

KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

K-LOK® Series 360/362 - ASME 150
K-LOK® Series 370/372 - ASME 300



FEATURES AND BENEFITS

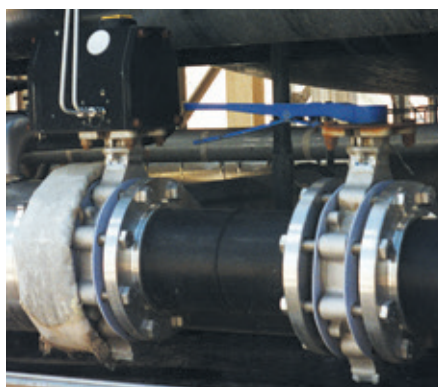
- Integrally cast mounting pad provides direct mounting of many actuators.
- Rocker-shaped gland bridge compensates for uneven adjustment of gland nuts.
- Extended neck allows for two inches of pipeline insulation.
- Flattened body bore at shaft journal ports positions shaft bearings near disc, providing maximum shaft support.
- Disc taper pins are tangentially positioned half in disc and half in shaft, placing them in compression rather than shear, which eliminates potential for failure.
- Integrally cast disc position stop perfectly locates the disc in seat, achieving maximum seat and seal life.
- K-LOK polymer, elastomer, and fire-safe seats provide bi-directional, drop-tight closure in vacuum and throughout all pressure ranges, as well as at full rated differential pressure. A variety of materials allows optimum seat life in all applications.

GENERAL APPLICATIONS

- Airport refueling
- Hydrocarbon processing
- HVAC
- Chemical processing
- Purified gas
- Steam and vacuum services
- Potable water
- Food processing
- Sour gas
- Military
- Oxygen
- Pharmaceutical
- Ammonia
- Chlorine
- Reverse osmosis
- Category 'M' fluids
- Slurry
- Modulating control

TECHNICAL DATA

Size range: NPS 2 to NPS 36
Pressure rating: ASME 150 and 300
Temperature rating: -20°F to 1000°F
Fire-safe option

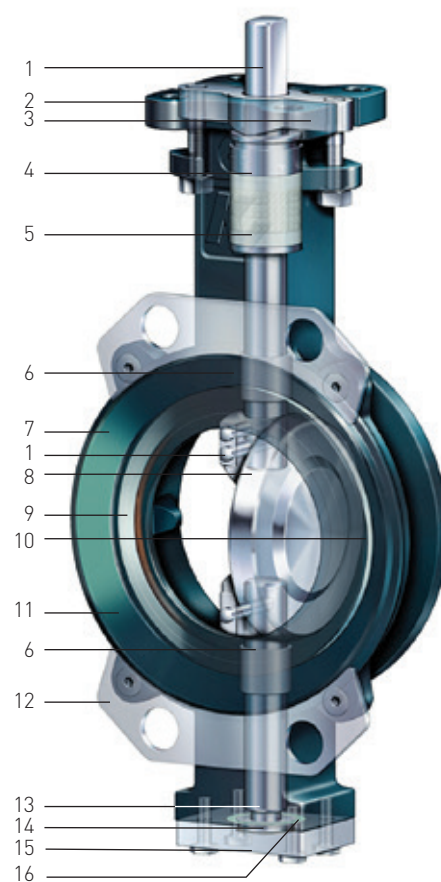


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MATERIALS

No.	Description	Material	Material standard
1	Shaft and taper pins	17-4 PH	ASTM A564 Condition H1075 or H1100
		316B SS	ASTM A276-316 Condition B (NPS 10 and smaller)
		NITRONIC 50®	ASTM A276-XM19
		K-Monel® 500	QQ-N-286 UNS N005500 Class A age-hardened
		Inconel® 718	
2	Body	Carbon steel	ASTM A216-WCB
		Stainless steel	ASTM A351-CF8M
		Nickel aluminum bronze	MIL B24480 CDA C95800/ASTM B148
3	Gland bridge	17-4PH stainless steel	
		Carbon steel	
4	Packing gland follower	316 stainless steel	
5	Shaft packing	PTFE	
		Graphite	
		Style 9000 EVSP simplified	
6	Shaft bearing	316 stainless steel/nitride,	
		PTFE/bronze,	
		PTFE/composite	
7	Body gasket	Non-asbestos fiber,	
		graphite	
		PTFE	
8	Disc	316 stainless steel	ASTM A351-CF8M
		316 stainless steel/ENP	ASTM A351-CF8M/electroless nickel plated
		Monel®	QQ-N-288 Composition A
9	Seat	Polymer	PTFE, RTFE, UHMWPE
		Elastomer	NBR, EPDM, Fluoroelastomer (FKM)
		Metal	316 stainless steel, Monel®
		Fire-safe	RTFE/316 stainless steel
10	Seat backing ring	Stainless steel	
11	Seat retainer ring	Carbon steel	
		316 stainless steel	
		Nickel aluminum bronze	
12	Flange locator plate	Stainless steel	
		Carbon steel/zinc plated	
13	Disc locating shoulder	316 stainless steel	
14	Bottom cover gasket	Non-asbestos fiber or graphite	
15	Bottom cover plate	316 stainless steel	
16	Thrust washer	Stainless steel/nitride	



Recommended standards and specifications

ASME	B16.34	Steel valves
	B31.1	Power piping (Sect 107)
	B31.3	Chemical plant and petroleum refinery piping
	B16.5	Steel pipe flanges and flange fittings
MSS	SP-6	Standard finishes for pipe flanges
	SP-25	Standard marking systems for valves
	SP-55	Quality standard for steel casting
	SP-61	Pressure testing of steel valves
	SP-68	High pressure offset disc butterfly valves
API	609	Butterfly valves (most models)
	607	Fire-test for soft seated quarter-turn valves
	598	Valve inspection and test
BS	5146	Inspection and test of steel valves for the petroleum, petrochemical and allied industries
	4504	Flanges and bolting for pipes, valves and fittings
JIS	2215	Basic dimensions for steel pipe flanges
NSF/ANSI Standard 61		Potable water

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PRINCIPLES OF OPERATION

Double offset disc/shaft

K-LOK®'s unique two-piece shaft and double-offset disc/shaft design allows for high cycling and creates a lower disc profile with increased capacity and a range of 33:1. In addition to increasing the flow area across the disc, this design minimizes wear points between seat and disc.

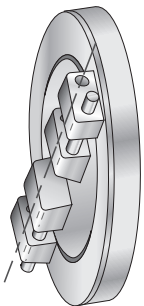
The first offset is achieved by locating the shafts downstream of the center-line of the seat.

This allows for a totally unobstructed 360° sealing surface.

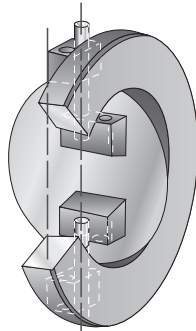
The second offset locates the shafts off-center of the vertical axis of the seat.

The combination of these two offsets creates a camming effect as the disc swings into and out of the seat. The disc lifts quickly out of the seat in the first few degrees of travel and does not contact the seat again until it is nearly closed. There are no wear points between the seat and disc, while operating torques are reduced and seat life is extended.

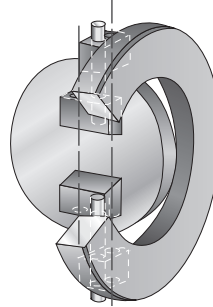
DOUBLE OFFSET



FIRST OFFSET



SECOND OFFSET

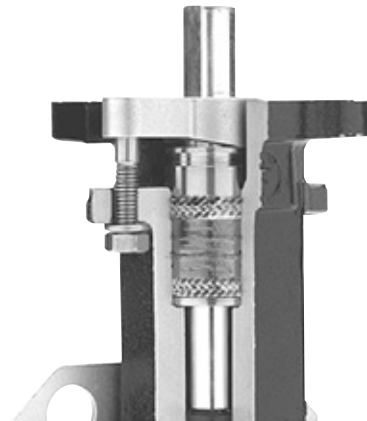


Fire-safe valve

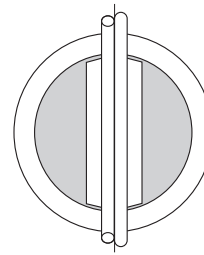
API 607 4th edition approved by third party witness

The K-LOK® fire-safe design uses a stainless steel or alloy seat of convoluted shape that mates with an RTFE member. In the full-closed position, the K-LOK® provides continuous two-plane contact between the disc and both metal and RTFE seats. The fire-safe seat utilizes wire windings to provide the circumferential stiffness necessary to maintain interference between disc and seat.

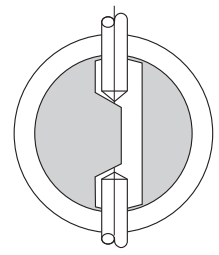
FIRE-SAFE SEAT



Competitor
one-piece shaft



K-LOK®
two-piece shaft



Aspect ratio = open area ÷ disc area

Two-piece shaft vs. one-piece shaft

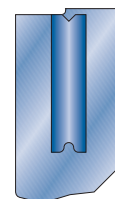
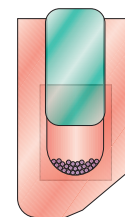
K-LOK®'s disc geometry maximizes flow capacity by increasing the available flow area through the valve. This increase in disc efficiency results in a higher valve C_v .

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SEAT MATERIALS

Seat	Material	Typical applications
1. RTFE	Reinforced polytetrafluoroethylene	HVAC, steam, chlorine, ammonia, nitrogen, water, gasoline, vacuum
2. PTFE	Polytetrafluoroethylene	Pharmaceuticals, air, potable water, dyes, white mediums
3. UHMWPE	Ultra high molecular weight polyethylene	Abrasives, suspended solids, scaling mediums
For seats 1 thru 3		
Wire wrap	Stainless steel braided wire	
Seat backing ring	Polyester or phenolic	General purpose services up to 200°F
	Stainless steel	Steam, ammonia, elevated temperature services
Seat	Material	Typical applications
4. EPDM	–	Water based mediums, slurry applications, abrasives
5. NBR	–	Oil based mediums, slurry applications, abrasives
6. Fluoroelastomer (FKM)	–	Elevated temperatures, slurry applications, abrasives
For seats 4 thru 6		
Metal insert	Carbon steel	
Seat	Material	Typical applications
7. Metal	316 stainless steel or alloy (flash chrome coated)	High temperature, low temperature, abrasives, fly ash, slurries
8. Fire-safe	Reinforced polytetrafluoroethylene combined with 316 stainless steel (flash chrome coated)	Fire-safe installations, abrasives, slurries, steam
For seats 7 and 8		
Wire wrap	Stainless steel braided wire	



SEAT DESIGN

The K-LOK® seat is a true interference seat design and does not rely on line pressure to assist in sealing. All seats seal drop-tight bi-directionally at low pressure as well as high pressure.

Polymer (PTFE, RTFE and UHMWPE) seats incorporate a stainless steel braided wire winding, enclosed in a U-shape envelope to provide seating energy and memory. This wire winding allows axial flexibility in both directions of flow.

The winding also allows radial flexibility when the disc is not fully closed, reducing seat/disc interference, seat wear and shaft torque. When the disc closes, it provides circumferential stiffness and assures the required disc/seat seals tight.

Elastomer seats are molded around a stack of V-shaped steel rings that provide the same stability, support and flexure as the wire windings in polymer seats.

Metal seats employ a stainless steel or alloy ring of convoluted shape, reinforced by stainless steel wire windings.

The thin, convoluted shape allows for expansion and contraction from thermal cycling. Long life is assured by flash coating the seat with chrome.



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ASME/FCI 70-2 CONTROL VALVE SEAT LEAKAGE, TOLERANCES, AND TEST SPECIFICATIONS

ASME B16.104-1976	Maximum leakage			Test medium	Pressure and temperature
Class VI	Nominal port diameter (NPS)	Bubbles per minute ³	ML. per minute	Air or nitrogen	Service ΔP or 50 psig, whichever is lower, at 50°F to 125°F
	2	3	0.45		
	2½	4	0.60		
	3	6	0.90		
	4	11	1.70		
	6	27	4.00		
	8	45	6.75		
Class V	5 x 10 ⁻⁴ ml/min/psig/in. port dia.			Water	Service ΔP at 50°F to 125°F
Class IV	0.01% valve capacity at full travel			Air or water	Service ΔP or 50 psig, whichever is lower, at 50°F to 125°F

NOTES

1. K-LOK® polymer and elastomer seats meet or exceeds ASME Class VI shut-off.
 2. K-LOK® metal seats and fire-safe seats (post fire exposure) meet or exceeds ASME Class IV shut-off.
 3. Using the ASME/FCI specified calibrated measuring device.
- Reference ASME/FCI 70-2 for further information.

C_v VALUES VS. TRAVEL POSITION

Size (NPS)	Angle of opening								ASME 150	ASME 300
	10°	20°	30°	40°	50°	60°	70°	80°	90°	90°
2	6	10	19	34	51	78	105	134	163	160
2½	6	10	19	34	53	80	111	148	175	170
3	8	12	24	43	67	100	139	186	220	215
4	16	23	44	80	130	194	269	360	425	413
5	30	44	83	149	242	366	504	673	795	785
6	50	70	130	230	370	550	760	1010	1195	1140
8	83	117	251	437	695	1052	1496	2001	2440	2300
10	144	202	454	754	1185	1821	2611	3541	4540	4333
12	208	304	678	1051	1625	2766	3838	5325	6915	6600
14	257	360	747	1186	1909	3121	4416	6225	8300	7920
16	308	432	803	1422	2289	3614	5251	7530	10040	9580
18	373	548	1121	1869	2990	4735	6728	9845	12460	11890
20	463	680	1390	2315	4010	6175	8795	12655	15430	14720
24	650	991	2076	3803	6060	9091	13301	18466	21660	20665
30	1015	1550	3240	4670	9460	14200	21400	29800	36000	-
36	1460	2300	4640	5950	13700	21000	30400	44000	56000	-

VACUUM RATING

The combination of interference fit seats and bi-directional packing makes the K-LOK® especially well suited for vacuum service.

Standard K-LOK® high performance valves are rated to an absolute pressure of 4 x 10⁻⁵ inch Hg.

Higher vacuum applications are available.

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SEATING AND UN-SEATING TORQUE

Seating and un-seating torques are a function of the size of the valve and the shutoff pressure of the system.

Specific torque ratings can be found in the seating/un-seating chart at the intersection of the 'size' row and the 'shutoff pressure' column.

Torques listed are for PTFE and RTFE seated valves. For different seat materials, specific multipliers are to be used as stated.

All torques listed are for normal service conditions (i.e. operating frequency is a minimum of once per month; disc corrosion is expected to be mild or minor, the media is a clean gas, liquid or steam, and is non-abrasive) and chemical effects upon the seat are minor.

PTFE AND RTFE BI-DIRECTIONAL SEATING AND UN-SEATING TORQUE VALUES

Valve size (NPS)	Shaft mounting code (ASME)		Seating and un-seating torque (lbs in)					
	150	300	System shutoff pressure (psig)					
			150	200	285	400	500	740
2	BAB	BAB	220	280	380	460	520	580
2½	BAB	BAB	220	280	380	460	520	580
3	BAC	BAC	250	320	430	520	590	650
4	BAD	BAD	475	600	820	995	1120	1235
5	BAD	BAD	925	1125	1350	1570	1750	1900
6	CAD/CAE*	CAE	1370	1600	1850	2150	2390	2900
8	CAF	CAF	2060	2330	3200	4020	4870	6720
10	CAF/CAG*	CAG	3340	3650	4700	6250	7450	9850
12	DAG	DAG	4590	5250	6400	8160	9690	12940
14	DAH	DAJ	6750	7560	9150	11450	13300	17200
16	DAH	DAK	9350	10450	12600	15000	17500	22200
18	DAJ	DBA	11900	13300	15800	19500	21900	28500
20	DAK	LAX	15600	17500	21000	25200	28700	36140
24	DAK	MAY	21700	25340	30600	36900	42100	54000
30	MAZ	NAW	29200	35000	43500	-	-	-
36	MBE	EBD	52500	58500	70000	-	-	-

*CAE and CAG mounting codes apply for shaft mounting of UHMWPE, metal and fire-safe seats.

NOTES

- Torques are applicable only to PTFE and RTFE seats in noncorrosive or non-abrasive services such as water. For fire-safe and metal seats, select only the torque for the valve at 285 psig and multiply by 2.0.
- For other seat materials, select the torque applicable for the maximum differential pressure and multiply by the following factor:
EPDM/NBR/Fluoroelastomer (FKM): x 1.4
UHMWPE (clean service): x 1.3
- For corrosive, abrasive or other services than water, multiply by the following factor:
High solids slurry: x 1.5
Dry gas: x 2.0
Dry powders: x 2.7
Liquids other than water: x 1.2
Lubricating fluids: x 0.8

For services that combine unfriendly conditions such as extreme temperatures and high solids, or corrosive with high temperatures, contact your sales representative.

EXTENSION BRACKETS FOR VARIOUS TEMPERATURES

Pipeline fluid temperature	Required extension lengths (inches)				
	Handle	Gear	Std. F79U/MRP	High temp. F79U/MRP	Standard F777
-100°F - 375°F	-	-	-	-	-
376°F - 460°F	4	-	-	-	4
461°F - 560°F	6	4	4	-	4
561°F - 650°F	6	4	4	-	4
651°F - 725°F	6	6	6	4	6
726°F - 825°F	8	8	8	6	8
826°F - 925°F	10	8	8	6	8
926°F - 1000°F	10	10	10	8	10

NOTES

- Surrounding air temperature is assumed to be 70°F. For every degree over 100°F of the surrounding air, deduct 2 degrees from the maximum temperature ranges shown under the Pipeline fluid temperature column. (Example: 125°F external temperature reduces maximum temperature values under the Pipeline fluid temperature column to 325, 410, 510, 600, etc.)
- Valves may be insulated or uninsulated.
- Brackets may be open rectangular tubes or the standard closed Keystone tubular shaft extensions.
- All actuators have a maximum service temperature (outside atmosphere). These temperature limitations apply regardless of K-LOK® extension lengths.

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FLANGE GASKETS

The K-LOK® high performance butterfly valve is designed to accommodate the use of standard, non-metallic gaskets for pipe flanges (such as compressed fiber, rubber, non-asbestos, flexible graphite, asbestos or equivalent gasket materials), meeting the dimensional requirements of ASME B16.21-1992. Metallic wound gaskets may also be used, however, please note that any valve with a bolted on retainer requires the wound gaskets material to be manufactured to the following dimensions (inches):

NPS	Outside diameter	Inside diameter
2	3 ³ / ₈	2 ³ / ₄
2½	3 ⁷ / ₈	3 ¹ / ₄
3	4 ³ / ₄	4
4	5	4 ¹ / ₈
5	6 ¹ / ₈	5 ¹ / ₄
6	7 ³ / ₁₆	6 ¹ / ₄
8	9 ³ / ₁₆	8
10	11 ⁵ / ₁₆	10 ¹ / ₈
12	13	11 ¹ / ₂
14	14 ¹ / ₂	13
16	16 ¹ / ₂	14 ³ / ₄
18	18	16
20	19 ³ / ₄	18
24	26 ¹ / ₄	24
30	29 ¹ / ₂	27 ¹ / ₂
36	36 ¹ / ₂	34 ¹ / ₄

PRESSURE/TEMPERATURE RATINGS FOR BODIES, DISCS AND SEATS

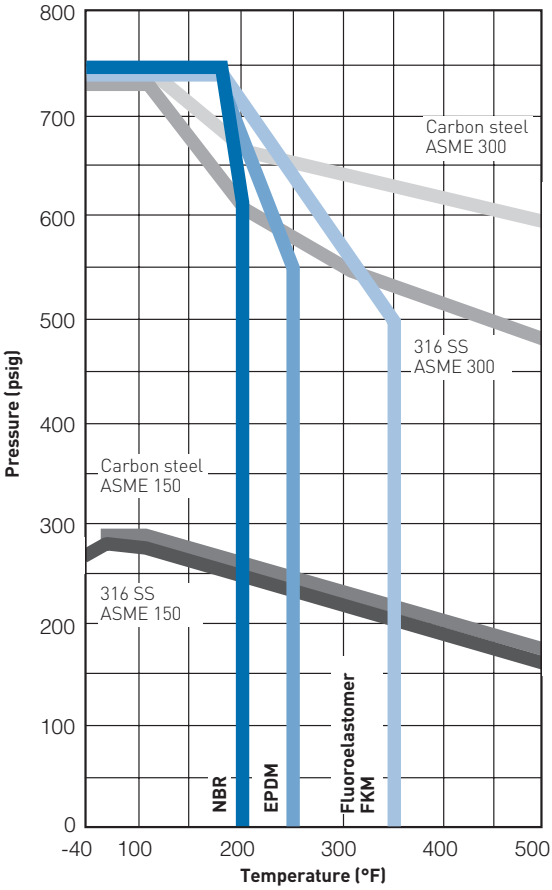
Pressure (psi)	Temperature (°F)															
	-40	-20	0	100	180	200	250	300	400	450	500	600	700	800	900	1000
ASME 150 body (Series 360 wafer style and Series 362 lug style)																
Series 360/362 carbon steel	285	285	285	270	260	245	230	200	185	170	140	110	80			
Series 360/362 stainless steel	275	275	275	275	250	240	227	215	195	182	170	140	110	80	50	20
Series 360/362 nickel aluminium bronze	250	250	250	250	240	235	222	210	180	170	160	150				
Series 360/362 ductile iron	250	250	250	240	235	225	215	200	185	170	140					
ASME 300 body (Series 370 wafer style and Series 372 lug style)																
Series 370/372 carbon steel	740	740	740	700	675	665	655	635	617	600	550	535	410			
Series 370/372 stainless steel	720	720	720	720	645	620	590	560	515	497	480	450	430	415	395	365
Series 370/372 nickel aluminium bronze	700	700	700	700	625	600	675	550	500	475	450	400				
Series 370/372 ductile iron	640	640	640	610	600	583	565	525	510	495	465					
ASME 150 disc																
Series 360/362 stainless steel	275	285	285	285	270	260	245	230	200	185	170	140	110	80	50	20
Series 360/362 nickel aluminium bronze	250	250	250	250	240	235	222	210	180	170	160	150				
Series 360/362 Monel®	230	230	230	230	210	200	195	190	185	182	170	140	110	80		
Series 360/362 ductile iron	250	250	250	240	235	225	215	200	185	170	140					
ASME 300 disc																
Series 370/372 stainless steel	720	740	740	740	700	675	665	655	635	617	600	550	535	410	395	365
Series 370/372 nickel aluminium bronze	700	700	700	700	625	600	575	500	500	475	450	400				
Series 370/372 Monel®	600	600	600	600	580	530	520	495	480	475	475	475	475	460		
Series 370/372 ductile iron	640	640	640	610	600	583	565	525	510	495	465					
K-LOK® seats																
PTFE (TFE)	740	740	740	740	600	565	450	325								
Reinforced TFE (RTFE)	740	740	740	740	700	680	550	450	225	100						
UHMWPE	740	740	740	740	575	555										
NBR	740	740	740	625												
EPDM	740	740	740	740	740	675	550									
Metal - 316 SS	285	285	285	285	270	255	245	230	200	185	170	135	110	80	50	20
Monel®-400	285	285	285	285	270	255	245	230	200	185	170	135	110	80	50	20
Fire-safe - RTFE/316 SS	285	285	285	285	285	285	285	285	225	100						
Fire-safe - RTFE/Monel®	285	285	285	285	285	285	285	285	225	100						

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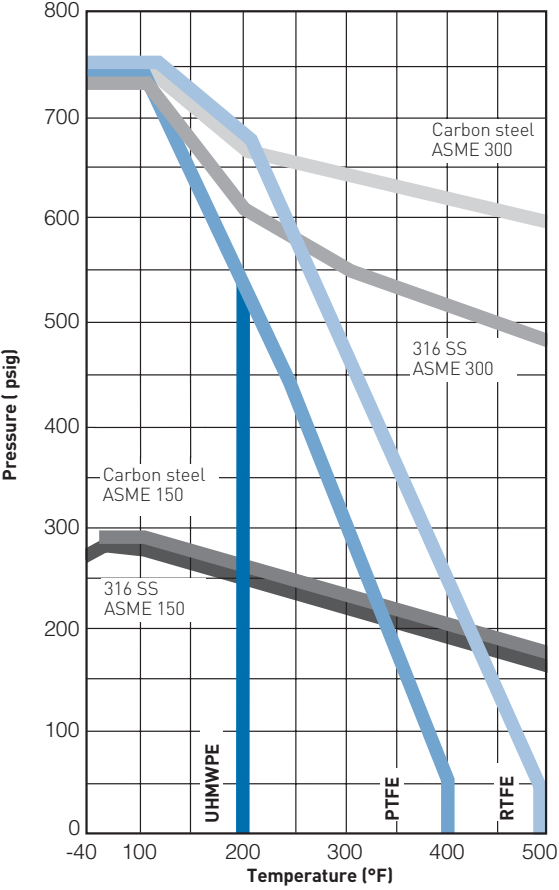
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PRESSURE/TEMPERATURE RATINGS FOR SEAT MATERIALS

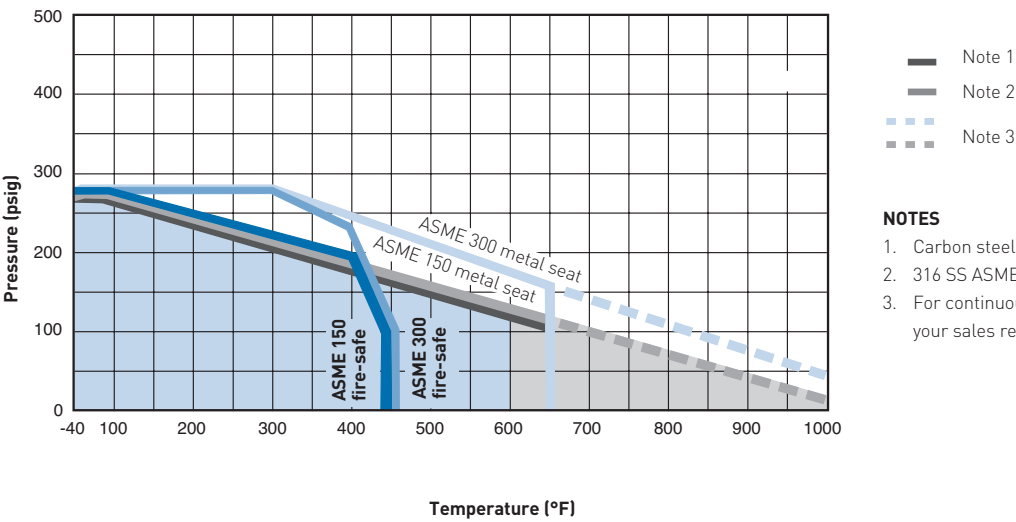
Elastomer seats



Polymer seats



Fire-safe and metal seats



- Note 1
- Note 2
- Note 3
- NOTES**

 - Carbon steel ASME 150 body
 - 316 SS ASME 150 body
 - For continuous service above 650°F, please consult your sales representative

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RECOMMENDED FLANGE BOLT LENGTHS

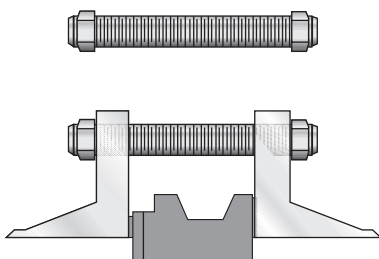
LUGGED BODY ASME 150 - SERIES 362

Valve size (in.)	Hex head machine bolt			All thread		
	Qty.	Size	Length (in.)	Qty.	Size	Length (in.)
2	4	5/8 - 11UNC	x 1 3/4	4	5/8 - 11UNC	x 2 1/2
	4	5/8 - 11UNC	x 2	4	5/8 - 11UNC	x 2 3/4
2 1/2	8	5/8 - 11UNC	x 1 3/4	8	5/8 - 11UNC	x 2 1/2
3	4	5/8 - 11UNC	x 2	4	5/8 - 11UNC	x 2 3/4
	4	5/8 - 11UNC	x 1 1/2	4	5/8 - 11UNC	x 2 1/2
4	8	5/8 - 11UNC	x 2	8	5/8 - 11UNC	x 2 3/4
	8	5/8 - 11UNC	x 1 3/4	8	5/8 - 11UNC	x 2 1/2
5	16	3/4 - 10UNC	x 2	16	3/4 - 10UNC	x 3
6	8	3/4 - 10UNC	x 2 1/4	8	3/4 - 10UNC	x 3
	8	3/4 - 10UNC	x 2	8	3/4 - 10UNC	x 3 1/4
8	8	3/4 - 10UNC	x 2 1/2	8	3/4 - 10UNC	x 3 1/2
	8	3/4 - 10UNC	x 2	8	3/4 - 10UNC	x 3
10	12	7/8 - 9UNC	x 2 3/4	12	7/8 - 9UNC	x 4
	12	7/8 - 9UNC	x 2 1/4	12	7/8 - 9UNC	x 3 1/4
12	12	7/8 - 9UNC	x 3	12	7/8 - 9UNC	x 4
	12	7/8 - 9UNC	x 2 1/2	12	7/8 - 9UNC	x 3 3/4
14	12	1 - 8UN	x 3 1/2	12	1 - 8UN	x 4 3/4
	12	1 - 8UN	x 3	12	1 - 8UN	x 4 1/4
16	32	1 - 8UN	x 3	32	1 - 8UN	x 4
18	32	1 1/8 - 8UN	x 3 3/4	32	1 1/8 - 8UN	x 5
	32	1 1/8 - 8UN	x 4	32	1 1/8 - 8UN	x 5 1/2
20	8	1 1/8 - 8UN	x 3	8	1 1/8 - 8UN	x 4 1/2
	20	1 1/4 - 8UN	x 5	20	1 1/4 - 8UN	x 6 1/2
24	20	1 1/4 - 8UN	x 4 1/2	20	1 1/4 - 8UN	x 6
	48	1 1/4 - 8UN	x 6	48	1 1/4 - 8UN	x 7 1/2
30	8	1 1/4 - 8UN	x 4 1/2	8	1 1/4 - 8UN	x 6
	28	1 1/2 - 8UN	x 7 1/2	28	1 1/2 - 8UN	x 9 1/2
36	28	1 1/2 - 8UN	x 7	28	1 1/2 - 8UN	x 9
	4	1 1/2 - 8UN	x 5	4	2 - 8UN	x 7
	4	1 1/2 - 8UN	x 6	4	2 - 8UN	x 8

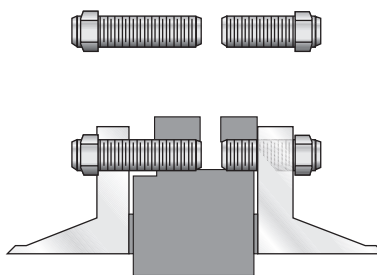
LUGGED BODY ASME 300 - SERIES 372

Valve size (in.)	Hex head machine bolt			All thread		
	Qty.	Size	Length (in.)	Qty.	Size	Length (in.)
2	16	5/8 - 11UNC	x 2	16	5/8 - 11UNC	x 3
2 1/2	8	3/4 - 10UNC	x 1 3/4	8	3/4 - 10UNC	x 2 3/4
	8	3/4 - 10UNC	x 2	8	3/4 - 10UNC	x 2 3/4
3	8	3/4 - 10UNC	x 2 1/4	8	3/4 - 10UNC	x 3 1/4
	8	3/4 - 10UNC	x 1 3/4	8	3/4 - 10UNC	x 2 3/4
4	8	3/4 - 10UNC	x 2 1/2	8	3/4 - 10UNC	x 3 1/4
	8	3/4 - 10UNC	x 2	8	3/4 - 10UNC	x 3
5	8	3/4 - 10UNC	x 2 1/2	16	3/4 - 10UNC	x 3 1/2
	8	3/4 - 10UNC	x 2 1/4			
6	12	3/4 - 10UNC	x 2 3/4	24	3/4 - 10UNC	x 3 1/2
	12	3/4 - 10UNC	x 2 1/4			
8	12	7/8 - 9UNC	x 3 1/4	12	7/8 - 9UNC	x 4 1/2
	12	7/8 - 9UNC	x 2 1/2	12	7/8 - 9UNC	x 3 1/2
10	16	1 - 8UN	x 3 3/4	16	1 - 8UN	x 5
	16	1 - 8UN	x 3	16	1 - 8UN	x 4 1/4
12	16	1 1/8 - 8UN	x 4	16	1 1/8 - 8UN	x 5 1/2
	16	1 1/8 - 8UN	x 3 1/2	16	1 1/8 - 8UN	x 4 3/4
14	16	1 1/8 - 8UN	x 4 1/2	16	1 1/8 - 8UN	x 6
	16	1 1/8 - 8UN	x 4	16	1 1/8 - 8UN	x 5 1/2
	4	1 1/8 - 8UN	x 3 1/4	4	1 1/8 - 8UN	x 4 3/4
	4	1 1/8 - 8UN	x 3	4	1 1/8 - 8UN	x 4 1/2
16	16	1 1/4 - 8UN	x 5	16	1 1/4 - 8UN	x 6 1/2
	16	1 1/4 - 8UN	x 4 1/2	16	1 1/4 - 8UN	x 6
	8	1 1/4 - 8UN	x 3 1/2	8	1 1/4 - 8UN	x 5
18	40	1 1/4 - 8UN	x 5	40	1 1/4 - 8UN	x 6 1/2
	8	1 1/4 - 8UN	x 3 1/2	8	1 1/4 - 8UN	x 5
20	40	1 1/4 - 8UN	x 5 1/2	40	1 1/4 - 8UN	x 7
	4	1 1/4 - 8UN	x 4	4	1 1/4 - 8UN	x 5 1/2
	4	1 1/4 - 8UN	x 4 1/2	4	1 1/4 - 8UN	x 6
	4	1 1/2 - 8UN	x 6	4	1 1/2 - 8UN	x 8
24	4	1 1/2 - 8UN	x 5	4	1 1/2 - 8UN	x 7
	4	1 1/2 - 8UN	x 4 1/2	4	1 1/2 - 8UN	x 6 1/2
	48	1 3/4 - 8UN	x 7	48	1 3/4 - 8UN	x 9
30	8	1 3/4 - 8UN	x 5 1/2	8	1 3/4 - 8UN	x 7 1/2

Wafer body



Lugged body



KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

WAFER BODY ASME 150 - SERIES 360

Valve size (in.)	Hex head machine bolt			All thread		
	Qty.	Size	Length (in.)	Qty.	Size	Length (in.)
2	4	5/8 - 11UNC	x 5	4	5/8 - 1UNC	x 5½
2½	4	5/8 - 11UNC	x 4½	4	5/8 - 11UNC	x 5
3	4	5/8 - 11UNC	x 4½	4	5/8 - 11UNC	x 5¼
4	8	5/8 - 11UNC	x 4¾	8	5/8 - 11UNC	x 5½
5	8	¾ - 10UNC	x 5	8	¾ - 10UNC	x 6
6	8	¾ - 10UNC	x 5¼	8	¾ - 10UNC	x 6
8	8	¾ - 10UNC	x 5¾	8	¾ - 10UNC	x 6½
10	12	7/8 - 9UNC	x 6¼	12	7/8 - 9UNC	x 7
12	12	7/8 - 9UNC	x 7	12	7/8 - 9UNC	x 7½
14	12	1 - 8UN	x 7½	12	1 - 8UN	x 8½
16	16	1 - 8UN	x 8	16	1 - 8UN	x 9
18	16	1½ - 8UN	x 9¼	16	1½ - 8UN	x 10½
20	16	1½ - 8UN	x 10	16	1½ - 8UN	x 11
	4	1½ - 8UN	x 3½	4	1½ - 8UN	x 5
	4	1½ - 8UN	x 3	4	1½ - 8UN	x 4½
24	20	1¼ - 8UN	x 11½	20	1¼ - 8UN	x 12½
30	24	1¼ - 8UN	x 13¼	24	1¼ - 8UN	x 16
	4	1¼ - 8UN	x 3½	4	1¼ - 8UN	x 5¼
	4	1¼ - 8UN	x 3¼	4	1¼ - 8UN	x 4¾
36	28	1½ - 8UN	x 15	28	1½ - 8UN	x 18¾
	4	1½ - 8UN	x 5	4	1½ - 8UN	x 6¾
	4	1½ - 8UN	x 4	4	1½ - 8UN	x 6

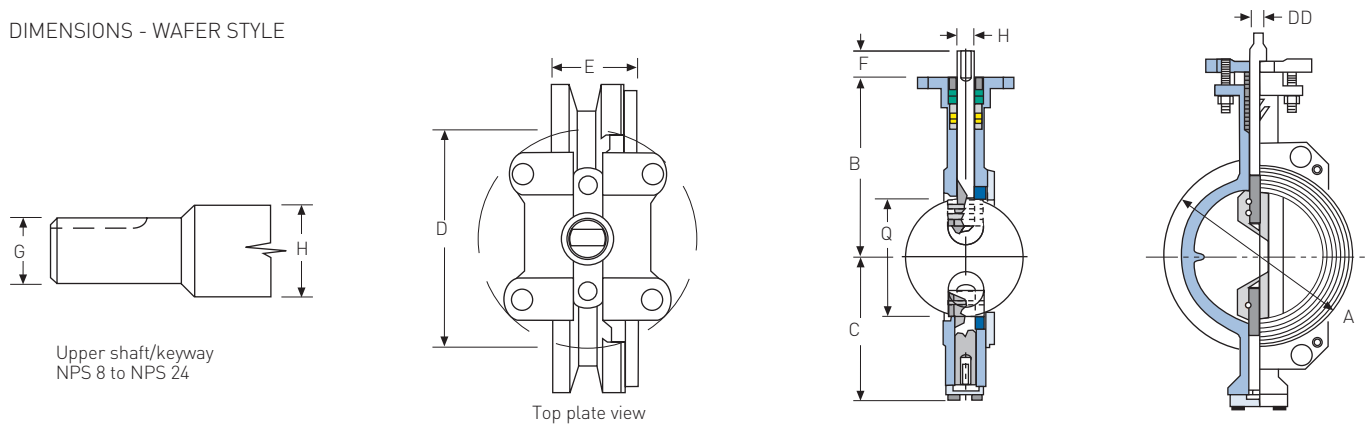
WAFER BODY ASME 300 - SERIES 370

Valve size (in.)	Hex head machine bolt			All thread		
	Qty.	Size	Length (in.)	Qty.	Size	Length (in.)
2	8	5/8 - 11UNC	x 5¼	8	5/8 - 11UNC	x 5¾
2½	8	¾ - 10UNC	x 4¾	8	¾ - 10UNC	x 5½
3	8	¾ - 10UNC	x 5	8	¾ - 10UNC	x 5¾
4	8	¾ - 10UNC	x 5½	8	¾ - 10UNC	x 6½
5	8	¾ - 10UNC	x 6	8	¾ - 10UNC	x 7
6	12	¾ - 10UNC	x 6	12	¾ - 10UNC	x 7
8	12	7/8 - 10UNC	x 7¼	12	7/8 - 9UNC	x 8
10	12	1 - 8UN	x 8¼	12	1 - 8UN	x 9½
	4	1 - 8UN	x 3¾	4	1 - 8UN	x 4¾
	4	1 - 8UN	x 3½	4	1 - 8UN	x 4¾
12	16	1½ - 8UN	x 9	16	1½ - 8UN	x 10
14	16	1½ - 8UN	x 10¼	16	1½ - 8UN	x 11½
	4	1½ - 8UN	x 3¼	4	1½ - 8UN	x 4¾
	4	1½ - 8UN	x 3	4	1½ - 8UN	x 4½
16	16	1¼ - 8UN	x 11½	16	1¼ - 8UN	x 12½
	4	1¼ - 8UN	x 3¼	4	1¼ - 8UN	x 4¾
	4	1¼ - 8UN	x 3	4	1¼ - 8UN	x 4½
18	20	1¼ - 8UN	x 12	20	1¼ - 8UN	x 13½
	4	1¼ - 8UN	x 3½	4	1¼ - 8UN	x 5
	4	1¼ - 8UN	x 3	4	1¼ - 8UN	x 4¾
20	20	1¼ - 8UN	x 13	20	1¼ - 8UN	x 14
	8	1¼ - 8UN	x 4	8	1¼ - 8UN	x 5½
24	20	1½ - 8UN	x 14½	20	1½ - 8UN	x 16
	4	1½ - 8UN	x 4¾	4	1½ - 8UN	x 6½
	4	1½ - 8UN	x 4¼	4	1½ - 8UN	x 6¼
30	24	1½ - 8UN	x 19	24	1¾ - 8UN	x 20½
	8	1¾ - 8UN	x 5½	8	1¾ - 8UN	x 7¾

KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

DIMENSIONS - WAFER STYLE



SERIES 360, ASME CLASS 150, WAFER STYLE, DIMENSIONS (inches)

Size (NPS)	A	B	C	D	E	F	G	H	Q	Top plate drilling			Hole dia.	Wt. lbs.	Actuator code
										DD or keyway	Bolt circle	No. holes			
2	4 1/8	6	4 1/4	4	2 3/8	1 1/4	N/A	3/8	1 7/8	3/8	3 1/4	4	7/16	8	BAB
2 1/2	4 1/8	6	4 1/4	4	1 7/8	1 1/4	N/A	3/8	2 5/16	3/8	3 1/4	4	7/16	9	BAB
3	5	6 5/8	4 13/16	4	1 7/8	1 1/4	N/A	5/8	2 3/4	7/16	3 1/4	4	7/16	12	BAC
4	6 3/16	7 1/2	5 13/16	4	2 1/8	1 1/4	N/A	3/4	3 11/16	1/2	3 1/4	4	7/16	20	BAD
5	7 1/4	7 3/8	5 13/16	4	2 1/4	1 1/4	N/A	3/4	4 3/4	1/2	3 1/4	4	7/16	25	BAD
6	8 19/32	8 3/4	6 15/16	6	2 1/4	1 1/4	3/4	7/8	5 5/8	1/2	5	4	9/16	32	CAD
6*	8 19/32	8 3/4	6 15/16	6	2 1/4	1 1/4	N/A	7/8	5 5/8	5/8	5	4	9/16	33	CAE
8	10 5/8	10 1/8	8 3/8	6	2 1/2	2	N/A	1 1/8	7 7/16	1/4 x 1/4 x 1 5/8	5	4	9/16	50	CAF
10	12 3/4	11 3/8	9 11/16	6	2 13/16	2	1 1/8	1 3/8	9 7/16	1/4 x 1/4 x 1 5/8	5	4	9/16	77	CAF
10*	12 3/4	11 3/8	9 11/16	6	2 13/16	3	N/A	1 3/8	9 7/16	5/16 x 5/16 x 2 5/8	5	4	9/16	78	CAG
12	14 3/4	13	10 7/8	8	3 3/16	3	1 3/8	1 1/2	11 1/4	5/16 x 3/8 x 2 5/8	6 1/2	4	1 3/16	124	DAG
14	16 1/4	13 3/4	11 7/8	8	3 5/8	3	N/A	1 5/8	12 5/16	3/8 x 3/8 x 2 5/8	6 1/2	4	1 3/16	141	DAH
16	18 1/2	14 1/2	12 7/8	8	4	3	1 5/8	1 3/4	14 1/8	3/8 x 3/8 x 2 5/8	6 1/2	4	1 3/16	230	DAH
18	21	16	13 7/8	8	4 1/2	4 1/8	N/A	1 7/8	15 15/16	1/2 x 3/8 x 4 1/8	6 1/2	4	1 3/16	305	DAJ
20	23	17 7/8	15 7/8	8	5	4 3/8	N/A	2 1/4	17 5/8	1/2 x 3/8 x 4	6 1/2	4	1 3/16	350	DAK
24	27 1/2	19 11/16	17 13/16	8	6 1/8	4 1/4	2 1/4	2 1/2	21 1/16	1/2 x 3/8 x 4	6 1/2	4	1 3/16	620	DAK
30	33 3/4	24 1/2	21 3/8	9 1/2	7 3/8	7	N/A	3	26 5/8	3/4 x 3/4 x 6	9 3/4	4	1 1/16	1020	MAZ
36	40 1/4	28 3/8	24 11/16	9 1/2	8 1/2	8	N/A	3 1/2	33 5/16	7/8 x 7/8 x 5 11/16	9 3/4	4	1 1/16	1850	MBE

Note: * E.N.P. discs require larger upper shaft connection diameters on NPS 6 and NPS 10 valve sizes for UHMWPE seat, metal seat and fire-safe seat trims.

N/A = Not available

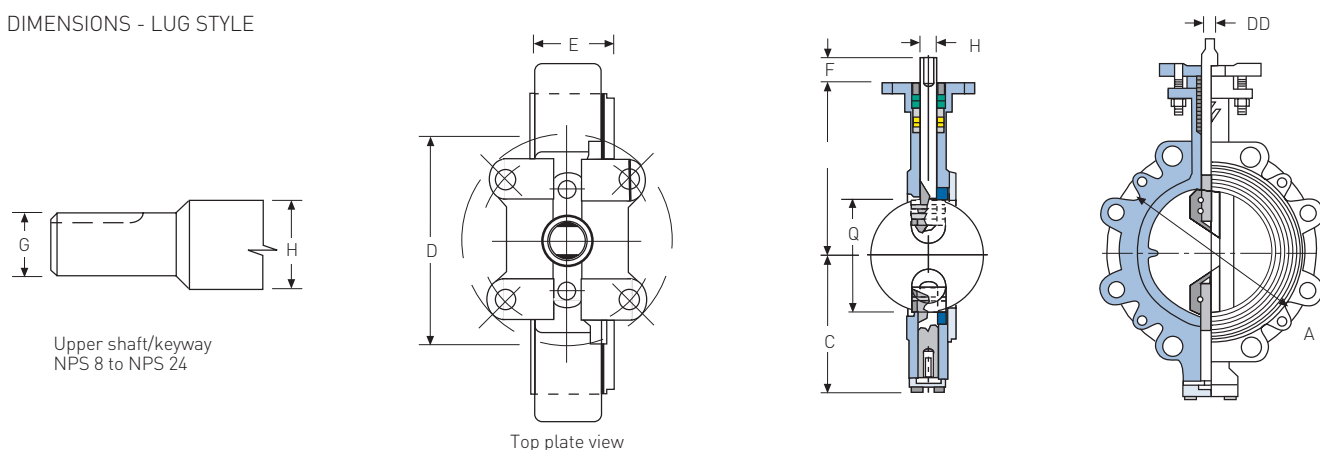
SERIES 370, ASME CLASS 300, WAFER STYLE, DIMENSIONS (inches)

Size (NPS)	A	B	C	D	E	F	G	H	Q	Top plate drilling				Tapped lug data			Wt. lbs.	Actuator code
										DD or keyway	Bolt circle	No. holes	Hole dia.	No. holes	Bolt circle	Tap		
2	4 1/8	6	4 1/4	4	2 3/8	1 1/4	N/A	3/8	1 7/8	3/8	3 1/4	4	7/16	-	-	-	8	BAB
2 1/2	4 1/8	6	4 1/4	4	1 7/8	1 1/4	N/A	3/8	2 5/16	3/8	3 1/4	4	7/16	-	-	-	9	BAB
3	5	6 5/8	4 13/16	4	1 7/8	1 1/4	N/A	5/8	2 11/16	7/16	3 1/4	4	7/16	-	-	-	12	BAC
4	6 3/16	7 1/2	5 13/16	4	2 1/8	1 1/4	N/A	3/4	3 11/16	1/2	3 1/4	4	7/16	-	-	-	20	BAD
5	7 1/4	7 3/8	5 13/16	4	2 5/16	1 1/4	N/A	3/4	4 3/4	1/2	3 1/4	4	7/16	-	-	-	25	BAD
6	8 19/32	8 3/4	6 15/16	6	2 3/16	1 1/4	N/A	7/8	5 5/8	5/8	5	4	9/16	-	-	-	32	CAE
8	10 5/8	10 1/8	8 3/8	6	2 7/8	2	N/A	1 1/8	7 7/16	1/4 x 1/4 x 1 5/8	5	4	9/16	-	-	-	65	CAF
10	12 3/4	11 3/8	9 11/16	6	3 1/4	3	N/A	1 3/8	9 7/16	5/16 x 5/16 x 2 5/8	5	4	9/16	4	15 1/4	1-8UN	95	CAG
12	14 3/4	13	10 7/8	8	3 5/8	3	1 3/8	1 1/2	11 1/4	5/16 x 5/16 x 2 5/8	6 1/2	4	1 3/16	-	-	-	145	DAG
14	16 1/4	14 3/8	12 7/8	8	4 5/8	4 1/4	N/A	1 7/8	12	1/2 x 3/8 x 4 1/8	6 1/2	4	1 3/16	4	20 1/4	1 1/8-8UN	270	DAJ
16	18 1/2	16 1/8	13 3/4	8	5 1/4	4 1/8	N/A	2 1/4	13 3/8	1/2 x 3/8 x 4	6 1/2	4	1 3/16	4	22 1/2	1 1/4-8UN	305	DAK
18	21	17	15 1/8	8	5 7/8	4 7/8	N/A	2 1/2	15 3/16	5/8 x 5/8 x 4	6 1/2	4	1 3/16	4	24 3/4	1 1/4-8UN	385	DBA
20	23	20 3/8	16 3/4	7 1/2	6 1/4	6 1/2	N/A	2 3/4	17 1/4	5/8 x 5/8 x 6 3/8	8	4	1 3/16	4	27	1 1/4-8UN	450	LAX
24	27 1/4	23 3/8	19 13/16	9 1/2	7 1/8	6 3/4	N/A	3 1/2	20 3/4	7/8 x 7/8 x 5 11/16	9 3/4	4	1 1/16	4	32	1 1/2-8UN	770	MAY
30	33 3/4	26 5/8	24 3/8	10	9 1/2	7 7/8	N/A	4 1/2	26	1 x 1 x 6 1/2	10	4	1 1/8	4	39 1/4	1 3/4-8UN	1100	NAW
36	40 1/4	30 7/8	28 3/8	12 1/4	10 3/4	8	N/A	5	32 3/16	1 1/4 x 1 1/4 x 7	12	4	1 1/8	4	46	2-8UN	1590	EBD

KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

DIMENSIONS - LUG STYLE



SERIES 362, ASME CLASS 150, LUG STYLE, DIMENSIONS (inches)

Size (NPS)	A	B	C	D	E	F	G	H	Q	Top plate drilling				Tapped lug data			Wt. lbs.	Actuator code
										DD or keyway	Bolt circle	No. holes	Hole dia.	No. holes	Bolt circle	Tap		
2	4 ¹ / ₈	6	4 ¹ / ₄	4	2 ³ / ₈	1 ¹ / ₄	N/A	⁵ / ₁₆	1 ⁷ / ₈	³ / ₈	3 ¹ / ₄	4	⁷ / ₁₆	4	4 ³ / ₄	⁵ / ₈ -11UNC	13	BAB
2 ¹ / ₂	4 ¹ / ₈	6	4 ¹ / ₄	4	1 ⁷ / ₈	1 ¹ / ₄	N/A	⁵ / ₁₆	2 ⁵ / ₈	³ / ₈	3 ¹ / ₄	4	⁷ / ₁₆	4	5 ¹ / ₂	⁵ / ₈ -11UNC	14	BAB
3	5	6 ⁵ / ₈	4 ¹³ / ₁₆	4	1 ⁷ / ₈	1 ¹ / ₄	N/A	⁵ / ₈	2 ³ / ₄	⁷ / ₁₆	3 ¹ / ₄	4	⁷ / ₁₆	4	6	⁵ / ₈ -11UNC	15	BAC
4	6 ³ / ₁₆	7 ¹ / ₂	5 ¹³ / ₁₆	4	2 ¹ / ₈	1 ¹ / ₄	N/A	³ / ₄	3 ¹¹ / ₁₆	¹ / ₂	3 ¹ / ₄	4	⁷ / ₁₆	8	7 ¹ / ₂	⁵ / ₈ -11UNC	26	BAD
5	7 ¹ / ₄	7 ³ / ₁₆	5 ¹³ / ₁₆	4	2 ¹ / ₄	1 ¹ / ₄	N/A	³ / ₄	4 ³ / ₄	¹ / ₂	3 ¹ / ₄	4	⁷ / ₁₆	8	8 ¹ / ₂	³ / ₄ -10UNC	31	BAD
6	8 ¹⁹ / ₃₂	8 ³ / ₄	6 ¹⁵ / ₁₆	6	2 ¹ / ₄	1 ¹ / ₄	³ / ₄	⁷ / ₈	5 ⁵ / ₈	¹ / ₂	5	4	⁵ / ₁₆	8	9 ¹ / ₂	³ / ₄ -10UNC	40	CAD
6*	8 ¹⁹ / ₃₂	8 ³ / ₄	6 ¹⁵ / ₁₆	6	2 ¹ / ₄	1 ¹ / ₄	N/A	⁷ / ₈	5 ⁵ / ₈	⁵ / ₈	5	4	⁵ / ₁₆	8	9 ¹ / ₂	³ / ₄ -10UNC	41	CAE
8	10 ⁵ / ₈	10 ¹ / ₈	8 ³ / ₈	6	2 ¹ / ₂	2	N/A	1 ¹ / ₈	7 ⁷ / ₁₆	¹ / ₄ x ¹ / ₄ x 1 ⁵ / ₈	5	4	⁵ / ₁₆	8	11 ³ / ₄	³ / ₄ -10UNC	63	CAF
10	12 ³ / ₄	11 ³ / ₈	9 ¹ / ₁₆	6	2 ¹³ / ₁₆	2	1 ¹ / ₈	1 ³ / ₈	9 ⁷ / ₁₆	¹ / ₄ x ¹ / ₄ x 1 ⁵ / ₈	5	4	⁵ / ₁₆	12	14 ¹ / ₄	⁷ / ₈ -9UNC	106	CAF
10*	12 ³ / ₄	11 ³ / ₈	9 ¹ / ₁₆	6	2 ¹³ / ₁₆	3	N/A	1 ³ / ₈	9 ⁷ / ₁₆	⁵ / ₁₆ x ⁵ / ₁₆ x 2 ⁵ / ₈	5	4	⁵ / ₁₆	12	14 ¹ / ₄	⁷ / ₈ -9UNC	107	CAG
12	14 ³ / ₄	13	10 ³ / ₈	8	3 ³ / ₁₆	3	1 ³ / ₈	1 ¹ / ₂	11 ¹ / ₄	⁵ / ₁₆ x ⁵ / ₁₆ x 2 ⁵ / ₈	6 ¹ / ₂	4	¹³ / ₁₆	12	17	⁷ / ₈ -9UNC	160	DAG
14	16 ¹ / ₄	13 ¹ / ₄	11 ³ / ₈	8	3 ⁵ / ₈	3	N/A	1 ⁵ / ₈	12 ³ / ₁₆	³ / ₈ x ³ / ₈ x 2 ⁵ / ₈	6 ¹ / ₂	4	¹³ / ₁₆	12	18 ³ / ₄	1-8UN	265	DAH
16	18 ¹ / ₂	14 ¹ / ₂	12 ³ / ₈	8	4	3	1 ⁵ / ₈	1 ³ / ₄	14 ¹ / ₈	³ / ₈ x ³ / ₈ x 2 ⁵ / ₈	6 ¹ / ₂	4	¹³ / ₁₆	16	21 ³ / ₄	1-8UN	305	DAH
18	21	16	13 ³ / ₈	8	4 ¹ / ₂	4 ¹ / ₁₆	N/A	1 ⁷ / ₈	15 ¹⁵ / ₁₆	¹ / ₂ x ³ / ₈ x 4 ¹ / ₁₆	6 ¹ / ₂	4	¹³ / ₁₆	16	22 ³ / ₄	1 ¹ / ₈ -8UN	415	DAJ
20	23	17 ⁷ / ₁₆	15 ⁷ / ₁₆	8	5	4 ⁵ / ₁₆	N/A	2 ¹ / ₄	17 ³ / ₈	¹ / ₂ x ³ / ₈ x 4	6 ¹ / ₂	4	¹³ / ₁₆	20	25	1 ¹ / ₈ -8UN	500	DAK
24	27 ¹ / ₂	19 ¹¹ / ₁₆	17 ¹³ / ₁₆	8	6 ¹ / ₁₆	4 ¹ / ₄	2 ¹ / ₄	2 ¹ / ₂	21 ¹ / ₁₆	¹ / ₂ x ³ / ₈ x 4	6 ¹ / ₂	4	¹³ / ₁₆	20	29 ¹ / ₂	1 ¹ / ₄ -8UN	750	DAK
30	33 ³ / ₄	24 ¹ / ₂	21 ³ / ₁₆	9 ¹ / ₂	7 ³ / ₈	7	N/A	3	26 ⁷ / ₈	³ / ₄ x ³ / ₄ x 6	9 ³ / ₄	4	1 ¹ / ₁₆	28	36	1 ¹ / ₄ -8UN	1360	MAZ
36	40 ¹ / ₄	28 ³ / ₈	24 ¹¹ / ₁₆	9 ¹ / ₂	8 ¹ / ₂	8	N/A	3 ¹ / ₂	33 ³ / ₁₆	⁷ / ₈ x ⁷ / ₈ x 5 ¹¹ / ₁₆	9 ³ / ₄	4	1 ¹ / ₁₆	32	42 ³ / ₄	1 ¹ / ₂ -8UN	2250	MBE

Note: * E.N.P. discs require larger upper shaft connection diameters on NPS 6 and NPS 10 valve sizes for UHMWPE seat, metal seat and fire-safe seat trims.

N/A = Not available

KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

SERIES 372, ASME CLASS 300, LUG STYLE, DIMENSIONS (inches)

Size (NPS)										Top plate drilling				Tapped lug data			Wt. lbs.	Actuator code
	A	B	C	D	E	F	G	H	Q	DD or keyway	Bolt circle	No. holes	Hole dia.	No. holes	Bolt circle	Tap		
2	4 ¹ / ₈	6	4 ¹ / ₄	4	2 ³ / ₈	1 ¹ / ₄	N/A	⁵ / ₁₆	1 ⁷ / ₈	³ / ₈	3 ¹ / ₄	4	⁷ / ₁₆	8	5	³ / ₄ -10UNC	17	BAB
2 ¹ / ₂	4 ¹ / ₈	6	4 ¹ / ₄	4	1 ⁷ / ₈	1 ¹ / ₄	N/A	⁵ / ₁₆	2 ⁵ / ₁₆	³ / ₈	3 ¹ / ₄	4	⁷ / ₁₆	8	5 ⁷ / ₈	³ / ₄ -10UNC	18	BAB
3	5	6 ⁵ / ₈	4 ¹³ / ₁₆	4	1 ⁷ / ₈	1 ¹ / ₄	N/A	⁵ / ₈	2 ¹¹ / ₁₆	⁷ / ₁₆	3 ¹ / ₄	4	⁷ / ₁₆	8	6 ⁵ / ₈	³ / ₄ -10UNC	20	BAC
4	6 ³ / ₁₆	7 ¹ / ₂	5 ¹³ / ₁₆	4	2 ¹ / ₈	1 ¹ / ₄	N/A	³ / ₄	3 ¹¹ / ₁₆	¹ / ₂	3 ¹ / ₄	4	⁷ / ₁₆	8	7 ⁷ / ₈	³ / ₄ -10UNC	26	BAD
5	7 ¹ / ₄	7 ⁷ / ₁₆	5 ¹³ / ₁₆	4	2 ³ / ₁₆	1 ¹ / ₄	N/A	³ / ₄	4 ³ / ₄	¹ / ₂	3 ¹ / ₄	4	⁷ / ₁₆	8	9 ¹ / ₄	³ / ₄ -10UNC	31	BAD
6	8 ¹³ / ₃₂	8 ³ / ₄	6 ¹⁵ / ₁₆	6	2 ⁵ / ₁₆	1 ¹ / ₄	N/A	⁷ / ₈	5 ⁵ / ₈	⁵ / ₈	5	4	⁹ / ₁₆	12	10 ⁵ / ₈	³ / ₄ -10UNC	55	CAE
8	10 ⁵ / ₈	10 ¹ / ₈	8 ³ / ₈	6	2 ⁷ / ₈	2	N/A	1 ¹ / ₈	7 ¹ / ₁₆	¹ / ₄ x ¹ / ₄ x 1 ⁵ / ₈	5	4	⁹ / ₁₆	12	13	⁷ / ₈ -9UNC	80	CAF
10	12 ³ / ₄	11 ³ / ₈	9 ¹¹ / ₁₆	6	3 ¹ / ₄	3	N/A	1 ³ / ₈	9 ³ / ₈	⁵ / ₁₆ x ⁵ / ₁₆ x 2 ⁵ / ₈	5	4	⁹ / ₁₆	16	15 ¹ / ₄	1-8UN	137	CAG
12	14 ³ / ₄	13	10 ⁷ / ₈	8	3 ⁵ / ₈	3	1 ³ / ₈	1 ¹ / ₂	11 ¹ / ₄	⁵ / ₁₆ x ⁵ / ₁₆ x 2 ⁵ / ₈	6 ¹ / ₂	4	¹³ / ₁₆	16	17 ³ / ₄	1 ¹ / ₈ -8UN	185	DAG
14	16 ¹ / ₄	14 ³ / ₈	12 ⁵ / ₈	8	4 ⁵ / ₈	4 ¹ / ₄	N/A	1 ⁷ / ₈	12	¹ / ₂ x ³ / ₈ x 4 ¹ / ₈	6 ¹ / ₂	4	¹³ / ₁₆	20	20 ¹ / ₄	1 ¹ / ₈ -8UN	340	DAJ
16	18 ¹ / ₂	16 ¹ / ₁₆	13 ³ / ₄	8	5 ¹ / ₄	4 ¹ / ₈	N/A	2 ¹ / ₄	13 ⁵ / ₈	¹ / ₂ x ³ / ₈ x 4	6 ¹ / ₂	4	¹³ / ₁₆	20	22 ¹ / ₂	1 ¹ / ₄ -8UN	432	DAK
18	21	17	15 ¹ / ₈	8	5 ⁷ / ₈	4 ⁷ / ₃₂	N/A	2 ¹ / ₂	15 ⁷ / ₁₆	⁵ / ₈ x ⁵ / ₈ x 4	6 ¹ / ₂	4	¹³ / ₁₆	24	24 ³ / ₄	1 ¹ / ₄ -8UN	550	DBA
20	23	20 ³ / ₁₆	16 ³ / ₄	7 ¹ / ₂	6 ¹ / ₄	6 ¹ / ₂	N/A	2 ³ / ₄	17 ¹ / ₄	⁵ / ₈ x ⁵ / ₈ x 6 ³ / ₈	8	4	¹³ / ₁₆	24	27	1 ¹ / ₄ -8UN	850	LAX
24	27 ¹ / ₄	23 ³ / ₈	19 ¹³ / ₁₆	9 ¹ / ₂	7 ¹ / ₈	6 ¹³ / ₁₆	N/A	3 ¹ / ₂	20 ³ / ₄	⁷ / ₈ x ⁷ / ₈ x 5 ¹¹ / ₁₆	9 ³ / ₄	4	1 ¹ / ₈	24	32	1 ¹ / ₂ -8UN	1278	MAY
30	33 ³ / ₄	26 ⁵ / ₈	24 ⁷ / ₁₆	10	9 ¹ / ₂	7 ⁷ / ₈	N/A	4 ¹ / ₂	26	1 x 1 x 6 ¹ / ₂	10	4	1 ¹ / ₈	28	39 ¹ / ₄	1 ³ / ₄ -8UN	2450	NAW
36	40 ¹ / ₄	30 ⁷ / ₈	28 ⁷ / ₁₆	12 ¹ / ₄	10 ³ / ₄	8	N/A	5	32 ⁷ / ₁₆	1 ¹ / ₄ x 1 ¹ / ₄ x 7	12	4	1 ¹ / ₈	32	46	2-8UN	2850	EBD

KEYSTONE SERIES 360/362 AND 370/372 K-LOK®

HIGH PERFORMANCE BUTTERFLY VALVES CLASS 150 AND 300

COMMON AVAILABLE TRIMS

Series number	Valve type	To order a K-LOK®, specify the valve size, the valve figure number (listed above) and the specific application trim code. The most common codes, together with the materials of construction, are listed below. (Example: NPS 10 F360-104)
360	ASME Class 150, Wafer	
362	ASME Class 150, Full-lug	
370	ASME Class 300, Wafer	
372	ASME Class 300, Full-lug	

GENERAL PURPOSE TRIMS (UP TO 250°F)

Trim code	SAP code	Body	Disc	Shaft	Seat/backing ring	Packing	Bearing	Body gasket
106	CES6TSG	Steel	316 SS/ENP	17-4PH SS	UHMWPE/SS	PTFE	SS-nitrided	Graphite
107	SES6TSG	316 SS	316 SS/ENP	17-4PH SS	UHMWPE/SS	PTFE	SS-nitrided	Graphite

GENERAL PURPOSE TRIMS (UP TO 500°F)

Trim code	SAP code	Body	Disc	Shaft	Seat/backing ring	Packing	Bearing	Body gasket
123	CES1TSG	Steel	316 SS/ENP	17-4PH SS	RTFE/SS	PTFE	SS-nitrided	Graphite
124	SES1TSG	316 SS	316 SS/ENP	17-4PH SS	RTFE/SS	PTFE	SS-nitrided	Graphite
158	CSS1TSG	Steel	316 SS	17-4PH SS	RTFE/SS	PTFE	SS-nitrided	Graphite
159	SSS1TSG	316 SS	316 SS	17-4PH SS	RTFE/SS	PTFE	SS-nitrided	Graphite

METAL SEATED - HIGH TEMPERATURE TRIMS

Trim code	SAP code	Body	Disc	Shaft	Seat/backing ring	Packing	Bearing	Body gasket
113	CES14GSG	Steel	316 SS/ENP	17-4PH SS	316 SS chrome plated	Graphite	SS-nitrided	Graphite
114	SES14GSG	316 SS	316 SS/ENP	17-4PH SS	316 SS chrome plated	Graphite	SS-nitrided	Graphite

CORROSION RESISTANT TRIMS

Trim code	SAP code	Body	Disc	Shaft	Seat/backing ring	Packing	Bearing	Body gasket
133	SSP1TSG	316 SS	316 SS	316 SS Cond. B	RTFE/SS	PTFE	SS-nitrided	Graphite
134	SSN1TSG	316 SS	316 SS	NITRONIC 50®	RTFE/SS	PTFE	SS-nitrided	Graphite

FIRE-SAFE TRIMS

Trim code	SAP code	Body	Disc	Shaft	Seat/backing ring	Packing	Bearing	Body gasket
115	CES10GFG	Steel	316 SS/ENP	17-4PH SS and RTFE	316 SS chrome plated	Graphite	SS-nitrided/ RTFE-epoxy	Graphite
116	SES10GFG	316 SS	316 SS/ENP	17-4PH SS and RTFE	316 SS chrome plated	Graphite	SS-nitrided/ RTFE-epoxy	Graphite

NOTE

Other trims are available; please contact your sales representative.



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