**AquaSHIELD**

**Backflow Enclosure Specifications**
**Models BFP4-NSD**

## PART 1 GENERAL

### 1.1 WORK INCLUDED

A. Provide and install 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 BFP4-NSD
B. There shall be a total of (1) enclosures.
C. Inside dimensions shall be 102"L x 60"W x 48"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 factory 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

## 2.3 COMPONENTS

A. The roof, walls and access panels shall be constructed of 5052-H32 (.050/18 gauge) mill finish marine grade aluminum ASTMB B209 outside with insulation 1 1/2" (10.0 "R" value) thick in the walls and access panels with 3" (20.0 "R" value) thick in the roof panel. .

B. The above components shall be securely bonded to form a composite panel.

C. The exterior of the panels shall have a protective PVC masking to protect the finish before assembly. The protective masking shall be removed before assembly of the enclosure.

D. The roof and wall panels shall be fastened together with self-tapping stainless steel screws through holes provided in panels.

E. The roof panel shall be secured to the wall panels by stainless steel screws on the outside and security clips on the inside.

F. Access panels shall be (2) total in number (1) per side and shall be 39"W x 48" H

G. Each access panel shall have factory installed locks with master keys provided.

H. Drain relief panel for the enclosure shall be constructed of same said materials as wall panels and be located in one or more of the access panels.

I. 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

**(ASSE 1060 CLASS I - HEAT REQUIRED) (ASSE 1060 CLASS II - NO HEAT)**

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 maintain a minimum internal temperature of (+40°F) with the external temperature of (-30°F).

C. Heater shall be ETL,UL, or CSA certified.

D. Heating equipment shall be installed above the level of RPZ discharge.

E. Electrical power source for heater shall be a designated circuit with G.F.I. protection, and a minimum of 8" clearance from receptacle base to top of slab.

## 2.5 INSTALLATION HARDWARE

A. Threaded fasteners shall be stainless steel and provided by the manufacturer.

B. Concrete anchors shall be Hilti Hit type and provided by the manufacturer.

C. Masonry drill bit and screw chuck shall be provided by the manufacturer

## 2.6 INSTALLATION

A. Recommended pad size shall be 117”L x 75”W x 6”T.

B. Enclosure shall be assembled per manufacturer’s instructions provided with enclosure.

C. Enclosure shall be mounted to concrete pad per manufacturer’s instructions.

D. Enclosure shall be assembled plumb and square.