

S65 Resilient Wedge Gate Valve Sample Specification

1. General.

- A. The valve shall be a ductile iron body and bonnet as specified. The valve shall be non-rising stem (NRS) or Outside Stem and Yoke (OS&Y) as specified, resilient seated, with an AWWA standard 2" square operating nut for NRS and handwheel for OS&Y.
- B. Valves shall comply with AWWA C515 except where modified and/or augmented in these specifications.
- C. All bolting shall be stainless steel AISI grade 304. If nuts are used on the bolts the nuts shall be 304 stainless steel and the bolt threads shall be coated with an anti-galling compound.
- D. Valves shall be certified to the requirements of ANSI/NSF 61.
- E. Valves shall be certified to comply with the low lead requirements of the Safe Drinking Water Act, NSF 372 or NSF 61 Annex G.
- F. 304 Stainless Steel Bonnet Bolts shall be fully isolated and protected to never come in contact with water or soil.

2. Resilient wedge.

- A. The valve wedge shall be ductile iron, fully encapsulated with EPDM rubber, and shall be capable of a drip-tight shutoff with flow in either direction.
- B. The valve wedge shall have a fixed copper alloy wedge to withstand higher torque loads and reduce vibration.
- C. The EPDM shall be permanently vulcanized to the gate.
- D. There shall be no exposed, uncoated iron.



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<u>3. Stems</u>

- A. Valve stems shall be made of stainless steel or bronze with minimum yield strength of 50,000 psi for stainless steel or 40,000 psi for bronze.
- B. Stems shall be provided with separate or integral bronze thrust collars.
- C. Bronze valve stems shall contain no more than 5% zinc, no more than 2% aluminum, and no more than 0.25% lead.
- D. Stainless steel stems shall contain a minimum of 16% chrome.

4. Seals and Gaskets

- A. Valve stem seals shall be an o-ring type with not less than one o-ring below the thrust collars and two o-rings above the thrust collars.
- B. If an o-ring groove is cut into the stem the diameter of the groove shall not be less than the root diameter of the stem threads.
- C. O-rings and gaskets shall be made of an NBR rubber to help prevent the effects of permeation.
- D. Bonnet gaskets shall be an o-ring type that completely encircles each individual bonnet bolt so that the bolts are isolated from the internal or external environment.

5. Protective Coatings

- A. All exposed ferrous surfaces shall be coated with a fusion bonded epoxy in accordance with AWWA C550.
- B. Interior Coating shall be coated with VeloCorr fusion-bond epoxy powder coating and be certified "Holiday-Free" per ASTM G62.
- C. Gate Valves shall be identified as Certified to be both AWWA C550 and Holiday-Free internal coating via an exterior label indicating the product is protected by VeloCorr[™].
- D. Exterior Coating of exposed ferrous surfaces shall be coated to meet the requirements of AWWA C550 with Electrostatically applied fusion bonded epoxy.

6. End Connections.

- A. End Connections shall be either Mechanical Joint, Push-on Joint, or Flanged.
- B. Mechanical and Push-On joints shall comply with the requirements of AWWA C111.
- C. Mechanical joint slots shall have anti-rotation saddles for T-bolt heads to rest in.
- D. Flanged ends shall comply with AWWA C515 and ASME B16.1, class 125.



7. Warranty

A. All gate valves shall be covered by a Manufacture's 10 Year Limited Warranty on manufacturers defects and labor costs for replacement.

8. Approved Equal

A. Gate valves shall be American AVK S65 or approved equal.

