

Autoball™ AB3 Valve

The Isogate® Autoball™ AB3 valve is specially designed to enable quick change-over between duty and stand-by pumps in the toughest slurry applications.

The Isogate® Autoball™ AB3 valve provides a simple automatic change-over system without the costly process control systems otherwise needed. The low density ball inside the valve is automatically transferred to block the inactive inlet once a pump has started. There is also the possibility of running both pumps at once if the system so requires.

With more than 20 years of check valve experience, Weir Minerals has devised a simple, fully serviceable 3-way check valve for the most arduous slurry duties. Integral to the design are replaceable wear components and stainless steel fasteners to improve maintenance times and reduce maintenance costs.

Design benefits

- Efficient pump change-over
- Automatic activation
- Less space required than a complicated control system
- Simplicity of operation
- No metal components exposed to slurry
- Excellent abrasion resistance
- Replaceable ball seats and rails for fast and efficient maintenance
- Stainless steel fasteners

Note: The Isogate® Autoball™ AB3 valve is not a positive isolation valve and will require positive isolation valves in the process line for maintenance to be carried out on the pumps.



Applications

- Mining
- Soda ash
- Alumina
- Phosphate
- Coal
- Sand and gravel
- Cement
- Mineral sands
- Kaolin

Operation principle

When the active pump starts, the ball is forced across to the inactive inlet as pressure builds (figures 1 and 2). Adequate static head is required above the valve to ensure the ball is firmly seated. If both pumps are operated, the ball will remain between the two lines of flow (figure 3).

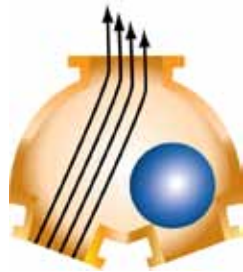


Figure 1

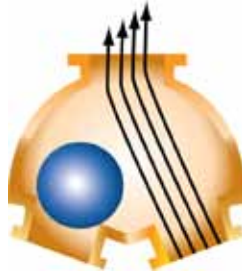


Figure 2



Figure 3

Isogate® Autoball™ AB3 valve dimensions

Sizes		A		B		C		D		E	
inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
3	80	17.0	432	8.3	210	13.5	344	2.6	65	8.4	213
4	100	19.7	500	10.2	260	14.1	358	3.5	90	9.4	240
6	150	25.0	635	13.4	340	16.8	426	5.6	142	11.8	300
8	200	32.4	822	16.7	425	20.0	508	7.5	191	13.7	349
10	250	35.6	904	19.4	492	23.0	584	9.5	242	16.3	415
12	300	41.8	1062	22.8	580	27.1	689	11.5	305	29.2	487
14	350	44.0	1118	23.7	603	28.3	720	13.5	344	21.5	546
16	400	49.6	1260	27.6	702	33.0	839	15.5	394	23.7	603
18	450	70.0	1778	33.0	838	40.7	1034	18.0	457	31.3	794
20	500	66.0	1676	31.4	797	40.5	1029	20.0	508	30.0	762
24	600	71.1	1807	38.7	984	42.5	1080	24.0	610	34.0	864

Size range

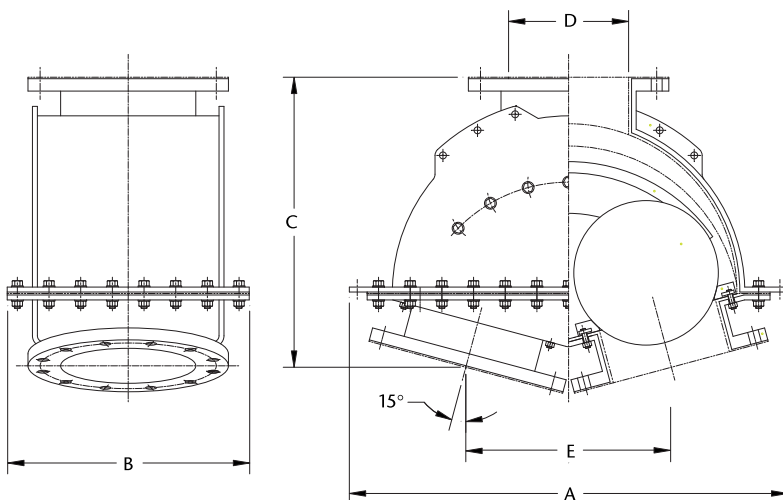
- 3" to 24"

Materials of construction

- Body: Mild Steel
- Lining: Natural Rubber, Neoprene, Bromobutyl
- Flanges: ANSI B16 Class 150

Pressure rating

- 3" - 6" 150 psi
- 8" - 14" 100 psi
- 16" - 24" 75 psi



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