

Performance Specifications

RESILIENT WEDGE GATE VALVE (3-16")

(Rev / MM: August 2005)

- Valves shall meet or exceed ANSI/AWWA C-509 (latest) and meet the following additional provisions:
- Gate valves shall be assembled and tested in a certified ISO 9001:2000 manufacturing facility within the United States.
- The wedge shall be of ductile iron, fully encapsulated with EPDM rubber, including the glide path.
- The gland flange shall be of ductile iron for maximum strength.
- Two upper stem seal O-rings, one above the thrust collar and one below as well as a lower stem seal o-ring will be provided to assure the upper stem seals can be replaced with the valve under full working pressure.
- The stem surface material shall be stainless steel, bronze or metal with a yield strength of 40,000psi.
- A (2) inch cast iron operation nut will be marked with an arrow indicating the direction of opening, which is open left or counter-clockwise. A cast iron handwheel, when specified, shall be used and marked in a similar fashion.
- The waterway in the seat area shall be smooth, unobstructed, and free of cavities. Tapping valves shall have ductile iron bodies that accommodate a full size shell cutter.
- When specified, Tapping Valves 4" through 12" shall have a ring cast with the body on its flanged end to ensure proper alignment with suitable tapping sleeves. All other end configurations shall be specified as mechanical joint (MJ) or Class 125 Flange (FL).
- Valve body, bonnet and gland flange shall have an electrostatic applied, fusion-bonded epoxy coating internally and externally with a minimum of 8 mils. The coating shall meet or exceed the requirements of the AWWA C-550 (or latest revision). Coating to be applied at the valve manufacturer's facilities.
- If a valve is to be buried in an overly aggressive soil type, additional protective coating of the exterior valve body and exposed bolting may be required. If deemed necessary, the manufacturer shall provide a "thick film" thermosetting of unmodified polyurethane applied to a dry film thickness (DFT) between 50-120 mils over a lightly roughened surface (by sandblast or other method) to provide a "tooth" for the adhesion of the polyurethane. Internal surfaces will be masked and protected from over spray and contamination before this coating is applied to all exterior surfaces. All masking shall be removed after curing and before shipment. The applied polyurethane coating will meet the following requirements:
 1. Two component
 2. 100 % solids, no solvents and no V.O.C.'s
 3. Waterproof
 4. Remains flexible from -40° to +200° F
 5. Working temperature up to 250°, intermittent up to 350°
 6. Tensile strength of 2500 psi
 7. Elongation of 290%
 8. Finished hardness of approximately 95 Shore A

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- All bolts, nuts and washers shall be stainless steel to limit exterior corrosion and maintain fastener strength. Manufacturer will use Never-Seez® or its equivalent during assembly of bolt and nut sets to prevent galling of similar metals.
- All valves shall have three pressure tests performed to the requirements of AWWA C-509 specifications prior to shipment from the manufacturer. (1) 25 PSI against each side of the closed wedge; (2) 250 PSI against each side of the closed wedge; and (3) 500 PSI shell test. Thus valves shall have a working pressure of 250 PSI. The appropriate designs and sizes, which is UL/FM Listed and Approved at a working pressure of 200 PSI.
- Where applicable, all valve coatings and materials shall be tested and certified to meet the requirements of ANSI/NSF-61 regulations for potable water.
- All valves shall be covered by a Manufacturer's 10 year Limited Warranty from date of purchase by the end user and delivered within (30) Days from receipt of purchase order. The supplier will also provide laminated maintenance manuals in an appropriate level.
- All valves shall be as manufactured by American AVK or approved equal.

ADDITIONAL MATERIAL:

- All valve boxes shall be a 461-S or 562-S heavy duty type cast iron box with lids marked WATER, SEWER or GAS. RECLAIMED WATER Lines shall use a "Rome-Type" box to differentiate itself from potable water lines.
- All valve box lids will be identified by the contractor with a GPS locator and positions given to the project managers or inspectors for future reference by the Emergency Management Team.
- Valve box lids will have Valve ID Tags securely fastened to their interior, which will clearly indicate the type of valve, its size, direction of opening and its turns to open. (Example: 8" GV / OL / 26 Turns)
- Valve boxes will be installed with concrete collars at ground level and have valve box lids color coded in the following manner:
 - Potable Water Lines will have lids painted **ROYAL BLUE**
 - Force Main Lines will have lids painted **SEA GREEN**
 - Fire Service Lines will have lids painted **SAFETY RED**
 - Reclaimed Water Lines will have lids painted **PANTONE 522-C**
 - Natural Gas Lines will have lids painted **SAFETY YELLOW**