Waukesha Cherry-Burrell®

DT4 SERIES

Tank Outlet Double Seat Mixproof Valves



SPXFLOW®

DT4 TANK OUTLET MIXPROOF VALVES

The next generation of mixproof valve technology is the result of continued development of Waukesha Cherry-Burrell® process technologies. Used for the reliable separation between the tank and servicing pipeline, the DT4 tank outlet is an extension to the D4 Series mixproof family which helps fulfil today's customer demands for production flexibility, increased productivity, rapid return on investment (ROI) and improved product quality in the food & drink, dairy, personal care and brewing process industries.

FEATURES AND BENEFITS

High value, low life cycle costs:

- "All-In" standard features such as seat lift actuator and cross-port housing provide exceptional value
- Reduced inventory costs with same seal kit used on multiple size ranges: DN40-DN65 (1.5"-3.0") and DN80-DN100 (4.0")
- Low air consumption and air supply requirements
- Leak drain with clamp connection for CIP fluid collection
- Long housing ports ease manifold building
- Integrated shaft seal flush reduces need for external piping

Reliable performance:

- Design based on the proven D4SL model
- Tank side holding pressure greater than 73 psi / 5 bar
- Long stroke for gentle product handling (ex: particulates) and low flow resistance
- Balanced design helps to prevent hydraulic blocking and enables flexible flow direction without slamming
- Heavy-duty bolted flange connection between tank/housing/insert provides secure, controlled assembly/disassembly of valve insert
- No compressed air needed for removal and servicing
- Range of control units and bus communication for automated operation

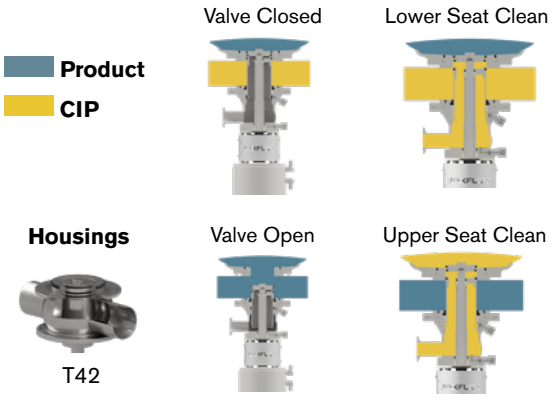
Cleanability:

- Designed to the latest global hygienic standards
- Cavity spray cleaning as standard
- Radial seal design provides minimal switching leakage
- Extensive cleaning of product contact seals

TECHNICAL DATA	
Sizes	DN 40 - 100 OD Tube 1.5" - 4"
Housing Type	T42
Product-Wetted Parts	1.4404/AISI 316L Other stainless steel parts 1.4301/AISI 304
Seal Materials	EPDM, HNBR, FPM All seals comply with the FDA requirements
Surfaces	Inside: Electropolished Ra 0.8 µm (32 µ-in) Outside: Glass-blasted, satin finish
Product Pressure	Max. Pipeline: 145 psi / 10 bar Tank Holding: > 73 psi / 5 bar
Max. Temperature	EPDM & HNBR: 275°F / 135°C (for short time 284°F / 140°C) FPM 275°F / 135°C (not to be used for steam)
Sterilisation Temperature	EPDM & HNBR: (for short time) 284°F / 140°C
Required Air Pressure	73 psi / 5 bar, valve normally closed

Theory of operation:

Double seat mix proof valves are used to safely process two different fluids efficiently (typically product and CIP) through the valve simultaneously. The DT4 mixproof design has two independently operating seats that separate the tank and pipeline when the valve is in the fail-safe closed position. The atmospheric vent cavity between the seats creates a path to exit through the leakage chamber should the seals fail, as well as a drain for CIP solution during seat cleaning. External CIP spray flush connections are included to provide enhanced cleaning of the leakage vent cavity as well as the lower shaft, while the valve is closed or open during production.



CONTROL UNITS CU4 & CU4PLUS SERIES



Features and Benefits

- Automated control and position monitoring for reliable processing
- Reduces compressed air needs and electrical connections
- Helps reduce external solenoid valve cabinets
- Accelerates valve response time
- **Reliable and long service life** - robust clamp connection, water tight seals and reinforced stainless steel air coupling threads to avoid air leakages
- **Ease of operation** - contains manual override solenoids and adjustment screw to throttle air flow to actuator to ensure optimal opening and closing
- **Clarity** - clear and bright indication of valve position - 5 diodes in LED panel and conveniet location
- **Standardisation** - same control top used on various SPX FLOW valve lines, offers common look and control interface
- IP67 (NEMA 6) wash-down rating

Connector Options



- S/O Cord Grip for hard wire (std)
- M12 pin connectors (optional)

Interface Options

- 24V DC Direct Connect
- AS-i Field Bus Card

Position Indication Options

- CU4: 2 internal feedback sensors for valve open/ valve closed position detection
- CU4plus: Automatic teaching with press of a single button and detection of all positions (open, close, upper/lower seat lifts)

Solenoid Valves

- 24V DC
- Select 1 (non-seat lift) or 3 Solenoids (seat lift)

Typical Product Applications



Food and Drinks

Soups & Sauces, Flavorings & Ingredients, Dressings, Vinegars, Soft/Fruit & Vegetable Drinks, Brewery, Wort, Wine, Pet Food, Fats & Oils, Animal Oils, Liquid Sugar, Cereals



Personal Care and Pharmaceutical

Fluid Medicines, Extracts, Face Creams & Lotions, Perfumes Soaps, High Purity Water, Nutritional Supplements, Hair Styling Gels & Liquids, Dyes & Alcohols



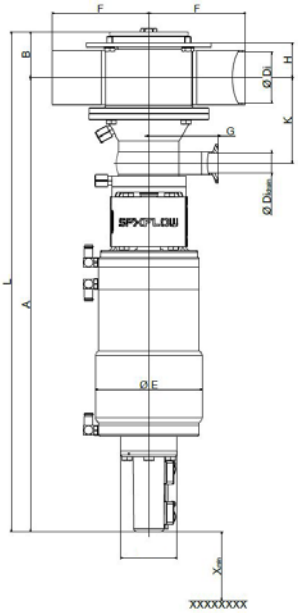
Chemical

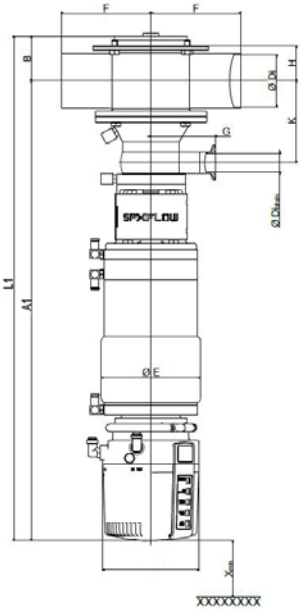
Solvents, Paints, Adhesives, Coatings, Oils & Lubricants, Detergents, Emulsions, Fuels

Waukesha Cherry-Burrell®

PRODUCT DIMENSIONS

DT4 SL





	DIMENSIONS IN IN/MM												
DN	A	A1	B	ØDi	ØDi drain	ØE	F	G	H	K	L	L1	X*
40	21.7/551,2	23.7/602,6	1.8/45	1.5/38	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.2/31	3.8/97	23.5/596,2	25.5/647,6	3.9/100
50	22.4/569,2	24.4/620,6	2.0/51	2.0/50	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.5/37	4.1/103	24.4/620,2	26.5/671,6	3.9/100
65	23.1/587,2	25.1/638,6	2.3/59	2.6/66	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.8/45	4.4/111	25.4/646,2	27.5/697,6	3.9/100
80	25.8/654,6	27.8/706	2.7/67,5	3.2/81	1.0/26	7.6/192,2	5.6/142,5	5.8/146,5	2.0/51,5	4.8/122,5	28.4/722,1	30.5/773,5	3.9/100
100	26.1/664,1	28.2/715,5	3.0/77	3.9/100	1.0/26	7.6/192,2	5.6/142,5	5.8/146,5	2.4/61	5.2/132	29.2/741,1	31.2/792,5	3.9/100
INCH													
1.5"	21.6/549,6	23.7/601	1.8/46,6	1.4/34,8	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.3/32,6	3.8/95,4	23.5/596,2	25.5/647,6	3.9/100
2"	22.4/568	24.4/619,4	2.1/52,2	1.9/47,6	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.5/38,2	4.0/101,8	24.4/620,2	26.5/671,6	3.9/100
2.5"	23.0/584,35	25.0/635,75	2.2/56,15	2.4/60,3	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.7/42,15	4.3/108,15	25.2/640,5	27.3/691,9	3.9/100
3.0"	23.2/590,65	25.3/642,05	2.5/62,45	2.9/72,9	1.0/26	5.4/138,2	4.9/125	3.5/89,5	1.9/48,45	4.5/114,45	25.7/653,1	27.7/704,5	3.9/100
4.0"	26.1/662,9	28.1/714,3	3.1/78,2	3.8/97,6	1.0/26	7.6/192,2	5.6/142,5	5.8/148,5	2.4/62,2	5.2/130,8	29.2/741,1	31.2/792,5	3.9/100

*Minimum installation and valve insert removal dimensions

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