

SECTION 22 11 19 – DOMESTIC WATER PIPING SPECIALTIES

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - a. Double check valve backflow prevention assemblies for domestic water systems.
- B. Related Requirements:
 - a. Section 22 11 16 – Domestic Water Piping

1.2 REFERENCES

- A. ASSE 1015 – Double Check Backflow Prevention Assemblies
- B. CSA B64.5 – Backflow Preventers
- C. AWWA C510 – Double Check Valve Assemblies
- D. NSF/ANSI/CAN 61 and 372 – Drinking Water System Components – Health Effects
- E. UL and C-UL Classified (less shut-off valves only)
- F. USC Foundation for Cross Connection Control and Hydraulic Research

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's data indicating dimensions, materials, performance ratings, and installation details.
- B. Operation and Maintenance Data: Provide manufacturer's installation, maintenance, and repair instructions.

1.4 QUALITY ASSURANCE

- A. Manufacturer shall have at least five years of experience manufacturing certified backflow preventers.
- B. Provide units certified to applicable performance standards for domestic water applications.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver assemblies in factory packaging with identification labels intact.
- B. Store in clean, dry indoor conditions protected from mechanical damage and contamination.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Wilkins by Zurn Elkay Water Solutions

2.2 DOUBLE CHECK VALVE BACKFLOW PREVENTER

- A. Basis of Design: Model 350XL
- B. Substitutions: Not permitted without prior approval.

2.3 MATERIALS

- A. Main Valve Body: Low Lead Bronze (3/4"-1") conforming to ASTM B584
- B. Housing: Reinforced Nylon
- C. Elastomers: Silicone and Buna Nitrile (FDA approved)
- D. Internals: Delrin and Stainless Steel (300 Series)
- E. Fasteners and Springs: Stainless Steel, 300 Series
- F. Handles: Stainless Steel, 200 Series

2.4 PERFORMANCE

- A. Sizes: 3/4", 1", 1-1/4", 1-1/2", 2"
- B. Maximum Working Pressure: 175 psi
- C. Maximum Temperature: 180°F
- D. Hydrostatic Test Pressure: 350 psi
- E. End Connections: Threaded FNPT, ANSI B1.20.1

2.5 FEATURES

- A. - Lead-free design in compliance with NSF/ANSI/CAN 61 and 372
- B. - Suitable for horizontal and vertical installation
- C. - Inline serviceable without removing the unit from piping
- D. - Certified by ASSE, CSA, AWWA, and USC FCCCHR

2.6 OPTIONS (Suffixes may be combined)

- A. FT: Integral 45° SAE test fitting
- B. S: Model SXL lead-free bronze Y-strainer

2.7 ACCESSORIES

- A. Thermal Expansion Tank (Model XT)
- B. Quick Test Fitting Set (QT-SET)
- C. Blow Out/Flush Fittings

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Flush system inlet piping before installation
- B. Install in accordance with manufacturer's instructions and local plumbing code requirements.
- C. Install device 12" minimum and 30" maximum above grade or floor.

- D. Provide adequate clearance for testing, maintenance, and repair.
- E. Do not install in locations subject to flooding or submersion.

3.2 FIELD QUALITY CONTROL

- A. Perform field testing in accordance with local authority and manufacturer's procedures.
- B. Inspect for leaks, alignment, and performance under operating pressure.

3.3 CLEANING AND PROTECTION

- A. Flush system before placing device into service.
- B. Protect installed assembly from mechanical damage and freezing.

END OF SECTION