



Valves Technical

High Purity Butterfly Valves

High Purity TFM Lined Features - CPVC

This advanced technology TFM Lined valve is specially designed and produced for applications requiring high purity and maximum chemical resistance. Spears® exclusive component-interface seal fully isolates process media to disc and liner contact only. Custom produced in sizes 2" through 6".

- Direct disc-to-liner seal between ECTFE fluoropolymer disc and TFM liner for positive shut-off. Specially designed offset disc lifts quickly from sealing surface to minimize wear and reduce operating torque.
- Special disc-to-liner interface isolates valve components from process media. Eliminates stem and elastomer backing seal contact with process fluids. In the unlikely event of seal failure, leakage is expelled externally to protect process integrity. TFM skirt is integrally formed as part of the liner to isolate the CPVC body.
- Solid, fully isolated type 316 stainless steel stem is additionally PTFE coated as a safeguard.
- Lug style, chemical and corrosion resistant CPVC body features integrally molded actuation mounting pad and provides increased temperature handling capability to 200°F.
- 316 stainless steel Lug Inserts provide quick single-side valve installation and easy system add-on.
- Low Profile Gear Operator features high efficiency worm gear drive with built-in position indicator and high impact polypropylene handwheel. Operator housing is powder coated for improved cleanliness. Reversible for either right or left side operation.
- 150 psi Maximum Internal Pressure rating at 73°F.



Sample Engineering Specification

All thermoplastic Butterfly Valves shall be constructed from CPVC Type IV Cell Classification 23447 with TFM liner and ECTFE disc. Disc and liner interface shall isolate valve components and elastomeric seals from process media. Valve Stem shall be PTFE coated type 316 stainless steel. Body shall be lug style with 18-8 stainless steel or type 316 stainless steel lugs. Bolt hole patterns shall conform to ANSI/ASME B16.5 Class 150. Valve shall be gear operated with powder coated operator housing, position indicator, and high impact polypropylene handwheel. Valve shall be pressure rated at 150 psi for water at 73°F, as manufactured by Spears® Manufacturing Company.

Factory Reconditioning

In the event of damage, this maintenance-free valve can be factory reconditioned in order to maintain optimum serviceability and assure proper component isolation function. Valve reconditioning is made on an exchange basis with original limited warranty. Contact Spears® Technical Services for additional information.

Material Specifications

Media Contact Components:

- Liner/seat** TFM (Hostafion® — modified - PTFE)
- Disc** ECTFE (HALAR® ethylene chlorotrifluoroethylene)

No Media-Contact Components:

- Body** CPVC (chlorinated polyvinylchloride)
- Stem** Type 316 Stainless Steel, PTFE coated
- O-ring Backing** FKM (fluorocarbon)
- Bushings** Glass Reinforced Polypropylene blend/Polyurethane
- Gear Operator** Die Cast Aluminum
- Handwheel** Polypropylene

Quick-View Valve Selection Chart

Valve Size	Part Number	Pressure Rating
2	253322-020	150 psi Non-Shock Water @ 73°F
3	253322-030	
4	253322-040	
6	253322-060	

Note: High Purity TFM Lined Butterfly Valve has the same basic dimensions as Spears® Standard Butterfly Valve.

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