

SECTION 15155

BUTTERFLY VALVES **(Contractor Furnished)**

PART 1: GENERAL

1.01 SCOPE

Furnish and install all butterfly valves shown on the Drawings and as described in Section 01000 Summary of Work and Section 01011 Specifications Special Conditions.

1.02 RELATED WORK

Specification Section 15000 - Piping - General Provisions.

1.03 SUBMITTALS

Submit shop drawings and manufacturer's literature to the Engineer for approval in accordance with Specification Section 1300.

PART 2: PRODUCTS

2.01 VALVES

- A. Furnish and install rubber-seated butterfly valves as shown on the Contract Drawings. Butterfly valves shall conform to Class 150B of the AWWA Standard C504 and this specification unless working pressure is greater than 150 psi in which case, the butterfly valve shall conform to Class 250B of the AWWA Standard C504.
- B. All valves shall open left except valves that are specified open right in the Contract Drawings or as required by the Owner in Section 01011 Specifications Special Conditions.
- C. Valve bodies shall be ductile iron with mechanical joint ends. Mechanical joint ends shall conform to AWWA Standard C111. All valve materials shall meet the requirements of NSF 61.
- D. Valve shafts shall consist of one-piece units extending through the discs of 18-8 stainless steel Type 303 or 304. Shaft diameter shall be in accordance with Table 3 of AWWA Standard C504.
 - 1. Valve discs shall be Ni-Resist, Type 1, or cast iron with stainless steel edges.
 - 2. Valve seats shall be hycar or natural rubber mounted in the valve body.
 - 3. Valve bearings shall be nylon or Teflon.

- E. The valve interior and exterior shall be epoxy coated at the factory by the valve manufacturer in accordance with AWWA Standard C550 (6-8 mil average, 4 mil minimum).
- F. All elastomers used in the butterfly valves must be suitable for service in the following water conditions:
 - 1. Chlorine concentration up to 12 mg/L
 - 2. Chloramine concentrations up to 6 mg/L
 - 3. Ozone concentrations up to 2.0 mg/L (AWWA Standard says 0.5 ppm)
 - 1. pH range of 4-11
- G. Manual buried operators, if provided, shall be either worm gear or traveling nut type and shall be furnished with 2-inch AWWA nuts and extension shafts. Input required at nuts to produce specified output torque shall be less than 150 ft.-lbs. Operators shall be designed to withstand an input at the nut of 300 ft.-lb. without damage to any operator components.
- H. Acceptable manufacturers: Mueller Company (Henry Pratt Company Division only) and DeZurik Water Controls.

PART 3: EXECUTION

3.01 SETTING VALVES

Install the valves in strict accordance with the requirements of Specification Section 15000.

3.02 PROTECTION

After field installation of the valve all external bolts except the operating nut shall receive a layer of tape coating or approved rubberized-bitumen based spray-on undercoating applied before backfill. If polyethylene is applied to the pipe, the entire valve shall be encased in polyethylene encasement prior to backfill. The polyethylene encasement shall be installed up to the operating nut leaving the operating nut exposed and free to be operated.

END OF SECTION