

# VM Series Manual Diaphragm Valves

## Sample Specification

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#### 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.

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