



**Outdoor Enclosure Specifications  
Models NBFP4**

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

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

**1.2 QUALITY ASSURANCE**

- A. Qualifications: The manufacturer of the outdoor enclosure shall be a company specializing in the field of manufacturing of such enclosures with at least six (6) 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 NBFP4
  
- B. Inside dimensions shall be 36" "L x 36"W x 45"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

### **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 screw through holes provided in panels.
- E.. Access panels shall be (2) in number and shall be 32"W x 45" "H.
- F. Each access panel shall have factory installed locks with master keys provided
- G. The valve assembly including the stems and hand wheels shall be protected inside the enclosure.
- 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. Enclosure shall be assembled per manufacturer's instructions provided with enclosure.
- B. Enclosure shall be mounted to concrete pad per manufacturer's instructions.  
The recommended pad size shall be 51"x 51"x 6"T
- C. Enclosure shall be assembled plumb and square.