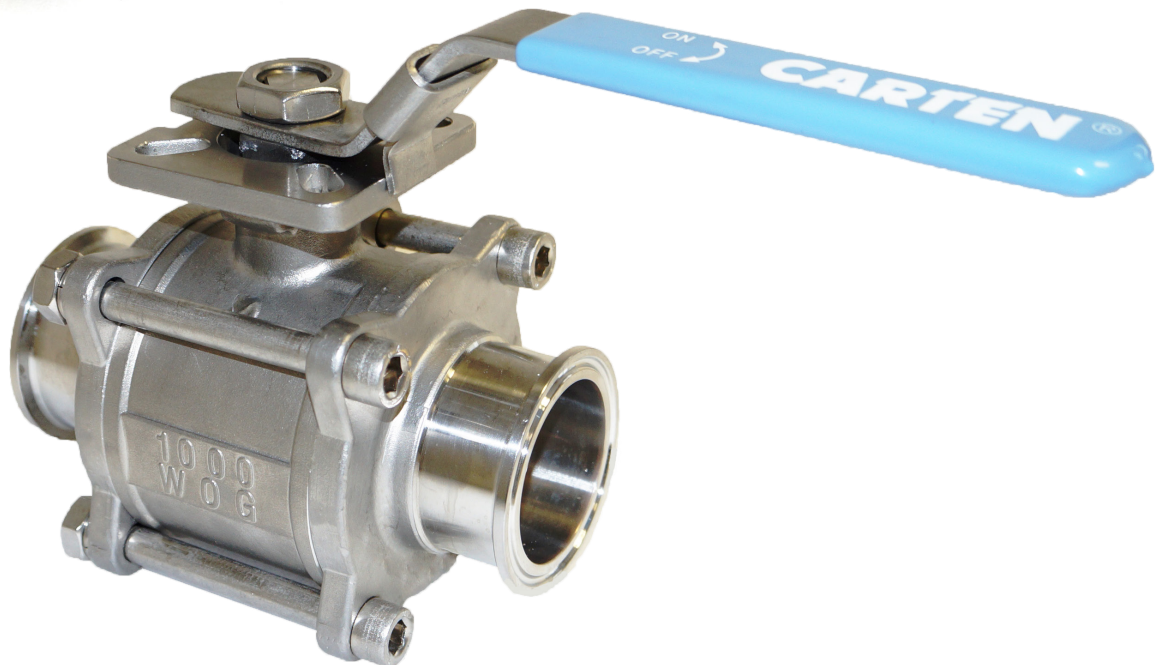


# CARTEN®

High Performance Valves & Flow Solutions

## Sanitary Ball Valves (SBV Series)

Sterile, Aseptic and Sanitary Valves



For Biotechnological, Pharmaceutical, Food and Beverage Process Systems

# WHY CHOOSE THE CARTEN SBV SERIES?

# TECHNICAL OVERVIEW



Sanitary ball valves are generally used on the utility side of processing – for example caustics delivered to a CIP skid to formulate recipes for cleaning product lines, processing plant steam, and bulk utility supplies. The design and operation of ball valves make them unsuitable for product contact surfaces, but can be required at certain points of installations when higher pressure is required. In these cases the ball valve materials of construction are critical, as with any high purity component.

The Carten SBV series utilises high TFM1600 polymer material for all contact seats and seals, and CF3M/S31603 (316L) high grade stainless steel for all media contact surfaces – therefore biocompatibility is assured. In addition the high grade of material utilised allows installation in the most aggressive CIP and SIP conditions.

As ball valves are commonly used for instrument air supply, and additional facility gases, the SBV series is tested using strict global standards (ANSI FCI 70/2 Class VI, EN12266-1).

## Product Features

### IN-LINE MAINTENANCE

The SBV series is designed to ensure pressure containment of up to 1000psi (up to 2"), with each valve individually serialised and certified under Cleanroom (ISO 5) conditions to operate under dynamic conditions at 250psi. To ensure facility flow conditions can be satisfied, the standard 2-way orientation is complimented with the 3-way series in both elbow and tee configurations. When critical to prevent any accumulation within the valve structure, cavity-filler seats can be used eliminate dead space within the valve. If cavity fillers are unnecessary, or may adversely affect the process, standard non-cavity filler seats can be utilised.

### BLOW-OUT PROOF STEM

To ensure safety and functionality, the SBV series will facilitate flow and leak integrity in both forward and reverse flow condition, allowing flushing of systems upstream when necessary. A blow-out proof stem prevents any possibility of pressure surges affecting operator safety. In addition, anti-static features can be added upon request where necessary. The stem packing contains primary and secondary seals to ensure process integrity.

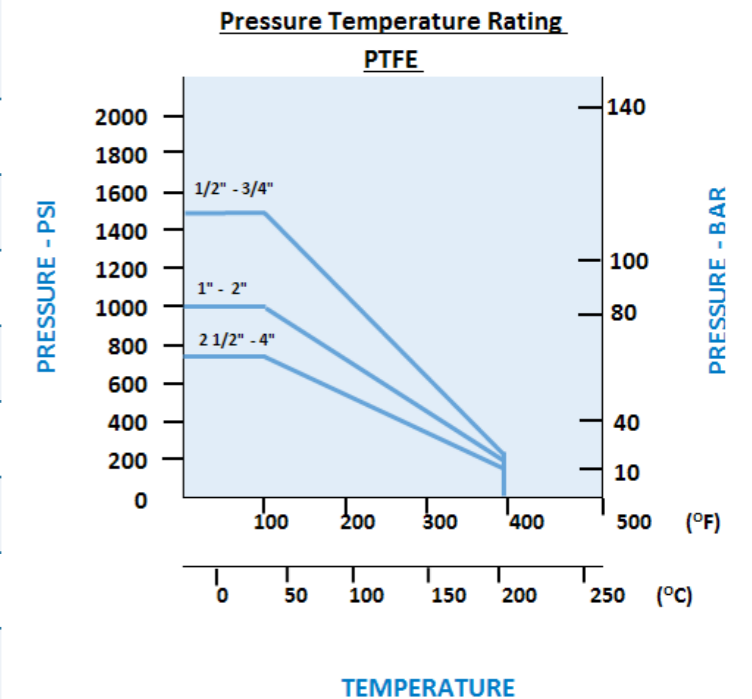
To ensure a maintenance friendly assembly, it is possible to adjust the stem packing if necessary to allow in-line maintenance. The valve centre body can be replaced in line also, avoiding any unnecessary product piping cut-outs.

### ELBOW AND TEE CONFIGURATIONS

CAVITY AND NON CAVITY FILLED OPTIONS

2-WAY & 3-WAY SERIES

Port Connection		Kv-Value Water [m3/h]	Cv-Value	Torque
[mm]	[inch]			
15	1/2"	12.6	14.7	14.7
20	3/4"	36.7	42.7	42.78
25	1"	74.7	86.9	86.95
40	1 1/2"	193.4	224.9	224.9
50	2"	247.6	287.9	437.98
65	2 1/2"	365.6	425.1	725.17
80	3"	570.0	662.8	1062.8
100	4"	900.2	1046.8	1946.87



Nominal Size	DN8	DN15	DN20	DN25	DN40	DN50	DN65	DN80	DN100
End Connections	Tube End (Butt Weld Type) or Triclamp								
Body Material	ASTM A351 CF3M								
Bonnet Material	ASTM A351 CF3M								
Seat and Gasket Material	PTFE (TFM1600)								
Pressure Rating	250 psi								
Working Temperature Range	-5 to 150°C (-23 to 302°F)								
Surface Finish	Mechanical polish, Electropolish ASME BPE SF1-SF6								
Operating Modes	Pneumatic and Manual								
Biocompatibility	21 CFR 177.1550 (Representative Samples) 3-A Sanitary Standard #20, Multiple-Use Plastic Material Used as Product Contact Surfaces (Representative Samples) USP Class VI (Representative Samples)								





# OTHER PRODUCTS AVAILABLE

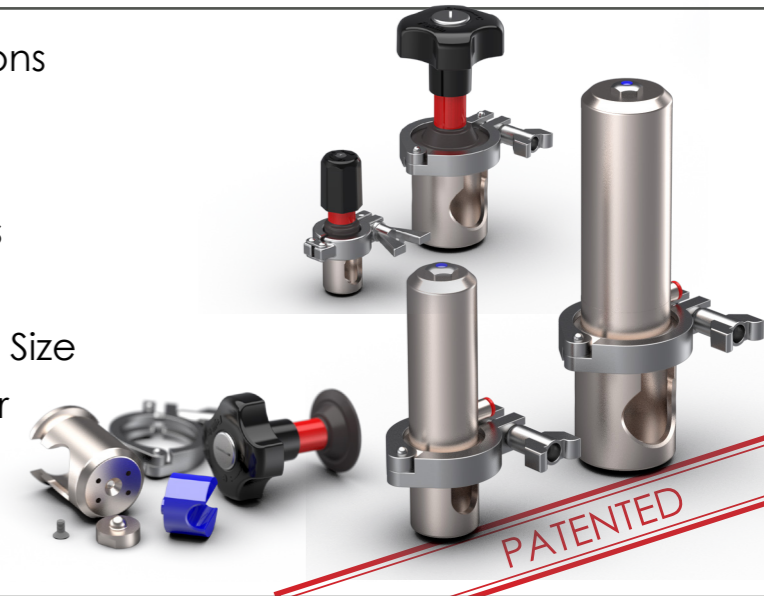
## BNW SERIES DIAPHRAGM VALVES



- ASME BPE Compliant Design and Dimensions
- SIP500 Rated Life Durability (ASME BPE rating)
- No Re-torquing Required
- Compact, Light Weight Stainless Steel Top Works
- Reduced Polymer Cold Flow Sealing Design
- Reduced TCO for Process Systems
- Range of Instrumentation Available
- 3-Way Zero Dead T (ZDT) leg configurations
- SIP & CIP Capability

## BPV SERIES PINCH VALVES

- Quick Release and Control Versions
- Reusable Highly Durable Valve
- Interchangeable Fittings
- For Use with Multiple Compounds
- For Use with Multiple Brands
- Rapid Changeout of Tubing, Line Size
- Lightweight Handwheel/Actuator
- No Particulate Generation
- Instrumentation Ready



## BSV SERIES SAMPLING VALVES

- Drainable even from inclined ports
- Retrofits existing sensor ports
- Cleans and sterilises in place
- Install or move in seconds, maintenance friendly
- Sanitary, dead space free design



## BSP SERIES SIPTUBE VALVES



- Cleanable- and Sterilisable In-Place (CIP/SIP) while in operation
- Install in existing ports
- Simplistic design for reliability and fast, easy maintenance
- Body lengths up to 16 inches for sampling deep within the process system
- Suitable for process inoculating, media feeding and sampling
- 316L Stainless Steel construction
- Natural body insulation protects processes during sterilisation

## BTV SERIES TANK OUTLET VALVES



- No hold up volume or pooling
- Self Draining at any orientation
- Higher Cv/ Superior Flow
- SIP/CIP Port
- Cost Efficient
- Maintenance Friendly
- No Delivery Delays -Weld Component Sent in Advance

## BPU SERIES POINT OF USE VALVES

- Lowest hold up volume in the industry
- Fully Cleanable/drainable
- Lightweight Design- Compare to ZDT
- Same High Flow as Carten TOV Valve
- 360-degree- Multiple Orientation
- Quick-release clamp topworks
- SIP/CIP port available



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# CARTEN®

High Performance Valves & Flow Solutions

Carten Controls Ltd.,  
Unit 609, Waterford Industrial Park,  
Waterford Ireland

Tel: +353 (0)51 355436  
Fax: +353 (0)51 378054  
Email: [sales@cartencontrols.com](mailto:sales@cartencontrols.com)  
Website: <http://www.cartencontrols.com>

Fujikin (Deutschland) GmbH  
Immermannstraße 33 -  
D-40210 Düsseldorf, Germany.

Tel: +49 (0) 211-350458  
Fax: +49 (0) 211-363990  
Email: [info@fujikin.de](mailto:info@fujikin.de)  
Website: <http://www.fujikin.de>

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## THE CARTEN-FUJIKIN RANGE



**Bellows Valves**

**Ball Valves**

**Check Valves**

**Diaphragm Valves**

**Tank Valves**

**Sampling Valves**

**Hybrid Single Use Pinch Valves**

**Ceramic Valves**

**Integrated Gas Sticks and Systems**