

## **SECTION 33 12 16.15**

### **PRESSURE REDUCING VALVES**

#### **PART 1: GENERAL**

##### 1.01 SCOPE

- A. This Section includes pressure reducing valves (PRV).

##### 1.02 SUBMITTALS

- A. Conform to the requirements of Section 01 33 00 - Submittal Procedures.
- B. Submit manufacturer's product data for proposed valves for approval.

#### **PART 2: PRODUCTS**

##### 2.01 MATERIALS

- A. Provide approved PRV with basket strainer in location and arrangement as shown on Drawings or as directed by the AW Project Manager.
  - 1. Valve body: Ductile iron with ASME B16.1, Class 125, flanges.
  - 2. Valve cover: ASTM A48 cast iron.
  - 3. Valve internals:
    - a. Provide top and bottom single moving disc and diaphragm assembly.
    - b. Use flexible nylon fabric reinforced elastomer diaphragm integral with assembly.
    - c. Provide valve internal trim (seat ring, disc guide, and cover bearing) made of stainless steel.
    - d. Provide heat fusion bonded epoxy coating to internal and external surfaces of valve body including disc retainer and diaphragm washer. Holiday test coating applied to valve body.
    - e. Treat stem and seat with penetrative salt nitride process.
    - f. Use Xylan coated seat.
    - g. Do not use leather parts.
- B. Control Tubing: Contain shutoff cocks with Y-strainer.
- C. PRV: Equip with visual valve position indicator. Fit valve position indicator with air-bleed petcock. Initially set in field by authorized manufacturer's representative with 60 psi downstream pressure.
- D. Provide basket strainer upstream of PRV as shown on Drawings or as directed by the AW Project Manager.

1. Strainer body: Quick-opening type, fabricated-steel construction with ANSI B 16.1, Class 150, flanges.
  2. Basket: Type 304, stainless steel.
  3. Model: Provide basket strainer compatible with the manufacturer of the pressure reducing valve.
- E. Provide pressure reducing pilot that has adjustable range of 20 - 175 psi. Provide and install pilot system components according to manufacturer's recommendations unless otherwise approved by AW.
- F. Valve Vaults: Provide as shown on Drawings and conforming to the requirements of Section 03 48 20 - Valve Boxes and Meter Vaults.

### **PART 3: EXECUTION**

#### **3.01 SETTING VALVES**

- A. Provide services of technical representative of valve manufacturer on site during installation of valves and to serve as adviser on aspects of installation. Take necessary precautions to protect pilot system during PRV installation.
- B. Prior to installing valves, remove foreign matter from within valves. Inspect valves in open and closed position to verify that parts are in satisfactory working condition.
- C. The PRV shall maintain a constant downstream pressure regardless of varying inlet pressures.

#### **3.02 DISINFECTION AND TESTING**

- A. Disinfect water lines, valves, and appurtenances as required by Section 33 01 10.15.

#### **3.03 PAINTING OF PIPING AND VALVES**

- A. Paint piping and valves located in vaults, stations, and above ground using paint approved by AW.

**END OF SECTION 33 12 16.15**