

TRIAD[®]
process equipment

SERIES ST HIGH PERFORMANCE BUTTERFLY VALVE

Series ST

High Performance Butterfly Valve



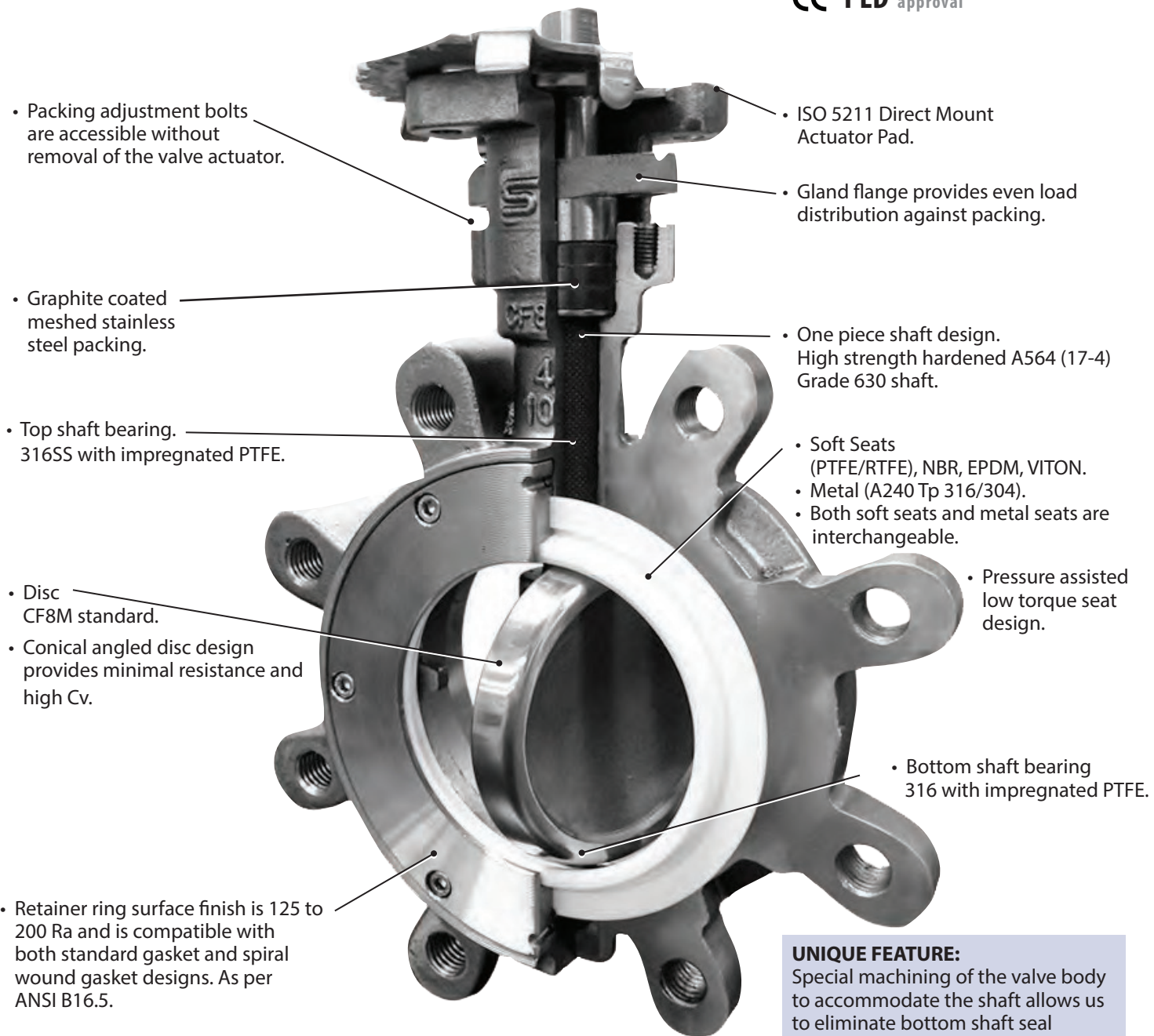
Series ST Features and Benefits

- Sizes: 2" ~ 24"
- Class 150# and Class 300#
- Low Operating Torques
- Direct Mount Actuator
- CF8M / WCB
- JIS and DIN drillings available

Valve Ratings:

- Top flange mounting: ISO 5211
- Basic Design: API 609, MSS-SP-68, BS 5155, ISO 5752, ANSI B16.34
- Shell/Seat Test: API 598, MSS-SP-61
- Pressure / Temp Rating: ANSI B16.5
- Metal to Metal seat leakage is rated at Class IV per ASME/FCI 70-2

CE PED approval



• Packing adjustment bolts are accessible without removal of the valve actuator.

• Graphite coated meshed stainless steel packing.

• Top shaft bearing. 316SS with impregnated PTFE.

• Disc CF8M standard.

• Conical angled disc design provides minimal resistance and high Cv.

• Retainer ring surface finish is 125 to 200 Ra and is compatible with both standard gasket and spiral wound gasket designs. As per ANSI B16.5.

• ISO 5211 Direct Mount Actuator Pad.

• Gland flange provides even load distribution against packing.

• One piece shaft design. High strength hardened A564 (17-4) Grade 630 shaft.

• Soft Seats (PTFE/RTFE), NBR, EPDM, VITON.
• Metal (A240 Tp 316/304).
• Both soft seats and metal seats are interchangeable.

• Pressure assisted low torque seat design.

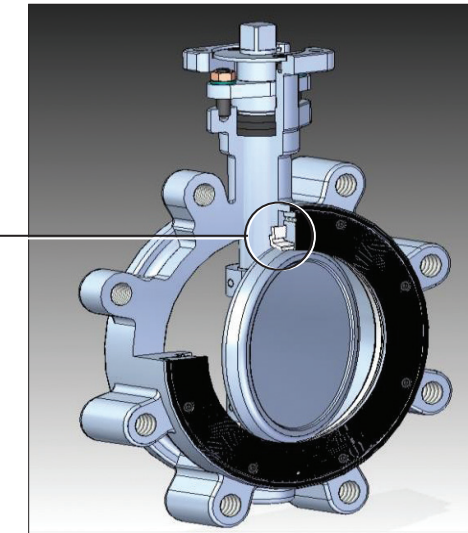
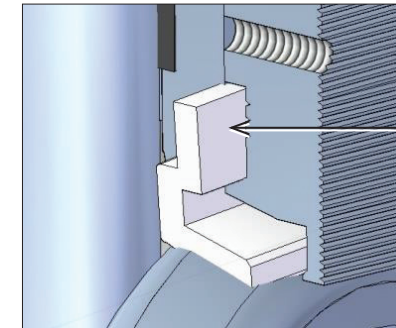
• Bottom shaft bearing 316 with impregnated PTFE.

UNIQUE FEATURE:

Special machining of the valve body to accommodate the shaft allows us to eliminate bottom shaft seal found on most valves. Eliminates a possible leak path.

ST HIGH PERFORMANCE FEATURES

Triad's Engineered Seat Design



The ST High Performance Butterfly valve features a carbon or stainless steel body and is ideal for commercial and industrial services. The body and disc are carefully manufactured by investment cast methods. The carbon steel body includes a powder coated epoxy finish. The valve features a direct mount actuator design. The valve has a dual offset disc design to extend seat life. A one piece 17-4 PH stem is provided for strength and is lubricated with TFE coated stainless steel bearings. The valve packing is graphite coated meshed stainless steel. The gland flange applies pressure to the packing to prevent external leakage. This feature is also fully adjustable. The lug body provides leak-tight deadend service.

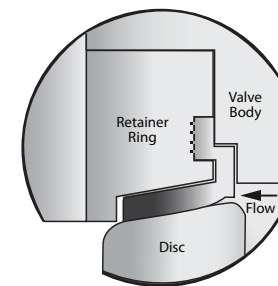


Figure 1
Valve Closed
With Right to Left Flow.

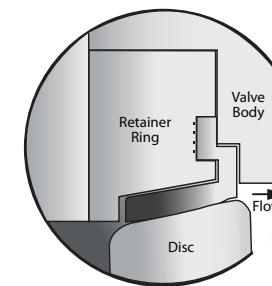


Figure 2
Valve Closed
With Left to Right Flow.

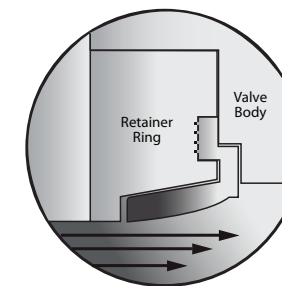
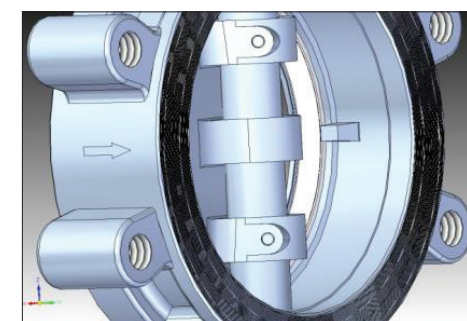


Figure 3
Valve Open
With Media Flow.

The ST High Performance butterfly valve provides excellent proportion control and features positive shutoff. The unique shape of the soft seat flexes against the disc under pressure to provide bubble tight sealing at all pressures. The simple design of the seat does not require o-rings that can swell or metal rings that can corrode.

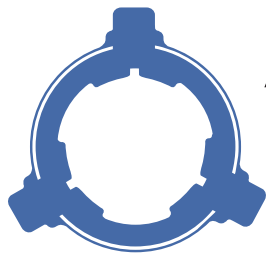
Unique Cantilever design seat provides pressure assisted sealing regardless of the flow direction.

NOTE: Figure 1 is the desired way to install the valve because the retainer ring provides seat isolation from the flow.



Welded travel stop prevents over travel of the disc. (Positions the disc for optimal sealing.)

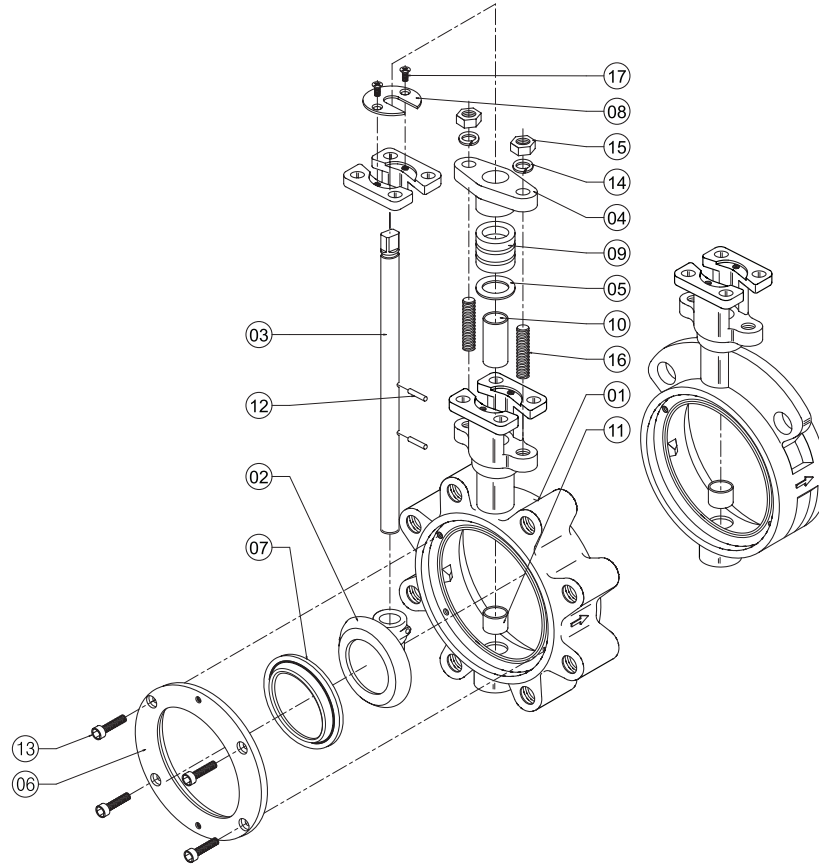
High strength one-piece in A564 Gr. 630 / PH 17-4 A351 shaft and CF8M disc are welded together with a secured pin during assembly. Welded pins are staked to prevent loosening.



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Material List

NO.	DESCRIPTION	MATERIAL	Q'TY
1	Body	A216 WCB / A351 CF8M	1
2	Disc	A351 CF8M	1
3	Stem	A 564 Gr. 630	1
4	Gland Flange	A216 WCB / A351 CF8M	1
5	Packing Retainer	A276 Tp 316	1
6	Retainer Ring	A351 CF8M	1
7	Seat	PTFE/RTFE/ METAL A240/ NBR / EPDM / VITON	1
8	Top Retainer	A283D - A36 / A276 Tp 316	1
9	Grand Packing	Graphite	3
10	Upper Bearing	R.TFE + 316SS	1
11	Lower Bearing	R.TFE + 316SS	1
12	Disc Pin	A276 Tp 316	2
13	Hex Socket Bolt	A283D - A36 / A276 316SS	4 ~ 14
14	Spring Washer	A283D - A36 / A276 316SS	2
15	Hex Nut	A283D - A36 / A276 316SS	2
16	Stud Bolt	A283D - A36 / A276 316SS	2
17	Flat Head Screw	A283D - A36 / A276 316SS	2

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