Features and Benefits

Tipvalve District HeatingTriple Offset Butterfly Valve design is recommended for Russian district heating applications requiring reliable zero-leakage, PN25,butt weld,bi-directional sealing in 270℃ water or steam conditions of critical processes, steam isolation, and temperature extremes within co-generation (combined heat& power) systems, available in carbon and stainless steel the valves are designed for durability to provide low life time costs.
Tipvalve largest butterfly valves are 1600mm nominal bore, butterfly valves can be specified with all-metal seal to make better sealing than laminated seal (stainless steel&graphite seal) butterfly valves.

Structure and Benefits

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

Removable Sealing:
Tipvalve district heating triple offset butterfly valve`s seat and seal ring all can be removed easily when be damaged at accidentally, the sealing parts can be renewaled at short time, and REDUCES EQUIPMENT MAINTENANCE TIME.

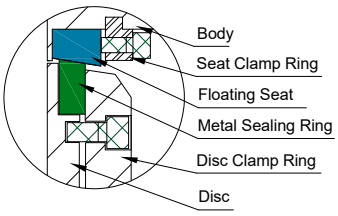
Metal-to-Metal Sealing:
The precision machined metal seat and seal ring deliver reliable and bi-directional shutoff in high-temperature, highpressure and severe service applications among others. The right-angle conical seat design facilitates an almost FRICTION-LESS IN-LINE SEALING.

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

Design Features

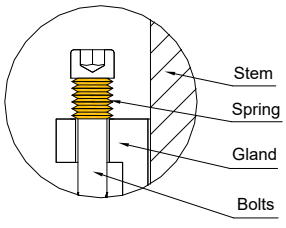
Sealing Ring Detail

■ 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.



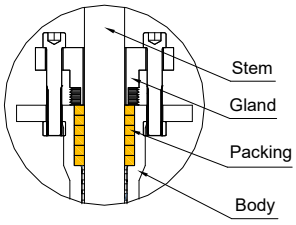
Gland Spring Detail

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

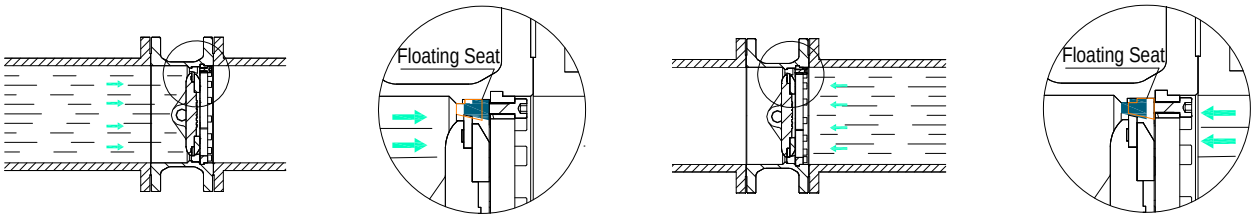


Packing Detail

■ 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
- Disc: WCB/CF8M
- Stem: SS420/17-4PH
- Seat: F6a Hard coating
- Seal ring: F316 Hard coating

Size Range

DN (mm)	NPS (inch)	Pressure PN25
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	•
1400	56	•
1600	64	•

Temperature Range

- -84F° up to 797F°
  -29C° up to 425C°

Body Configurations

- Buttweld

Compliance

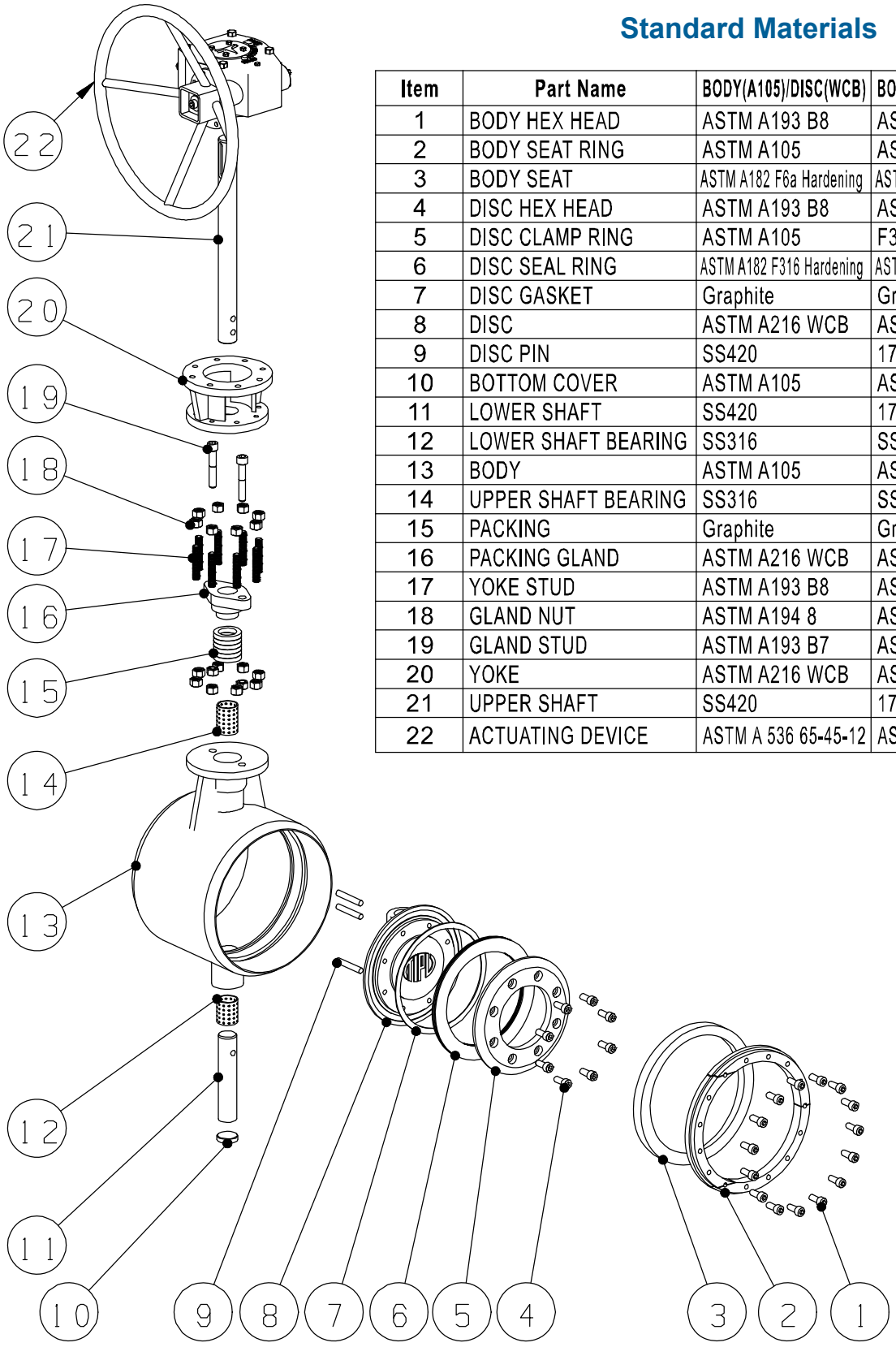
- Valve design standard: API609
- End to end dimension standard: API609/EN558-1
- BW connection standard: ASME B 16.25
- Test standard: API598

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 District HeatingTriple Offset Butterfly Valve should be used when the application requires reliable zero-leakage, abrasion resistance, bidirectional sealing, long-life.



Standard Materials

Item	Part Name	BODY(A105)/DISC(WCB)	BODY(A105)/DISC(CF8M)
1	BODY HEX HEAD	ASTM A193 B8	ASTM A193 B8
2	BODY SEAT RING	ASTM A105	ASTM A105
3	BODY SEAT	ASTM A182 F6a Hardening	ASTM A182 F6a Hardening
4	DISC HEX HEAD	ASTM A193 B8	ASTM A193 B8
5	DISC CLAMP RING	ASTM A105	F316
6	DISC SEAL RING	ASTM A182 F316 Hardening	ASTM A182 F316 Hardening
7	DISC GASKET	Graphite	Graphite
8	DISC	ASTM A216 WCB	ASTM A351 CF8M
9	DISC PIN	SS420	17-4PH
10	BOTTOM COVER	ASTM A105	ASTM A105
11	LOWER SHAFT	SS420	17-4PH
12	LOWER SHAFT BEARING	SS316	SS316
13	BODY	ASTM A105	ASTM A105
14	UPPER SHAFT BEARING	SS316	SS316
15	PACKING	Graphite	Graphite
16	PACKING GLAND	ASTM A216 WCB	ASTM A216 WCB
17	YOKE STUD	ASTM A193 B8	ASTM A193 B8
18	GLAND NUT	ASTM A194 8	ASTM A194 8
19	GLAND STUD	ASTM A193 B7	ASTM A193 B7
20	YOKE	ASTM A216 WCB	ASTM A216 WCB
21	UPPER SHAFT	SS420	17-4PH
22	ACTUATING DEVICE	ASTM A 536 65-45-12	ASTM A 536 65-45-12