

# RE-VERBER-AIR HEATER SUBMITTAL SHEET

## UH SERIES UNIT HEATERS

### GAS-FIRED, INDUCED DRAFT, HOT AIR UNIT HEATERS & ACCESSORIES

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| PROJECT ID: _____                  | ADDRESS: _____                                 |
| PROJECT NAME: _____                | _____                                          |
| DATE: _____                        | CITY: _____ PROVINCE: _____ POSTAL CODE: _____ |
| Submitted By: _____ Address: _____ |                                                |
| Company: _____                     | _____                                          |
| Phone: _____                       | City: _____                                    |
| Email: _____                       | Province: _____ Postal Code: _____             |
| .....                              |                                                |
| Engineer: _____                    | Contractor: _____                              |
| Phone/Email: _____                 | Phone/Email: _____                             |
| Address: _____                     | Address: _____                                 |
| City: _____                        | City: _____                                    |
| Province: _____ Postal Code: _____ | Province: _____ Postal Code: _____             |

| QTY. | MODEL NO. | TAG | INDICATE GAS TYPE | BTU/h  |        | APPROX. HEAT THROW | AVERAGE AIR TEMP. RISE | VENT LENGTH <sup>1</sup> |        | TYP. OR RCMD. MOUNTING HEIGHTS <sup>1</sup> | SHIP WEIGHT |
|------|-----------|-----|-------------------|--------|--------|--------------------|------------------------|--------------------------|--------|---------------------------------------------|-------------|
|      |           |     |                   | INPUT  | OUTPUT |                    |                        | MIN.                     | MAX.   |                                             |             |
|      | UH-30     |     | Nat. or Prop.     | 30,000 | 24,000 | 26 ft.             | 45°F                   | 3 ft.                    | 30 ft. | 8 to 12 ft.                                 | 77 lbs.     |
|      | UH-45     |     | Nat. or Prop.     | 45,000 | 36,000 | 28 ft.             | 45°F                   | 3 ft.                    | 30 ft. | 8 to 14 ft.                                 | 77 lbs.     |
|      | UH-60     |     | Nat. or Prop.     | 60,000 | 48,000 | 37 ft.             | 45°F                   | 3 ft.                    | 30 ft. | 10 to 16 ft.                                | 98 lbs.     |
|      | UH-75     |     | Nat. or Prop.     | 75,000 | 60,000 | 39 ft.             | 45°F                   | 3 ft.                    | 30 ft. | 10 to 18 ft.                                | 98 lbs.     |

<sup>1</sup> Deduct 3 ft. (on 3 in. vent) or 5 ft. (on 4 in. vent) for each elbow added to venting.



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HEATERS LIMITED**

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## UH SERIES FEATURED SPECIFICATIONS

### APPROVALS

- ETL Listed
- Commercial/Industrial Approval
- Residential Use
- Indoor Use Only

### VOLTAGE

- 120 VAC/60 Hz (primary)
- 24 VAC (thermostatic)
- Single phase

### MANIFOLD PRESSURE (Inches W.C.)

- Natural Gas: 3.5
- Propane: 10.0

### INLET PRESSURE (Inches W.C.)

- Natural Gas: 5.0 to 14.0
- Propane: 11.0 to 14.0

### GAS CONNECTION

- ½" NPT
- Field connect to valve

### VENT & INLET CONNECTION

- Category I or III venting
- Rear, horizontal discharge/inlet
- 3" to 4" inlet adapter included

### MOUNTING

- Four (4) suspension points
- Slotted mounting brackets accommodate joists on 16 or 24 inch centers
- 180° mounting

### OTHER

- Finger-proof fan guards standard
- External indicator lights
- External thermostatic connection
- Approved for 0–2,000 ft. elevations without modifications
- Supplied standard as separated combustion

### LIMITED WARRANTY

- 1 year—Components
- 5 years—Heat exchangers
- 10 years—Burners

| MODEL | FLA AMPS | MOTOR TYPE | MOTOR HP | FAN DIAMETER | AXIAL FAN ROTATION | GAS CONNECTION | INLET & VENT CONNECTION |
|-------|----------|------------|----------|--------------|--------------------|----------------|-------------------------|
| UH-30 | 2.7      | SP         | 1/15     | 10 in.       | CCW                | 1/2" NPT       | 3" O.D.                 |
| UH-45 | 2.7      | SP         | 1/15     | 10 in.       | CCW                | 1/2" NPT       | 3" O.D.                 |
| UH-60 | 4.0      | PSC        | 1/12     | 14 in.       | CCW                | 1/2" NPT       | 4" O.D.                 |
| UH-75 | 4.0      | PSC        | 1/12     | 14 in.       | CCW                | 1/2" NPT       | 4" O.D.                 |

## FIELD CONVERSION REFERENCE CHART

| SUPPLIED AS          | CONVERSION TO          | AVAILABILITY | PART REFERENCE <sup>2</sup> |
|----------------------|------------------------|--------------|-----------------------------|
| Separated Combustion | Power Vented, Room Air | Standard     | See IOPM                    |
| Natural Gas          | Propane Gas            | Optional     | HKP                         |
| 0–2,000 MSL          | 2,001–4,500 MSL        | Optional     | HKN or HKP                  |
| 0–2,000 MSL          | 4,501–7,000 MSL        | Optional     | HKN or HKP                  |
| 0–2,000 MSL          | 7,001–9,500 MSL        | Optional     | HKN or HKP                  |

<sup>2</sup> Consult heater Installation, Operation, Parts, and Maintenance Manual for conversion kit reference and instructions.

## OPTIONAL ACCESSORIES

- ☐ **CVK-3** 3" Concentric Vent Kit for use when venting and combustion air is desired through a single wall or roof penetration. For use with UH-30 and UH-45 models. No vent pipe or B-vent material is included.
- ☐ **CVK-4** 4" Concentric Vent Kit for use when venting and combustion air is desired through a single wall or roof penetration. For use with UH-60 and UH-75 models. No vent pipe or B-vent is included.
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_



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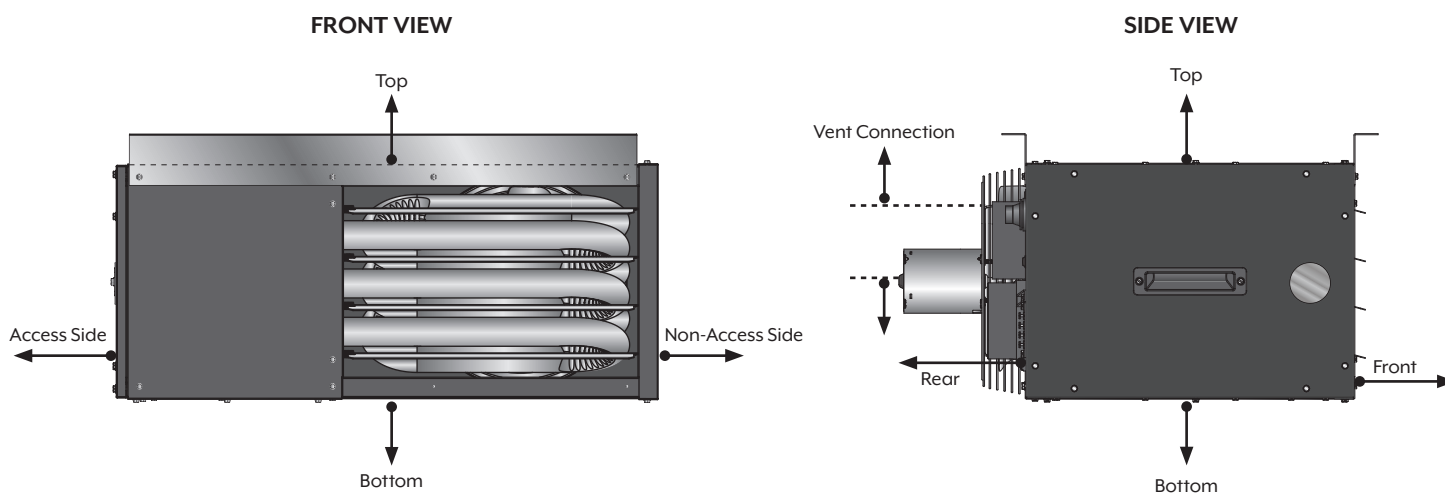
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# RE-VERBER-AIR SAFETY SUBMITTAL SHEET

## UH SERIES CLEARANCES TO COMBUSTIBLES

All listed clearances to combustibles are in inches.

| ALL MODELS                 | FRONT  | TOP AND<br>BOTTOM | ACCESS<br>SIDE | NON-ACCESS<br>SIDE | REAR   | VENT<br>CONNECTION |
|----------------------------|--------|-------------------|----------------|--------------------|--------|--------------------|
| Clearance to Combustibles  | 60 in. | 1 in.             | 18 in.         | 1 in.              | 1 in.  | 6 in.              |
| Clearance to Allow Service | 60 in. | 1 in.             | 18 in.         | 1 in.              | 18 in. | 6 in.              |



Read and understand the installation, operation, and maintenance manual prior to installing or servicing this unit.

In locations used for the storage of combustible materials, signs must be posted adjacent to the heater's thermostat specifying stacking heights.



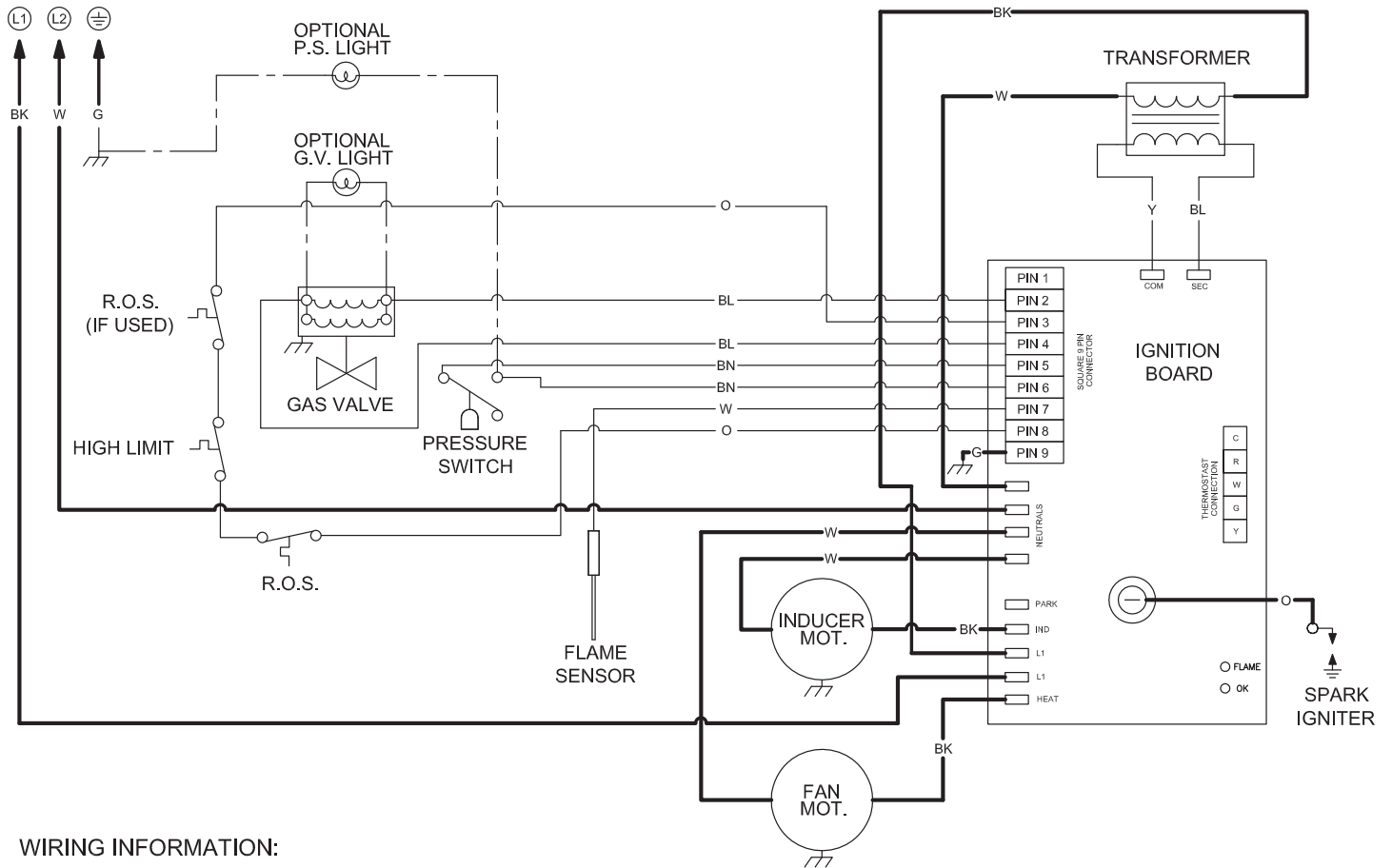
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# RE-VERBER-AIR WIRING SUBMITTAL SHEET

## UH SERIES WIRING DIAGRAM

### Internal Wiring



#### WIRING INFORMATION:

##### LINE VOLTAGE:

FACTORY STANDARD \_\_\_\_\_  
 FACTORY OPTION -----  
 FIELD INSTALLED - - - - -

##### LOW VOLTAGE:

FACTORY STANDARD \_\_\_\_\_  
 FACTORY OPTION -----  
 FIELD INSTALLED - - - - -



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# RE-VERBER-AIR HEATER SUBMITTAL SHEET

## UH SERIES TUBE HEATERS

### GAS-FIRED, INDUCED DRAFT, HOT AIR UNIT HEATERS

#### GAS-FIRED UNIT HEATERS: SEPARATED COMBUSTION OR POWER VENTED

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Brant Radiant Heaters Limited; Re-Verber-Ray UH Series.
- B. Fuel Type: Burner shall be designed for [natural][propane] gas having characteristics same as those of gas available at project site.
- C. Unit Casing:
  - 1. Shall be constructed of not less than 20-gauge aluminized steel.
  - 2. Shall be furnished with air deflector blades made of 304 series brushed stainless steel.
  - 3. Deflector blades shall be incrementally adjustable without the use of springs to provide for directional airflow (up or down).
- D. Furnace Section:
  - 1. Tubular heat exchanger shall be constructed of a minimum of 18-gauge aluminized steel tubes.
  - 2. Thermal efficiency of the heater shall be above 80%.
  - 3. Burners shall be in-shot type, firing directly into each heat exchanger tube individually.
- E. Ignition System: Direct spark igniter with flame rod sensing capabilities.
  - 1. Single stage gas controls.
- F. Burner Safety Controls:
  - 1. Heater controls shall include a safety differential pressure switch to monitor combustion air flow so as to provide complete burner shutdown in the event of insufficient combustion air or flue blockage.
  - 2. Heater shall incorporate a self-diagnostic ignition module, and re-cycle the heater after an inadvertent shutdown.
  - 3. Heater's control system shall be designed to shut off the gas flow to the main burner in the event either a gas supply or power supply interruption occurs.
  - 4. Heater's blower motor shall be thermally protected, and the motor's impeller shall be balanced.
  - 5. Heater control assembly shall include two indicator lights that define the unit's operating features. One indicator shall validate air flow, and the other shall indicate gas valve energization.
  - 6. An automatic reset high limit switch shall be mounted in the air stream to shut off the gas supply in the event of overheating.
  - 7. A time delay relay shall be incorporated that delays the start of the air blower fan to allow the heat exchanger to warm up upon a call for heat. A time delay relay shall be incorporated to continue the air blower fan operation after the thermostat has been satisfied to help remove any residual heat in the exchanger.
  - 8. No condensation shall form in the exchanger tubes while at operating temperatures.
- G. Air Movement:
  - 1. Motor type shall be a single speed, open drip-proof (ODP) type.
  - 2. Motor shall be rated for 115 V/60 Hz/1 ph.
  - 3. Swept wing fan blade designed to optimize air flow and reduce noise levels.
  - 4. Stainless steel, adjustable air discharge louvers with seamless airfoil design to maximize airflow.
- H. Venting: Shall be per manufacturer approval and specifications.
- I. Thermostat: Devices and wiring are specified in Division 23 Section "Instrumentation and Control for HVAC."
  - 1. Thermostat: Digital programmable wall-mounted type.
  - 2. Other approved operating device.
  - 3. Control Transformer: Internally mounted.



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