

3. Gaskets: 1/16 inch thick, preformed neoprene.

C. Dielectric Connections:

1. Waterways:

- a. Water impervious insulation barrier capable of limiting galvanic current to 1 percent of short circuit current in a corresponding bimetallic joint.
- b. Dry insulation barrier able to withstand 600-volt breakdown test.
- c. Construct of galvanized steel with threaded end connections to match connecting piping.
- d. Suitable for the required operating pressures and temperatures.

2. Flanges:

- a. Dielectric flanges with same pressure ratings as standard flanges.
- b. Water impervious insulation barrier capable of limiting galvanic current to 1 percent of short circuit current in a corresponding bimetallic joint.
- c. Dry insulation barrier able to withstand 600-volt breakdown test.
- d. Construct of galvanized steel with threaded end connections to match connecting piping.
- e. Suitable for the required operating pressures and temperatures.

## 2.9 GAS COCKS

- A. Full port, brass ball valves with bottom-loaded blowout proof stem, virgin PTFE seats, thrust washer and adjustable stem packing gland, stem packing nut, chrome plated brass ball, brass adapter and steel handle.
- B. 1/4" to 3/8": 1/2 psig, ASME B16.33.
- C. 1/2" to 2": 1/2 psig, ASME B16.33.

## 2.10 GLOBE VALVES

- A. Up To and Including 2 inches.
  1. Class: 150
  2. Body: ASTM B-62 bronze.
  3. Bonnet: ASTM B-62 bronze.
  4. Stem: ASTM B-62 bronze.
  5. Packing Nut: ASTM B-584 bronze.

6. Packing: Graphite.
7. Disc: Teflon.
8. Disc Nut: ASTM B-62 bronze.
9. Ends: Threaded.

B. Acceptable Manufacturers:

1. Nibco
2. Stockham
3. Milwaukee

## **2.11 BALL VALVES**

A. 3-inch and smaller: 2-piece, full port:

1. Class: 150 psi saturated steam, 600 psi wog.
2. Body: ASTM B-584 Alloy 844 bronze.
3. Body End Piece: ASTM B-584 Alloy 844 bronze.
4. Ball: ASTM B-584 Alloy 844 bronze with hard chrome plate.
5. Seat Ring: Reinforced TFE.
6. Threaded Packing Gland: ASTM B-16 Alloy 360 brass.
7. Stem: 316 stainless steel.
8. Ends: Soldered or Press Fittings.

B. Acceptable Manufacturers:

1. Nibco.
2. Apollo.
3. Stockham.

## **2.12 ZERO LEAKAGE TRIPLE OFFSET HIGH-PERFORMANCE BUTTERFLY VALVES**

A. 2-1/2 inch and larger: Triple offset rotary valve, carbon steel, bi-directional, double flange body (wafer or lug-style not acceptable), zero leakage.

1. Class: ANSI 300.
2. Body: Carbon steel.
3. Disc: Nickel plated carbon steel.

4. Shaft: ASTM A-564 Type 630 (17-4PH) stainless steel.
5. Seat: Welded Stellite GR.21, integral with valve body.
6. Seat Ring: Duplex, stainless steel, laminated, field replaceable.
7. Locator Bearing: ASTM A-743 Grade CG8M Type 317 stainless steel.
8. Thrust Bearing: Type 317 stainless steel with PTFE woven fabric.
9. Packing: Graphite.
10. Packing Gland: ASTM A-743 Grade CF8M Type 316 stainless steel.
11. Disc Pins: ASTM A-276 Type stainless steel.
12. Operator: Self-locking, manual gear operator.
13. Leakage class. Zero leakage as defined by API 598, 7th edition.

B. Acceptable Manufacturers:

1. Tyco Vanessa Series 30,000.
2. Crane Flowseal MS.
3. Adams Valve MAK.

## 2.13 CHECK VALVES

A. Wafer Check: 2-1/2 inch and larger:

1. Class: 125
2. Body: ASTM A-126 Class B cast iron.
3. Disc: ASTM B-148 aluminum-bronze.
4. Hinge Pin: ASTM A-276 Type 316 stainless steel.
5. Spring: ASTM A-276 Type 316 stainless steel.
6. Seat: Buna-N.
7. Ends: Lug type for installation between pipe flanges.
8. Acceptable Manufacturers:
  - a. Stockham
  - b. Nibco
  - c. Milwaukee

B. Swing Check: 2-Inch and smaller: