BARONSHIRE BUTTERFLY VALVES; BALL VALVES; KNIFE GATE VALVES; HIGH PERFORMANCE BUTTERFLY VALVES; VALVE REPAIRS

HIGH PERFORMANCE BUTTERFLY VALVES; VALVE REPAIRS

Baronshire B16-1S Powder Handling Wafer Type Butterfly Valves

Description

Wafer pattern, split body, rubber seated butterfly valve.



Manufacturing Standards

Pressure Rating: I bar - Full Vacuum Temperature Range: -40°C to +121°C Size Rating: DN50 to DN300

BI6-IS Tablet Valves 150mm - 200mm

A variation of the BI6-IS is available as a 'Tablet Valve' where the disc/stem is modified to incorporate a white silicon coating, which offers maximum protection of tablets and capsules during the production process.

Features

- Bubble-tight shut off, guaranteed on I bar pressure and full vacuum
- One piece slim profile disc stem
- Clean in place
- Low torque
- High flow rates
- Minimum component parts
- ISO top plate for operator interchangeability from manual to automated
- Unique body design allows the valves to be used as a wafer pattern valve, but also allows butt weld or tri-clamp end to be bolted directly to the valve body



Valtaco

Valtaco provides high quality three-piece ball valves from 8mm to 150mm in a variety of end connections, BSP; NPT; SW; BW.

With a full range of seats and seal options, Valtaco valves are used on steam, gas and liquid applications capable of pressures up to 3400psi and temperatures up to 600F. The encapsulated body seals and dynamically loading packing system ensures Valtaco valves will operate maintenance free for extended life cycles. The valves are available with iso mounting pad and non-iso mounting pads to facilitate actuator mounting. The iso mounting pad and unique stainless steel cast actuator mounting kit eliminates the possibility of side loading on the stem which will reduce the parking life. These features contribute to make Valtaco the ideal choice for automated applications.

Knife Gate Valves

Developed specifically to meet the severe service applications experienced within the slurry and solids handling industries. Design features include bi-directional sealing, encapsulated body seals protected from the flow, profiled blades, heavy duty transverse seals and fully guided blade travel to ensure reliable opening and closing. The transverse seal provides complete isolation between the process media and the atmosphere and can be repacked inline under pressure.

Available in sizes 50mm to 400mm hand wheel, gear or cylinder operated.

Complete valve repair service is available either on site or in our workshop.

HGI – HPBV

The HGI High Performance Butterfly Valve is available in carbon and stainless steel from 50mm to 600mm and with lever, gearbox, and pneumatic or electric actuation and is capable of withstanding temperatures up to 450 degrees 'C' depending on materials.

Standard seats are PTFE Glass with metal seats as an option for high temperature applications.

A Fire safe version is available on request.

Actuators

Techtorg Pneumatic Actuators are available in double acting and spring return versions for automation of 90 quarter turn valves. The design permits the springs to be encased within the pistons giving identical dimensions for either variant. The actuator housing is anodised aluminium with the option of a cadmium-plated finish.

A Full range of switchboxes, solenoid valves and positioners is available for direct mounting to the actuator.

Poniem UK Ltd Unit 12 Whistleberry Park Industrial Estate Hamilton ML3 0ED t: 01698 828838 f: 01698 713623 e: sales@poniem.co.uk ω: www.poniem.co.uk Registered in Scotland No. 258680 VAT Registration No: 828 6600 14



Baronshire Series "SLS" Butterfly Valves

Wafer & Lug 2" - 12" (50mm - 300mm)





FEATURES AND BENEFITS

TECHNICAL DATA

patented seat design

Baronshire's advanced Seat Lock System (SLS) is superior to conventional designs by mechanically securing the valve seat to the interior of the valve body, forming a metal reinforcement where the disc and seat make contact. This protects the seat from becoming vulnerable to the adverse performance impact of movement, distortion, and tearing often experienced by conventional designs. By securing the valve seat at all critical areas, the Baronshire design minimizes wear, requires 30-50% less torque, and is bi-directionally rated for dead end service from full vacuum up to 250 psi. In addition, the seat is manufactured using the injection molding process for greater consistency and quality. The patented Baronshire seat provides state of the art technology with superior performance and exceptional value.

disc/stem assembly

The 316 stainless steel one-piece disc/stem with a mirror finish exceeds the most stringent requirements of the food, beverage and pharmaceutical industries. Stainless steel valves are furnished with the entire disc/stem hand polished to this mirror finish as standard. Ductile iron valves are available with mirror finish, but are furnished with smooth disc/stems having the disc edges and hubs polished as standard. The disc/stem can also be manufactured in corrosion resistant alloys such as Titanium and Hastelloy. The slim profile of the assembly provides minimum obstruction to flow and higher Cv's than most through-stem designs.

vertically split body

Baronshire's unique two-piece, vertically split body design allows for ease of assembly and maintenance in the field. The product is available in wafer or lug style and compatible with most international flange standards including ANSI, BS and DIN. Flange alignment guides provide for quick and proper installation. The vertically split body also can be studded to allow any type of screwed, clamped, or flanged ends to be directly bolted to the valve body. Baronshire utilizes ductile iron or 316 stainless steel as standard body material. Ductile iron provides additional strength and malleability over conventional cast iron bodies, while 316 stainless steel is an excellent choice for hygienic or corrosive applications.



three radial bearings

Conventional designs normally use only one radial bearing located near the top adapter flange and far away from the critical areas of deflection. These designs rely on the rubber seat to hold the disc in place, resulting in significant disc deflection during valve travel and when closed under pressure. Baronshire's use of three radial bearings helps eliminate disc/stem deflection under pressure. Positioned below the seat, above the seat, and below the actuator mounting plate, these bearings are located in the most critical areas to reduce deflection and side loads by holding the disc/stem stable in the body under pressure. Eliminating disc/stem deflection contributes to lower valve torque and longer seat life.

ISO top adapter

Drilled to ISO 5211 to allow for the direct mounting of power actuators and gears, Baronshire's extended neck is designed to provide flexibility in extension lengths, mounting, and optional drilling patterns.

installation in the closed position

The Baronshire Seat Lock System (SLS) permits the valve to be installed with the disc in the fully closed position, saving time and eliminating many of the typical installation problems and concerns. Valves equipped with spring return/fail closed actuators can now be safely installed in the piping system without damaging the seat or increasing the operating torque.

MATERIALS OF CONSTRUCTION

Body	Ductile Iron	316 Stainles
Disc/Stem	Edge Polished 316SS	Mirror Polis
Seat	Buna N Food Grade EPDM Food Grade PTFE Lined EPDM White Silicon Food Grade	Buna N Food EPDM Food PTFE Lined White Silico
Top Adapter	Ductile Iron	316 Stainles

BARONSHIRE 'SLS" DIMENSIONAL TABLE

A = Body O.D.	F = Face - Face
B = Centerline of valve to top of mounting flange	G = Stem dimer
C = Valve Bore	H = Stem dime
D = O.D. of centering ring	J = Height of st
E = O D. of mounting flange	

IMPERIAL DIMENSIONS

Valve	Size									Mounting Flange Drilling				Tapped Lug Data			
in.	mm	A	B	C	D	E	F	G	H	J	ISO	BC	Holes	HoleDia	BC	Holes	UNC Threads
2	50	4.13	4.53	2.00	1.38	2.56	1.65	0.43	0.31	0.83	F05	1.97	4	0.28	4.75	4	5/8*11
2 ^{1/2}	65	4.72	5.16	2.50	1.38	2.56	1.81	0.55	0.39	0.83	F05	1.97	4	0.28	5.50	4	5/8*11
3	80	5.35	5.43	3.00	1.38	2.56	1.81	0.55	0.39	0.83	F05	1.97	4	0.28	6.00	4	5/8*11
4	100	6.30	5.94	4.00	1.38	2.56	2.05	0.55	0.39	0.83	F05	1.97	4	0.28	7.50	8	5/8*11
5	125	7.13	6.69	4.92	2.17	3.54	2.20	0.67	0.55	0.87	F07	2.76	4	0.35	8.50	8	3/4*10
6	150	8.66	7.17	5.80	2.17	3.54	2.20	0.67	0.55	0.87	F07	2.76	4	0.35	9.50	8	3/4*10
8	200	10.67	8.35	7.80	2.17	3.54	2.36	0.83	0.63	0.91	F07	2.76	4	0.35	11.75	8	3/4*10
10	250	12.91	9.84	9.80	2.17	3.54	2.68	1.06	0.87	2.01	F07	2.76	4	0.35	14.25	12	7/8*9
12	300	14.80	12.36	11.75	3.35	5.91	3.07	1.06	0.87	2.01	F12	4.92	4	0.53	17.00	12	7/8*9

METRIC DIMENSIONS

Valve	alve Size						Mounting Flange Drilling				Tapped Lug Data					
in.	mm	A	B	C	D	E	F	G	H	J	ISO	BC	Holes	HoleDia	BC Holes	Threads
2	50	105	115	51	35	65	42	11	8	21	F05	50	4	7		
2 ^{1/2}	65	120	131	63	35	65	46	14	10	21	F05	50	4	7	À	
3	80	136	138	76	35	65	46	14	10	21	F05	50	4	7		0
4	100	160	151	100	35	65	52	14	10	21	F05	50	4	7		Č,
5	125	181	170	125	55	90	56	17	14	22	F07	70	4	9	4	¢
6	150	220	182	147	55	90	56	17	14	22	F07	70	4	9	- S	
8	200	271	212	200	55	90	60	21	16	23	F07	70	4	9	No.	
10	250	328	250	250	55	90	68	27	22	51	F07	70	4	9	O O	
12	300	376	314	299	85	150	78	27	22	51	F12	125	4	13.5		

TECHNICAL DATA

TORQUE (Lb.-inches)

Val Siz	ve ze	F Diffe	Reduced Disc Diameter				
in.	mm	50	100	150	200	250	50
2	50	77	85	97	100	105	77
$2^{1/2}$	65	85	95	108	131	140	85
3	80	115	132	143	160	178	105
4	100	155	185	226	250	282	140
5	125	237	290	361	407	468	217
6	150	320	385	436	505	685	280
8	200	712	938	1050	*	*	563
10	250	1344	1692	1991	*	*	938
12	300	2032	2558	3011	*	*	1125

WEIGHT													
in.	in. mm Wafer Lug												
2	50	5.5	6.5										
2 ^{1/2}	65	7.5	9.5										
3	80	8.5	10										
4	100	11	16										
5	125	15	21										
6	150	19	25										
8	200	31	44										
10	250	45	66										
12	300	67	91										

WEIGHT

Kilograms

in. mm Wafer Lug

12 300 30.5 41.4

2.5 2.9

3.4 4.3

3.9 4.5

5.0 7.3

6.8 9.6

8.6 11.4

14.1 20.0

20.5 30.0

2 50

2^{1/2} 65

80

100

125

200

6 150

10 250

3

4

5

8

TORQUE (Nm)

Val Siz	ve ze	Diff	Full Raterential	Reduced Disc Diameter			
in.	mm	3.5	7	10	14	17	3.5
2	50	9	10	11	11	12	9
2 ^{1/2}	65	10	11	12	15	16	10
3	80	13	15	16	18	20	13
4	100	17	21	26	28	32	16
5	125	27	33	41	46	53	26
6	150	36	44	49	57	78	32
8	200	80	106	119	*	*	64
10	250	152	191	225	*	*	106
12	300	229	289	340	*	*	127

* Consult factory for these applications

1. These torque values are based on normal operating conditions. Contact the factory for other types of services and their related seating - unseating torque values.

2. Contact the factory for consideration of dynamic torque.

3. Do not apply a safety factor to the above values when determining actuator selection.

FLOW COEFFICIENT (Cv)

Valve	Size	Disc Position										
in.	mm	90	80	70	60	50	40	30	20	10		
2	50	229	149	90	53	30	18	10	2.3	0.3		
2 ^{1/2}	65	359	330	140	83	51	29	15	3.0	0.4		
3	80	543	348	212	125	71	44	23	4.4	0.5		
4	100	1049	672	410	242	136	84	45	9.0	1.1		
5	125	1770	1133	691	407	230	142	76	14	1.6		
6	150	2320	1485	905	534	302	186	100	23	2.3		
8	200	4472	2862	1745	1029	582	358	193	36	4.5		
10	250	7049	4511	2750	1622	917	564	305	57	7.0		
12	300	10389	6752	4051	2389	1350	832	446	114	11		

Cv is defined as the number of U.S. Gallons of water at 60 degrees F. that will flow through the value in one minute when the differential pressure across the value is one pound per square inch. $Kv = Cv \times 0.862$

s Steel hed 316SS

d Grade Grade EPDM on Food Grade

ss Steel

Grade D

imension -diameter limension -across flats

of stem above mounting flange