

SANITARY BUTTERFLY VALVE

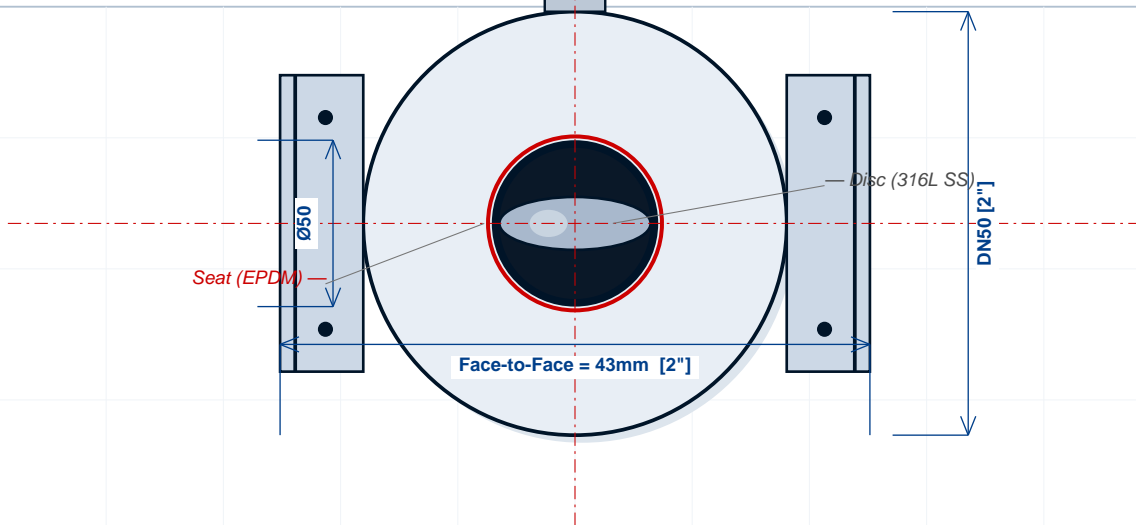
316L STAINLESS — WAFER / TRI-CLAMP

Compact wafer-style butterfly valve for high-flow sanitary applications. Single-piece 316L stainless body with elastomeric seat provides bubble-tight shut-off and quick quarter-turn operation. Suitable for on/off and modulating service in food, dairy, beverage, brewery and CIP applications. Available with manual lever, gear operator, pneumatic or electric actuator. Multiple seat materials available for chemical compatibility and temperature range.

MATERIAL	SIZE RANGE	PRESSURE	TEMPERATURE	CONNECTION	STANDARD
316L SS	DN25 – DN150	PN10 (10 bar)	-10 to +140°C	Wafer / Tri-Clamp	3-A / EHEDG

TECHNICAL DRAWING

DWG: CE-BFV-001



FRONT VIEW — SANITARY BUTTERFLY VALVE DN50

Wafer-style · Manual lever · Multiple position locking

<b>CASPIAN EDGE INC.</b> NORTH YORK, ON, CANADA	
DWG NO: <b>CE-BFV-001</b>	SCALE: <b>NTS</b>
UNIT: <b>mm</b>	VIEW: <b>FRONT VIEW</b>

IN THIS DATASHEET

- PAGE 1** Technical drawing with dimensions and component callouts
- PAGE 2** Full technical specifications, materials and pressure-temperature data
- PAGE 3** Standards compliance, certifications and documentation
- PAGE 4** Applications, installation, maintenance and RFQ form

## SANITARY BUTTERFLY VALVE

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## DESIGN SPECIFICATIONS

## SECTION 1

<b>Design Type</b>	Wafer single-piece
<b>Disc Type</b>	Concentric
<b>Body Profile</b>	Compact face-to-face
<b>Sealing</b>	Elastomeric seat
<b>Operation</b>	90° quarter-turn
<b>Connection</b>	Tri-Clamp / Weld / Wafer
<b>Mounting</b>	In-line, any orientation
<b>Actuation</b>	Manual / Pneumatic / Electric

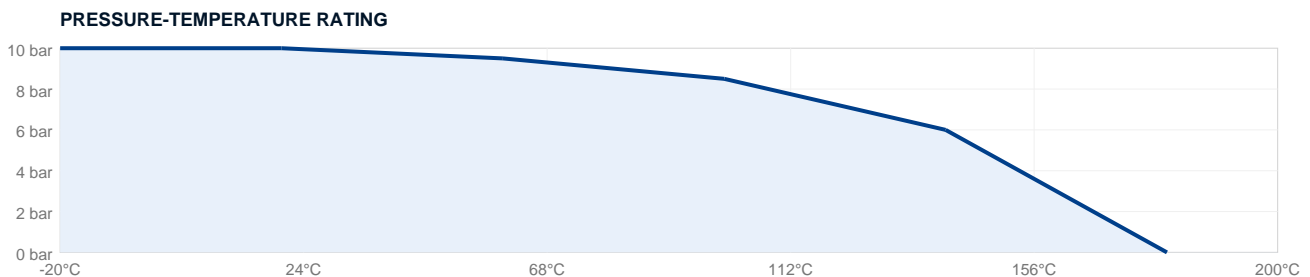
## OPERATING CONDITIONS

## SECTION 2

PRESSURE RATING		TEMPERATURE RANGE	
<b>Max Working Pressure</b>	10 bar	<b>EPDM Seat</b>	-40 to +140 °C
<b>Max Test Pressure</b>	15 bar	<b>Silicone</b>	-50 to +200 °C
<b>Min Vacuum</b>	-0.95 bar	<b>PTFE</b>	-29 to +180 °C
<b>Bubble-Tight</b>	Yes (PN10)	<b>Viton (FKM)</b>	-20 to +200 °C

## PRESSURE-TEMPERATURE RATING CHART

## SECTION 3



## SURFACE FINISH OPTIONS

## SECTION 4

DESIGNATION	RA (MM)	RA (MIN)	METHOD	APPLICATION
<b>Standard</b>	≤ 0.8	≤ 32	Mechanical polish	Food, dairy, beverage
<b>Premium</b>	≤ 0.5	≤ 20	Mech. polish + buff	Pharmaceutical
<b>EP (BPE SF4)</b>	≤ 0.38	≤ 15	Electropolish	Biotech, high-purity
<b>Mirror</b>	≤ 0.25	≤ 10	EP + final buff	Critical bioprocess

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## MATERIALS OF CONSTRUCTION

## SECTION 5

PART	STANDARD	OPTIONAL	SPEC
Body	316L SS	304 SS	ASTM A351 CF8M
Disc	316L SS	904L	ASTM A479
Stem	316L SS	17-4 PH	ASTM A479
Seat	EPDM	Silicone/PTFE/Viton	FDA 21 CFR
Bushings	PTFE	PEEK	FDA
Handle	304 SS	316L SS	ASTM A276
Fasteners	A2-70	A4-80	ISO 3506

## 316L CHEMICAL COMPOSITION

## SECTION 6

ELEMENT	SYMBOL	MIN %	MAX %	FUNCTION
Chromium	Cr	16.0	18.0	Corrosion resistance
Nickel	Ni	10.0	14.0	Ductility, toughness
Molybdenum	Mo	2.0	3.0	Pitting resistance
Carbon	C	—	0.03	Low carbon (L grade)
Manganese	Mn	—	2.0	Deoxidizer
Silicon	Si	—	0.75	Deoxidizer
Phosphorus	P	—	0.045	Impurity (limit)
Sulfur	S	—	0.030	Impurity (limit)

## SIZE CHART &amp; DIMENSIONS

## SECTION 7

NOM.	DN	OD (MM)	F-F (MM)	CV	WEIGHT (KG)
1"	25	50.5	38	30	1.0
1½"	38	64.0	38	85	1.5
2"	50	77.5	43	150	2.2
2½"	63	91.0	43	230	3.0
3"	76	104.0	56	370	4.5
4"	100	119.0	56	620	6.8
5"	125	130.0	64	950	9.5
6"	150	168.0	64	1450	13.0

## STANDARDS &amp; CERTIFICATIONS

## SECTION 8

STANDARD	DESCRIPTION	STATUS
3-A 74-07	Sanitary fittings	Compliant
EHEDG Type EL	Hygienic equipment	Compliant
ISO 2852	Clamp couplings	Compliant
DIN 32676	Tri-clamp dimensions	Compliant
FDA 21 CFR 177	Food contact seals	Compliant
EC 1935/2004	Food contact materials	Compliant

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## TYPICAL APPLICATIONS

## SECTION 9

## FOOD &amp; BEVERAGE

- Filling line shut-off
- Product transfer lines
- CIP/SIP circuits
- Storage tank outlets
- Sampling stations
- Mixing & blending

## DAIRY

- Pasteurization circuits
- Cheese processing
- Yogurt production
- Milk separators
- Cream lines
- 3-A compliant systems

## BREWING &amp; WINE

- Wort transfer
- Fermentation tanks
- Bottling lines
- Brewhouse CIP
- Filtration
- Carbonation systems

## INSTALLATION GUIDELINES

## SECTION 10

Caspian Edge sanitary valves are designed for in-line installation in any orientation. Follow these guidelines: **1. Pipe Preparation:** Ensure pipe ends are clean, deburred and free from contamination. Pipe OD must match valve ferrule OD specification. **2. Tri-Clamp Assembly:** Insert gasket between flanges. Position tri-clamp evenly and tighten gradually using torque sequence. Recommended torque: 5–7 N·m. **3. Flow Direction:** Most valves are bi-directional. Check valves and certain butterfly valves require specific orientation — refer to flow arrow on body. **4. Actuator Mounting:** Pneumatic actuator field-installable using ISO 5211 pattern. Air supply: 5–7 bar clean, dry, filtered air. **5. Commissioning:** Cycle valve 3–5 times before initial use. Verify no leakage at static pressure test (1.5x working pressure for 5 minutes).

## MAINTENANCE SCHEDULE

## SECTION 11

INTERVAL	ACTION	NOTES
Daily	Visual inspection	Check for leaks, unusual sounds
Weekly	Cycle test	Manual operation, verify smooth action
Monthly	Tri-clamp torque check	Re-tighten if loose, inspect gaskets
6 Months	Seal inspection	Replace seals if visible wear
Annually	Full overhaul	Disassemble, inspect, replace all seals
As needed	CIP/SIP integration check	Verify CIP coverage at valve cavity

## REQUEST A TECHNICAL QUOTATION

Send your specifications and we will respond with detailed pricing, lead time and documentation.

## INCLUDE IN YOUR RFQ:

Quantity · Size (DN) · Material grade · Seal material · Surface finish · Required certifications · Delivery date

[SUBMIT RFQ →](#)
[caspiannedge.com/rfq](https://caspiannedge.com/rfq)