



**Waukesha
Cherry-Burrell**

WAUKESHA

SENTINEL® IV

VALVE

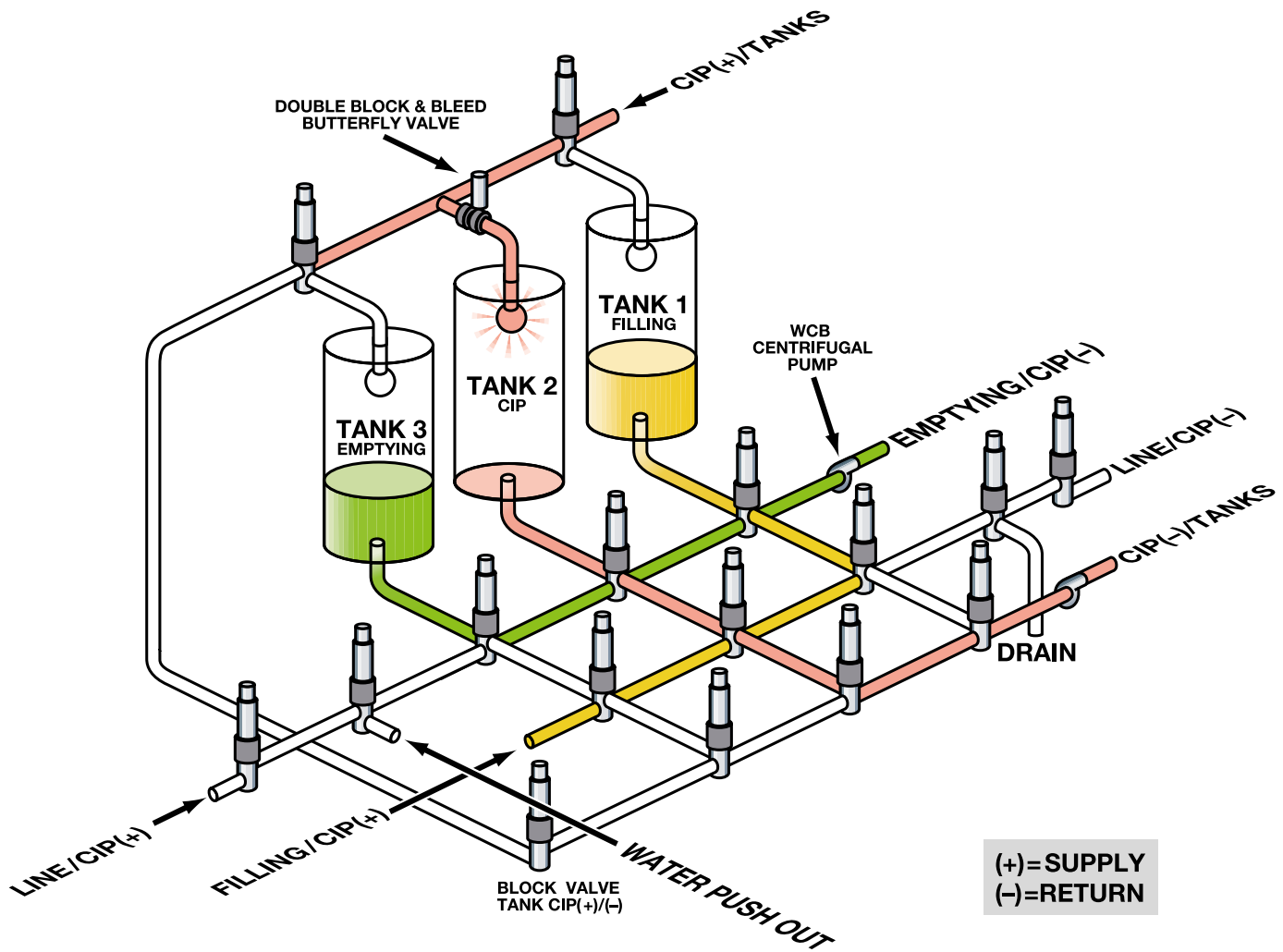
SERIES



DOUBLE BLOCK & VENT VALVES

Sentinel[®] IV Protects Product Purity

Independent seat lifting for secure CIP cleaning



In this illustration, cleaning circuits for both upper and lower lines plus two different product flows are controlled through one Sentinel IV matrix.

Sentinel® Double Block and Vent valves by Waukesha Cherry-Burrell are employed around the world to protect product purity and prevent intermixing of flows in brewing, soft drink, dairy, food and other fluid operations.

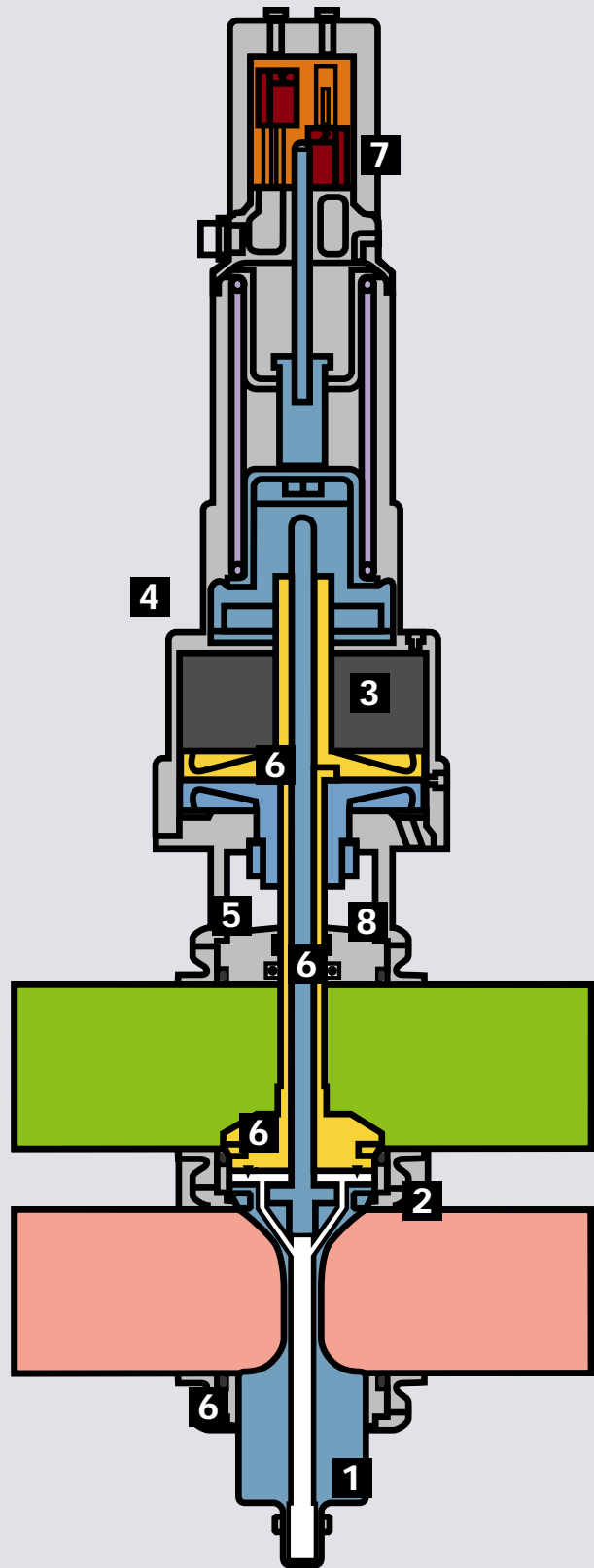
Sentinels permit dissimilar liquids — including CIP solution — to pass through the same valve body — safely. They're ideal for incorporation in automatic valve manifolds and for tank outlet valve applications.

During CIP operations, the new Sentinel® IV enables upper and lower valve plugs to be lifted independently so solution can more fully access seat surfaces and the vent area.

Sentinel IV protects the upper line from the risk of contamination while the lower plug is being stroked for seat cleaning.

The new Sentinel IV has fewer parts and straight-forward design. For example, a piston on the lower valve plug hydraulically balances sudden pressure surges, thus preventing uncontrolled lifting of the lower plug. Both the upper and lower plug lift distance is externally adjustable with no disassembly required.

The simplicity of the Sentinel IV assembly reduces maintenance downtime. Inspection and replacement of seals or plugs can be performed in less than one hour.



Advanced Features

1 Water hammer safe: balance piston holds down the lower plug hydraulically to protect upper line during sudden pressure surges in the lower line.

2 No valve body joints; solid, one-piece spherical body; no sanitation problems associated with alignment or pockets.

3 Large diameter, air-loaded piston holds down the upper plug during seat lifting of lower seat.

4 A single maintainable actuator, equipped with three pistons, opens and closes the valve and independently lifts upper and lower plugs.

5 Plug lift distance for upper and lower seat lift adjustable externally; no disassembly required.

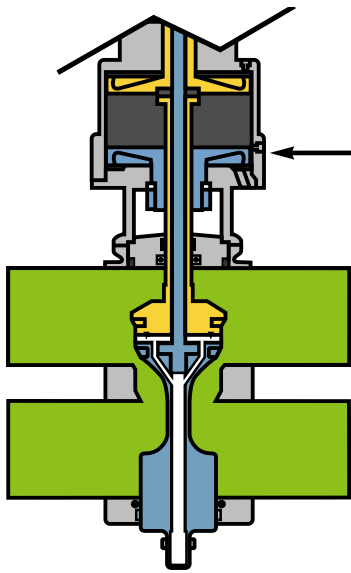
6 Moving parts guided with bearings.

7 Position indicating switches are visible through clear control module housing. Can be equipped for AS-i bus system with three solenoids, 2 proximity switches and 1 bus chip.

8 Open yoke between actuator and valve body.

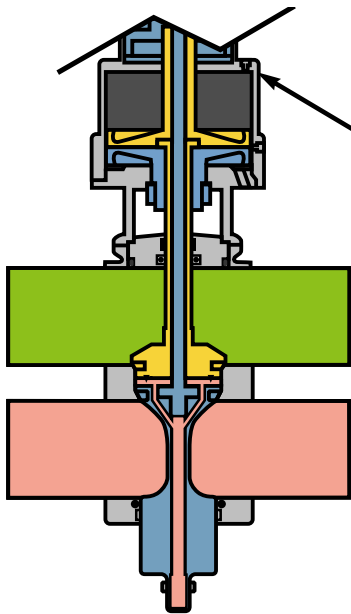
Additional Features

- Minimum air supply: 60 psig (4 bar).
- Maximum air supply: 150 psig (10 bar).
- Able to open and close against 150 psig (10 bar) product pressure with only 60 psig (4 bar) air supply.
- Fail-Safe: air or electrical power failure closes the valve automatically.
- Optional external seat flush connection.
- Optional metal-to-metal seat gaskets.
- Rugged, compact, all stainless steel construction. All wetted parts 316L stainless steel.
- Optional proximity switches available for detecting valve positions.
- Minimum downtime for maintenance; stem removes easily for plug seal replacement.
- Durable non-sticking TFM (PTFE) seal rings standard for higher temperatures and chemical resistance. Other seal materials, such as Viton and EPDM, available upon request. Available in O.D., IPS Schedule 5 or metric sizes. Available in mix/match body arrangements.
- Additional options available on request.



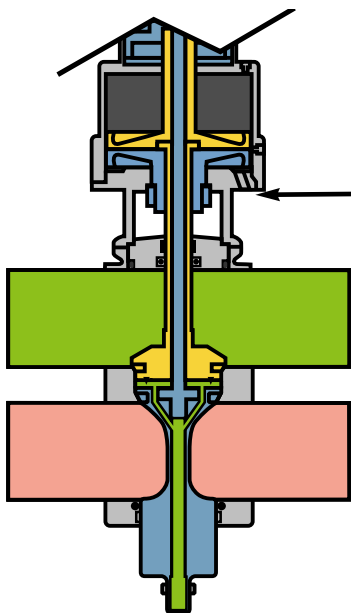
Sentinel IV valve open position

Air to open valve; large piston opens valve with 150 psig (10 bar) product pressure; in the open position, the space between the upper and lower plug is closed



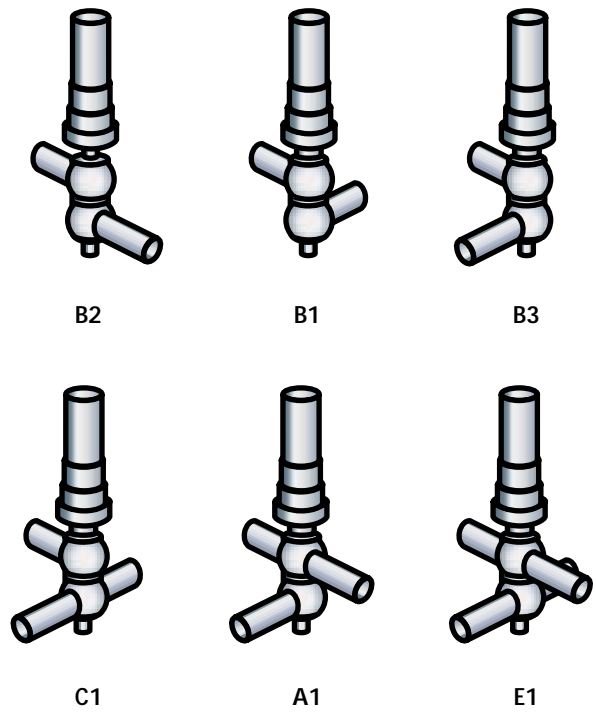
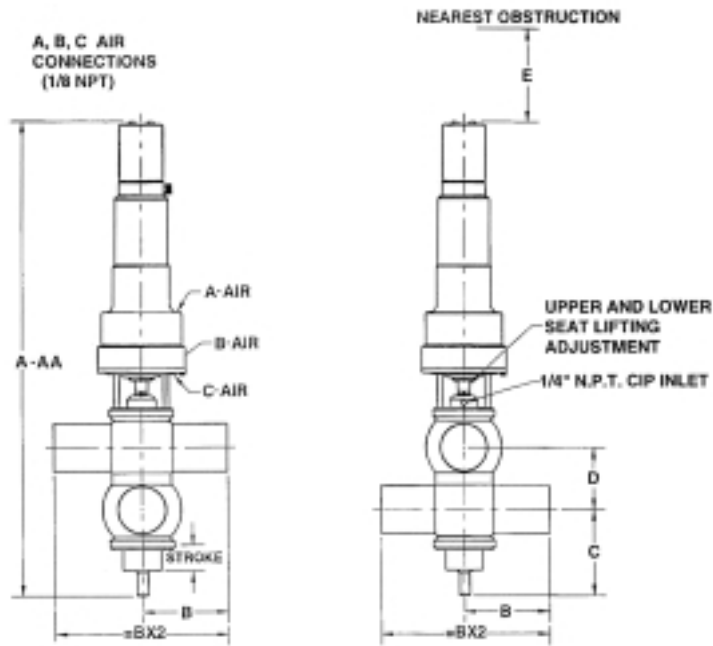
Sentinel IV valve lower plug raised for cleaning

As the lower plug is stroked for cleaning of the seat, the upper plug is held down by a large diameter air cylinder which creates a higher hold-down force on the upper plug



Sentinel IV valve upper plug raised for cleaning

Air port to raise upper plug in order to clean along upper seat



Dimensions

Dimensions (inches/mm)																																						
Body Size		IPS Schedule 5										Tube O.D.																										
Upper	Lower	AA*	A	B	C	D	E	A	B	C	D	E	Stroke	A	B	C	D	E	Stroke	A	B	C	D	E	Stroke													
2/50	2/50	29.5	750	34.9	886	6.00	152	5.13	130	3.39	86	10.65	271	32.6	828	6.00	152	4.9	124	3.02	77	9.9	251	1.3	33	32.6	828	6.00	152	4.9	124	3.02	77	9.9	251	1.3	33	
2/50	3/80	30.6	777	36.0	914	6.00	152	5.67	144	3.94	100	11.73	298	33.6	853	6.00	152	5.4	137	3.52	89	10.9	277	1.3	33	33.6	853	6.00	152	5.4	137	3.52	89	10.9	277	1.3	33	
2/50	4/100	31.6	803	37.0	940	6.00	152	6.17	157	4.44	113	12.73	323	34.6	879	6.00	152	5.9	150	4.00	102	11.9	302	1.3	33	34.6	879	6.00	152	5.9	150	4.00	102	11.9	302	1.3	33	
2/50	6/150	33.7	856	39.1	993	6.00	152	7.21	183	5.47	139	14.81	376												1.3	33												
3/80	2/50	30.6	777	36.0	914	6.00	152	5.13	130	3.94	100	11.73	298	33.6	853	6.00	152	4.9	124	3.52	89	10.9	277	1.3	33	33.6	853	6.00	152	4.9	124	3.52	89	10.9	277	1.3	33	
3/80	3/80	32.9	836	38.1	968	6.00	152	6.45	164	4.44	113	13.79	350	35.6	904	6.00	152	6.2	157	3.94	100	12.8	325	2.0	51	35.6	904	6.00	152	6.2	157	3.94	100	12.8	325	2.0	51	
3/80	4/100	33.9	861	39.1	993	6.00	152	6.95	177	4.94	125	14.79	376	33.6	853	6.00	152	6.7	170	4.44	113	13.8	351	2.0	51	33.6	853	6.00	152	6.7	170	4.44	113	13.8	351	2.0	51	
3/80	6/150	36.0	914	41.2	1046	6.00	152	7.99	203	5.98	152	16.86	428												2.0	51												
4/100	2/50	31.6	803	37.0	940	6.00	152	5.13	130	4.44	113	12.73	879	34.6	879	6.00	152	5.9	150	4.00	102	11.9	302	1.3	33	34.6	879	6.00	152	5.9	150	4.00	102	11.9	302	1.3	33	
4/100	3/80	33.9	861	39.1	993	6.00	152	6.45	164	4.94	125	14.79	376	36.6	930	6.00	152	6.2	157	4.44	113	13.8	351	2.0	51	36.6	930	6.00	152	6.2	157	4.44	113	13.8	351	2.0	51	
4/100	4/100	38.1	968	43.6	1107	6.00	152	7.97	202	5.81	148	17.00	432	41.0	1041	6.00	152	7.0	178	5.31	135	15.3	389	2.3	59	41.0	1041	6.00	152	7.0	178	5.31	135	15.3	389	2.3	59	
4/100	6/150	40.6	1031	46.1	1171	6.00	152	7.97	202	6.85	174	19.07	484												2.3	59												
6/150	2/50	33.7	856	39.1	993	6.00	152	5.13	130	5.47	139	14.81	376												1.3	33												
6/150	3/80	36.0	914	41.2	1046	6.00	152	6.45	164	5.98	152	16.86	428												2.0	51												
6/150	4/100	40.6	1031	46.1	1171	6.00	152	9.01	229	6.85	174	19.07	484												2.3	59												
6/150	6/150	48.8	1240	56.2	1427	6.00	152	10.59	269	7.91	201	22.81	579												3.9	99												

*Dimension without seat lifting

Waukesha Cherry-Burrell
 611 Sugar Creek Road
 Delavan, WI 53115 USA
 Tel: 1-800-252-5200 or 262-728-1900
 Fax: 1-800-252-5012 or 262-728-4904
 E-mail: custserv@gowcb.com
 Web site: www.gowcb.com

WAUKESHA CHERRY-BURRELL WARRANTY

Seller warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. This warranty shall not apply to products which require repair or replacement due to normal wear and tear or to products which are subjected to accident, misuse or improper maintenance. This warranty extends only to the original Buyer. Products manufactured by others but furnished by Seller are exempted from this warranty and are limited to the original manufacturer's warranty.



FH-1857
 TA-3M-800JA
 Printed in U.S.A.
 Effective 8/00