



SECTION 40_XX_XX DOUBLE DOOR CHECK VALVES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Double Door Check Valves
- B. Related Sections:
 - 1. (provided by the engineer)
 - 2. (provided by the engineer)
 - 3. (provided by the engineer)

1.02 REFERENCES

- A. ASME/API 594 Check Valves: Flanged, Lug, Wafer, and Butt-welding
- B. ASME B16.5 Steel Pipe Flanges and Flanged Fittings
- C. ASME B16.34 Valves – Flanged, Threaded, and Welding End
- D. ASME B16.42 Ductile Iron Pipe Flanges and Flanged Fittings
- E. API 598 Valve Inspection and Testing

1.03 SUBMITTALS

- A. (provided by the engineer)

1.04 WARRANTY

- A. Valves shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment.

PART 2 - PRODUCTS

2.01 GENERAL

- A. (provided by the engineer)

2.02 DOUBLE DOOR CHECK VALVES

- A. Manufacturers: APCO CDD or pre-approved equal
- B. Design:
 - 1. Double Door Check Valve shall be compact wafer or lug design to fit between pipe flanges
 - 2. General:
 - a. Design Maximum Working Pressure: 2-6" (50-150mm) sizes are dual pressure rated for ASME B16.42/B16.5 Class 150 & 300, 8" (200mm) & larger are rated for ASME16.42/B16.5 Class 150
 - b. Check valve doors shall be spring loaded, normally closed, by means of one or more heavy-duty stainless steel or nickel-chromium alloy torsion springs
 - c. Flow from the pump shall cause the doors to open, and upon pump shut down the torsion spring shall shut the doors prior to flow reversal
 - d. Valve seating of a resilient material shall create a bubble tight seal
 - e. Valves shall be fitted with a lifting eye bolt for installation purposes for ductile iron bodies 10" (250mm) & larger and steel bodies 8" (200mm) & larger



C. Materials:

1. Body: Ductile Iron ASTM A536 Gr.65-45-12, Carbon Steel ASTM A216 Gr WCB, or Stainless Steel ASTM A351 CF8M
2. Door: Aluminum Bronze ASTM B148 Alloy 952 or Stainless Steel ASTM A351 CF8M
3. Seat: Acrylonitrile-Butadiene (NBR), Terpolymer of Ethylene Propylene and A Diene (EPDM), Fluoro Rubber (FKM) or metal seat
4. Spring & Hinge Pin: 316 Stainless Steel
5. Lifting Eye Bolt: Carbon Steel

D. Testing:

1. Certified test reports shall be available upon request.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install valves as specified in section (filled in by the engineer) and the manufacturer's instructions.
- B. (verbiage by engineer instructing how discharge piping should be installed)

3.02 COMMISSIONING

- A. Field testing (verbiage by engineer)