

Wafer Check Valves

1.0 Scope:

All requirements are for PVC Wafer Check Valves and accessories.

2.0 Materials:

PVC Conforming to ASTM D1784 Cell Classification 12454

FKM – Viton® Fluorocarbon Rubber

EPDM – Ethylene Propylene Diene Terpolymer Rubber

3.0 Valves:

Wafer Check Valves shall be of solid thermoplastic construction, having no metal to media contact. Valves shall incorporate a single disc design suitable for either horizontal or vertical installations. Valves shall be wafer style conforming to ASME/ANSI B16.1 face to face for 150 lb flanges. Valve face to face dimensions shall conform to ISO 5752 short pattern face to face dimension. Valves shall be round body design with all O-ring seals of either EPDM or FKM and accept as an option a SWP-B ETFE coated spring for use in vertical applications. PVC shall conform to ASTM D1784 Cell classification 12454. Valves shall be rated to 150 psi (3" – 8") and 85 PSI (10" & 12") as manufactured by Asahi/America Inc.

3.1 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001:2008 certified.

3.2 Pressure vs. Temperature

Valves shall have a pressure rating of:

EPDM/FKM Seals
150 psi at 70° F sizes 3" – 8"
85 psi at 70° F sizes 10" & 12"

3.3 Minimum Back Pressure sealing requirements

All Wafer Check valves, all sizes require 1.0 psi back pressure to fully seat the disc and provide positive shut-off. This includes valves with and without the spring option, installed in both horizontal and vertical installations.

4.0 Accessories:

4.1 Internal SWP-B spring with ETFE coating

Shall be designed, built and installed by Asahi/America, Inc. To be used for wafer check valves in vertical installations to minimize water hammer or off the discharge side of the pump to minimize chattering and assist in closing.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections. The bolt diameters and torque values should be in accordance with the requirements put forth in the Wafer Check Valve Operation & Maintenance manual. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.