VM Series Manual Diaphragm Valves

Sample Specification

Sample Specification

1.0 Diaphragm Valves - VM Manual

1.1 Material

- The valve body, including end connectors and unions, shall be made of PVC compound which shall meet or exceed the requirements of cell classification 12454 according to ASTM D1784.

or The valve body, including end connectors and unions shall be made of Corzan® CPVC compound which shall meet or exceed the requirements of 23447 according to ASTM D1784.

or The valve body, including end connectors and unions shall be made of stabilized PP homopolymer compound, also containing a RAL 7032 pigment, which shall meet or exceed the requirements of Type I Polypropylene according to ASTM D4101-86.

or The valve body, including end connectors and unions shall be made of virgin, non-regrind PVDF compound which shall meet or exceed the requirements of Table 1 according to ASTM D3222.

- The valve bonnet assembly shall be made of high temperature, high strength, glass-filled polypropylene.

1.2 Diaphragm

- The diaphragm shall be made of EPDM.

or The diaphragm shall be made of FPM.

or The diaphragm shall be made of PTFE (backed with EPDM).

2.0 Connections

2.1 Spigot style

- The IPS spigot PVC end connectors shall conform to the dimensional standard ASTM D1785.

or The IPS spigot CPVC end connectors shall conform to the dimensional standard ASTM F441.

or The Metric spigot PP end connectors shall conform to the dimensional standard ISO 3609.

or The Metric spigot PVDF end connectors shall conform to the dimensional standard ISO 10931.

2.2 Socket style

- The IPS socket PVC end connectors shall conform to the dimensional standards ASTM D2466 and ASTM D2467.

or The IPS socket CPVC end connectors shall conform to the dimensional standard ASTM F439.

or The Metric socket PP end connectors shall conform to the dimensional standard ISO 3609.

or The Metric socket PVDF end connectors shall conform to the dimensional standard ISO 10931.

2.3 Flanged style

- **The ANSI 150 flanged PVC end connectors shall conform to the dimensional standard ANSI B16.5.**

or The ANSI 150 flanged CPVC end connectors shall conform to the dimensional standard ANSI B16.5.

or The ANSI 150 flanged PP end connectors shall conform to the dimensional standard ANSI B16.5.

or The ANSI 150 flanged PVDF end connectors shall conform to the dimensional standard ANSI B16.5.

3.0 Design Features

- All valves shall be weir-style for throttling applications.
- All bodies to be used with EPDM or Viton® diaphragms shall feature raised molded sealing rings (concentric).
- All bodies to be used with PTFE diaphragms shall be machined flat.
- All PTFE diaphragms shall feature a raised molded ring to combine sealing performance and longer life.
- All through bolts shall be made of 304 stainless steel.
- All manual valves shall have a rising position indicator.
- Bodies of all sizes and materials shall have mounting brass inserts.

3.1 Pressure Rating

- All valves shall be rated at 150 psi at 73°F.

3.2 Markings

- All valves shall be marked to indicate size, material designation, and manufacturers name or trade mark.

3.3 Color Coding

- All PVC valves shall be color-coded dark gray.

or All CPVC valves shall be color-coded light gray.

or All PP valves shall be color-coded beige gray.

or All PVDF valves shall not be color-coded and be white in appearance.

- All bonnet assemblies shall be color-coded black.

4.0 All valves shall be Xirtec® PVC, Xirtec® CPVC, PP or PVDF by IPEX or approved equal.

About IPEX

About the IPEX Group of Companies

As leading suppliers of thermoplastic piping systems, the IPEX Group of Companies provides our customers with some of the world's largest and most comprehensive product lines. All IPEX products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have established a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX group products are:

- Electrical systems
- Telecommunications and utility piping systems
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems
- PVC, CPVC, PP, PVDF, PE, ABS, and PEX pipe and fittings