Type-14 True-Union Diaphragm Valve Specification

1.0 SCOPE

All requirements are for Type-14 Flanged Diaphragm Valves and accessories.

2.0 MATERIALS

U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A
CPVC – Conforming to ASTM D1784 Cell Classification 23567 A
Polypropylene – Conforming to ASTM D4101 Cell Classification PP0210B67272
PVDF – Conforming to ASTM D3222-91A Cell Classification Type II
FKM – Viton® Fluorocarbon Rubber
FKM-F - Viflon® F
EPDM – Ethylene Propylene Diene Terpolymer Rubber
PTFE – Teflon® Polytetrafluoroethylene

3.0 VALVES

Diaphragm valves shall be Type-14 True-Union design. The valves shall come standard with position indicator, travel stop, and bonnet O-ring sealing arrangement. The valve shall be Weir type, square body/bonnet sealing design, and 1/4 turn bayonet style diaphragm/compressor connection. All PTFE diaphragms shall be 3-layer style with PTFE wetted diaphragm, PVDF gas barrier and EPDM Backing cushion. The PVDF Gas Barrier shall be between the EPDM and PTFE layers and prevent against gas migration outside of the valve.

3.1 Operators

Type-14 1/2" – 2” Handwheel standard operator (red color)

3.2 Approved Manufacturer

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

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

- 150 psi at 70° F sizes 1/2” – 2”

4.0 ACCESSORIES

4.1 Actuation

Actuation where required should be designed, built, and provided by Asahi/America, Inc., and be either pneumatic (Asahi Type AN and Type AP) or electric (Series 19 MAV) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturers requirements.

4.2 Optional Diaphragm Materials

Where required we can offer 3-Layer PTFE/PVDF/EPDM diaphragms, EPDM, FKM diaphragms.

4.3 Operating Nuts

Where required, 2” square operating nuts can be installed in place of valve handwheel.
Materials of construction – Anodized Aluminum.

4.4 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Type-14 diaphragm valves. Chain must be weldless loop style chain supplied from Babbitt Steam.
Materials of construction – Chain Operator – Cast Iron
Chain – Hot Galvanized Steel, others by request

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5.0 INSTALLATION PROCEDURES

All valve joints shall be either solvent cemented, threaded or heat fusion and shall be prepared in accordance with the requirements put forth in the Type-14 Operation & Maintenance manual. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.