

## 150 PSI Model "C" Wafer Style Butterfly Valves PVC 2" through 10" Nominal Sizes

### Scope:

This specification establishes the manufacturing requirements for PVC Butterfly Valves intended for use in industrial, commercial, and residential pressure-piping systems for non-corrosive or mildly corrosive applications, where the service temperature does not exceed 140° F.

### Materials:

The body shall be manufactured from a PVC compound that meets the requirements of Cell Class 12454 polyvinyl chloride as outlined in ASTM D 1784.

The disc shall be manufactured of ductile iron as specified in ASTM A 395 with EPDM encapsulation.

The upper and lower shaft shall be manufactured from 416 stainless steel as specified in ASTM A 582.

The O-ring seal material shall be manufactured from EPDM.

The bearing shall be manufactured from PTFE-coated bronze centered on steel.

The handle is of malleable iron with epoxy coating. The throttling index plates are made of zinc-plated steel.

### Valve Design:

Valve body shall be of the wafer design for ease on installation and maintenance and shall be compatible with bolt hole pattern Class 150 ASME B16.5; BS 1560 class 150; DN 200 ISO 2084 PN 10; and DN 200 DIN 2532 PN 10.

The shaft is splined to lock into the disc to ensure positive rotation. The shaft is guided by teflon-coated bearings to protect against deflection. Disc position is indicated by the shaft, when the handle is removed.

Laying length is compatible with MSS SP-67 narrow (W-1) and DN 200 ISO 5752 short.

### Markings:

Valves shall be clearly marked with the manufacturer's name or trademark, nominal size, material designation, ASTM number or equivalent symbol indicating compliance with applicable standards, country of origin, and pressure rating. Valves additionally bear the NSF International certification seal, NSF-pw, (verifying approval for the conveyance of water).

### Performance:

Valves shall be rated bubble-tight at 150 psi 73° F non-shock water service. The pressure rating shall be based on a minimum safety factor of 3.3. Valves shall be certified to ASTM F 1970 by a third-party agency.

### Installation:

At the specifying engineer's option, the manufacturer shall provide, at no additional cost, on-site training for installation/maintenance personnel. Otherwise, installation shall be as specified by the manufacturer's printed instructions.

## Y-Pattern – Chemcock – Calibrated Needle 1/4" through 1" Nominal Sizes

### Scope:

This specification establishes the manufacturing requirements for PVC Schedule 80 specialty valves for use in industrial, pressure-rated, fluid-handling systems in applications up to 140° F, where precise control and corrosion resistance are of prime importance.

### Materials:

Rigid PVC (polyvinyl chloride) used in the manufacture of Schedule 80 valves shall be Cell Classification 12454 as identified in ASTM D 1784.

### Dimensions/Valve Design:

Valves utilizing threaded-end connections shall have thread lengths, diameters, and configurations as required by ASTM D-2467 and ASTM F 1498.

Hose-barb connections (Chemcock Valve) shall be suitable for joining with 3/8" I.D. measured flexible hose.

Valves intended for multi-turn throttling control shall be globe design in NPS/- 1.

Y-Pattern for straight 180° installations using internal pipe threads and having double lead-thread stem control for rapid adjustment. Valves shall have glass-filled PTFE seals for positive shut-off and extended service-life and FPM seals for maximum protection against external leaks.

Angle valve for 90° installations using internal pipe threads and having double lead-thread stem control for rapid adjustment. Valves shall have glass-filled PTFE seals for positive shut-off and extended service-life and FPM seals for maximum protection against external leakage.

For maximum versatility, both A and B type valves shall have interchangeable bonnet/stem assemblies.

Needle valves are intended for use in applications that require precise metering control. Needle valves shall have predictable flow patterns with (8) molded in increments on the body. These valves shall have PTFE seats and FPM seals for maximum service life and protection against external leakage. Needle valves have NPS/internal pipe threaded ends.

Chemcock valves are intended for use in laboratory sampling applications. The Chemcock valves have NPS/external thread-by-external thread-end connections; however, one end of the valve shall be capable of being changed to hose-threads for maximum versatility.

### Pressure Ratings:

Valves shall be rated for 150 psi at 73° F non-shock water service and have a minimum burst requirement of 3.3 times the rated pressure.

### Markings:

Valves shall be clearly marked with the manufacturer's name or trademark, nominal size, material designation, and country of manufacture. PVC and CPVC valves shall additionally bear the NSF International certification mark, NSF-pw, (verifying approval for conveyance of potable water).

### Installation:

At the specifying engineer's option, the manufacturer shall provide, at no additional cost, on-site training for installation/maintenance personnel. Otherwise, installation shall be as specified by the manufacturer's printed instructions.