

SECTION 15102 – RESILIENT-SEATED WEDGE GATE VALVES

PART 1 – GENERAL

1.1 DESCRIPTION

This section includes materials, testing, and installation of resilient-seated wedge gate valves.

Butterfly valves to be supplied and installed per ANSI/AWWA C509 and C515, unless noted otherwise below.

1.2 RELATED SECTIONS SPECIFIED ELSEWHERE

All related work specified elsewhere, or in other codes or standards, will be as last revised, unless a specific date of issuance is called out in opposition to later revision date(s).

Other sections of the technical specifications, not referenced below, shall also apply to the extent required for proper performance of this work.

A. Section 01300 – Submittals

B. Section 09900 – Painting and Coating

C. Section 15100 – Valves

1.3 APPROVED MANUFACTURERS AND MODELS

A. Resilient-seated wedge gate valves shall be manufactured by AFC, AVK, Clow, or Mueller per VWD Approved Material List, latest edition.

1.4 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

Except as otherwise indicated, the current editions of the following standards apply to the Work of this section:

ANSI/AWWA C509	Resilient-Seated Gate Valves for Water Supply Service
ANSI/AWWA C515	Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service

1.5 SUBMITTALS

Submittals shall conform to the Standard Specifications.

1.6 FACTORY TESTING

A. Valves shall be facility tested in compliance with ANSI/AWWA C509.

B. Proof-of-design tests reports shall be submitted in compliance with ANSI/AWWA C509.

PART 2 – PRODUCTS

2.1 RESILIENT-SEATED WEDGE GATE VALVES (ANSI/AWWA)

A. General

SECTION 15102 – RESILIENT-SEATED WEDGE GATE VALVES

1. All valves shall be leak tight at their rated working pressure.
2. Valves shall have non-rising stems, opening by turning left and provided with 2-inch-square operating nut. Outside stem and yolk valves shall be used on backflow device shutoff valves.
3. Each valve shall have a smooth unobstructed waterway free from any sediment pockets.
4. Stem seals (Stuffing boxes) shall be O-ring seal type with two rings located in stem per ANSI/AWWA C509.
5. Low friction torque reduction thrust bearings shall be located both above and below the stem collar.
6. Materials shall be as described below:

Component	Material	Specification
Body, Operating Nut Bonnet, Seal Plate	Ductile Iron	ASTM A 126 Class B
Gate	Ductile Iron	ASTM A 126 Class B
Bonnet and Seal Bolts	Stainless Steel	Type 316
O-Rings	Synthetic Rubber	ASTM D2000

7. All internal working parts (excluding gate) shall be all bronze containing not more than 2 percent aluminum or more than 7 percent zinc. Valve stems shall be of low zinc content (2%) or stainless steel, having a minimum tensile strength of 70,000 psi, a yield strength of 40,000 psi, and 12% elongation in 2 inches. The stem is to be visibly marked so that it meets this requirement. For sewer applications, the stem shall be Type 316 stainless steel.
 8. All gates shall be encapsulated in Buna-S rubber or nitrile elastomer.
 9. All drain cocks and plugs to be stainless steel.
- B. Coatings: Ferrous surfaces of valves, four-inch (4”) and larger, which will be in contact with water (exclusive of flange faces) shall be coated complying with the Standard Specifications and external surfaces fusion bonded and epoxy coated.
- C. Valve Testing
1. Resilient-seated wedge gate valves shall be hydrostatically tested and coatings shall be holiday detected prior to shipment to the field.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. The installation shall be in accordance with the Standard Specifications.
- B. Install valves with the bolt holes straddling the vertical centerline of pipe and the operating nut in the vertical position unless otherwise noted on the Plans.

****END OF SECTION****