



World-class Engineered Thermoplastic Valves

## Design Advantages



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## **BUTTERFLY VALVE Gear Type (28"-48")**

### **Design Advantages**

- Lower initial cost compared to other valve types.
- Easier installation due to narrow face to face affords lowest installed cost.
- Designed to fit between ANSI D-16.5 Class 150 flat faced flanges.
- Strong, one piece molded body design.
- One piece standard S.S. through shaft for positive disc rotation and support.
- Standard polypropylene (PP) disc for higher (180°F) temperature service.
- Full body liner seat with integral flanges (eliminates the need for flange gaskets) ribbed for positive flange seating with minimum required torque.
- Standard PP body and S.S. shaft are effectively isolated from the flow media by the full liner seat.
- Standard S.S., carbon steel plated, or epoxy coated external hardware for added corrosion resistance.
- Valves have epoxy coated self-locking worm gear actuators for ease of operation and accurate flow control.
- Electric and pneumatic actuation packages available.
- Locking handles and square nut operator available.
- Stem extensions, universal joints, floor stands available in a variety of materials.

### **Design Specifications**

Thermoplastic Butterfly Valves 28"-48" are wafer style to fit between ANSI B16.5 Class 150 flanges. Disc is smooth and contoured for lowest possible pressure drop ( highest Cv). Shaft is 410 S.S. and of one piece, through shaft design, with square drive through entire length of blade. Valves shall have epoxy coated gear actuators with handwheel. Seat liners shall be full faced with integral, ribbed flanges. No auxiliary gaskets shall be required for installation. Seat liners shall effectively isolate the body and shaft from the flow media and provide bubble tight shut-off. Seat liners shall also thermally insulate the body from the internal operating temperature. Valve liner and seals are replaceable. Materials of construction shall be: (select as required for service)

#### **Body**

PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Disc**

PP/PPG, ASTM D-4101 (Standard 28"-48" in PVC and PP valves)

CPVC, ASTM D-1784 (CPVC disc standard in CPVC valves)

PVDF, ASTM D-3222

#### **Shaft**

ASTM A-240, TYPE 410 S.S. (Standard) 304 S.S., 316 S.S.

#### **Seat/Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers)

Nitrile (BUNA-N)

#### **Gear Box**

Cast iron housing ASTM A -53, Epoxy coated

**Other Materials Available Upon Request.**

**Not recommended for compressed air or gas service**

## **BUTTERFLY VALVE Gear Type (2"-24")**

### **Design Advantages**

- Lower initial cost compared to other valve types.
- Easier installation due to narrow face to face affords lowest installed cost.
- Designed to fit between ANSI D-16.5 Class 150 flat faced flanges.
- Strong, one piece molded body design.
- One piece standard S.S. through shaft for positive disc rotation and support.
- Standard polypropylene (PP) disc for higher (180°F) temperature service.
- Full body liner seat with integral flanges (eliminates the need for flange gaskets) ribbed for positive flange seating with minimum required torque.
- Standard PVC body and S.S. shaft are effectively isolated from the flow media by the full liner seat.
- Standard S.S., carbon steel plated, or epoxy coated external hardware for added corrosion resistance.
- 2" - 24" valves have epoxy coated self-locking worm gear actuators for ease of operation and accurate flow control.
- Electric and pneumatic actuation packages available.
- Locking handles available and square operating nuts available.
- Stem extensions, universal joints, floor stands available in a variety of materials.

### **Design Specifications**

Thermoplastic Butterfly Valves 2"-24" are wafer style to fit between ANSI B16.5 Class 150 flanges. Disc is smooth and contoured for lowest possible pressure drop ( highest Cv). Shaft is 410 S.S. and of one piece, through shaft design, with square drive through entire length of blade. 2"-24" valves shall have epoxy coated gear actuators with handwheel. Seat liners shall be full faced with integral, ribbed flanges. No auxiliary gaskets shall be required for installation. Seat liners shall effectively isolate the body and shaft from the flow media and provide bubble tight shut-off. Seat liners shall also thermally insulate the body from the internal operating temperature. Valve liner and seals are replaceable. Materials of construction shall be: (select as required for service)

#### **Body**

PVC,CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Disc**

PP, ASTM D-4101 (Standard 2"-24" in PVC and PP valves

PVC, CPVC, ASTM D-1784 (CPVC disc standard in CPVC valves)

PVDF, ASTM D-3222

#### **Shaft**

ASTM A-240, TYPE 410 S.S. (Standard) 304 S.S., 316 S.S.

#### **Seat/Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers)

Nitrile (BUNA-N)

#### **Hardware**

2" THRU 24" 304 S.S.

#### **Gear Box**

Cast iron housing ASTM A -53, Epoxy coated

**Other Materials Available Upon Request.**

**Not recommended for compressed air or gas service**

## **BUTTERFLY VALVE Lever Handle Type (2"-8")**

### **Design Advantages**

- Lower initial cost compared to other valve types.
- Easier installation due to narrow face to face affords lowest installed cost.
- Designed to fit between ANSI D-16.5 Class 150 flat faced flanges.
- Strong, one piece molded body design.
- One piece standard S.S. through shaft for positive disc rotation and support.
- Standard polypropylene (PP) disc for higher (180°F) temperature service.
- Full body liner seat with integral flanges (eliminates the need for flange gaskets) ribbed for positive flange seating with minimum required torque.
- Standard PVC body and S.S. shaft are effectively isolated from the flow media by the full liner seat.
- Standard S.S., carbon steel plated, or epoxy coated external hardware for added corrosion resistance.
- 2" - 8" valves have spring loaded latch lever for positive disc positioning and shut-off.
- Electric and pneumatic actuation packages available.
- Locking handles and gear operators with handwheel or square operating nuts available.
- Stem extensions, universal joints, floor stands available in a variety of materials.

### **Design Specifications**

Thermoplastic Butterfly Valves 2"-8" are wafer style to fit between ANSI B16.5 Class 150 flanges. Disc is smooth and contoured for lowest possible pressure drop (highest Cv). Shaft is 410 S.S. and of one piece, through shaft design, with square drive through entire length of blade. 2" - 6" valves shall be complete with a spring loaded minimum 11 position latch lever. 8" valves shall be either spring lever or gear actuated as required or specified. Seat liners shall be full faced with integral, ribbed flanges. No auxiliary gaskets shall be used for installation. Seat liners shall effectively isolate the body and shaft from the flow media and provide bubble tight shut-off. Seat liners shall also thermally insulate the body from the internal operating temperature. Valve liner and seals are replaceable. Materials of construction shall be: (select as required for service)

#### **Body**

PVC,CPVC, ASTM D-1784

PPG, PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Disc**

PP, ASTM D-4101 (Standard 2"-8" in PVC and PP valves)

PVC,CPVC, ASTM D-1784 (CPVC disc standard in CPVC valves)

PVDF, ASTM D-3222

#### **Shaft**

ASTM A-240, TYPE 410 S.S. (Standard) 304 S.S., 316 S.S.

#### **Seat/Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers)

Nitrile (BUNA-N)

#### **Hardware**

2" THRU 24" 304 S.S., 8" size positioner plate 410 S.S. Chrome Plated

#### **Lever**

ABS, ASTM D-1788

#### **Gear Box**

Cast iron housing ASTM A -53, Epoxy coated

**Other Materials Available Upon Request.**

**Not recommended for compressed air or gas service**

# WAFER STYLE UNIVERSAL BUTTERFLY VALVE FOR ANSI FLANGES

## Universal Design Advantages

- Easier installation due to narrow face to face affords lowest installed cost compared to other valve types
- Designed to fit between ANSI D-16.5 Class 150 flat faced flanges.
- Strong, one piece molded body design.
- One piece standard S.S. through shaft for positive disc rotation and support.
- Standard polypropylene (PP) disc for higher (180°F) temperature service.
- Full body liner seat with integral flanges (eliminates the need for flange gaskets) ribbed for positive flange seating with minimum required torque.
- Standard PVC body and S.S. shaft are effectively isolated from the flow media by the full liner seat.
- Standard S.S., carbon steel plated, or epoxy coated external hardware for added corrosion resistance.
- 2" - 8" valves have spring loaded latch lever for positive disc positioning and shut-off.
- 2" - 8" valves have epoxy coated self-locking worm gear actuators for ease of operation and accurate flow control.
- Electric and pneumatic actuation packages available.
- Locking handles available.
- Stem extensions, universal joints, floor stands available in a variety of materials

## Design Specifications

Thermoplastic Butterfly Valves 2"-8" are wafer style to fit between ANSI B16.5 Class 150 flanges. Disc is contoured for lowest possible pressure drop ( highest Cv). Shaft is 410 S.S. and of one piece, through shaft design, with square drive through entire length of blade. Valves shall be complete with a spring loaded 6 position latch lever or gear actuated as required or specified. Seat liners shall be full faced with integral, ribbed flanges. No auxiliary gaskets shall be required for installation. Seat liners shall effectively isolate the body and shaft from the flow media and provide bubble tight shut-off. Seat liners shall also thermally insulate the body from the internal operating temperature. Valve liner and seals are replaceable. Materials of construction shall be: (select as required for service). 2-4" butterfly valve fits between ANSI B16.5, DIN, and JIS class 150 flanges, the 6" between ANSI and JIS flanges and the 8" between ANSI flanges.

Note: Our universal valve comes with a plastic 6 position latch plate while the industrial style has a 10-15 position metal latch plate depending on the size. You'll notice the two other differences, which are that the metal latch lever – industrial style, has been replaced by a plastic latch lever. Lastly, the holes are such that the universal style butterfly does not accommodate threaded lugs. Otherwise, the features are the same. The universal style butterfly meets any commercial or industrial application. All the accessory packages we offer for the industrial valve are available for the universal design as well.

### Body

PVC, ASTM D-1784 (Other materials available upon request)

### Disc

PP, ASTM D-4101 (Standard)

### Shaft

ASTM A-240, TYPE 410 S.S. (Standard) 304 S.S., 316 S.S. available

### Seat/Seals

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

Nitrile (Buna-N)

### Hardware

2" THRU 8" 304 S.S.

### Lever

ABS, ASTM, D-1788

### Gear Box

Cast iron housing ASTM A -53, Epoxy coated

**Not recommended for compressed air or gas service**

## **SAFETY BLOCK BALL VALVE True Union Type (1/2"-4")**

### **Design Advantages**

- Safely blocks in both upstream and downstream direction for simple easy, safe system maintenance.
- Double union design permits quick, easy piping system installation, removal, maintenance.
- Stem has internal land above ball that is pressure seated to the body protecting the stem and the stem seal from contaminants in the fluid media.
- Long life self lubricated TFE seats are externally adjustable, fully replaceable, with elastomers backing o'rings to prevent wear
- True full port design has immeasurable pressure drop.
- Valve body can be rotated 360° for actuation clearance in system.
- Handle indicates valve open/close position.
- Safety design blow-out proof stem.
- Available in socket, threaded, or flanged (ANSI B16.5 class 150) end configurations.
- PVC safety block ball valves ( 1/2" thru 2" sizes) are provided with socket and threaded end connectors without additional cost inventory requirements.
- All valves are hydrostatically tested.
- Pneumatic (air to air, air to spring) and electric actuation available.
- Available locking handles, stem extensions, 2" square nut operation

### **Design Specifications**

Thermoplastic Ball Valves 1/2" - 4" are designed to safely block full system pressure in either direction to allow on-line system maintenance. Valve stem is of the blow-out proof design. Valve has full port for lowest possible pressure loss. Seats shall be easily adjustable and replaceable. Stem has an internal pressure sealed land to protect stem and stem seal from contaminants. Every valve is fully pressure and cycle tested before leaving the factory. Materials of construction shall be: (select as required for service)

#### **Body/Ball/Stem/End Nuts and Connectors**

PVC, CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Seat**

PTFE (Polytetrafluoroethylene), Teflon® ( DuPont Performance Elastomers)

#### **Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon. Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

#### **T Handle**

ABS, ASTM D-1788

*End connectors shall conform to the following standards:*

#### **Socket**

ASTM - D-2467 (PVC, SCH-80)

ASTM - F-439 (CPVC, SCH-80)

#### **Threaded**

ASTM - D-2464 (PVC, SCH-80)

ASTM - F-437 (CPVC, SCH-80)

#### **Flanged**

ANSI - B16.5 Class 150

Both socket and threaded end connectors shall be supplied on all 1/2" - 2" PVC and CPVC valves. On 2-1/2" - 4" socket end connectors will be supplied unless otherwise specified.

**Valves shall be backed by a full two (2) year guarantee.**

**Not recommended for compressed air or gas service.**

## **SAFETY BLOCK BALL VALVE True Union Type (1/2"-4") with Mounting Pads**

### **Design Advantages**

- Safely blocks in both upstream and downstream direction for simple easy, safe system maintenance.
- Double union design permits quick, easy piping system installation, removal, maintenance.
- Stem has internal land above ball that is pressure seated to the body protecting the stem and the stem seal from contaminants in the fluid media.
- Long life self lubricated TFE seats are externally adjustable, fully replaceable with backing o'rings to ensure bubble tight shut off.
- True full port design has immeasurable pressure drop.
- Valve body can be rotated 360° for actuation clearance in system.
- Handle indicates valve open/close position.
- Safety design blow-out proof stem.
- Available in socket, threaded, or flanged (ANSI B16.5 class 150) end configurations.
- PVC safety block ball valves ( 1/2" thru 2" sizes) are provided with socket and threaded end connectors without additional cost inventory requirements.
- All valves are hydrostatically tested.
- Pneumatic (air to air, air to spring) and electric actuation available.
- Available locking handles, stem extensions, 2" square nut operation
- Brass inserts provided for installation of mounting pad for actuation packages.

### **Design Specifications**

Thermoplastic Ball Valves 1/2"-4" are designed to safely block full system pressure in either direction to allow on-line system maintenance. Valve stem is of the blow-out proof design. Valve has full port for lowest possible pressure loss. Seats shall be easily adjustable and replaceable. Stem has an internal pressure sealed land to protect stem and stem seal from contaminants. Four hole mounting pad is standard on top and bottom. Every valve is fully pressure and cycle tested before leaving the factory. Brass inserts are provided on both top and bottom of valve body for actuation and or panel installation. Materials of construction shall be: (select as required for service)

#### **Body/Ball/Stem/End Nuts and Connectors**

PVC, CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Seat**

PTFE (Polytetrafluoroethylene), Teflon® ( DuPont Performance Elastomers)

#### **Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon. Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

#### **T Handle**

ABS, ASTM D-1788

*End connectors shall conform to the following standards:*

#### **Socket**

ASTM - D-2467 (PVC, SCH-80)

ASTM - F-439 (CPVC, SCH-80)

#### **Threaded**

ASTM - D-2464 (PVC, SCH-80)

ASTM - F-437 (CPVC, SCH-80)

#### **Flanged**

ANSI - B16.5 Class 150

**Valves shall be backed by a full two (2) year guarantee.**

**Not recommended for compressed air or gas service.**



## **6" STRONG UNION Flanged Ball Valve**

### **Design Advantages**

- Full 5-5/8" diameter port
- Valve can be installed in both upstream and downstream directions for simple easy, safe system maintenance.
- Stem has internal land above ball that is pressure seated to the body protecting the stem and stem seal from contaminants.
- Long life self lubricated TFE seats that are easily replaceable.
- Inmeasurable pressure drop.
- Handle indicates valve open/close position
- Safety design blowout proof stem.
- Standard ANSI B16.5 class 150 flange connection
- All valves are hydrostatically tested before shipment.

### **Design Specifications**

Thermoplastic Strong Union Ball Valve 6" flange type is a 3 piece body design. Full round ball with 5-5/8" I.D. port. Valve stem is of the blow-out proof design. Stem has an internal pressure sealed land to protect stem and stem seal from contaminants. Body parts are connected with 304 S.S. bolting sets. Seats are TFE and easily replaceable.

#### **Body - Ball - Stem**

PVC,ASTM D-1784

PP,ASTM D 4101

PVDF, ASTM D-3222

#### **Seat**

Teflon® ( DuPont Performance Elastomers)

#### **Seals**

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon. Viton® (DuPont Performance Elastomers)

#### **Hardware**

304 S.S.

#### **Lever**

Cast iron, epoxy coated

**Not recommended for compressed air or gas service**



## **SEDIMENT STRAINERS**

### **1/2" thru 2" – True Union**

#### **Design Advantages**

- Double union design permits quick, easy piping system installation, removal, and maintenance.
- One piece clear PVC body.
- Filter screen easily removed for cleaning or replacing
- Designed for up to 150 psi working pressure
- Hydrostatically tested at 225 psi at factory

#### **Design Specifications**

Thermoplastic True Union Y-Sediment Strainers have a one piece clear PVC body. The body has true union end connections in either socket or threaded style and flanged if required. Filter screen is standard 20 mesh PVC is easily removed for cleaning or replacing. Strainers tested at 150 psi before shipment.

### **2 1/2" THRU 4" - Solid Body**

#### **Design Advantages**

- One piece clear PVC body.
- Socket body connection also available in threaded and flanged
- Filter screen standard 20 mesh is easily removed for cleaning or replacing
- Strainers tested at 150 psi before shipment

#### **Design Specifications**

Thermoplastic Y-Sediment Strainers have a one piece clear PVC body. The body connection is socket. Available in threaded and flanged if required. Filter screen standard 20 mesh PVC is easily removed for cleaning or replacing.

### **MATERIALS (1/2" thru 4")**

#### **Body**

All parts except seals  
PVC, CPVC ASTM D-1784

#### **Seals**

EPDM, Ethylene Propylene Diene Monomer  
Fluorocarbon (Viton®) DuPont Performance Elastomers

*End connectors shall conform to the following standards:*

#### **Socket**

ASTM - D-2467 (PVC, CPVC, SCH-80)

#### **Threaded**

ASTM - D-2464 (PVC, CPVC, SCH-80)

#### **Flanged**

ANSI - B16.5 Class 150

**Not recommended for compressed air or gas service.**

## **HORIZONTAL SWING CHECK VALVE & WITH SPRING ASSIST (3/4"-8" Flanged)**

### **Design Advantages**

- Lowest pressure drop compared to other check valve designs.
- Top entry design for easy maintenance.
- Can be installed in either vertical or horizontal piping system.
- Minimal required back pressure to fully seat disc.
- Full open stop to prevent disc overtravel and insure proper closing action.
- No metal internals to prevent the possibility of corrosion.
- Full faced seat for drop tight shut-off.
- Stainless steel external fasteners.
- Easily modified for spring assist option.
- Designed to fit between ANSI B16.5 Class 150 flanges.

### **Design Specifications**

Thermoplastic Swing Check Valves 3/4"-8" flanged design shall employ molded thermoplastic body, disc assembly, bonnet, and shaft. Metal internals are not acceptable. Valves have a full faced disc seal. Valves require low back pressure for drop-tight seating. Valves are of low pressure drop design. Body has a full open disc stop to prevent over travel and insure proper closing action. Bonnet is full gasketed and fastened using stainless steel hardware. Valves are top entry design for ease of maintenance. Valves are suitable for vertical and horizontal installation. Flanged ends are designed for installation between ANSI B16.5 Class 150 flanges. Materials of construction shall be as follows: (select as required for service)

#### **Body/Bonnet**

PVC,CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

#### **Disc Assembly / Shaft**

PVC, CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

**For superior corrosion resistance and added tensile strength ~ Internal parts are PVDF**

#### **Seat/Seal**

EPDM,Ethylene propylene diene monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

PTFE (Polytetrafluoroethylene), Teflon® (DuPont Performance Elastomers) for seat only

NOTE: Can be easily modified for spring assist operation.

#### **External Fastners**

304 Stainless Steel

#### **Flanged**

ANSI - B16.5 Class 150

**Not recommended for compressed air or gas service.**

## TRUE UNION BALL CHECK VALVES (1/2"-4")

### Design Advantages

- Full-length body guide ribs allow maximum flow, minimize turbulence, and prevent ball sticking and chatter.
- True Union design facilitates ease of installation and maintenance.
- Can be mounted vertically or horizontally.
- Less than one (1) psi to open.
- Requires only 3 - 5 psi (depending on size) to close down tight.
- Seats and seals are easily replaceable.
- Optional PVC screen assembly converts standard ball check to foot valve.
- Available in socket, threaded, or flanged (ANSI B16.5 class 150)

### Design Specifications

Thermoplastic Ball Check Valves (1/2" - 4") are of all thermoplastic construction. Body has full length ribs for maximum flow, minimum pressure drop, and to eliminate ball sticking and chatter. Ball is of solid thermoplastic material. Seat is full circle and resilient. A molded gasket seal and seat enlarges seating surface and facilitates maintenance. Valves require less than one (1) PSI to open and 3 -5 PSI to close drop tight. Valves are capable of installation in either vertical or horizontal pipe run. Valves are readily adaptable for foot valve service with the addition of a screen assembly. Materials of construction shall be as follows: (select as required for service)

#### Body/Union Nut/End Connectors

PVC, CPVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

#### Ball

PVC,CPVC, ASTM D-1784

PP,ASTM D-4101

PVDF,ASTM D-3222

#### Seat/Seal

EPDM, Ethylene - Propylene Diene Monomer

Fluorocarbon - Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

*End connectors shall conform to the following standards:*

#### Socket

ASTM - D-2467 (PVC,SCH-80)

ASTM, F-437 (CPVC, SCH-80)

#### Threaded

ASTM - D-2464 (PVC, SCH-80)

ASTM - F-437 (CPVC, SCH-80)

#### Flanged

ANSI - B16.5 Class 150

**Not recommended for compressed air or gas service.**

## **CHECK VALVES (6" and 10")**

### **Design Advantages**

- Full-length body guide ribs allow maximum flow, minimize turbulence, and prevent ball sticking and chatter.
- Can be mounted vertically or horizontally.
- Less than one (1) psi to open.
- Requires only 3 - 5 psi (depending on size) to close down tight.
- Seats and seals are easily replaceable.
- Optional PVC/PP screen assembly converts standard check valve to foot valve.
- Available in flanged (ANSI B16.5 class 150)

### **Design Specifications**

Ball is of solid thermoplastic material in 6" size and in 10" size the screen is PVDF. The Body has full length ribs for maximum flow, minimum pressure drop, and to eliminate ball sticking and chatter. Seat is full circle and resilient. A molded gasket seal and seat enlarges seating surface and facilitates maintenance. Valves require less than one (1) PSI to open and 3 -5 PSI to close drop tight. Valves are capable of installation in either vertical or horizontal pipe run. Valves become foot valves by attaching a screen assembly.

### **Body/Union Nut/End Connectors**

PVC, ASTM D-1784

PP, ASTM D-4101

PVDF, ASTM D-3222

FRP

### **Ball/Screen**

PVC,ASTM D-1784

PP,ASTM D-4101

PVDF,ASTM D-3222

### **Seat/Seal**

EPDM, Ethylene - Propylene Diene Monomer

Fluorocarbon - Viton® (DuPont Performance Elastomers)

Fluorel (3M Corp.)

*End connectors shall conform to the following standards:*

### **Flanged Only**

ANSI - B16.5 Class 150

**Not recommended for compressed air or gas service.**

## DIAPHRAGM VALVE Flange Type (1/2"-10"FLG.)

### Design Advantages

- Solid thermoplastic body and bonnet for best overall corrosion resistance.
- Large diameter molded in stainless steel diaphragm stud for long life service.
- Fully lubricated brass or cast iron stem and sleeve. Sizes 3" and larger have bonnet grease fitting for ease of in service lubrication.
- Extra heavy EPDM diaphragm or optional PTFE diaphragm fully backed by EPDM, for long service life under the most severe conditions.
- Unique concave/convex PTFE/ EPDM diaphragm design insures PTFE barrier returns to full open position.
- Standard, adjustable full close position over travel stop to eliminate premature diaphragm failure due to overtightening.
- Full stroke, fully protected open/close position indication.
- Stainless steel or plastic encapsulated external hardware.
- Longer service life and higher Cv values than rubber lined valves.
- High pressure, temperature and vacuum service rated, suitable for most applications.
- Can be used in lined, metal FRP or thermoplastic piping systems.
- Flanged application valves designed to fit between ANSI B16.5 Class 150 flanges.
- Special design can be ordered for vacuum service.

### Design Specifications

Thermoplastic Diaphragm Valves 1/2" - 10" Flg.; shall be molded of solid thermoplastic materials for body and bonnet. Body is of the weir configuration exhibiting large flow area and good flow control capability. Body is designed to fit between ANSI B16.5 class 150 flanges. Stem and sleeve shall be brass or cast iron, fully lubricated. Sizes 3" and larger employs a bonnet grease fitting for ease of lubrication. All valves shall have an adjustable overtravel stop in the close position to prevent overtravel and premature diaphragm failure. Full stroke position indication is enclosed in a clear protective cover. All external fasteners shall be either encapsulated in plastic or of stainless steel materials. Materials of construction shall be: (select as required for service)

#### Body

PVC, CPVC, ASTM D-1784, PP, ASTM D-4101, PVDF, ASTM D-3222

#### Bonnet

PPG, ASTM D-4101, PVDF, ASTM D-3222

#### Stem/Sleeve

Brass, 1/2" - 2",

C.I., 2 1/2" - 10"

#### Diaphragm

EPDM, Ethylene Propylene Diene Monomer

Fluorocarbon, Viton® (DuPont Performance Elastomers) for vacuum service only

PTFE/EPDM, Teflon® (DuPont Performance Elastomers)

#### Diaphragm Insert Stud

Stainless Steel, Large Diameter

#### Positive Indicator Cover

PC, Polycarbonate, ASTM - D-2848

#### Handwheel

ABS, ASTM D-1788

**Not recommended for compressed air or gas service**

## DIAPHRAGM VALVE True Union (1/2"-2")

### Design Advantages

- Solid thermoplastic body and bonnet for best overall corrosion resistance.
- Extra heavy EPDM diaphragm or optional PTFE diaphragm fully backed by EPDM, for long service life under the most severe conditions.
- Fully lubricated brass stem and sleeve.
- Unique concave/convex PTFE/ EPDM diaphragm design insures PTFE barrier returns to full open position.
- Standard, adjustable full close position over travel stop to eliminate premature diaphragm failure due to overtightening.
- Full stroke, fully protected open/close position indication.
- Stainless steel or plastic encapsulated external hardware.
- Longer service life and higher Cv values than rubber lined valves.
- Can be used in lined, metal FRP or thermoplastic piping systems.
- Flanged application valves designed to fit between ANSI B16.5 Class 150 flanges.

### Design Specifications

Thermoplastic Diaphragm Valves 1/2" - 2" Soc/ Thd shall be molded of solid thermoplastic materials for body and bonnet. Body is of the weir configuration exhibiting large flow area and good flow control capability. Stem and sleeve shall be Brass. Full stroke position indication is enclosed in a clear protective cover. All external fasteners shall be either encapsulated in plastic or of stainless steel materials. Materials of construction shall be: (select as required for service)

#### Body

PVC,CPVC,ASTM D-1784,PP,PPG,ASTM D-4101,PVDF, ASTM D-3222

#### Bonnet

PVC,CPVC,ASTM D-1784,PP,PPG,ASTM D-4101,PVDF, ASTM D-3222

#### Stem/Sleeve

Brass

#### Compressor

½" thru 1" PVDF, ASTM D-3222

1 ½" thru 2" PPG, ASTM D-4101

#### Diaphragm

EPDM, Ethylene Propylene Diene Monomer

PTFE/EDPM, Teflon® (DuPont Performance Elastomers)

#### Diaphragm Insert Stud

Stainless Steel, Large Diameter

#### Positive Indicator Cover

PC, Polycarbonate, ASTM - D-2848

#### Handwheel

ABS, ASTM D-1788

*End connectors shall conform to the following standards:*

#### Socket

ASTM - D-2467 (PVC,SCH-80)

ASTM, F-437 (CPVC, SCH-80)

#### Threaded

ASTM - D-2464 (PVC, SCH-80)

ASTM - F-437 (CPVC, SCH-80)

#### Flanged

ANSI - B16.5 Class 150

**NOTE: For any diaphragm application with use of sodium hypochlorite, factory must be informed prior to quote. Special application valves are required.**

**Not recommended for compressed air or gas service.**

## **COMPACT BALL VALVE (1/2"-4")**

### **Design Advantages**

- Most economically priced ball valve
- Working pressure ratings similar to Safety Block style @ 150 p.s.i
- Offered in socket, threaded and flanged end connections.
- Handle position indicates open/close position

### **Design Specifications**

Thermoplastic ball valves 1/2" - 4" shall be compact type and have a one piece molded body with socket or threaded end connections. Seats shall be EPDM or Teflon®. Every valve is fully pressure and cycle tested to insure a quality molded in place finished product. Valves have a one piece self centering ball and stem design for leak tight operation. Materials of construction shall be as follows: (select as required for service)

#### **Body**

PVC, CPVC, ASTM D-1784

#### **Ball & Stem**

PVC, CPVC, ASTM D-1784

#### **Seats**

EPDM, Ethylene Propylene Diene Monomer  
Teflon® DuPont Performance Elastomers.

#### **Seals**

EPDM, Ethylene propylene Diene Monomer  
Viton® DuPont Performance Elastomers

#### **T Handle**

ABS D-1788

*End connectors shall conform to the following standards:*

#### **Socket**

ASTM - D-2467 (PVC, SCH-80)  
ASTM - F-439 (CPVC, SCH-80)

#### **Threaded**

ASTM - D-2464 (PCP, SCH-80)  
ASTM - F-439 (CPVC, SCH-80)

**Not recommended for compressed air or gas service.**



## Pool & Spa Valve 2" - 2 Way and 3 Way Connections

### Design Specifications

Thermoplastic Pool & Spa Valves are manufactured for either two way or three way flow direction. Body is one piece. The stem and sealing unit is of the rotary type. The self locking handle makes it easier to use and adjust the lock ring closure allows quick and easy maintenance without special tools.

#### Body

PVC, ASTM D-1784 (white)

#### Rotor Gate, Seal Retaining Plate, Rotor Shaft

PPG, Polypropylene Glass reinforced

#### Rotor Seal, Rotor O-Ring, Lid O-Ring

EPDM, Ethylene Propylene Diene Monomer

#### Handle

ABS

*End connectors shall conform to the following standards:*

#### Socket

ASTM - D2467 (PVC, SCH-80)

### Independent Testing Results

#### 2" - 3 Way Valve

10,000 Cycles under 70 psi water pressure at ambient temperature.

**Leak Testing:** tests were performed after each 5000 cycles at 70 & 100 psi working pressure at ambient temperature. **No Leakage Occurred!** Valve was not lubricated during the 10,000 cycles. Valve body was tested at 225 psig water pressure for 15 minutes. Results - No leakage, no structural damage.

**Not recommended for compressed air or gas service.**