



# POLYPROPYLENE BUTTERFLY VALVES

PPBFV-2-1006

## High Performance, Low Profile Design With Spears® Advanced Sealing Technology 100% Made in the USA!



Spears® patented Butterfly Valve Seat departs from traditional liner-seat type valves for improved performance, ease of operation and superior sealing. Engineered for high volume flow control or throttling, this high performance valve is ideally suited for use in applications requiring Polypropylene's broad range of chemical resistance, such as **Industrial & Chemical Processing, Mining, Pulp & Paper, Water Parks, Aquariums & Aquaculture, and Municipal Water & Waste Water Treatment.** Manufactured from UV stabilized Polypropylene in IPS sizes 1-1/2" – 24" with custom produced 30"- 60" valves available.

### Patented Limited Contact Seat Design

Sealing contact between disc and seat takes place only at close of valve, allowing free travel through full range of valve opening. Eliminates seat creep, extrusion, and wear typically associated with conventional liner-type seats. Exclusive design interlocks seat and body to prevent washout or blowout while maintaining a leak-tight seal.

### UV Stabilized, Polypropylene Construction

Chemical and Corrosion Resistant Polypropylene Body and Disc are produced from UV stabilized material, beige in color. Serviceable to 180° F.

### Solid Type 316L Stainless Steel Stem - Fully Isolated

Heavy blow-out proof 316 stainless steel stem is standard on all valves. Fully isolated (dry stem) eliminates contact with process fluid.

### High Impact Polypropylene Lever Handle

Available on 1-1/2" through 8" sizes, provides quick selection from any one of seven stop positions, with built-in lockout capability. Reversible 180° for either right or left side operation.

### Low Profile Gear Operator

Standard on 10" and larger sizes, utilizes high efficiency worm gear drive, with high impact polypropylene hand wheel, built-in position indicator, and epoxy coated housing. Available as an option on smaller valves.

### Field Replaceable Seat - Choice of EPDM, or Viton®

High-grade elastomer compounds provide a broad range of chemical resistance. Abrasion resistant EPDM and Viton®.

### ANSI Class 150/125 Bolt Pattern

Provides compatibility with system applications.

### Factory Actuated Valve Availability

Factory installed electric or pneumatic actuation options and custom accessories available.

### Large Diameter (30"- 60") Availability

Produced to order from UV stabilized Polypropylene, beige in color, in IPS sizes 30", 36", 42", 48", 54" and up to 60". Can be custom produced to virtually any size or standard.

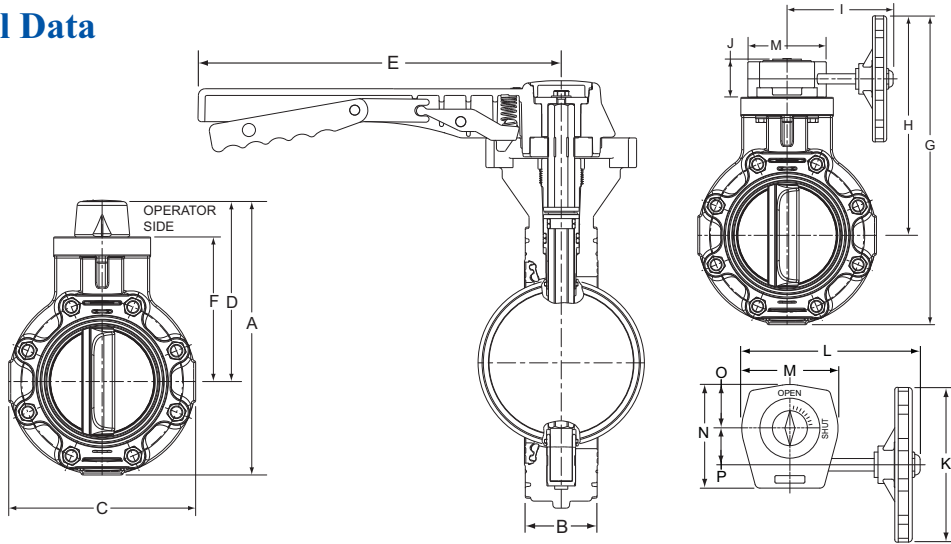


**PROGRESSIVE PRODUCTS FROM SPEARS®**  
**INNOVATION & TECHNOLOGY**



Quality Systems Certificate No. 293  
Corporate Facilities, Sylmar, CA  
Assessed to ISO 9001: 2000

# Technical Data



## Dimensions

| Nominal Size | Pressure Rating <sup>1</sup> (psi)              | A        | B       | C       | D       | E        | F        | G       | H        | I      | J       | K       | L        | M       | N       | O       | P       |
|--------------|---|----------|---------|---------|---------|----------|----------|---------|----------|--------|---------|---------|----------|---------|---------|---------|---------|
| 1-1/2        | 150   | 8-5/32   | 1-9/16  | 5       | 5-19/32 | 9-3/32   | 4-3/32   | 11-5/32 | 8-21/32  | 6-7/16 | 2-3/8   | 8       | 8-13/16  | 4-13/16 | 5-3/16  | 2-13/16 | 1-27/32 |
| 2            | 150   | 9-11/32  | 1-15/16 | 6       | 6-13/32 | 9        | 4-3/4    | 13-1/8  | 10-1/8   | 6-7/16 | 2-3/8   | 8       | 8-13/16  | 4-13/16 | 5-3/16  | 2-13/16 | 1-27/32 |
| 2-1/2        | 150   | 10-9/32  | 2       | 7       | 6-25/32 | 9-1/4    | 5-1/4    | 13-1/8  | 9-5/8    | 6-7/16 | 2-3/8   | 8       | 8-13/16  | 4-13/16 | 5-3/16  | 2-13/16 | 1-27/32 |
| 3            | 150   | 11-1/2   | 2-3/32  | 7-1/2   | 7-27/32 | 12       | 5-5/8    | 14-5/32 | 10-17/32 | 6-7/16 | 2-3/8   | 8       | 8-13/16  | 4-13/16 | 5-3/16  | 2-13/16 | 1-27/32 |
| 4            | 150   | 13       | 2-9/32  | 9       | 8-1/2   | 12       | 6-1/4    | 15-5/8  | 11-1/8   | 6-7/16 | 2-3/8   | 8       | 8-13/16  | 4-13/16 | 5-3/16  | 2-13/16 | 1-27/32 |
| 6            | 150   | 16-13/32 | 2-3/4   | 11-1/16 | 10-7/8  | 13-15/16 | 8-5/8    | 19-7/32 | 13-23/32 | 6-7/16 | 2-13/32 | 7-15/16 | 8-7/8    | 4-27/32 | 5-5/32  | 2-7/32  | 1-27/32 |
| 8            | 150   | 18-5/8   | 2-15/16 | 13-1/2  | 12      | 13-15/16 | 9-1/2    | 21-7/16 | 14-11/16 | 6-7/16 | 2-13/32 | 7-15/16 | 8-7/8    | 4-27/32 | 5-3/16  | 2-7/32  | 1-27/32 |
| 10           | 150   | N/A      | 3-1/4   | 16      | N/A     | N/A      | 11       | 26-5/8  | 18-5/8   | 7-1/8  | 2-3/8   | 8       | 9-13/16  | 5-3/8   | 5-15/16 | 2-7/16  | 2-11/32 |
| 12           | 150   | N/A      | 3-1/2   | 19      | N/A     | N/A      | 12       | 29-1/8  | 19-5/8   | 7-1/8  | 2-3/8   | 8       | 9-13/16  | 5-3/8   | 5-15/16 | 2-7/16  | 2-11/32 |
| 14           | 100 <sup>2</sup>                                | N/A      | 6-1/4   | 21      | N/A     | N/A      | 13-3/16  | 29      | 18-1/2   | 7-3/8  | 2-9/16  | 8       | 10-13/16 | 6-7/8   | 7-7/16  | 3-1/8   | 3       |
| 16           | 85 <sup>2</sup>                                 | N/A      | 6-3/4   | 23-1/2  | N/A     | N/A      | 14-7/16  | 31-1/2  | 19-3/4   | 7-3/8  | 2-9/16  | 8       | 10-13/16 | 6-7/8   | 7-7/16  | 3-1/8   | 3       |
| 18           | 70 <sup>2</sup>                                 | N/A      | 7-1/8   | 25      | N/A     | N/A      | 15-3/16  | 33      | 20-1/2   | 7-3/8  | 2-9/16  | 8       | 10-13/16 | 6-7/8   | 7-7/16  | 3-1/8   | 3       |
| 20           | 50 <sup>2</sup>                                 | N/A      | 7-3/4   | 27-1/2  | N/A     | N/A      | 16-7/16  | 35-1/2  | 21-3/4   | 7-3/8  | 2-9/16  | 8       | 10-13/16 | 6-7/8   | 7-7/16  | 3-1/8   | 3       |
| 24           | 50 <sup>2</sup>                                 | N/A      | 8-7/16  | 32      | N/A     | N/A      | 18-11/16 | 40      | 24       | 7-3/8  | 2-9/16  | 8       | 10-13/16 | 6-7/8   | 7-7/16  | 3-1/8   | 3       |
| 30 - 60      | Contact Spears® for 30" to 60" Valve Dimensions |          |         |         |         |          |          |         |          |        |         |         |          |         |         |         |         |

1: Maximum Internal Pressure Rating @ 73°F

2: Additional pressure rating is possible with attention to flow direction.

### Materials:

|                    |                            |
|--------------------|----------------------------|
| Body               | Polypropylene <sup>3</sup> |
| Disc               | Polypropylene <sup>3</sup> |
| Stem               | 316L Stainless Steel       |
| Handle (Lever)     | Polypropylene              |
| Gear Operator      | Aluminum/Cast Iron         |
| Gear Op Hand Wheel | Polypropylene/Steel        |
| Seat/Seals         | EPDM or Viton®             |

### Accessories:

- Gear Operator Kits
- 2" Square/T-style Gear Operator Nuts
- Chain Wheel Operators
- Stem Extensions (PVC housed SS 316 shaft)
- Seat & Seal Replacement Kits
- Electric & Pneumatic Actuation

3 — Pigmented (beige)

### Sample Engineering Specification

All thermoplastic Butterfly valves shall be produced from UV stabilized polypropylene conforming to ASTM D4101. All valve seats and O-rings shall be EPDM or Viton®. Seat shall be a non-liner type interlocked to valve body. Bolt hole patterns shall conform to ANSI/ASME B-16.5 CL 125/150. Disc shall be offset design with fully isolated, Type 316L stainless steel stem. Lever operated valves shall be equipped with high impact polypropylene handle having built-in lockout capability. Gear operated valves shall be equipped with position indicator and high impact polypropylene handwheel or steel handwheel on sizes 30" and larger. All mounting hardware shall be type 316 stainless steel. All 1-1/2" through 12" valves shall be pressure rated to 150 psi, all 14" valves to 100 psi, all 16" valves to 85 psi, all 18" valves to 70 psi, all 20" - 24" valves to 50 psi, and all 30" - 60" valves to 50 psi for water at 73°F, as manufactured by Spears® Manufacturing Company.



Authorized Distributor:

**Aetna Plastics Corp. 1702 St. Clair Ave. Cleveland, Ohio 44114 • Tel: 800-634-3074  
216-781-4421 • Fax: 216-781-4474 • sales@aetnaplastics.com • www.aetnaplastics.com**