

# Hot Box® Modular

## BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION

### GENERAL

#### 1.1 WORK INCLUDED

- A. Provide and install manufactured backflow prevention assembly enclosure.

#### 1.2 QUALITY ASSURANCE

- A. Qualifications: The backflow prevention assembly enclosure manufacturer shall be a company specializing in the manufacture of backflow prevention assembly enclosures with at least 30 years of successful experience designing and selling enclosures to various customers in different climatic regions.

#### 1.3 STORAGE AND HANDLING

- A. Store products in shipping containers and maintain in dry place until installation.

#### 1.4 ACCEPTABLE MANUFACTURERS

- A. **Hot Box®** or Engineer approved equal.

#### 1.5 REFERENCES

- A. ASSE 1060-Performance Requirements for Outdoor Enclosures for Backflow Prevention assemblies.
- B. ASTM B209.

### PRODUCTS

#### 2.1 MODULAR ENCLOSURE

- A. The roof, walls and access panels shall be constructed of 3003 aluminum (.051"/16 gauge), stucco embossed finish to reduces glare, finger prints and help hide surface scratches. Insulation shall be 1.5" (9.0 "R" value) thick.
- B. The wall panels shall be securely fastened together using cam locks.
- C. The walls of the enclosure shall be securely mounted to the concrete slab with interior concrete anchors.
- D. The roof panel shall be securely fastened to the walls with self-tapping screws on the outside and mounting clips on the inside.
- E. The access panels shall have a two point locking system with pad lockable handle and be completely removable.
- F. Drain ports shall be sized for full port backflow discharge and designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.

#### 2.2 MATERIALS OF FABRICATION

- A. Aluminum sheeting shall be 3003 aluminum (.050/16 gauge), stucco embossed finish and shall meet ASTM B209. Stucco embossed finish reduces the glare, finger prints and helps hide any surface scratches or imperfections received in the field.
- B. Insulation shall be 1.5" thick polyisocyanurate foam laminated to a glass fiber reinforced facer on each side.
- C. The Insulation shall have the following properties:
  - R-Value 9
  - Dimensional Stability < 2% linear change, ASTM D 2126
  - Compressive Strength 20psi, ASTM D1621
  - Water absorption < 1%, ASTM C209
  - Product Density Nominal 2.0 pcf, ASTM D1622
  - Flame spread 25, ASTM E 84
  - Service Temperature -100°F to 250°F

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- D. No wood or particle board to be used in the construction.

### **2.3 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)**

- A. Heating equipment shall protect the piping and equipment from exterior temperatures to -30°F. ETL listed thermostatically controlled wall mounted air forced heaters shall be furnished and designed by the enclosure manufacturer to maintain the equipment at +40°F, in accordance with ASSE 1060 1.2.2.1.
- B. Heating equipment shall be wall mounted to the supplied heater plates and a minimum of 8" above the slab unless it is UL or ETL certified and NEC approved for submersion.
- C. Power source shall be protected with a GFI receptacle, U.L. 943, NEMA.3R. Mounted a minimum of 8" from the bottom of the receptacle to the top of the slab.
- D. Separate 20 amp circuits are recommended for each heater, so in the event a circuit fails all other circuits will remain powered. Installations must be in accordance with the local and national codes.
- E. The heaters shall be ETL listed for wet/damp locations.

### **2.4 INSTALLATION HARDWARE**

- A. Threaded fasteners shall be stainless steel and provided by the manufacturer.
- B. Concrete anchors shall be wedge type anchors and provided by the manufacturer.
- C. Masonry drill bit & Hex nut driver for threaded fasteners shall be provided by the manufacturer.

### **2.5 RECOMMENDED SLAB SIZE & INSTALLATION**

- A. The recommended slab size shall be 9" larger than the enclosures exterior dimensions and a minimum of 4" thick.
- B. The enclosure shall be assembled and mounted to concrete pad per the manufactures instructions provided with the enclosure.
- C. Enclosure shall be assembled and mounted to concrete pad in such a way that it will remain locked and secured to the pad even if outside screws are removed.