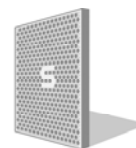


# SUBMITTAL DATA

**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](http://www.Infrasave.com)



**NOTICE:**

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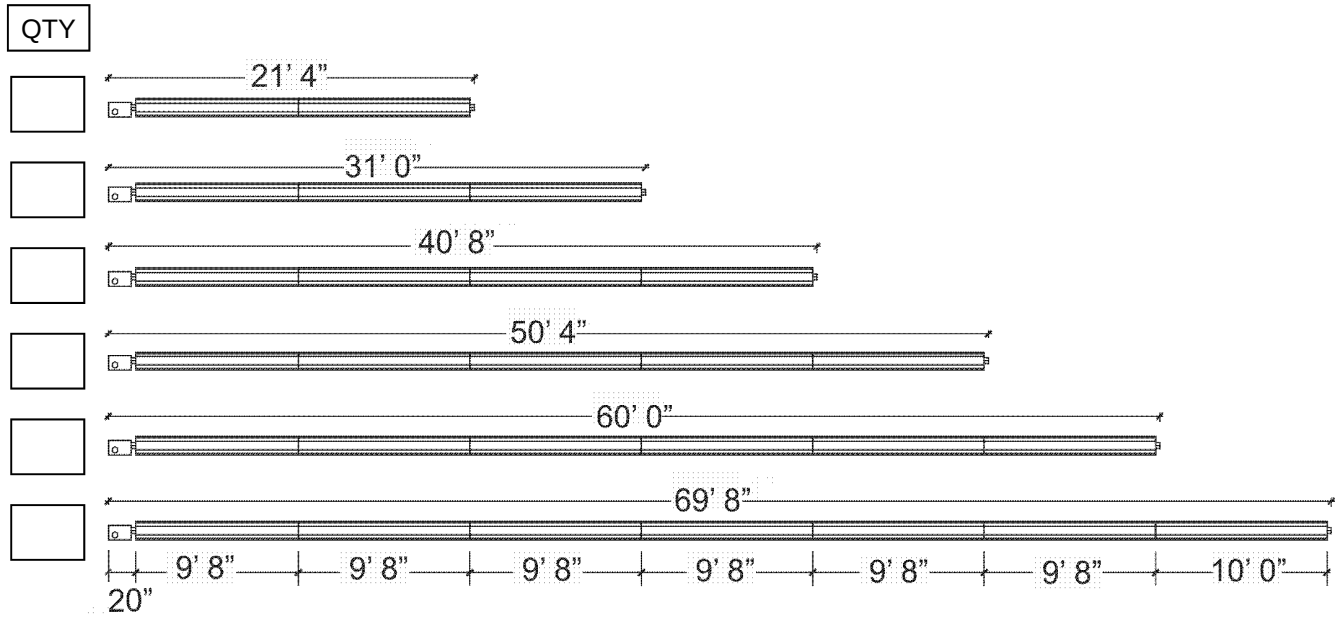
Customer and Technical Services  
Phone: 1-877-446-3727  
Fax: 1-866-361-0523

e-mail: [csr@infrasave.com](mailto:csr@infrasave.com)

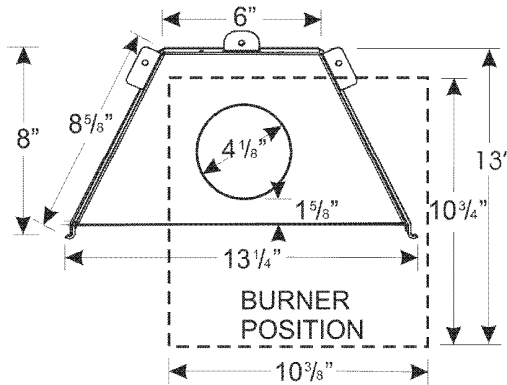
**[www.infrasave.com](http://www.infrasave.com)**

| Quantity<br>On This<br>Project | TABLE 1:<br>MODEL<br>CONFIGURA-<br>TIONS | TOTAL<br>HEATER<br>LENGTH | CAPACITY<br>BTU/HR<br>kW | TURBULA-<br>TOR    | GAS<br>PRESSURE<br>&<br>ELECTRICAL                           | FLUE &<br>AIR<br>VENTS | SHIPPING<br>WEIGHT<br>Kg<br>(LBS.) |
|--------------------------------|------------------------------------------|---------------------------|--------------------------|--------------------|--------------------------------------------------------------|------------------------|------------------------------------|
|                                |                                          |                           |                          | REQUIRED<br>LENGTH |                                                              |                        |                                    |
|                                | IQ-200-70                                | 69' 8"                    | 200,000 Btu/hr<br>59 Kw  | 6'                 | LINE<br>MINIMUM<br>5" W.C. NG<br><br>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<br>51 kW  | 10'                | LINE<br>MAXIMUM<br>NG or LP<br>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<br>44 kW  | 2'                 |                                                              |                        | 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<br>37 kW  | 2'                 | MANIFOLD<br>3½" W.C. NG<br><br>10" W.C. LP                   |                        | 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<br>32 kW  | 2'                 | ½" NPT GAS<br>INLET                                          |                        | 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<br>29 kW  | 10' S/S            | ELECTRICAL<br>120V, 60 HZ<br>145 VA                          |                        | 111 Lbs                            |
|                                | IQ-80-40                                 | 40' 8"                    | 80,000 Btu/hr<br>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<br>18 kW   | 8'                 | THERMOSTAT<br>Factory ready<br>for 24V or 120V<br>thermostat |                        | 154 Lbs                            |
|                                | IQ-60-20                                 | 21' 4"                    |                          | 14'                |                                                              |                        | 111 Lbs                            |
|                                | IQ 45-20                                 | 21' 4"                    | 45,000 Btu/hr<br>13 kW   | 14'                |                                                              |                        |                                    |

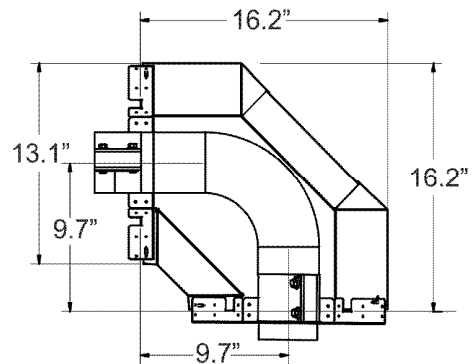
## TOP VIEWS OF SYSTEMS



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

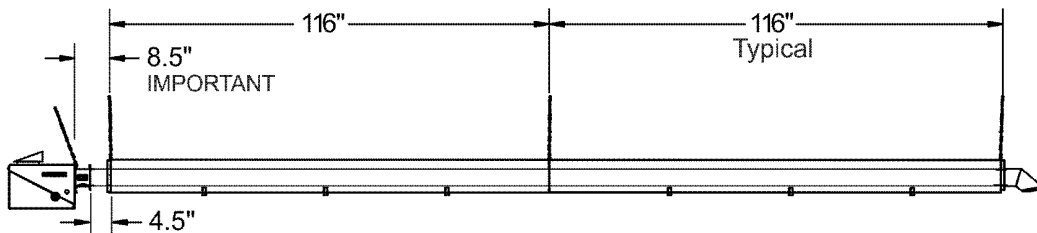


90° ELBOW KIT JS-0508-JZ



COMBINE 2 x 90° ELBOW KITS  
FOR 180° ELBOW

HEATER SUSPENSION

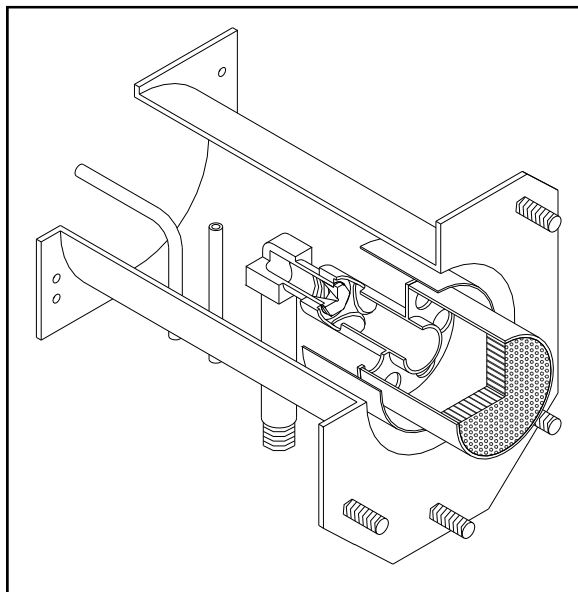


| <b><u>COMPONENT QUANTITIES<br/>PER HEATER MODEL</u></b>          | <b><u>IQ</u><br/>45-20</b> | <b><u>IQ</u><br/>60-20<br/>80-20</b> | <b><u>IQ</u><br/>100-20</b> | <b><u>IQ</u><br/>60-30<br/>80-30<br/>110-30<br/>130-30</b> | <b><u>IQ</u><br/>80-40<br/>110-40<br/>130-40<br/>155-40</b> | <b><u>IQ</u><br/>110-50<br/>130-50<br/>155-50</b> | <b><u>IQ</u><br/>155-60</b> | <b><u>IQ</u><br/>175-50<br/>200-50</b> | <b><u>IQ</u><br/>175-60<br/>200-60</b> | <b><u>IQ</u><br/>175-70<br/>200-70</b> |
|------------------------------------------------------------------|----------------------------|--------------------------------------|-----------------------------|------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|-----------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| 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<br>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**

- CANADA:  
TYPE 1 HOSE GAS CONNECTOR  
1/2" X 30" 45,000 TO 125,000  
3/4" X 30" 150,000 TO 200,000
- 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

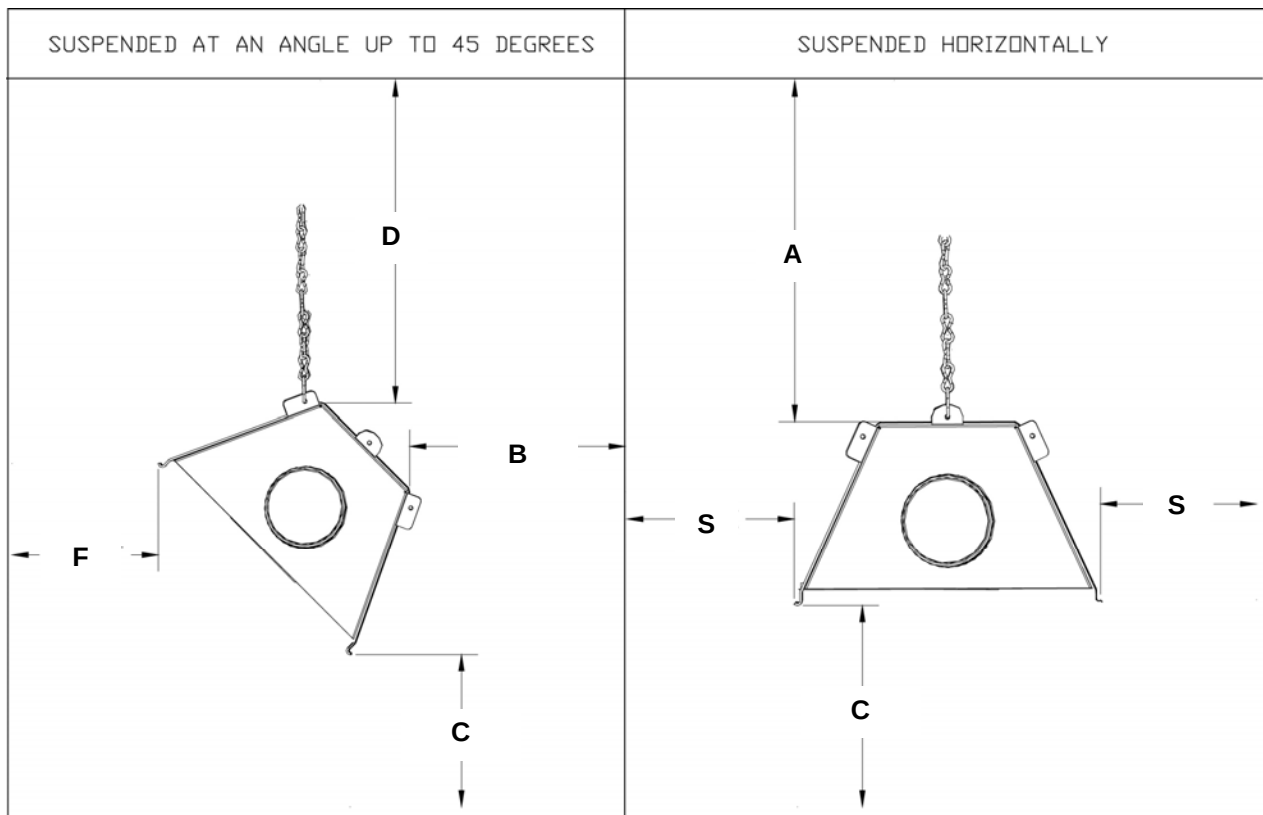
**CUT-AWAY BURNER VIEW**



| <b><u>OPTIONAL ACCESSORIES</u></b>                                                            | <b><u>QTY THIS<br/>PROJECT</u></b> |
|-----------------------------------------------------------------------------------------------|------------------------------------|
| 90 DEGREE SWAGED ELBOW KIT JS-0508-JZ<br>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:<br>2 TO 7 HEATERS PER THERMOSTAT JM-0303-KT          |                                    |
|                                                                                               |                                    |
|                                                                                               |                                    |
| NOTE: ALL VENT PIPE FIELD SUPPLIED BY OTHERS<br>ROOF VENT TERMINALS FIELD SUPPLIED BY OTHERS  |                                    |

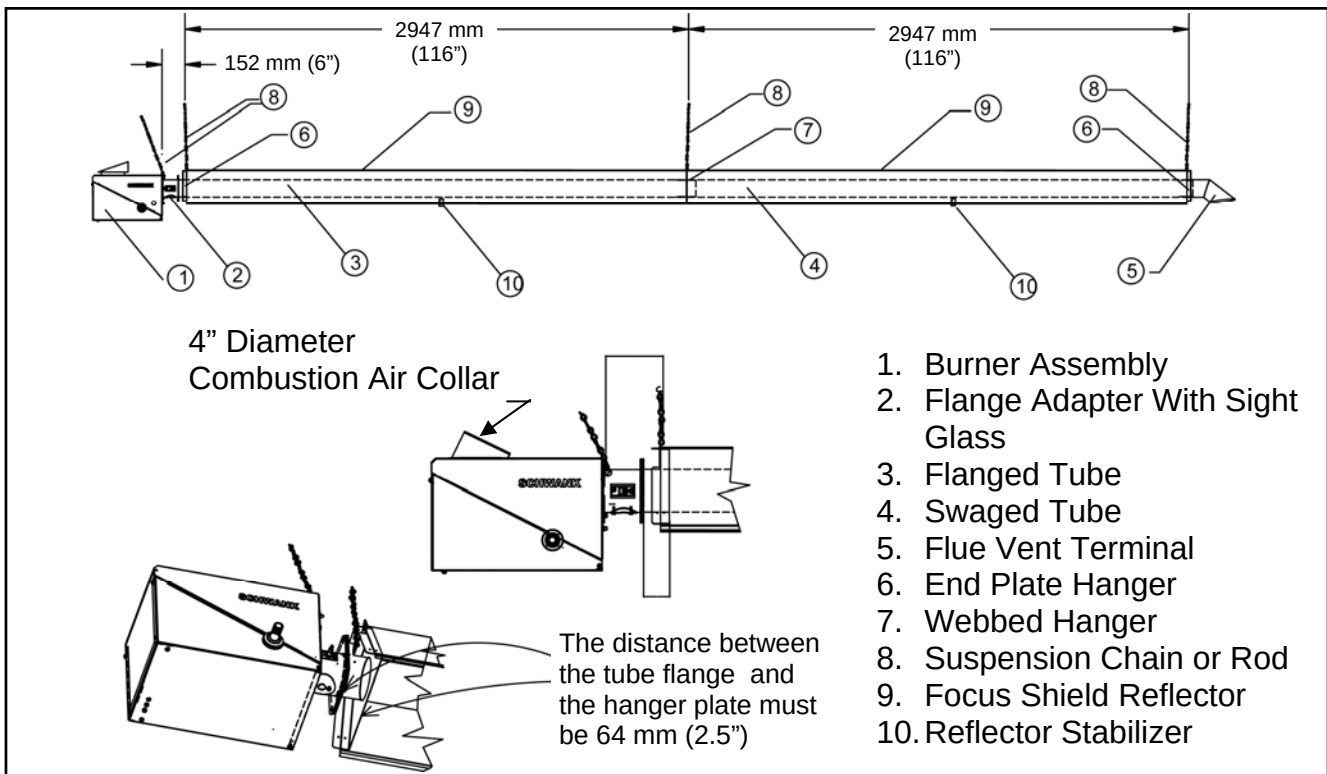
## APPROVED MINIMUM CLEARANCES TO COMBUSTIBLES

| QTY | MODEL  | SUSPENDED AT AN ANGLE<br>UP TO 45 DEGREES |    |     |     | SUSPENDED<br>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" |

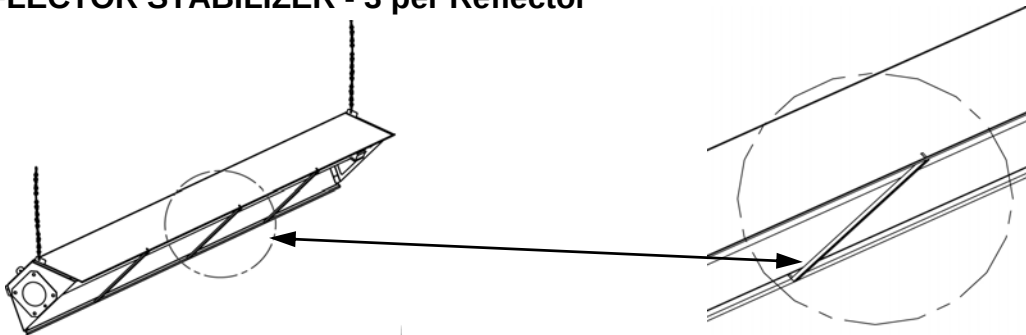


The clearance to combustible material represents the minimum distance that must be maintained between heater and a nearby combustible surface. **The stated clearance to combustibles represents a surface temperature of 90°F (50°C) above room temperature. Some materials such as awnings or plastic may require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

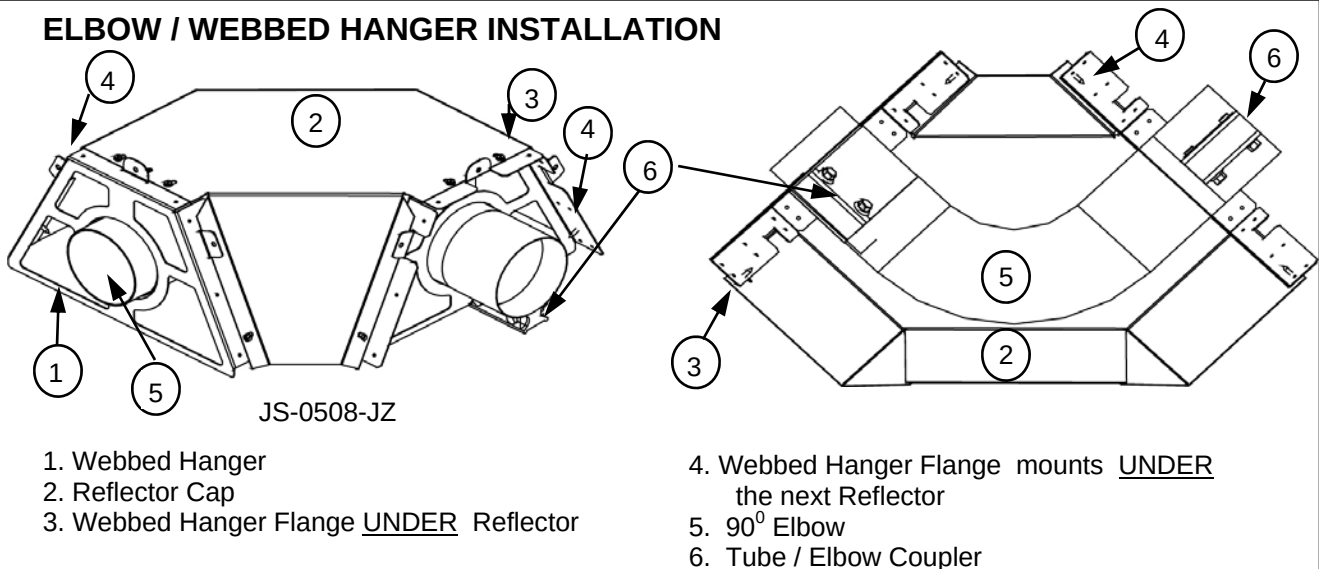
## TYPICAL HANGER & SUPPORT SPACING RECOMMENDATIONS



## 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<br>OPTIONS<br><br>(Factory ready for<br>24Vac or 120Vac<br>control) | INFRASAVE TRU-TEMP (24V) SET BACK THERMOSTAT WITH RADIANT & AMBIENT SENSORS, AND<br>AUTOMATIC UNOCCUPIED SETBACK MODE                                                                                                                                                                |
|                                                                                | 24V DIGITAL THERMOSTAT<br>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<br>DEGREE ELBOW KITS)                                                                                                                                                                       |
| HEATER TUBE(S)<br>45 to 155 MBH                                                | COMBUSTION TUBE: FLANGED 10' x 4" DIAMETER 16 GA. ALUMINIZED STEEL SWAGED ONE END<br>SECOND TUBE: 10' x 4" DIAMETER 16 GA. ALUMINIZED STEEL SWAGED ONE END<br>EACH ADDITIONAL TUBE: 10' x 4" DIAMETER, .16 GA. STEEL TUBES WITH HIGH<br>TEMPERATURE EMISSIVE COATING, SWAGED ONE END |
| HEATER TUBE(S)<br>175 & 200 MBH                                                | COMBUSTION TUBE: 10' x 4" DIAMETER, 16 GA. 439 STAINLESS STEEL SWAGED ONE END<br>SECOND TUBE: 10' x 4" DIAMETER, 16 GA. ALUMINIZED STEEL SWAGED ONE END<br>EACH ADDITIONAL TUBE: 10' x 4" DIAMETER, 16 GA. STEEL WITH HIGH TEM-<br>PERATURE EMISSIVE COATING SWAGED ONE END          |
| COMBINATION<br>GAS VALVE                                                       | HONEYWELL 24 VOLT<br>NATURAL GAS: 3 1/2" W.C. MANIFOLD<br><br>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<br>PLATE HANGERS                                                                                                                                                                                |
| HANGERS                                                                        | SYSTEM UTILIZES A PLATE HANGER AT EACH END TO TRAP HEAT. ONE WEBBED HANGER SUPPORTS<br>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 I4" COLLAR AT NTAKE OF BLOWER                                                                                                                                                                                                                      |
| TERMINAL BLOCK                                                                 | ALL WIRING CONNECTIONS BY MEANS OF COMMON TERMINAL BLOCK; JUMPER: FOR 120V THERMO-<br>STAT; 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<br>THROUGH WALL OR ROOF MAY BE DOUBLE WALL VENT PIPE                                                                                                                                             |
| ROOF VENT CAPS                                                                 | FIELD SUPPLIED BY OTHERS TO MATE WITH VENT PIPE                                                                                                                                                                                                                                      |