

#### **SECTION 23 55 23**

# GAS FIRED RADIANT HEATERS TUNGSTEN GAS

Product	Product Code (US/CA)	BTU Output	Heat Area	Current
Platinum 300 – NG	BH0110001-1	23,600	160ft <sup>2</sup>	110V/2A
Platinum 300 - LPG	BH0110002-1	23,600	160ft <sup>2</sup>	110V/2A
Platinum 500 – NG	BH0110003-1	39,800	215ft <sup>2</sup>	110V/2A
Platinum 500 - LPG	BH0110004-1	39,800	215ft <sup>2</sup>	110V/2A

#### PART 1 - GENERAL

#### 1.01 SUBMITTALS

#### A. Action Submittals:

1. Product Data: Manufacturer's descriptive data and product attributes including heat output and heat distribution area, control components and connections, mounting hardware, and installation instructions.

### B. Closeout Submittals:

- 1. Operation and Maintenance Data.
- Portable Heater Covers: Heater covers for each Tungsten portable heater, handed to the Owner at Substantial Performance.

# 1.02 QUALITY ASSURANCE

# A. Installer Qualifications:

- 1. Journeyman tradesmen licensed to install gas fired equipment.
- B. Regulatory Requirements: Radiant heaters and installation are to be in accordance with requirements of:
  - 1. ANSI Z83.26/CSA 2.37, Gas Fired Outdoor Infrared Patio Heaters
  - 2. NFPA 54/ANSI Z223.1, National Fuel Gas Code
  - 3. ANSI/IEC 60529, Degrees of Protection by Enclosures (IP Code)
  - 4. State or Municipal requirements.

# 1.03 WARRANTY

A. Manufacturer's standard warranty against parts failure.

#### **PART 2 - PRODUCTS**

#### 2.01 MANUFACTURERS

- A. Contract documents are based on Bromic Heating <a href="https://www.bromic.com">www.bromic.com</a>
- B. Substitutions: Not permitted.

#### 2.02 OUTDOOR SURFACE MOUNTING GAS RADIANT HEATERS AND CONTROLS

- A. Heater: Bromic "PLATINUM SMART-HEAT Series weatherproof heaters for outdoor wall bracket mounting or ceiling pole mounting, ANSI/IEC 60529 IPX4 rated, 500 Series Model 39,800 BTU output or 300 Series Model 23,600 BTU output for use with natural gas or propane gas and equipped with:
  - 1. Stainless steel framework and enclosure with ceramic burner head and black fascia
  - 2. Heat deflectors where scheduled/indicated.
  - 3. Mounting bracket/control box with a Honeywell electronic gas burner control system with gas control valve, pressure regulator, electric spark ignition, and flame monitoring with 100% safety shutdown.
  - 4. Wall mounting assembly with pivot bracket for heater angle adjustment 20deg left/right, permanent position.
  - 5. Surface ceiling mounting pole accessory (minimum 10'-4" ceiling height required) suitable for a sloped ceiling with pole remaining 100% vertical, [41.18", 33.31", 25.43", 17.56", 13.62", or 9.69" pole length] and capable of mounting two heaters back-to-back to a single ceiling pole to minimize visual obstructions.
  - 6. Control Components: "On/Off Controller" 110/230 VAC 4-channel controllers supplied loose, each capable of wireless ON/OFF control of up to 4 heaters per output within a 100-foot range.

# **PART 3 - EXECUTION**

#### 3.01 INSTALLATION OF OUTDOOR SURFACE MOUNTING GAS RADIANT HEATERS

- A. Provide outdoor surface mounting gas fired radiant heaters where shown.
- B. Install all heaters in accordance with the manufacturer's published instructions and NFPA 54/ANSI Z223.1 requirements. In particular, maintain required clearances.
- C. Wall and Ceiling Mounted Heaters: Ensure that proper flexible gas piping connects each heater wall bracket/control box. Adjust heater angles to the Owner's requirements. Ensure that all heaters are protected from the elements.
- D. Test all gas piping connections for leakage.
- E. Provide wireless controllers where indicated.
- F. Coordinate electrical connections to controllers and heaters with the electrical work.

# 3.02 INSTALLATION OF PORTABLE GAS RADIANT HEATES

- A. Provide outdoor portable gas radiant heaters where indicated. Provide a new 20 or 30 pound filled bottle of propane for each heater.
- B. Store propane bottles in heater storage areas. Ensure that proper flexible gas piping connects each heater control box.
- C. Adjust heater angles to the Owner's requirements.
- D. Test all gas piping connections for leakage.
- E. Provide wireless controllers where indicated.
- F. Coordinate electrical connections to controllers and heaters with the electrical work.

# 3.03 START-UP

A. After heater and control installation is complete, start each heater and test and confirm proper operation of all phases of heater operation.

# 3.04 COMMISSIONING

A. Commission the heaters in accordance with specified commissioning requirements.

# 3.05 DEMONSTRATION AND TRAINING

A. Include training for 2 hours of on-site operation and maintenance demonstration and training for 2 groups of 4 people.

**END OF SECTION**