

SECTION 21 13 19 FIRE-DEPARTMENT CONNECTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Reduced Pressure Detector Backflow Prevention Assembly for fire protection systems.

1.2 REFERENCES

- A. ASSE 1047 – Performance Requirements for Reduced Pressure Detector Backflow Preventers.
- B. AWWA C550 – Protective Interior Coatings for Valves and Hydrants.
- C. NSF/ANSI/CAN 61 – Drinking Water System Components – Health Effects.
- D. CSA B64.4 – Backflow Preventers.
- E. UL Classified.
- F. FM Approved.

1.3 SUBMITTALS

- A. Product data including rated flow, pressure loss characteristics, and dimensional data.
- B. Installation instructions.
- C. Certificates of Compliance with referenced standards.

1.4 QUALITY ASSURANCE

- A. Manufacturer shall have a minimum of five (5) years' experience producing backflow prevention assemblies.
- B. Products shall be listed, certified, or approved by the following:
1. ASSE, AWWA, CSA, NSF/ANSI, UL, FM.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components in manufacturer's original, unopened, labeled packaging.
- B. Store in a clean, dry space; protect from weather and construction activities.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Wilkins by Zurn Elkay Water Solutions

2.2 REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER

A. Model: Zurn Wilkins Model 375ASTDA

B. Description:

1. Stainless steel body and access covers (304L).
2. Internals: Stainless steel, 300 Series and NORYL™.
3. EPDM seat disc and elastomers (FDA approved).
4. Buna-N O-rings (FDA approved).
5. Braided stainless steel sensing line.

C. Pressure Ratings:

1. Maximum working pressure: 175 psi.
2. Maximum working temperature: 140°F.
3. Hydrostatic test pressure: 350 psi.

D. End Connections:

1. Grooved: AWWA C606.
2. Flanged: ANSI B16.42 Class 150.

E. Sizes: 2-1/2", 3", 4", 6", 8", 10"

F. Configuration:

1. Includes metered bypass using 3/4" Model 975XLD.
2. Factory-assembled unit with OS&Y gate valves, butterfly valves, or combination ends.

G. Options:

1. OS&Y gate valves (flanged or grooved).
2. Butterfly valves with integral supervisory switches (flanged or grooved).
3. Flanged/grooved mixed-end connections (FG).
4. Post indicator gate valves (PI).
5. GPM or CFM water meters, or LM (less meter).
6. RV (right-hand bypass).

H. Accessories:

1. Air gap (Model AG).
2. OS&Y tamper switch (OSY-40).
3. Thermal expansion tank (Model XT).
4. Quick Test Fitting Set (QT-SET).

PART 3 - EXECUTION

3.1 INSTALLATION

A. Flush system inlet piping before installation.

B. Install in accordance with manufacturer's written instructions.

C. Install horizontally unless otherwise specified.

D. Provide minimum 12 inches (305 mm) and maximum 30 inches (762 mm) clearance from floor or drain to lowest point.

E. Ensure unit is not subject to flooding or submersion.

F. Allow sufficient side clearance for servicing and testing.

G. Provide adequate drainage for relief valve discharge.

3.2 FIELD QUALITY CONTROL

- A. Test and commission per authority having jurisdiction.
- B. Submit test results for approval.

3.3 ADJUSTING AND CLEANING

- A. Flush system before testing.
- B. Clean exterior surfaces; touch-up damaged finishes.

END OF SECTION