

KEYSTONE

**Resilient Seated Flanged Butterfly Valve
Size 24 thru 48-inch, 150 psi**

Features and Benefits

- Heavy duty, cast iron, flanged body is drilled to ANSI 125/150.
- Resilient seat seals bubble-tight against the disc, isolating the valve body and stem from the line media.
- Unique dovetail seat retention allows convenient and economical field replacement.
- A primary stem seal formed by preloaded contact of the disc hub with the flatted seat surfaces and secondary stem seal formed by an interference fit of the stem through the seat provide bubble-tight shutoff to full valve pressure rating.
- Rounded polished disc and hub edges provide full 360 degree concentric seating, resulting in minimum flow restriction, lower seating/unseating torque and longer seat life.
- Externally adjustable upper journal V-type packing is installed for both pressure and vacuum, while bronze bearings provide low operating torques.
- Molded-in, O-ring seat serves as flange seal, totally eliminating the need for gaskets between the flange and the valve.
- Superior one-piece thru-shaft provides high-strength and positive disc control.
- Stainless steel taper pins are driven, sealed and locked for maximum torsional strength and resistance to vibration loads.
- Bronze vertical thrust washer prevents disc displacement due to the weight of the disc and stem.
- Cast-in standardized mounting patterns allow for direct mounting of Keystone manual, electric, pneumatic and hydraulic actuators.



- Each valve is factory tested to 110 percent of specified pressure rating ensures bubble-tight shutoff to the full valve rating when bolted between flanges in either direction of media flow.

General Application

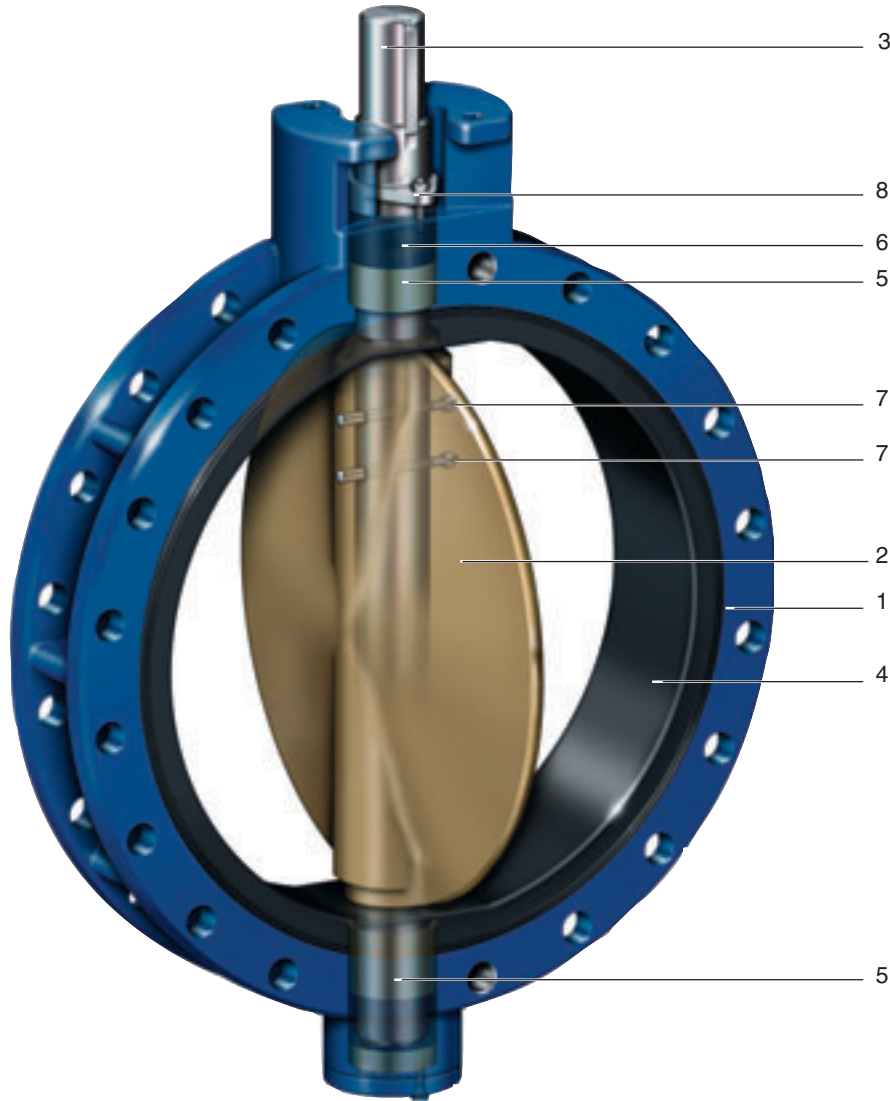
Ideally suited for many applications. Consult factory for appropriate materials for specific services.

Technical Data

Size range	: 24 thru 48-inch
Pressure rating	: 150 psi bi-directional shutoff
Flange standard	: ANSI Class 125/150 flange standards

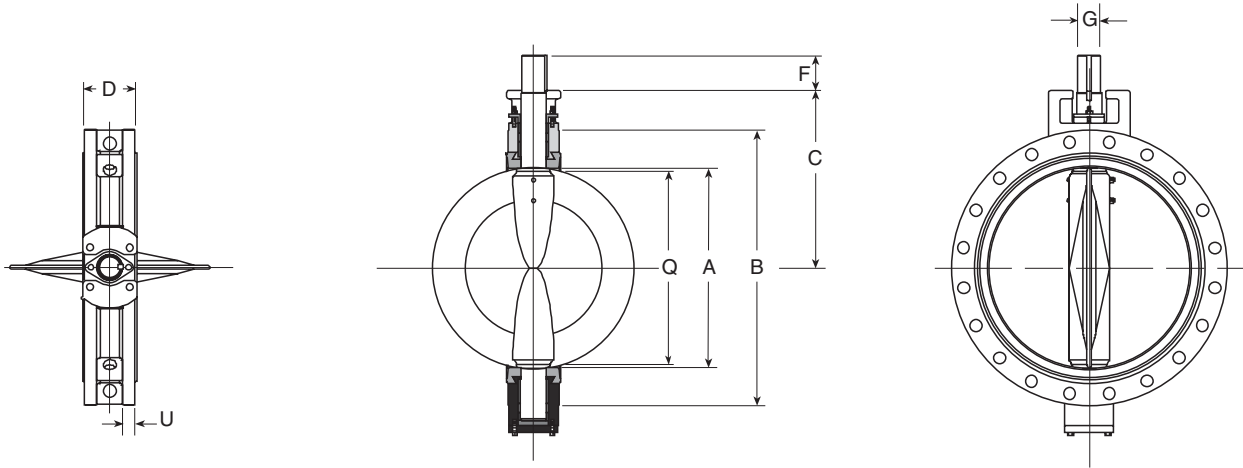
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Materials			
Part	Standard Material	Material Specification	Optional Material
1 Body	Cast iron	ASTM A-126, Class B	Carbon steel
	Ductile iron	ASTM A-536 Gr 65/45/12	Stainless steel
2 Disc	316 stainless steel	ASTM A-743, CF8M	
	Aluminum bronze	ASTM B-148, Alloy 952	
	Ductile iron	ASTM A-536 Gr 65/45/12	
	Ductile iron with electroless nickel plating	ASTM A-536 Gr 65/45/12	
3 Stem	Stainless steel	ASTM A-564 Type 630 (24 thru 36-inch)	
		ASTM A-276 Gr 304 (42 thru 48-inch)	
4 Seat	NBR EPDM		Fluoroelastomer (FKM)
5 Bearings	Lubricated bronze		
6 Packing	NBR		
7 Taper pins	Stainless steel		
8 Packing gland	Bronze		

Keystone Figure 106



Valve Dimensions (inches)

Size	A	B	C	D	Q	F	G	U	Key	Top Plate Drilling			Flange Drilling		Wt. (lbs)	Adapt. Code		
										Top Plate	Thread Size	Thread Spacing	Bolt Circle No.	Thrd. Depth				
24	23 ¹ / ₄	32	20 ⁵ / ₈	5 ¹⁵ / ₁₆	22 ⁵ / ₈	4 ¹ / ₄	17 ⁷ / ₈	17 ¹ / ₁₆	1/2 x 3/8	9 ¹ / ₂ x 6 ¹ / ₄	13/16	6 ¹ / ₂	29 ¹ / ₂	20	1 ¹ / ₄ -7UNC	13/8	627	DAJ
30	29 ¹ / ₄	38 ³ / ₄	22 ¹⁵ / ₁₆	6 ⁹ / ₁₆	28 ¹¹ / ₁₆	4 ¹ / ₄	2 ¹ / ₄	19 ¹ / ₁₆	1/2 x 3/8	8 ¹ / ₂ x 6 ¹ / ₈	13/16	6 ¹ / ₂	36	28	1 ¹ / ₄ -7UNC	1 ¹ / ₄	765	DAK
36	35 ¹ / ₄	46	28 ³ / ₈	7 ⁷ / ₈	34 ¹ / ₄	5 ¹ / ₂	2 ⁷ / ₈	2	3/4 x 1/2	8 ¹ / ₂ x 7 ¹ / ₄	13/16	6 ¹ / ₂	42 ³ / ₄	32	1 ¹ / ₂ -6UNC	1 ¹ / ₂	1,375	DAV
42	41 ¹ / ₄	53	33 ¹ / ₄	9 ⁷ / ₈	40 ³ / ₁₆	7 ³ / ₄	4 ¹ / ₄	2 ⁹ / ₁₆	1 x 3/4	9 ¹ / ₄ x 9 ¹ / ₄	1 ¹ / ₄ -7UNC	6 ¹ / ₂ x 6 ⁵ / ₈	49 ¹ / ₂	36	1 ¹ / ₂ -6UNC	1 ³ / ₄	2,697	JAS
48	47 ¹ / ₄	59 ¹ / ₂	37 ¹ / ₂	10 ⁷ / ₈	46 ³ / ₁₆	9	5 ⁵ / ₈	2 ³ / ₄	1 ¹ / ₂ x 1	10 x 10	1 ¹ / ₂ -6UNC	7 x 7	56	44	1 ¹ / ₂ -6UNC	1 ³ / ₄	4,095	KAU

Note

'Q' dimension is the minimum allowable pipe or flange inside diameter at the centered body face to protect the disc sealing edge against damage when opening the valve.

Valve C_vs

Size (in)	Size (mm)	10°	20°	30°	40°	50°	60°	70°	90°
24	600	220	1,000	2,300	4,000	6,400	10,000	16,500	30,000
30	750	340	1,500	3,600	6,200	9,900	16,000	26,000	47,000
36	900	500	2,600	5,200	9,100	15,000	23,000	38,000	70,000
42	1,050	670	3,000	7,000	12,000	19,500	31,000	51,000	93,000
48	1,200	870	4,000	9,000	16,000	25,000	40,000	66,000	120,000

Note

C_v is the valve flow capacity expressed as the flow rate of 60°F water, in US gallons per minute, which produces a 1 psi pressure drop across the valve.

Tyco Valves & Controls

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