# Hot Box<sub>®</sub> DuraFold<sub>®</sub>

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 DURAFOLD® ENCLOSURE

- A. Enclosure shall be top and side accessible.
- B. Enclosure shall ship fully assembled to allow for quick installation by securing to the concrete pad with the supplied wedge anchors.
- C. Enclosure shall have a fold down front panel that is easily removed to allow for unobstructed access for equipment testing and maintenance.
- D. Drain ports are sized for full port backflow discharge and are designed for a one way operation allowing backflow discharge but not allowing wind, debris and small animals to enter the enclosure.
- E. Standard enclosures shall be designed to support a minimum vertical load of 100lb/sf.
- F. Standard enclosures shall be designed to support wind speeds up to 80mph.
- G. Standard enclosures are ASSE 1060 certified.
- H. Custom Durafold enclosures are designed and constructed in the same manner as standard certified enclosures, but have not been lab tested and listed by ASSE.

## 2.2 MATERIALS OF FABRICATION

- A. Aluminum sheeting shall be 3003 aluminum (.051"/16 gauge), stucco embossed finish and shall meet ASTM B209. Stucco embossed finish reduces the glare and helps hide any surface scratches or imperfections received in the field.
- B. Bracing shall be 6063-T52 aluminum and shall meet ASTM B221
- C. No wood or particle board to be used in the construction.
- D. Anchor pads (galvanized steel) with 3/8-16 unc x 2 <sup>3</sup>/<sub>4</sub> long zinc plated wedge anchors and drill bit are to be supplied.
- E. Insulation shall be approximately 1.5" unicellular, non-wicking, polyisocyanate foam sprayed in place that forms a monolithic bond between the aluminum bracing and aluminum sheeting.
- F. The Insulation shall have the following properties:

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- R-Value
- Dimensional Stability
- Compressive Strength
- Flame point
- Water absorption
- Porosity

## 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 or UL listed self regulating cable(s) 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.

325 degrees

less than 2% linear change

10

51psi

91%

.037psf

- B. Heating equipment shall be mounted to the supplied heater plates and/or a minimum 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 (wall mounted) and 15 amp circuits (self regulating cables) are recommended, 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 UL or ETL listed for wet/damp locations.

#### 2.4 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 mounted to the concrete slab per the manufactures instructions provided with the enclosure.
- C. The enclosure shall not require assembly.

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