SECTION 400567.26 - ATMOSPHERIC VACUUM BREAKER BACKFLOW PREVENTERS

Note that this section has only been edited for NYSOGS standardization and has not been technically edited. The designer shall make all technical edits specific to the project for this section.

This Section specifies atmospheric vacuum breaker backflow preventers for use in piping systems for water and wastewater treatment facilities.

Process piping systems and appurtenances are specified in Divisions 40, 43, and 46.

1. GENERAL
   * + 1. SUMMARY
          1. Section Includes: Atmospheric vacuum breaker backflow preventers.
       2. REFERENCE STANDARDS

List reference standards included within text of this Section, with designations, numbers, and complete document titles.

* + - * 1. ASSE International:

ASSE 1001 - Performance Requirements for Atmospheric Type Vacuum Breakers.

* + - * 1. NSF International:

NSF 61 - Drinking Water System Components - Health Effects.

NSF 372 - Drinking Water System Components - Lead Content.

* + - 1. COORDINATION
         1. Coordinate Work of this Section with installation of process piping.
      2. SUBMITTALS

Only request submittals needed to verify compliance with Project requirements.

* + - * 1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the

General Conditions.

* + - * 1. Manufacturer’s installation instructions shall be provided along with product data.
        2. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
        3. Product Data: Submit manufacturer catalog information.
        4. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

Include separate Paragraphs for additional certifications.

* + - * 1. Manufacturer Instructions: Submit special procedures and setting dimensions.
        2. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
        3. Qualifications Statement:

Coordinate following Subparagraph with requirements specified in QUALIFICATIONS Article.

Submit qualifications for manufacturer.

* + - 1. CLOSEOUT SUBMITTALS
         1. Project Record Documents: Record actual locations of atmospheric vacuum breaker backflow preventers.
      2. QUALITY ASSURANCE

Include this Article to specify compliance with overall reference standards affecting products and installation included in this Section.

* + - * 1. Materials in Contact with Potable Water: Certified to NSF Standards 61 and 372.

In following Paragraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

* + - * 1. Perform Work according to <**\_\_\_\_\_\_\_\_**> standards.

Include following Paragraph only when cost of acquiring specified standards is justified.

* + - * 1. Maintain <**\_\_\_\_\_\_\_\_**> [**copy**] [**copies**] of each standard affecting Work of this Section on Site.
      1. QUALIFICATIONS

Coordinate following Paragraph with requirements specified in SUBMITTALS Article.

* + - * 1. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum [**three**] <**\_\_\_\_\_\_\_\_**> years' [**documented**] experience.
      1. DELIVERY, STORAGE, AND HANDLING
         1. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
         2. Store materials according to manufacturer instructions.
         3. Protection:

Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.

Furnish temporary end caps and closures on piping and fittings and maintain in place until installation.

Provide additional protection according to manufacturer instructions.

* + - 1. EXISTING CONDITIONS
         1. Field Measurements:

Verify field measurements prior to fabrication.

Indicate field measurements on Shop Drawings.

* + - 1. WARRANTY

This Article extends warranty period beyond one year. Extended warranties may increase construction costs and Owner enforcement responsibilities. Specify warranties with caution.

* + - * 1. Furnish [**five**] <**\_\_\_\_\_\_\_\_**>-year manufacturer's warranty for atmospheric vacuum breaker backflow preventers.

1. PRODUCTS
   * + 1. ATMOSPHERIC VACUUM BREAKER BACKFLOW PREVENTERS

An atmospheric vacuum breaker (AVB) has a moving element which prevents water from spilling out during flow. If flow stops, it moves to provide a vent opening to the ambient atmosphere. An AVB is a simple and inexpensive type of backflow preventer, but it is not designed to protect against back pressure. An AVB is gravity operated and must be installed in a vertical position.

Confirm with authorities having jurisdiction at Project Site before specifying an AVB to ensure that they are allowed.

* + - * 1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=12689&mf=04&src=wd):

designer to provide two manufacturers and approved equivalent for all listed products.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Paragraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

* + - * 1. Furnish materials according to <**\_\_\_\_\_\_\_\_**> standards.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Description:

Comply with ASSE 1001.

Connections:

Type: Female union.

Size: [**1/2**] <**\_\_\_\_\_\_\_\_**> inch

Operating Pressure:

Maximum [**175**] <**\_\_\_\_\_\_\_\_**> psig

Minimum: [**8**] <**\_\_\_\_\_\_\_\_**> psig

Vent Seal: O-ring.

* + - * 1. Materials:

Body:

[**Copper alloy**] <**\_\_\_\_\_\_\_\_**>.

Lead free.

Disc: Rubber.

Float: Plastic.

Springs: Stainless steel.

* + - 1. INSULATION
         1. As specified in Section 404213 - Process Piping Insulation.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. As indicated on [**Drawings**] [**Shop Drawings**] [**pipe schedule**].

1. EXECUTION
   * + 1. EXAMINATION
          1. Verify that field dimensions are as indicated on [**Shop**] Drawings.
          2. Inspect existing flanges for nonstandard bolthole configurations or design and verify that new pipe and flanges mate properly.
       2. PREPARATION
          1. Thoroughly clean end connections before installation.
          2. Close pipe and equipment openings with caps or plugs during installation.
          3. Cleaning: Clean surfaces to remove foreign substances.
       3. INSTALLATION
          1. According to manufacturer instructions and local code requirements.
          2. Install with nameplate and test cock accessible.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

In following Paragraph insert "State of New York Department of Transportation," "Municipality of \_\_\_\_\_\_\_\_ Department of Public Works," or other agency as appropriate.

* + - * 1. Installation Standards: Install Work according to <**\_\_\_\_\_\_\_\_**> standards.
      1. FIELD QUALITY CONTROL
         1. After installation, inspect for proper supports and interferences.
         2. Repair damaged coatings with material equal to original coating.
      2. CLEANING
         1. Keep interior of backflow preventers clean as installation progresses.
      3. DEMONSTRATION
         1. Demonstrate equipment startup, shutdown, routine maintenance, and emergency repair procedures to Director’s Representative.

END OF SECTION 400567.26