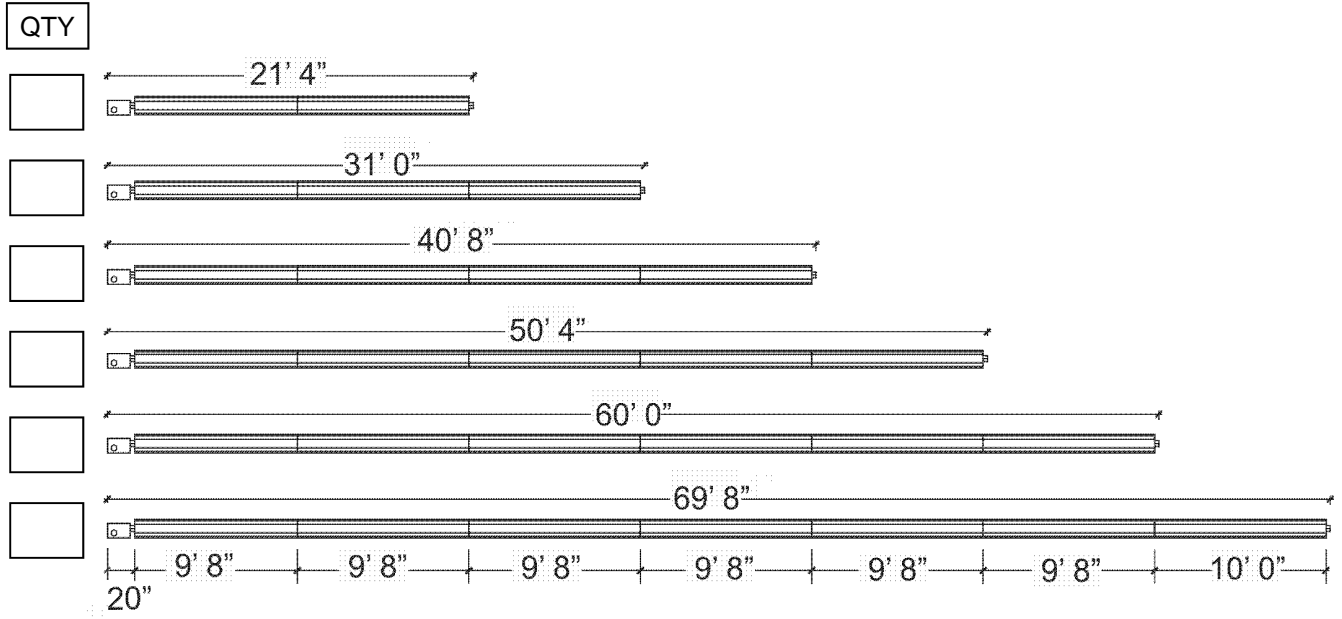
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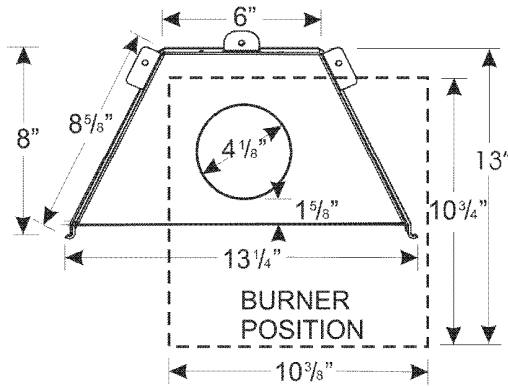
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Quantity On This Project	<u>TABLE 1: MODEL CONFIGURATIONS</u>	TOTAL HEATER LENGTH	CAPACITY BTU/HR kW	TURBULATOR	GAS PRESSURE & ELECTRICAL	FLUE & AIR VENTS	SHIPPING WEIGHT Kg (LBS.)
				REQUIRED LENGTH			
	IQ-200-70	69' 8"	200,000 Btu/hr 59 Kw	6'	<u>LINE MINIMUM</u> 5" W.C. NG 11" W.C. LP	4"	324 Lbs
	IQ-200-60	60' 0"		6'			282 Lbs
	IQ-200-50	50' 4"		10'			239 Lbs
	IQ-175-70	69' 8"	175,000 Btu/hr 51 kW	10'	<u>LINE MAXIMUM</u> NG or LP 14" W.C.		324 Lbs
	IQ-175-60	60' 0"		10'			282 Lbs
	IQ-175-50	50' 4"		10'			239 Lbs
	IQ-155-60	60' 0"	150,000 Btu/hr 44 kW	2'	<u>MANIFOLD</u> 3½" W.C. NG 10" W.C. LP		282 Lbs
	IQ-155-50	50' 4"		2'			239 Lbs
	IQ-155-40	40' 8"		12'			197 Lbs
	IQ-130-50	50' 4"	125,000 Btu/hr 37 kW	2'	½" NPT GAS INLET		239 Lbs
	IQ-130-40	40' 8"		12'			197 Lbs
	IQ-130-30	31' 0"		13'			154 Lbs
	IQ-110-50	50' 4"	110,000 Btu/hr 32 kW	2'	ELECTRICAL 120V, 60 HZ 145 VA		239 Lbs
	IQ-110-40	40' 8"		12'			197 Lbs
	IQ-110-30	31' 0"		13'			154 Lbs
	IQ-100-20	21' 4"	100,000 Btu/hr 29 kW	10' S/S	THERMOSTAT Factory ready for 24V or 120V thermostat		111 Lbs
	IQ-80-40	40' 8"	80,000 Btu/hr 23 kW	12'			197 Lbs
	IQ-80-30	31' 0"		8'			154 Lbs
	IQ-80-20	21' 4"		14'	111 Lbs		
	IQ-60-30	31' 0"	60,000 Btu/Hr 18 kW	8'	THERMOSTAT Factory ready for 24V or 120V thermostat		154 Lbs
	IQ-60-20	21' 4"		14'			111 Lbs
	IQ 45-20	21' 4"	45,000 Btu/hr 13 kW	14'			111 Lbs

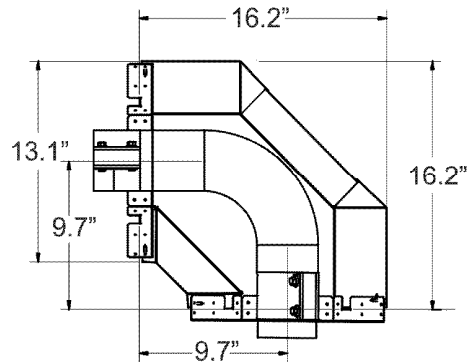
TOP VIEWS OF SYSTEMS



'-JZ' REFLECTOR & END CAP
REFLECTOR LENGTH = 116"

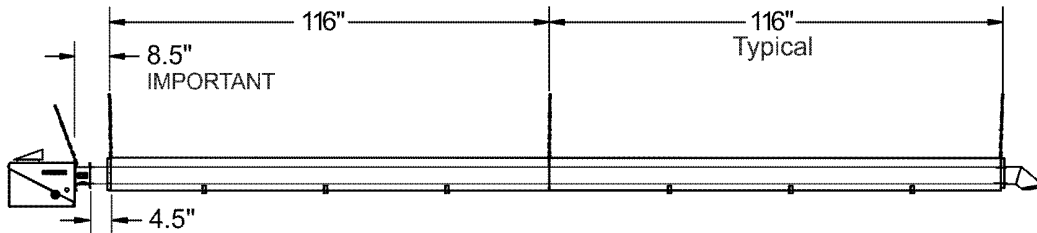


90° ELBOW KIT JS-0508-JZ



COMBINE 2 x 90° ELBOW KITS
FOR 180° ELBOW

HEATER SUSPENSION

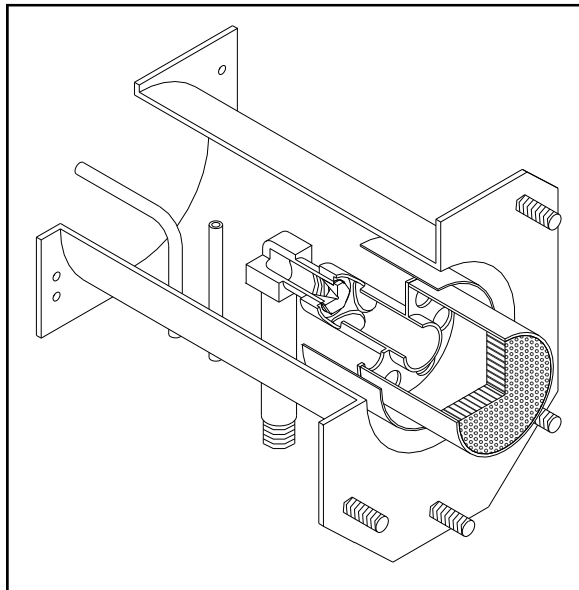


<u>COMPONENT QUANTITIES PER HEATER MODEL</u>	<u>IQ</u> 45-20	<u>IQ</u> 60-20 80-20	<u>IQ</u> 100-20	<u>IQ</u> 60-30 80-30 110-30 130-30	<u>IQ</u> 80-40 110-40 130-40 155-40	<u>IQ</u> 110-50 130-50 155-50	<u>IQ</u> 155-60	<u>IQ</u> 175-50 200-50	<u>IQ</u> 175-60 200-60	<u>IQ</u> 175-70 200-70
HEATER QUANTITY ON PROJECT										
10' STAINLESS STEEL w/ FLANGE, SWAGED	0	0	0	0	0	0	0	1	1	1
10' ALUMINIZED STEEL w/ FLANGE, SWAGED	1	1	1	1	1	1	1	0	0	0
10' ALUMINIZED STEEL, SWAGED	0	0	0	1	1	1	1	1	1	1
10' STEEL TUBE WITH HIGH TEMPERATURE EMISSIVE COATING, SWAGED	1	1	1	1	2	3	4	3	4	5
FOCUS SHIELD REFLECTOR 9'8"	2	2	2	3	4	5	6	5	6	7
ALUMINIZED COUPLER	1	1	0	2	3	4	5	3	4	5
ACCUSEAL TUBE CLAMP	0	0	1	0	0	0	0	1	1	1
END PLATE HANGER	2	2	2	2	2	2	2	2	2	2
WEBBED HANGER	1	1	1	2	3	4	5	4	5	6
REFLECTOR STABILIZER	6	6	6	9	12	15	18	15	18	21

NOTE: INCLUDED WITH EACH BURNER KIT

1. CANADA:
 TYPE 1 HOSE GAS CONNECTOR
 1/2" X 30" 45,000 TO 125,000
 3/4" X 30" 150,000 TO 200,000
2. U.S.A.:
 STAINLESS STEEL FLEXIBLE GAS CONNECTOR
 1/2" X 24" 45,000 TO 125,000
 3/4" X 24" 150,000 TO 200,000

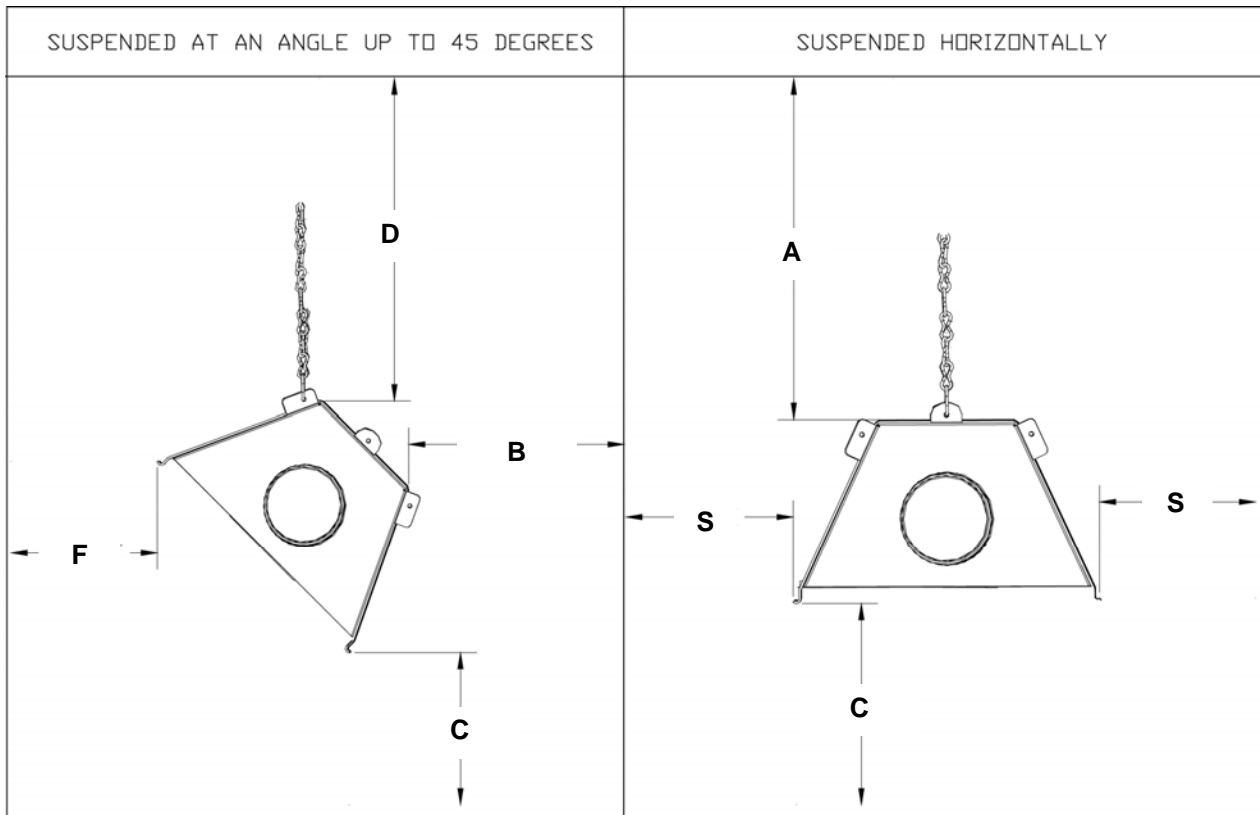
CUT-AWAY BURNER VIEW



<u>OPTIONAL ACCESSORIES</u>	<u>QTY THIS PROJECT</u>
90 DEGREE SWAGED ELBOW KIT JS-0508-JZ 1 elbow, 1 reflector cap, 1 webbed hanger, 1 coupler	
FRESH AIR INTAKE WALL HOOD JS-0532-VC	
WALL VENT TERMINAL 102 mm (4") JA-0528-XX	
FLUE VENT TEE 4" x 4" x 6") JA-0514-XX	
WALL VENT TERMINAL 152 mm (6") JA-0529-XX	
COUPLING KIT FOR VENT TEE JA-0516-SW	
TRU-TEMP 24V SET BACK THERMOSTAT JM-0150-XX	
24 VOLT DIGITAL THERMOSTAT JS-0569-WR	
THERMOSTAT 120 VOLT JL-0772-XX	
RELAY MULTIPLE HEATERS / 24V THERMOSTAT: 2 TO 7 HEATERS PER THERMOSTAT JM-0303-KT	
NOTE: ALL VENT PIPE FIELD SUPPLIED BY OTHERS ROOF VENT TERMINALS FIELD SUPPLIED BY OTHERS	

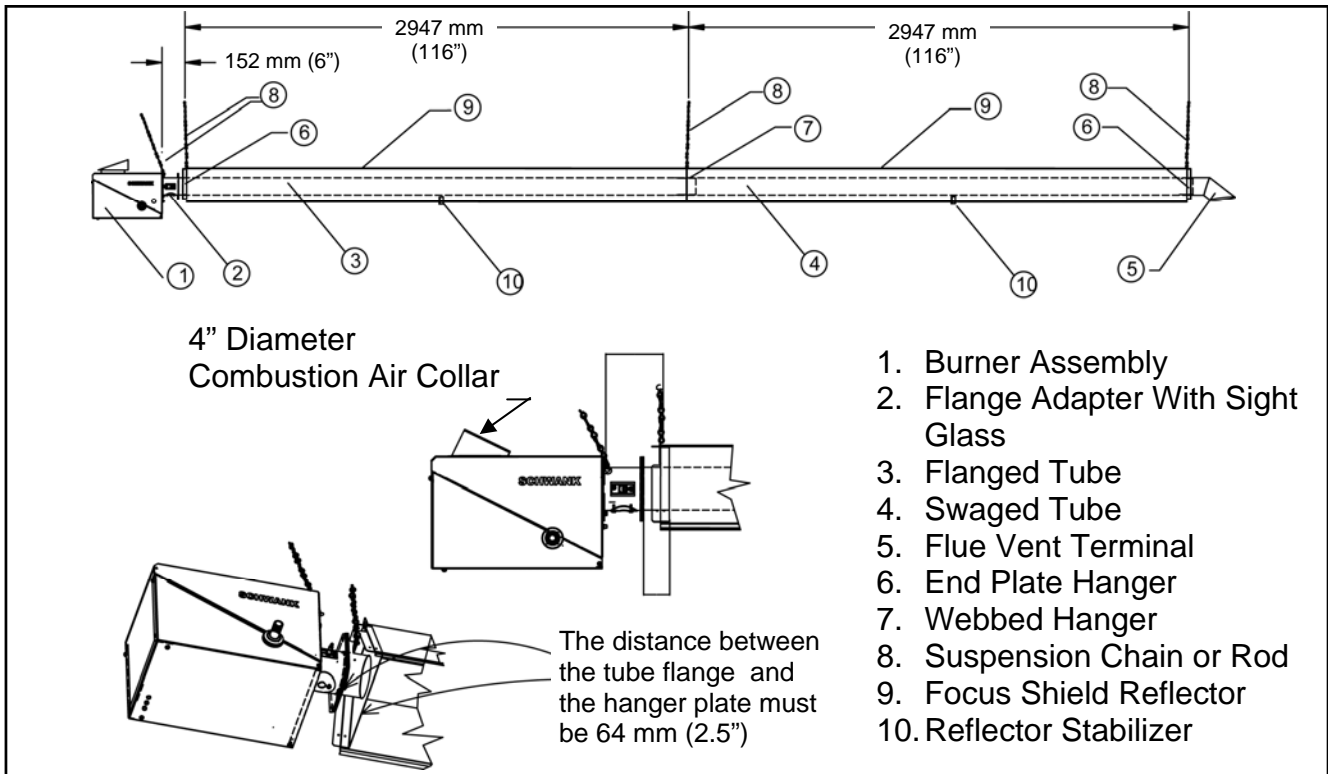
APPROVED MINIMUM CLEARANCES TO COMBUSTIBLES

QTY	MODEL	SUSPENDED AT AN ANGLE UP TO 45 DEGREES				SUSPENDED HORIZONTALLY		
		D	B	F	C	A	S	C
	IQ 200	13"	6"	74"	70"	14"	44"	76"
	IQ 175	12"	6"	72"	68"	13"	42"	74"
	IQ 155	5.5"	1"	64"	64"	3.5"	22"	70"
	IQ 130	4.5"	1"	60"	60"	3.3"	21"	65"
	IQ 110	3.5"	1"	54"	54"	2"	19"	60"
	IQ 100	6.5"	1"	57"	68"	6"	22"	68"
	IQ 80	3"	1"	23"	38"	1.75"	6"	38"
	IQ 60	2.5"	1"	17"	34"	1.5"	5.5"	34"
	IQ 45	2.75"	1"	24"	32"	2.25"	7"	32"

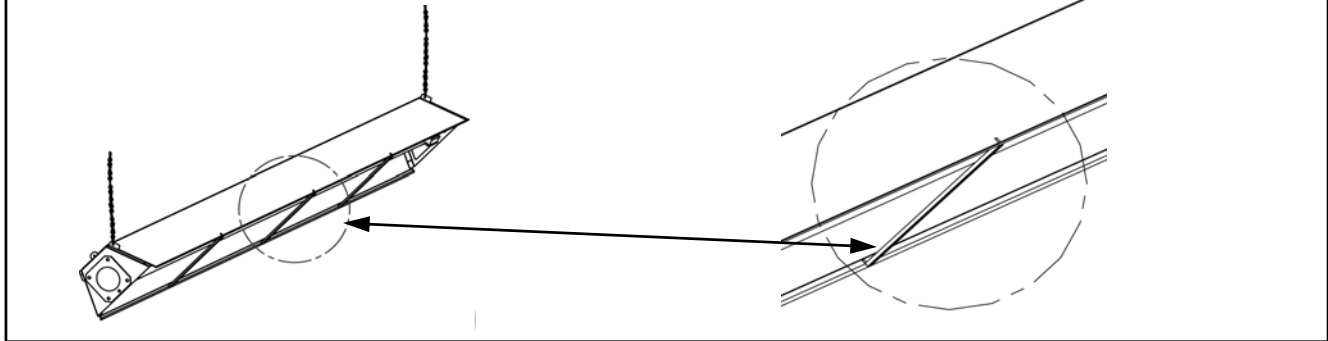


The clearance to combustible material represents the minimum distance that must be maintained between heater and a nearby combustible surface. **The stated clearance to combustibles represents a surface temperature of 90°F (50°C) above room temperature. Some materials such as awnings or plastic may require 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.**

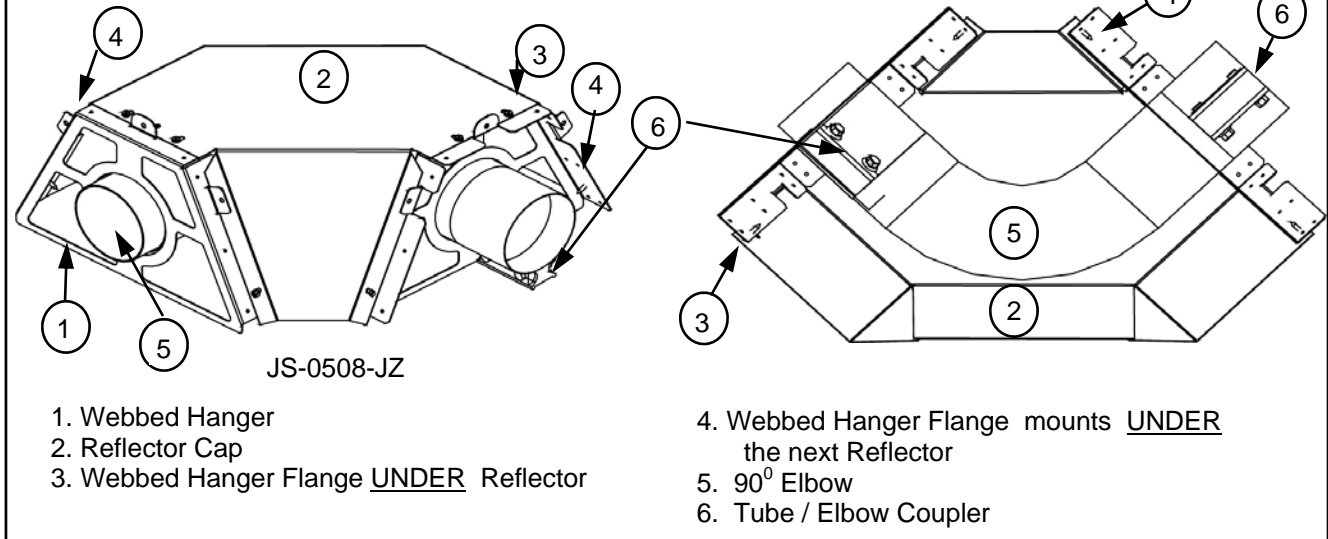
TYPICAL HANGER & SUPPORT SPACING RECOMMENDATIONS



REFLECTOR STABILIZER - 3 per Reflector



ELBOW / WEBBED HANGER INSTALLATION



COMPONENT SPECIFICATIONS

IGNITION	FENWAL DIRECT SPARK MODULE: PRE-PURGE AND POST-PURGE OF TUBE SYSTEM
THERMOSTAT OPTIONS <i>(Factory ready for 24Vac or 120Vac control)</i>	INFRAVAVE TRU-TEMP (24V) SET BACK THERMOSTAT WITH RADIANT & AMBIENT SENSORS, AND AUTOMATIC UNOCCUPIED SETBACK MODE
	24V DIGITAL THERMOSTAT NOTE: MULTIPLE HEATERS PER 24V THERMOSTAT REQUIRE RELAY CONTROL CENTER KIT JM-0303-KT
	LINE VOLTAGE THERMOSTAT; <i>Caution: Post-purge feature disabled with 120V thermostat</i>
	THERMOCONTROL PLUS
	FIELD SUPPLIED THERMOSTAT BY OTHERS
ELBOWS	90 DEGREE ELBOW 4" DIAMETER, 16 GA. ALUMINIZED STEEL, SWAGED ONE END
	180 DEGREE ELBOW 4" DIAMETER, 16 GA. ALUMINIZED STEEL, 19" ON CENTRE (ASSEMBLY OF TWO 90 DEGREE ELBOW KITS)
HEATER TUBE(S) 45 to 155 MBH	COMBUSTION TUBE: FLANGED 10' x 4" DIAMETER 16 GA. ALUMINIZED STEEL SWAGED ONE END SECOND TUBE: 10' x 4" DIAMETER 16 GA. ALUMINIZED STEEL SWAGED ONE END EACH ADDITIONAL TUBE: 10' x 4" DIAMETER, 16 GA. STEEL TUBES WITH HIGH TEMPERATURE EMISSIVE COATING, SWAGED ONE END
HEATER TUBE(S) 175 & 200 MBH	COMBUSTION TUBE: 10' x 4" DIAMETER, 16 GA. 439 STAINLESS STEEL SWAGED ONE END SECOND TUBE: 10' x 4" DIAMETER, 16 GA. ALUMINIZED STEEL SWAGED ONE END EACH ADDITIONAL TUBE: 10' x 4" DIAMETER, 16 GA. STEEL WITH HIGH TEMPERATURE EMISSIVE COATING SWAGED ONE END
COMBINATION GAS VALVE	HONEYWELL 24 VOLT NATURAL GAS: 3 1/2" W.C. MANIFOLD PROPANE: 10" W.C. MANIFOLD
GAS CONNECTION	USA: FLEXIBLE STAINLESS STEEL GAS CONNECTOR REQUIRED BY CODE: SUPPLIED WITH BURNER
	CANADA: TYPE 1 GAS HOSE CONNECTOR REQUIRED BY CODE: SUPPLIED WITH BURNER
REFLECTORS	26 GA. ALUMINIZED STEEL REFLECTOR EXTENDS 1.5" BELOW BOTTOM OF TUBE SURFACE
	REFLECTORS ARE CLOSED AT START AND END OF EACH STRAIGHT RUN OF TUBES BY MEANS OF END PLATE HANGERS
HANGERS	SYSTEM UTILIZES A PLATE HANGER AT EACH END TO TRAP HEAT. ONE WEBBED HANGER SUPPORTS EACH 10' OF TUBE AND ALLOWS CONVECTION HEAT FLOW ALONG SYSTEM.
COUPLING KIT	ALUMINIZED STEEL COUPLER ; STAINLESS STEEL COUPLER FIRST TUBE CONNECTION 175 & 200 MBH
BURNER HOUSING	BOTTOM FOLDS AWAY, PROVIDING ACCESS FROM TWO SIDES, END AND BOTTOM
BURNER	INCORPORATES EFFECTILE CERAMIC BURNER HEAD WITH MINIMUM OF 835 FLAME PORTS
	COMPLETE WITH OPERATION STATUS INDICATOR LIGHTS
TRANSFORMER	120/24VAC; 20VA
SAFETY SWITCHES	TWO SEPARATE AIR PRESSURE SWITCHES SENSE ADEQUATE COMBUSTION AIR AND BLOCKED FLUE
STATUS INDICATOR	GREEN: CALL FOR HEAT; YELLOW: IGNITION TRIAL; RED: FLAME ESTABLISHED
COMBUSTION AIR	COMBUSTION AIR DUCTED DIRECTLY TO 14" COLLAR AT NTAKE OF BLOWER
TERMINAL BLOCK	ALL WIRING CONNECTIONS BY MEANS OF COMMON TERMINAL BLOCK; JUMPER: FOR 120V THERMOSTAT; REMOVE FOR 24V THERMOSTAT
ELECTRICAL CORD	1220 mm (4') LENGTH 16/3 ELECTRICAL SUPPLY CORD WITH 3 PIN GROUNDED PLUG
VENT PIPE	ALL VENT PIPE IS FIELD SUPPLIED BY OTHERS; SINGLE WALL VENT PIPE OTHER THAN PORTION THROUGH WALL OR ROOF MAY BE DOUBLE WALL VENT PIPE
ROOF VENT CAPS	FIELD SUPPLIED BY OTHERS TO MATE WITH VENT PIPE