



**Waukesha
Cherry-Burrell**

Expert Process Systems

Phone: 570.424.0581 Fax 570.424.0582
New Jersey: 732.396.1991 Fax: 732.396.4911

WAUKESHA

CHERRY

VALVE



70 SERIES MIX PROOF VALVES

Mix Proof Valves

– with or without seat lifting –

Protect Product Purity

New Waukesha Cherry Mix Proof Valves are designed to protect product purity and prevent intermixing of flows in brewing, soft drink, dairy, food and other fluid operations.

Mix Proof Valves 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.

Waukesha Cherry Mix Proof Valves have 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.

For system installation flexibility the Mix Proof Valves are available in one-piece or two-piece body designs.

The simplicity of the Mix Proof Valve assembly reduces maintenance downtime. Inspection and replacement of seals or plugs can be performed in minutes.

Features

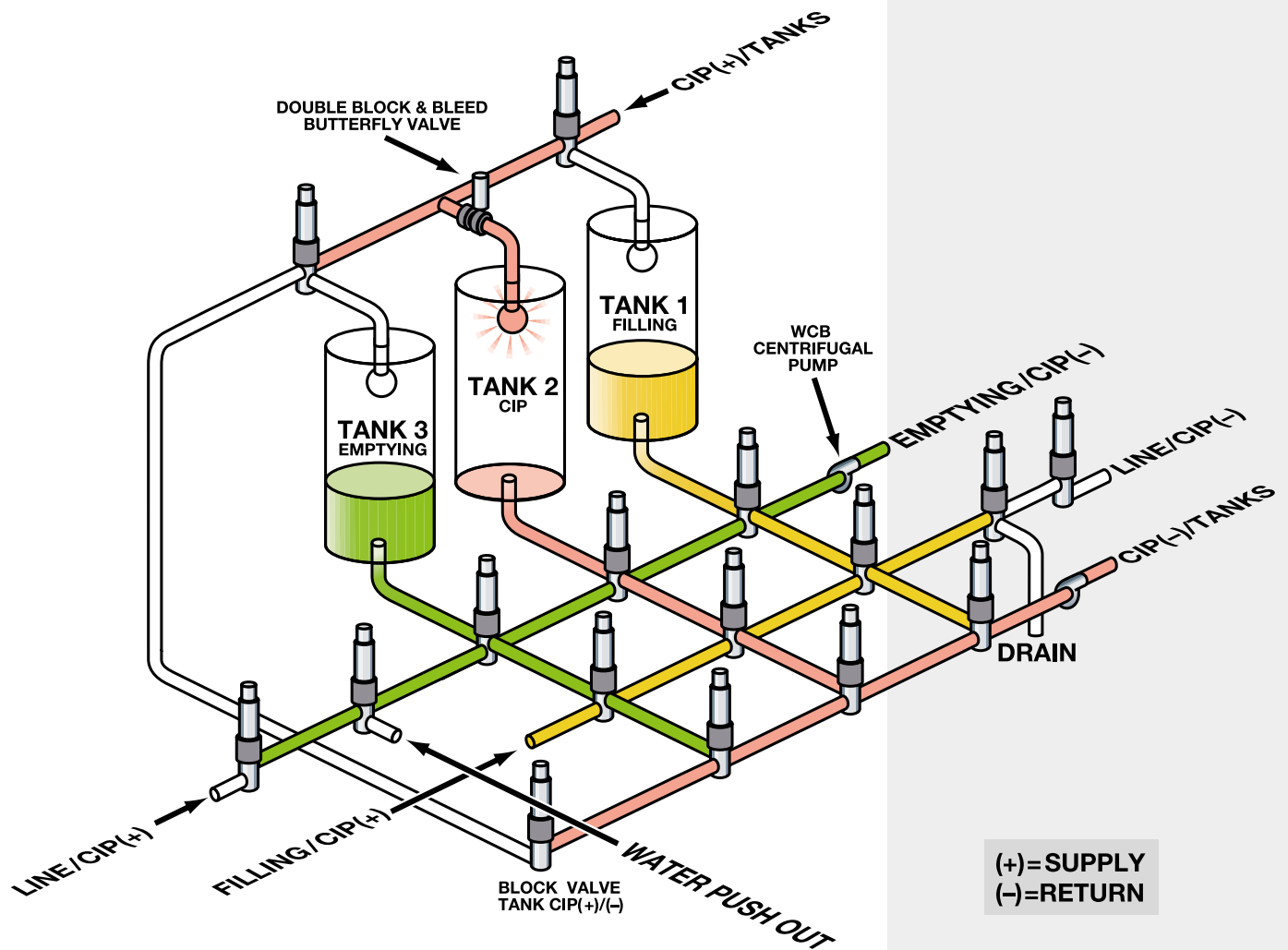
- Seat lifting or non-seat lifting available.
- Minimum air supply: 72 psi (5 bar).
- Maximum product pressure: 150 psi (10 bar).
- Fail-Safe: air or electrical power failure closes the valve automatically.
- External CIP connection.
- Rugged, compact, all stainless steel construction. All wetted parts 316L stainless steel.
- Open yoke, "3A" design
- Stainless steel caged spring.
- Minimum downtime for maintenance; stem removes easily for plug seal replacement.
- Durable Tri-Ring seat materials of Viton® and EPDM are standard.
- 4-inch actuator for 1½ and 2- inch valves; 6-inch actuator for 2½, 3 and 4-inch valves. Both actuators are easily maintainable.
- AS-i Field Bus control tops
- Mixed body sizes in all combinations 1½ to 4-inch.
- Additional options available on request.



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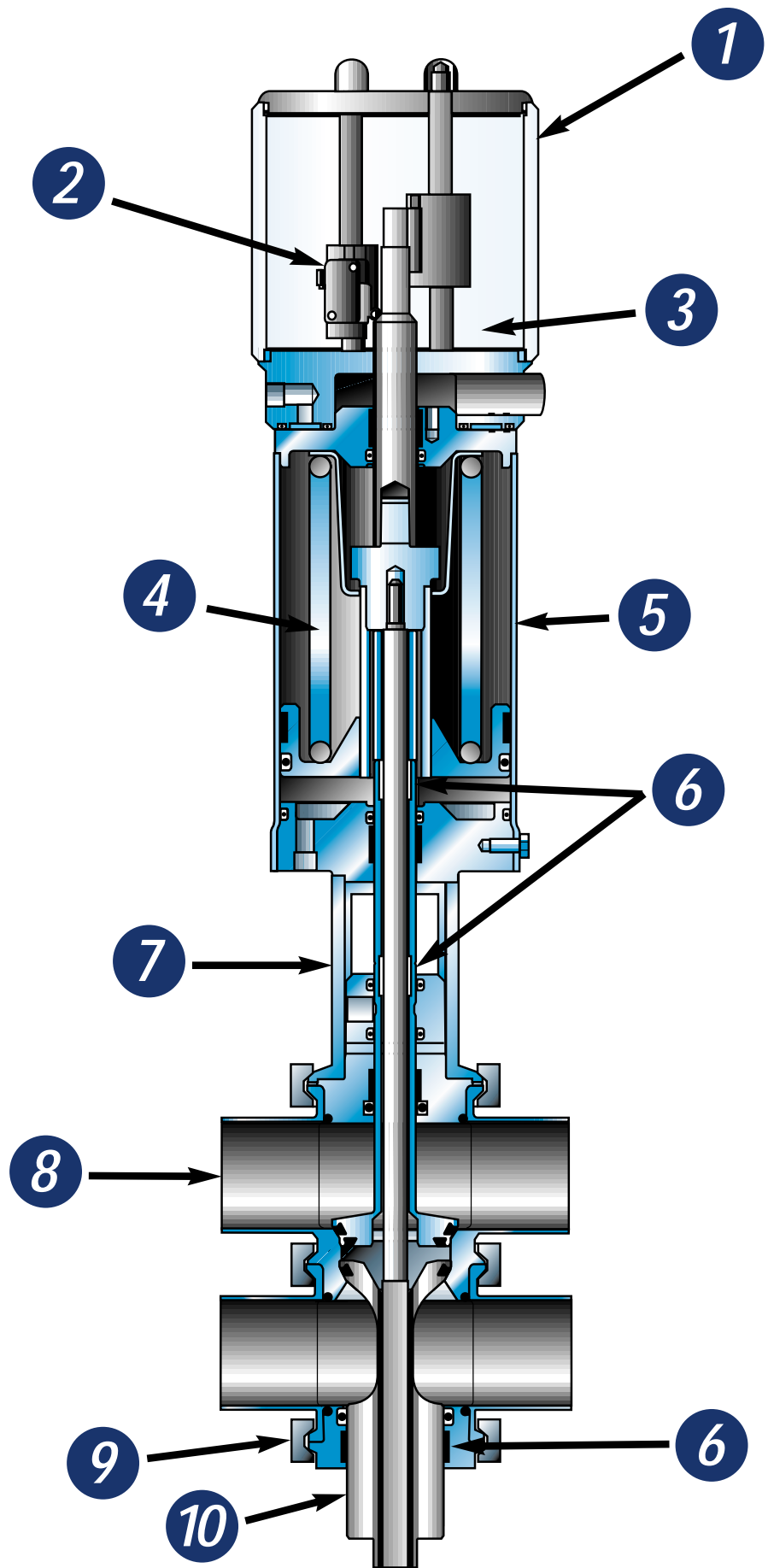
Uncompromising in sanitation. Flexible in control.

1½, 2, 2½, 3, 4 inch sizes



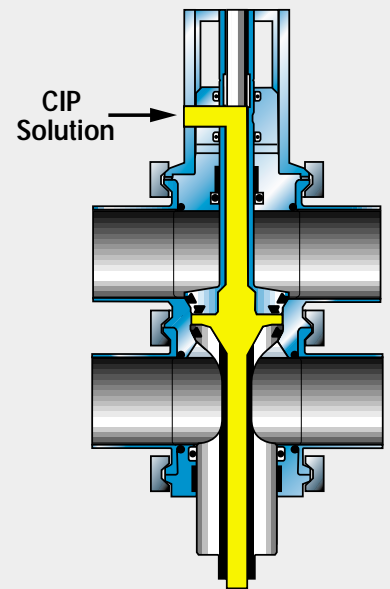
In this illustration, cleaning circuits for both upper and lower lines plus two different product flows are controlled through one Mix Proof Valve matrix.





Advanced Features

- 1** *Transparent control top keeps position indicating switches visible. Control top separate; can be added later. Optional AS-i (Actuator Sensor - interface) Field Bus enables two-way communication with a specific valve in a series.*
- 2** *Choose between micro switches or proximity switches.*
- 3** *Available with or without solenoid valve.*
- 4** *Holds against 150 psig product with spring only in 1½-inch through 4-inch sizes; opens against 150 psi (10 bar) with 72 psi (5 bar) air pressure.*
- 5** *Single actuator, equipped with one piston, opens and closes the valve (non-seat lifting valve).*
- 6** *Moving parts guided with PTFE bearings.*
- 7** *Open yoke between actuator and valve body.*
- 8** *Buttweld or clamp connections.*
- 9** *Removable lower bearing and seal carrier.*
- 10** *Water hammer safe: balance piston holds down the lower plug hydraulically to protect upper line during sudden pressure surges in the lower line.*



During CIP of the atmospheric break, CIP solution enters the valve from a tube (see arrow) connected to the valve seat cleaning line; this line services all valves associated with that particular product line, or a single valve if desired.

Mix Proof Valve Port Arrangements for One-piece Bodies (for manifolds)



A1



B1



B3

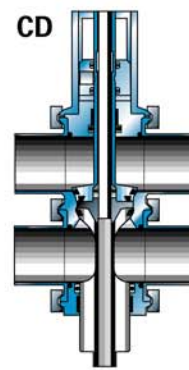
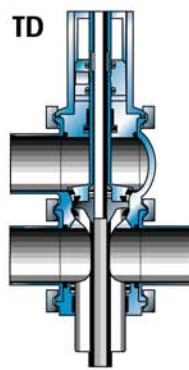
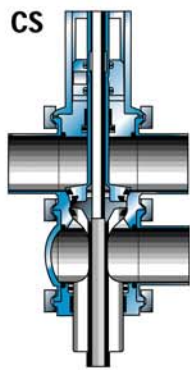
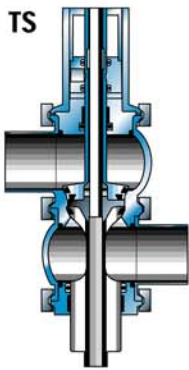


C1

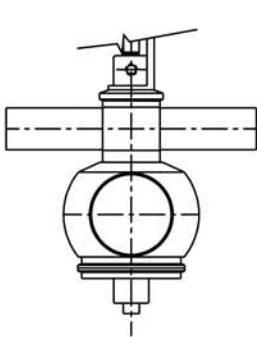


E1

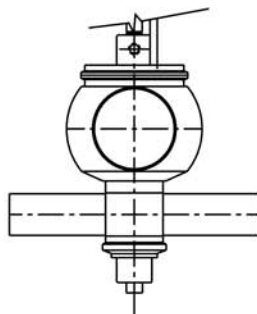
Mix Proof Housing Arrangements for Two-piece Bodies (for individual valves)



Mixed Body Sizes



1 1/2" x 4"



4" x 1 1/2"

Also available with top body being 1 1/2, 2, 2 1/2, 3 or 4-inch while lower body is 1 1/2, 2, 2 1/2, 3 or 4-inch.



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AS-i Field Bus: direct communications between valve & computer control system



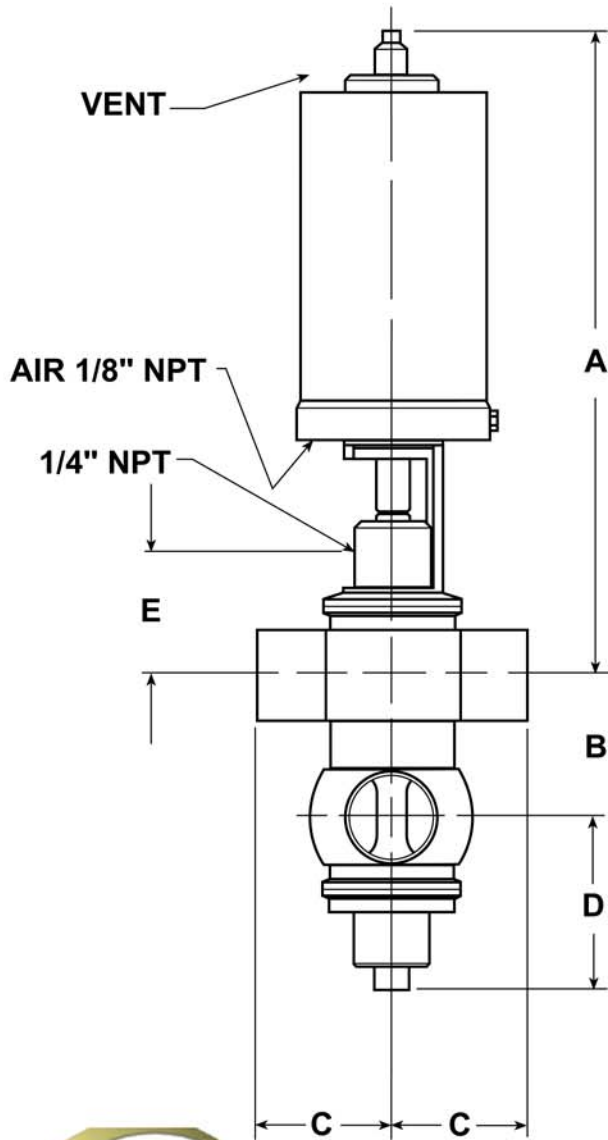
Available for all WCB single seat valves, AS-i (Actuator Sensor - interface) Field Bus enables computer control systems to address commands to a specific valve of a series — and to receive confirmation signals from the valve — via a single network line, instead of an individual control line to that valve.

This concept dramatically reduces the complexity of multiple valve installations, both in terms of number of components and control approach.

Communication is high-speed, open protocol. Each valve is interrogated and identified automatically. At all times, control systems “know” the current valve position of every valve: open, closed or not-open-or-closed (“alarm”).

The AS-i Field Bus is contained in a NEMA 4 rated, transparent top.

DIMENSIONS



Valve dimensions by connector types (inches)

| VALVE SIZE (in) | A* | B | C BUTTWELD | C I-LINE | C S-LINE | D | E |
|-----------------|-------|------|------------|----------|----------|------|------|
| 1½ | 13.42 | 2.63 | 4.00 | 4.94 | 4.50 | 3.48 | 2.59 |
| 2 | 13.67 | 3.13 | 4.00 | 5.03 | 4.50 | 3.73 | 2.84 |
| 2½ | 15.25 | 3.63 | 4.00 | 5.16 | 4.50 | 4.40 | 3.09 |
| 3 | 14.50 | 4.13 | 4.00 | 5.22 | 4.50 | 4.66 | 3.34 |
| 4 | 16.00 | 5.11 | 6.00 | 7.34 | 6.62 | 5.77 | 3.84 |

*CONTROL TOP OPTION: add 3.23 Inches (82.04) to the "A" dimension.

The actuator diameter is 4" for 1½ - 2" and 6" for 2½, 3" and 4".

Valve dimensions by connector types (mm)

| VALVE SIZE (in) | A* | B | C BUTTWELD | C I-LINE | C S-LINE | D | E |
|-----------------|-----|-----|------------|----------|----------|-----|----|
| 1½ | 342 | 67 | 102 | 125 | 114 | 88 | 66 |
| 2 | 347 | 80 | 102 | 128 | 114 | 95 | 72 |
| 2½ | 387 | 92 | 102 | 132 | 114 | 112 | 78 |
| 3 | 368 | 105 | 102 | 133 | 114 | 118 | 85 |
| 4 | 406 | 130 | 152 | 186 | 168 | 147 | 98 |



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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.

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