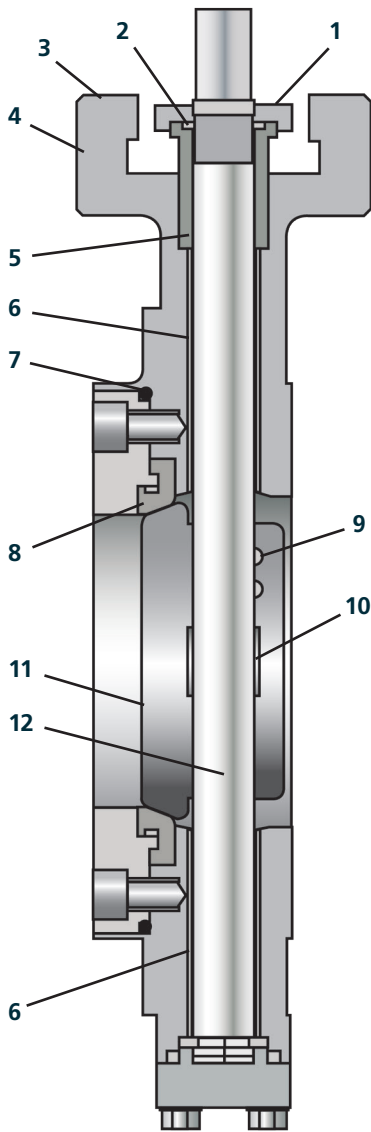




ABZ Valves  
Double Offset High Performance  
Butterfly 400 Series

# Feature & Benefits



1. Underneath Drawn Gland Packing – Allows for ease of user adjustment to the gland nuts and direct mounting of actuation.
2. Stem Retention System – Provides positive stem retention above the packing.
3. Mounting Flange – Designed to direct mount actuation for ease of installation and cost saving.
4. Body is available in Wafer and Lug.
5. Packing – PTFE is a cup and cone system.
6. Bearings – Made of 316 stainless steel sleeves impregnated with RTFE to ensure long service life.
7. Seat Retainer – The heavy-duty retainer plate and cap screws provide a full rated bi-directional dead end service valve. The seat retainer seal prevents leakage to the atmosphere past the retainer plate and body.
8. Seat – Utilizes a solid soft seat with a unique channel design. This advanced design provides a bi-directional interference and pressure-assisted seal. This achieves maximum seal at low or high pressures while preventing the seat from bending or deflecting downstream.
9. Disc Taper Pins – Pins are offset from the center of the stem, which places them in compression rather than in shear. This gives them a yield point greater than the stem itself. Pins are welded in place after final assembly and testing.
10. Integrally Cast Disc Position Stop – Machined position stop in the body locates the disc in the seat to achieve maximum seat and seal life.
11. Disk – Cast from 316 Stainless Steel (CF8M – A351), and engineered to allow for quick release from the seat. The disc has a heavy duty low cavitation cross section connection to the stem. This results in lower torques and smoother operations.
12. Stem – Manufactured of high strength 17-4 PH Stainless Steel to provide maximum strength and stability for high torque applications.

**411 is a 150 Class Wafer**  
**431 is a 300 Class Wafer**

**412 is a 150 Class Lug**  
**432 is a 300 Class Lug**

## Standard Production Range

	ANSI Class 150	ANSI Class 300
PSI Rating	285	740
Size – Inch	2”-24”	2”-24”
Design Specifications	API 609	
Testing	API 598	
Face to Face Specifications	ANSI B16.10 / API 609	
End Flange Specifications	ASME B16.5: CLASS 150, 300 JIS B2210: 10K, 16K, 20K DIN ISO: PN10, PN16, PN25, PN40	
Connection	Wafer / Lugged	
Actuator – Manual	Lever Handle Worm Gear Operator	
Actuator - Automated	Electric Motor Pneumatic Double Acting Pneumatic Spring Return	

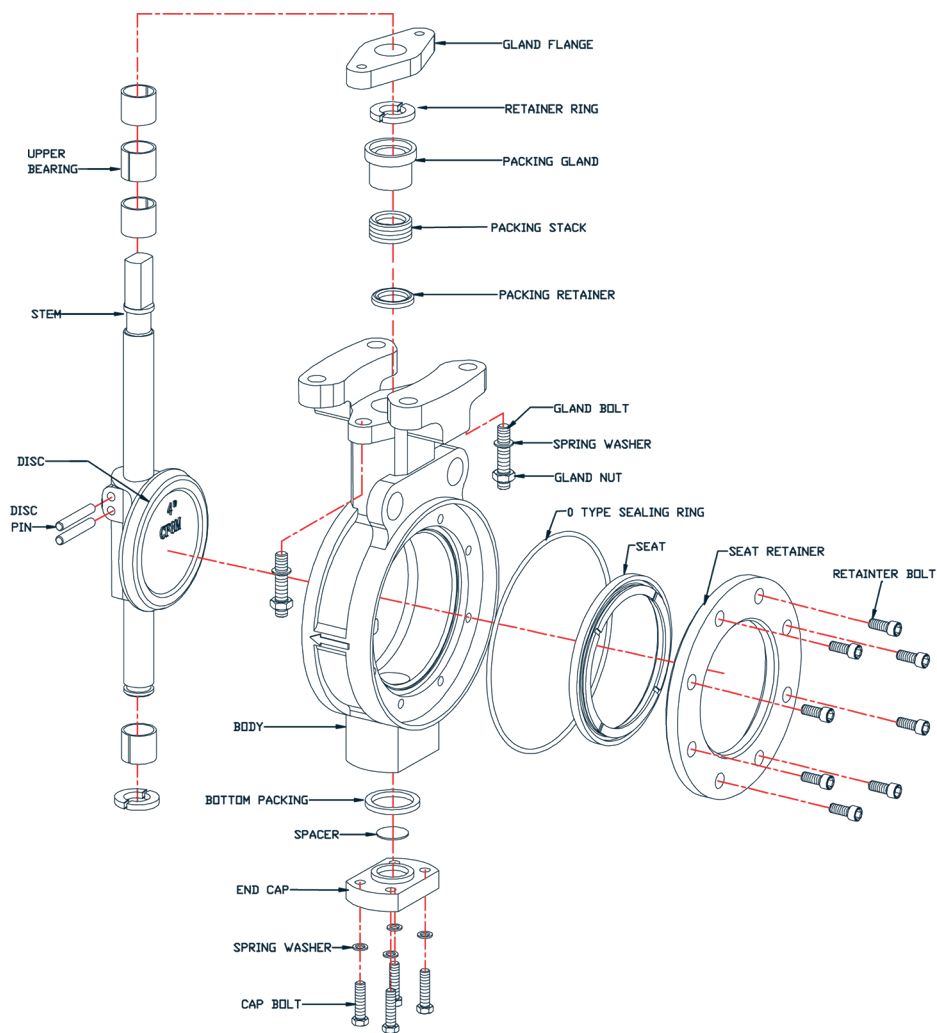
## Main Materials

Body	ANSI Class 150	ANSI Class 300
	Carbon Steel (A216-WCB)	
	316 SS (A351-CF8M)	
Disc	316 SS (A351-CF8M)	
Stem	17-4 PH SS (A564-630)	
Seat	PTFE	
	RTFE	
Shaft Bearing	316 SS + RTFE Impregnated	
Packing Seal	PTFE	

Additional materials available upon request.

## Seat Material and Rating

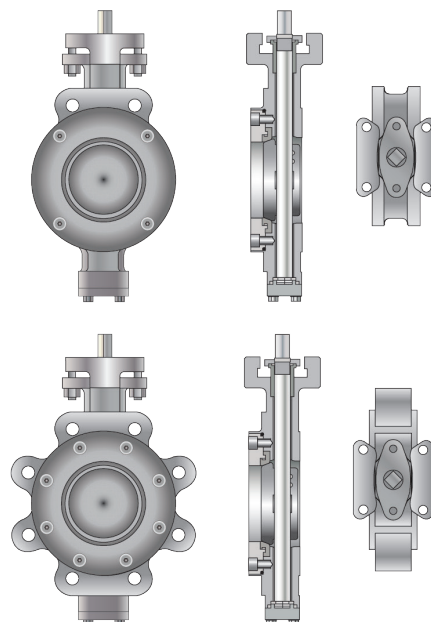
Seat Material	Rating
PTFE	Class VI, Bubble Tight
RTFE	Class VI, Bubble Tight



## Parts Schedule

Item No.	Name	Materials		No Req'd
		Trim 100	Trim 102	
1	Body	A216-WCB	A351-CF8M	1
2	Seat		RTFE	1
3	Disc		A351-CF8M	1
4	Stem		17-4 PH	1
5	Seat Retainer	A216-WCB	A351-CF8M	1
6	Gland Flange	A216-WCB	A351-CF8M	1
7	End Cap	A216-WCB	A351-CF8M	1
8	Packing Gland		316	1
9	Packing Stack		PTFE	1 SET
10	Packing Retainer		316	1
11	O-Ring		PTFE	1
12	Upper Bearing		316 + PTFE	1 SET
13	Retainer Ring		316	1
14	Cap Packing		PTFE	2
15	Adjustment Washer		PTFE	1
16	Spring Washer		316	4
17	Cap Bolt		316	4
18	Tapper Pin		316	2
19	Gland Bolt		316	2
20	Spring Washer		316	2
21	Gland Nut		316	2
22	Retainer Bolt		316	1 SET

Additional materials available upon request.



## Our Core Values

### No one gets hurt

The safety of our employees and customers is our first priority coupled with a healthy respect for the environment.

### Integrity

In everything we do, in every interaction, both internally and externally, we strive to operate with the upmost integrity and mutual respect.

### Customer focused

Our products enhance our customer's performance and we listen to their needs and work with them to solve their challenges.

### Good place to work

We are committed to creating a workplace that fosters innovation, teamwork and pride. Every team member is integral to our success and is treated equally and fairly.



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