Features and Benefits

The tipvalve bi-directional seal high temperature triple offset butterfly valve design is recommended for industrial applications requiring reliable zero-leakage, bi-directional in harsh conditions of critical processes, steam isolation, and temperature extremes, especially when use of tradional valves is limited.
Compared to tradional valves, the Tipvalve high temperature triple offset butterfly valve is an affordable solution, particularly in larger diameter installations, that requires less structural support to ensure bubble tight shut-off, extended shaft and extra heat sink avoid scalding when hand operated. The result is a virtual zero leakage shut-off even in high air pressure, high-temperature, bidirectional pressure applications. Due to their quarter-turn movement for opening and closing, the valves are easy to automate and they can fulfill a quick closing time, which is often required in safety applications.

Structure and Benefits

Unique Float Seat:
Unlike position-seated laminated sea valves, the Un ique Float Seated Tipvalve bidirectional seal triple o ffset butterfly valve self-adjusts to evenly distribute s eal compression. A floating seat and wide seal ring supporting face yield a BETTER SEAL to eliminate binding and to enhance performance.

Removable Sealing:
Tipvalve high temperature triple offset butterfly valv e `s seat and seal ring all can be removed easily wh en be damaged at accidentally, the sealing parts ca n be renewaled at short time, and REDUCES EQUI PMENT MAINTENANCE TIME.

Extended Shaft and Extra Heat Sink:
The shaft is lengthened while heat sink is added to AVOID SCALDING WHEN HAND OPERATED

Metal-to-Metal Sealing:
The precision machined metal seat and seal ring de liver reliable and bi-directional shutoff in high-tempe rature, highpressure and severe service application s among others. The right-angle conical seat design facilitates an almost FRICTION-LESS IN-LINE SEA LING.

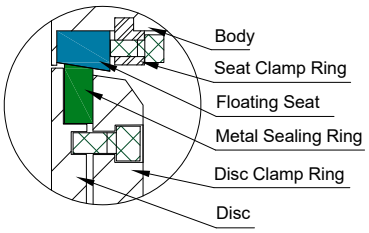
Laminated Sealing
Stainless steel and graphite multilevel sealing to ensure the valve ZERO LEAKAGE IN HIGH AIR PRESSURE APPLICATION.

Innovative Shaft Seal Design:
Permits superior FUGITIVE TIPVALVE CONTROL (ISO 15848) under recurrent thermal cycling, and R EDUCES POTENTIAL DOWN TIME.

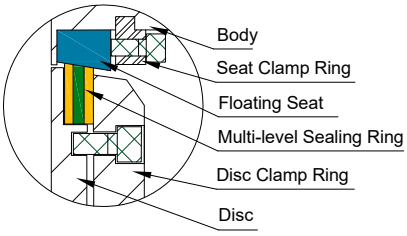
Design Features

Sealing Ring Detail

■ Disc sealing ring is forged metal ring. When fully opening, the scour of medium at high speed will not damage the valve, which prolongs the working life.

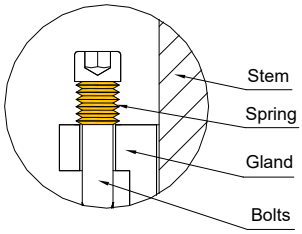


■ Disc Seal is Multi-level seal. When seal wear, the seal can be repaired by tight the bolts of disc to extrude the sealing ring.

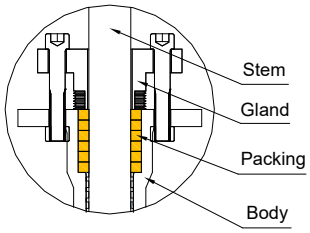


Design Detail

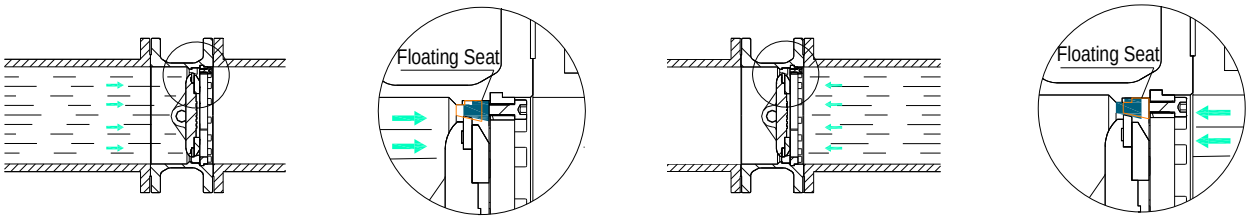
■ Dynamic seal structure makes long-term seal of packing to extend the maintenance-free period.



■ Fish scale combination packing system, Which ensures Valve Maximum leakage rate ≤20ppm.



What is Floating Seat?



Positive Seal: sealing ring engage to the Seat.

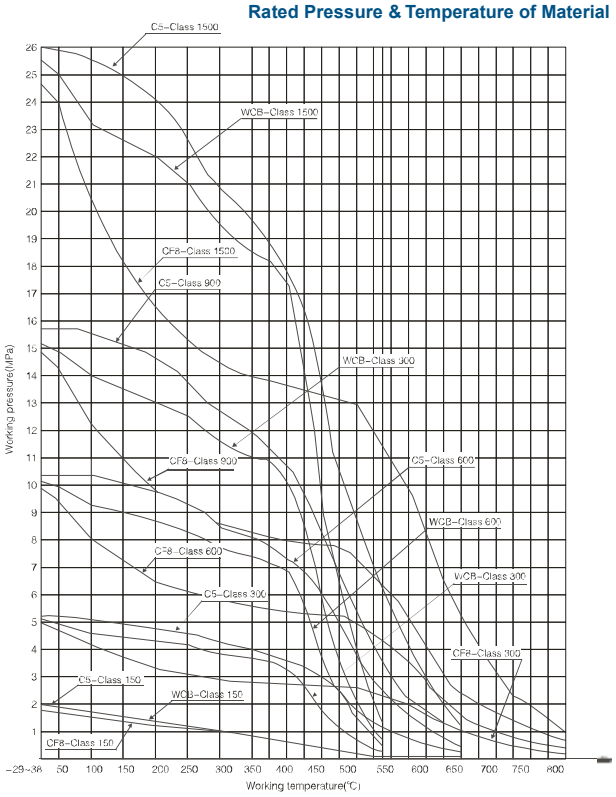
Reverse seal: seat engage to the sealing ring after microscopic displacement

Product Overview

Materials of Construction

- Body: A105/WCB/WC6/WC9/C5/CF8/CF8M
- Disc: A105/WCB/WC6/WC9/C5/CF8/CF8M
- Stem: SS420/XM-19
- Seat: F6a Hard coating
- Seal ring: F316 Hard coating/SS+Graphite

Rated Pressure & Temperature of Material



Temperature Range

- ≤ 842 F°
- ≤ 450 C°

Body Configurations

- Buttweld
- Flange
- Lug

Size Range

DN (mm)	NPS (inch)	Pressure		
		150Lb	300Lb	600Lb
100	4	•	•	•
150	6	•	•	•
200	8	•	•	•
250	10	•	•	•
300	12	•	•	•
350	14	•	•	•
400	16	•	•	•
450	28	•	•	•
500	20	•	•	•
600	24	•	•	•
700	28	•	•	
800	32	•	•	
1000	40	•		
1200	48	•		

Compliance

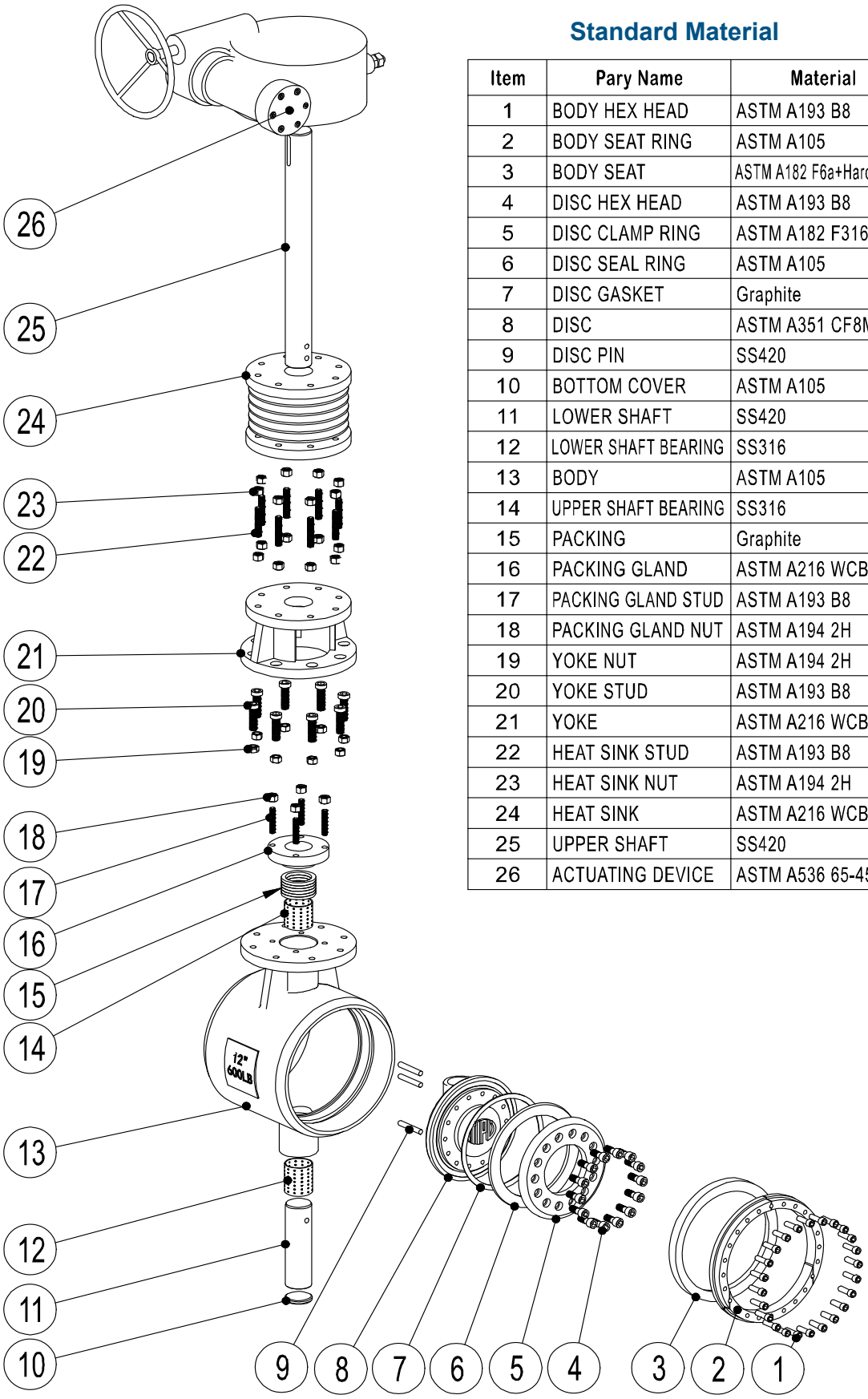
- Valve design standard: API609
- End to end dimension standard: API609/EN558-1
- BW connection standard: ASME B 16.25
- Flange connection standard: ASME B 16.5/ 16.47
- Test standard: API598

Test Pressure

- Shell Test Pressure: 3.75MPa
- Positive Test Pressure: 2.75Mpa
- Reverse Test Pressure: 2.5Mpa
- Positive and Reverse Air test Pressure: 0.6Mpa

Applications

• A High Temperature Triple Offset Butterfly Valve s hould be used when the application requires reliable zero-leakage, abrasion resistance, bi-directional se aling, avoid scalding, long-life.



Standard Material

Item	Pary Name	Material
1	BODY HEX HEAD	ASTM A193 B8
2	BODY SEAT RING	ASTM A105
3	BODY SEAT	ASTM A182 F6a+Hardening
4	DISC HEX HEAD	ASTM A193 B8
5	DISC CLAMP RING	ASTM A182 F316
6	DISC SEAL RING	ASTM A105
7	DISC GASKET	Graphite
8	DISC	ASTM A351 CF8M
9	DISC PIN	SS420
10	BOTTOM COVER	ASTM A105
11	LOWER SHAFT	SS420
12	LOWER SHAFT BEARING	SS316
13	BODY	ASTM A105
14	UPPER SHAFT BEARING	SS316
15	PACKING	Graphite
16	PACKING GLAND	ASTM A216 WCB
17	PACKING GLAND STUD	ASTM A193 B8
18	PACKING GLAND NUT	ASTM A194 2H
19	YOKE NUT	ASTM A194 2H
20	YOKE STUD	ASTM A193 B8
21	YOKE	ASTM A216 WCB
22	HEAT SINK STUD	ASTM A193 B8
23	HEAT SINK NUT	ASTM A194 2H
24	HEAT SINK	ASTM A216 WCB
25	UPPER SHAFT	SS420
26	ACTUATING DEVICE	ASTM A536 65-45-12