

Hot Box® Designer Series™

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 29 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.

PRODUCTS

2.1 DESIGNER SERIES™ ENCLOSURES

- A. Enclosures shall have front and back hinged doors that are removable for full access to both sides of the equipment for maintenance and testing.
- B. Enclosures shall have a removable hinged top with gas shocks to support and secure the lid in an upright position for full access to the top of the equipment for maintenance and testing.
- C. Doors shall be locked from the interior of the enclosure and shall have no exterior handles or lock exposed to the elements.
- D. The top is lockable to deter unauthorized entry, theft and vandalism.
- E. Anchoring is supplied to secure to the concrete pad.
- F. 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.
- G. Standard enclosures shall be designed to support a minimum vertical load of 100lb/sf.
- H. Standard enclosures shall be designed to support wind speeds up to 120mph.
- I. Standard enclosures shall be ASSE 1060 certified.

2.2 MATERIALS OF FABRICATION

- A. Fiberglass is minimum of 1/8" thick Thixotropic polyester resin reinforced with fiberglass strand. A smooth yacht quality finish, protected with UV inhibited isophthalic polyester gel coat.
- B. No wood or particle board to be used in the construction.
- C. Anchor pads (galvanized steel) with 3/8-16 unc x 2 3/4 long zinc plated wedge anchors and drill bit are to be supplied.
- D. Insulation shall be 1.5" unicellular, non-wicking, polyisocyanate foam sprayed in place to form a monolithic bond to the fiberglass and is not affected by heat or cold. No clips or fasteners shall be used.
- E. The Insulation shall have the following properties:
 - R-Value 10

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- Dimensional Stability less than 2% linear change
- Compressive Strength 51psi
- Flame point 325 degrees
- Water absorption .037psf
- Porosity 91%

3.1 HEATING EQUIPMENT (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)

- A. Heating equipment will 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 manufacturer of the enclosure 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 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.

4.1 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 per the manufactures instructions provided with the enclosure.

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