

Building connections that last™



ABZ 201/202

Resilient Seated Butterfly Valves Datasheet



Resilient Seated Butterfly Valves ABZ 201/202



Fig. 201
Wafer style body

Fig. 202
Full lug style body



Features and Benefits

1. Bodies are machined to high tolerance. Guaranteed standard dimensions for interchangeability of parts and operators.
2. Top and bottom bushings protect the stem from side thrust of operator. They are made of impact and corrosion resistant materials.
3. Special double V-shape of stem seal self-adjusts to protect the stem area for either vacuum or pressure use.
4. Pin ensures positive engagement of upper stem to disc.
5. The special snap-in Resil-O-Seat™ design fixes seat in place without bonding. The Resil-O-Seat is 100% field replaceable – no special tools required.
6. Stem and body are isolated from line media by the interference fit of the primary seal created between the disc and seat.
7. Valve has an upper and lower stem with an internal drive with tremendous strength. This design gives you a thin profile disc for superior flow characteristics with no external connectors.
8. Disc edge is individually processed through machining and hand buffing for a smooth edge, providing a bubble tight shutoff and maximum seat life.
9. Resil-O-Seat forms a seal against all standard ANSI 125/150 flanges. Gasketing requirements are eliminated.

Standard Construction Specification

Body

Cast Iron

Disc/Stem

316 Stainless Steel, Ductile Iron,
Epoxy Coated Ductile Iron

Stem

17-4 Stainless Steel

Resilient Seat

EPDM, Buna-N, Viton, Teflon®. Seats with
EPDM backing material, Natural Rubber,
White Neoprene

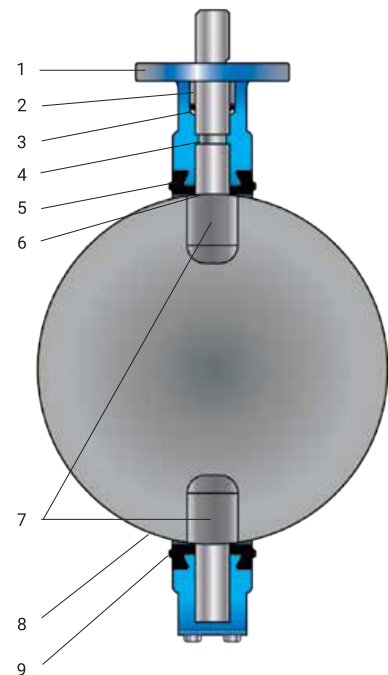
Stem Bushing

Teflon – Graphite Impregnated

Stem Packing

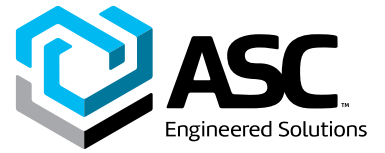
Buna-N

Additional materials are available
for a wide selection of applications.



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Torque Chart – Fig. 201/202

Valve Size	Normal Conditions				Severe Conditions			
	$\Delta P=0$	$\Delta P=50$	$\Delta P=100$	$\Delta P=150$	$\Delta P=0$	$\Delta P=50$	$\Delta P=100$	$\Delta P=150$
14"	5,160	6,120	7,080	8,040	7,740	8,700	9,660	10,620
16"	7,680	8,040	9,480	10,920	9,900	11,340	12,780	14,220
18"	8,280	10,440	12,600	14,760	12,432	14,580	16,020	18,900
20"	10,200	13,200	16,200	19,200	14,604	19,500	21,300	24,300

Undercut disc available.
All torques shown in inch lbs.
20% Safety factor already included.

Rated Flow Coefficient (Cv) – Fig. 201/202

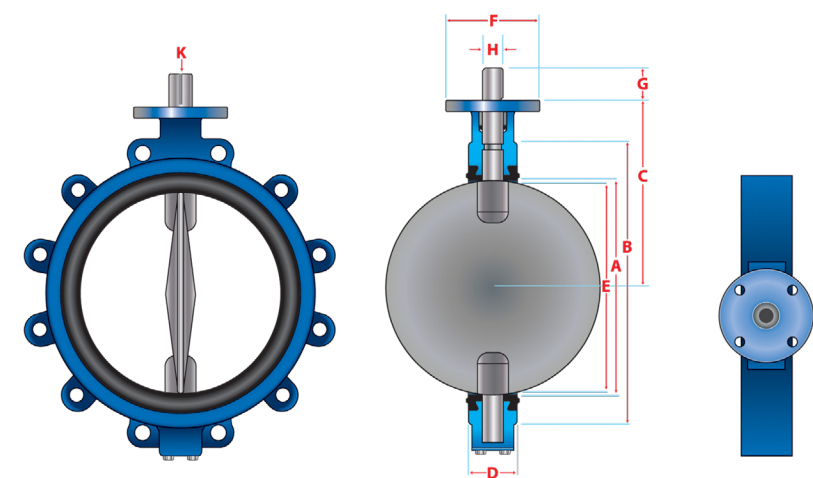
Valve Size	Angle of Disc Opening								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	1.67	7.7	17	29	48	74	115	145	195
14"	61.30	326.0	765	1,380	2,216	3,497	5,999	10,397	15,105
16"	81.70	426.0	1,000	1,792	2,858	4,629	7,934	13,728	19,950
18"	106.00	549.0	1,294	2,290	3,668	5,952	10,243	17,874	25,970
20"	124.00	684.0	1,598	2,876	4,648	7,396	12,787	22,343	32,465

Sized for stainless disc, does not cover encapsulated disc trims.

Cv is defined as the volume of water in U.S.G.P.M. that will flow through a given restriction or valve opening with a pressure drop of one (1) p.s.i. at room temperature. Recommended control angles are between 20°–75° open.

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- Notes**
1. The figures 201 and 202 cannot be used on pipe or flange with an inside diameter less than the "E" dimension.
 2. Valves are rated up to 150 PSI bi-directional service and 75 PSI end of line rating. Undercut disc is rated up to 50 PSI bi-directional service and 25 PSI end of line rating. Teflon seats are not recommended with an undercut disc.
 3. Designed in accordance with sections of API 609 Category A, ASME 16.1/16.5, ASME 16.34 and MSS SP67. Design tested in accordance with API 598.
 4. Compatible with ANSI Class 125/150 flange standards.

Dimensional Chart – Fig. 201/202

Valve Size	Dimensions										Top Plate Drilling			Fig. 919 Tapped Lug Data			Weight (Pounds)	
	A	B	C	D	E	F	G	H	K	T.O.L.	Bolt Circle	No. Holes	Hole Dia.	Bolt Circle	No. Holes	Tap	201	202
14"	13¼	17⅞	12	3	13⅞	6	2¼	1⅜	5/16 X 5/16	25.25	5	4	9/16	18¾	12	1-8 UNC	2	2
16"	15¼	20⅞	16	4	15	6	2¼	1⅝	3/8 X 3/8	27.50	5	4	9/16	21¼	16	1-8 UNC	2	2
18"	17¼	21½	16	4¼	16⅞	6	3	1⅞	1/2 X 1/2	30.88	6½	4	13/16	22¾	16	1⅞-7 UNC	2	2
20"	19¼	23¾	16	5	18¾	6	3	2⅞	1/2 X 1/2	33.50	6½	4	13/16	25	20	1⅞-7 UNC	2	2

All standard seats are Food Grade with the exception of Viton.

About ASC Engineered Solutions

ASC Engineered Solutions is defined by quality—in its products, services and support. With more than 1,400 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF® and SprinkFLEX®. With headquarters in Commerce, CA, and Exeter, NH, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.



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