

# Safe-T-Cover™

## BACKFLOW PREVENTION ASSEMBLY ENCLOSURE SPECIFICATION

### PART 1 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 5 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. Safe-T-Cover™ or Engineer approved equal.

#### 1.5 REFERENCES

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

### PART 2 PRODUCTS

#### 2.1 MODEL NO. & SIZE

- A. Model No. shall be 1000TDS-AL.
  
- B. Inside dimensions shall be 90"W x 174"L x 90"H.

#### 2.2 MATERIALS OF FABRICATION

- A. Material of fabrication shall be 5052-H32 marine grade aluminum (.050/18 gauge), mill finish and shall meet ASTM B209.
  
- B. Insulation shall be 1.5" (10.0 "R" value) minimum thickness polyisocyanurate foam laminated to a glass fiber reinforced facer (each side). The insulation shall have the following properties:
  - 1. Dimensional Stability-Less than 2% linear change, ASTM D-2126;
  - 2. Compressive Strength-20PSI, ASTM D-1621;
  - 3. Water Absorption-Less than 1% by volume, ASTM C-209;
  - 4. Moisture Vapor Transmission-Less than one (1) perm, ASTM E-96;
  - 5. Product Density-Nominal 2.0 lbs. per cubic foot, ASTM D-1622;
  - 6. Flame Spread=25, ASTM E-84;
  - 7. Service Temperature= -100°F to +250°F maximum.
  - 8. The insulation shall be of uniform thickness.
  
- C. Structural members shall be redwood.

### **2.3 ROOF, WALLS & PANELS**

- A. The roof, walls & panels of the enclosure shall be constructed of 5052-H32 (.050/18 gauge) marine grade aluminum, mill finish, ASTM B209 outside with insulation 1 1/2" (10.0 "R" value) thick in the walls and panels and 3" (20.0 "R" value) thick in the roof.
- B. The aluminum, insulation and redwood shall be securely bonded together to form a composite panel.
- C. The aluminum panels shall be provided with a PVC or similar exterior film to prevent damage before installation. The film shall be removed before installation.
- D. The complete assembly, including valve stems, shall be protected by being inside the enclosure.
- E. The roof shall be securely attached to the walls with screws and inside roof connections.
- F. All screws shall attach to redwood members.
- G. The walls of the enclosure shall be securely attached to the concrete base with inside anchoring brackets.
- H. Access panels shall be four (4) in number and each shall be 38 1/4"W x 90"H. Two access panels shall contain drain panels.
- I. Access panels shall be completely removable.
- J. Access panels shall be provided with built-in locks keyed alike and keys furnished.
- K. Clear opening drain panel area shall be 38 1/2"W x 6 1/2"H.
- L. Drain panel shall have a stainless steel hinge and a stainless steel light strength spring as a positive means of closure so that the drain panel will not be activated by wind.
- M. Drain panel shall be designed to remain closed except during water discharge.

### **2.4 Heating Equipment (ASSE 1060 Class I-Required; ASSE 1060 Class II-Optional)**

- A. Heating equipment shall be furnished and designed by the manufacturer of the enclosure to maintain an interior temperature of +40°F with an outside temperature of -30°F.
- B. The heater shall have two electrical resistance elements completely enclosed within a solid aluminum cast platen base.
- C. The platen heater shall be designed for installation to the concrete base with mounting hardware provided.

D. The platen heater shall be suitable for installation underneath a reduced pressure zone device and designed to sustain water spray without damage to or impeding the performance of the heater.

E. The platen heater shall be provided with a thermostat adjustable from +40°F to +100°F. The thermostat, all conduit and wiring fittings provided shall be suitable for “water-tight” installation.

## **2.5 MOUNTING HARDWARE**

A. Mounting hardware shall be furnished and shall be 300 series stainless steel and/or T-6 aluminum.

B. All threaded fasteners shall be furnished and shall be 400 series stainless steel and/or Hilti type Tap-Fast w/Quickcoat™ and Flo Seal washer or equal.

C. All masonry fasteners shall be furnished and shall be stud type Hilti Kwik Bolt II™ and/or Hilti type Hit Anchors or equal.

D. All necessary drill bits shall be furnished.

## **PART 3 INSTALLATION**

A. Enclosure shall be mounted on a concrete pad 104"W x 188"L x 6"Thick.

B. Enclosure shall be assembled and mounted to concrete pad according to manufacturer's instructions.

C. Enclosure shall be assembled and mounted to concrete pad in such a way that it will remain locked and secured to pad even if outside screws are removed.