



## Backflow Enclosure Specifications Model BFP2D-ST

### **PART 1 GENERAL**

#### **1.1 WORK INCLUDED**

- A. Provide a manufactured backflow enclosure for backflow prevention assembly.

#### **1.2 QUALITY ASSURANCE**

- A. Qualifications: The manufacturer of the backflow enclosure shall be a company specializing in the field of manufacturing of such enclosures with at least ten (10) years of successful field installations and be ASSE 1060 Seal certified.

#### **1.3 REFERENCES**

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

#### **1.4 ACCEPTABLE MANUFACTURES**

- A. **AQUA SHIELD** or approved equal.

### **PART 2 PRODUCTS**

#### **2.1 MODEL NO. & SIZE**

- A. Model No. shall be BFP2D-ST
- B. Inside dimensions shall be 48"L x 24"W x 36"H (+ or - 1/2")

#### **2.2 MATERIALS OF FABRICATION**

- A. Materials for exterior walls shall be 5052-H32 aluminum (.050/18 gauge) and shall comply with ASTM B209. The aluminum shall have a standard mill finish.
- B. Insulation shall be a closed cell polyisocyanurate foam core laminated to heavy, black glass fiber reinforced facers each side. The insulation shall have the following properties:
  1. R-Value – 10.0
  2. Dimensional Stability - 2% Linear Change
  3. Compressive Strength - 20 psi and 25psi
  4. Product Density - Nominal 2.0 pcf,
  5. Water Absorption – <1% By Volume
  6. Service Temperature – (-100°F to +250°F)
  7. Moisture Vapor Transmission – < One (1) Perm
  8. Flame Spread – 25\*\*
  9. Insulation shall be 1.5" thick
- C. Adhesive shall be Hilti brand Product No. CA-3200 and shall have the following features:
  1. Bonds foam products
  2. Water resistant bond
  3. Stays resilient
  4. Will not freeze
  5. Freeze/thaw stable
  6. Water resistant

### **2.3 COMPONENTS**

- A. The enclosure shall be constructed of 5052-H32 (.050/18 gauge) mill finish marine grade aluminum ASTM B209 outside with insulation 1 1/2" thick (10.0 "R" value) thick on the inside.
- B. The above components shall be securely bonded to form a composite panel.
- C. The exterior of the enclosure shall have a protective PVC masking to protective mill finish before assembly. The protective masking shall be removed before assembly of the enclosure.
- D. The Enclosure shall be fully assembled by the manufacturer.
- E. The top shall be removable to provide access to the BFP and shall be attached to the enclosure by aluminum clasp.
- F. The front panel shall be removable to provide access to the BFP and shall slide over the side walls from the top of the enclosure and held in place by the top.
- G. The Enclosure shall be lockable with pad lock furnished by the customer.
- H. The Backflow Valve shall be protected inside the enclosure.
- I. Drain relief panel for the enclosure shall be constructed of same said materials as wall panels and be located in the end wall of the enclosure.
- J. Drain relief panel shall have a stainless steel hinge and stainless steel spring as a positive means of closure after water discharge to prevent the intrusion of outside air, debris and small animals.

### **2.4 HEATING EQUIPMENT**

- A. Enclosure shall not offer freeze protection without installation of heating equipment designed and provided by the manufacturer.
- B. Heating equipment designed and provided by the manufacturer shall provide freeze protection with the external temperature of  $-34^{\circ}\text{C}$  ( $30^{\circ}\text{F}$ ).

### **2.5 INSTALLATION HARDWARE**

- A. Concrete anchors shall be Hilti Hit type and provided by the manufacturer.
- B. Masonry drill bit and screw chuck shall be provided by the manufacturer.

### **2.6 INSTALLATION**

- A. Enclosure shall be assembled per manufacturer's instructions provided with enclosure.
- B. Enclosure shall be mounted to concrete pad per manufacturer's instructions.
- C. Pad size shall be 63"L x 23"W x 6"T.