Hot Box® Sectionalized Aluminum

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 SECTIONALIZED ALUMINUM ENCLOSURES

A. Enclosure shall be a sectional prefabricated design with tongue and groove sections that slide together for fast and simple installation and shall be easily removable for equipment replacement.

B. Access panels have a four point locking system with pad lockable handle and are completely removable.

C. 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.

D. Standard enclosures shall be designed to support a minimum vertical load of 100lb/sf.

E. Standard enclosures up to 36”W x 105”L x 64”H shall be designed to support wind speeds up to 120mph, all larger sizes shall be designed to support wind speeds up to 80mph.

F. Standard enclosures are ASSE 1060 certified.

G. Custom 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 ¾ 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:

- 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%

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 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 slab per the manufactures instructions provided with the enclosure.