

## SV/SVS Series

BUTTERFLY VALVES



Whether you need manually or pneumatically controlled butterfly valves for pipeline installation or preassembled valve manifolds, the APV brand DELTA SV/SVS series from SPX FLOW is the answer. These are a robust and reliable shut-off element, with a long service life.

Butterfly Valves offer great durability, economy and ease of use for a wide range of applications. Easy to install and maintain, butterfly valves close under pressure to form a leak-tight seal, plus have the ability to throttle flow with a positioner.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world. Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands.

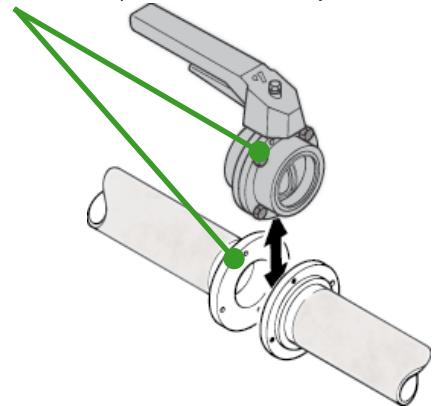
Incorporating many leading brands, SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

To learn more about SPX FLOW capabilities, its latest technology innovations and complete service offerings, please visit [www.spxflow.com](http://www.spxflow.com).

## Butterfly Valves

### PRODUCT FEATURES AND BENEFITS

- Product passages are smooth and the special seals ensure a thorough cleaning
- Unique metallic stop prevents the valve flanges from being tightened too much and protects the valve seal from mechanical over stress thus improving seal life
- One actuator covers all diameters from 1" (25mm) - 4" (100mm)
- Sliding bearings on the pivots of the discs increase operating reliability
- Visual indication of open/closed position
- SVS1F intermediate flange design allows simple removal and easy access of valves that are in lengthy or fixed pipelines



### PRODUCT SPECIFICATIONS

#### MATERIALS:

##### Disc and Body:

- 316L stainless steel with sanitary finish

##### Seal:

- EPDM, HNBR, FPM, VMQ

##### Internal Surface Finish:

- $\leq 32 \text{ Ra}$  ( $\leq 0.8\mu$ ) - *Other finishes available upon request*

#### SIZES:

##### SV1

- 1" - 4" O.D. Tube
- DN25-100

##### SVS1F

- 1" - 4" O.D. Tube
- 1" - 6" Sched 5
- DN25-250

#### PRESSURE RATINGS:

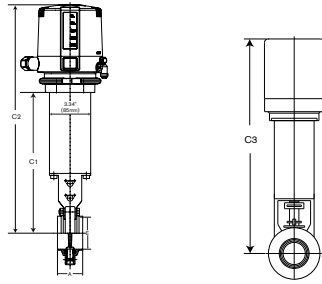
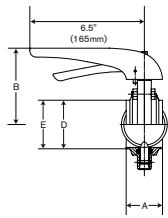
Operating Pressure: Maximum line and control air pressure 145 psi (10 bar)

#### TEMPERATURE RATINGS:

- EPDM, HNBR - 275°F (135°C), short time - 284°F (140°C)
- VMQ - 212°F (100°C)
- FPM (not to be used for hot water) - 212°F (100°C)

# Dimensions

## SV1 VALVES



# Typical product applications

Dairy  
Beverage  
Brewery  
Clean in Place  
Personal Care



Chemical



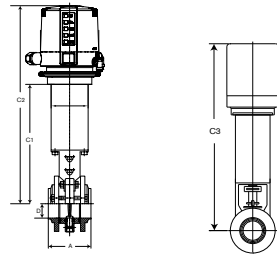
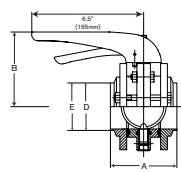
### TUBE SIZES

| VALVE SIZE inch (mm) | A           |             | E [O.D.]     | D [I.D.]    | B            | C1 [no CT]    | C2 [CU4 CT]   | C3 [WCB CT]   |
|----------------------|-------------|-------------|--------------|-------------|--------------|---------------|---------------|---------------|
|                      | WELD        | S-LINE      |              |             |              |               |               |               |
| 1.00 (25,0)          | 2.04 (51,0) | 3.15 (80,0) | 1.00 (25,0)  | 0.87 (22,6) | 3.46 (88,0)  | 10.68 (271,0) | 17.77 (451,5) | 17.50 (444,0) |
| 1.50 (38,0)          | 2.04 (51,0) | 3.15 (80,0) | 1.50 (38,0)  | 1.37 (34,6) | 3.78 (96,0)  | 11.00 (280,0) | 18.11 (460,0) | 17.80 (452,0) |
| 2.00 (50,0)          | 2.04 (51,0) | 3.15 (80,0) | 2.00 (51,0)  | 1.87 (47,8) | 4.01 (102,0) | 11.22 (285,0) | 18.30 (465,0) | 18.10 (459,0) |
| 2.50 (63,0)          | 2.06 (52,4) | 3.15 (80,0) | 2.50 (63,5)  | 2.37 (60,3) | 4.33 (110,0) | 11.53 (293,0) | 18.64 (473,5) | 18.38 (467,0) |
| 3.00 (76,0)          | 2.06 (52,4) | 3.15 (80,0) | 3.00 (76,1)  | 2.87 (72,9) | 4.44 (113,0) | 11.69 (297,0) | 18.77 (477,0) | 18.50 (471,0) |
| 4.00 (101,0)         | 2.06 (52,4) | 3.15 (80,0) | 4.00 (101,6) | 3.83 (97,6) | 5.00 (127,0) | 12.24 (311,0) | 19.33 (491,0) | 19.10 (485,0) |

### DN SIZES

| VALVE SIZE mm (inch) | A           |             | E [O.D.]     | D [I.D.]     | B            | C1 [no CT]    | C2 [CU4 CT]   | C3 [WCB CT]   |
|----------------------|-------------|-------------|--------------|--------------|--------------|---------------|---------------|---------------|
|                      | WELD        | S-LINE      |              |              |              |               |               |               |
| 25,0 (1.00)          | 52,0 (2.04) | 70,0 (2.75) | 29,0 (1.14)  | 26,0 (1.02)  | 87,0 (3.42)  | 271,0 (10.68) | 451,5 (17.77) | 444,0 (17.50) |
| 40,0 (1.60)          | 52,0 (2.04) | 70,0 (2.75) | 41,0 (1.61)  | 38,0 (1.49)  | 96,0 (3.78)  | 280,0 (11.00) | 460,0 (18.11) | 452,0 (17.80) |
| 50,0 (2.00)          | 52,0 (2.04) | 70,0 (2.75) | 53,0 (2.08)  | 50,0 (1.96)  | 102,0 (4.01) | 286,0 (11.25) | 465,0 (18.30) | 459,0 (18.10) |
| 65,0 (2.55)          | 52,4 (2.06) | 70,0 (2.75) | 70,0 (2.75)  | 66,0 (2.59)  | 110,0 (4.33) | 294,0 (11.57) | 473,5 (18.64) | 467,0 (18.38) |
| 80,0 (3.15)          | 52,4 (2.06) | 70,0 (2.75) | 85,0 (3.34)  | 81,0 (3.18)  | 117,0 (4.60) | 302,0 (11.88) | 481,0 (18.93) | 471,0 (18.50) |
| 100,0 (3.93)         | 52,4 (2.06) | 70,0 (2.75) | 104,0 (4.09) | 100,0 (3.93) | 127,0 (5.00) | 312,0 (12.28) | 491,0 (18.93) | 485,0 (19.10) |

## SVS1F VALVES



### TUBE SIZES

| VALVE SIZE inch (mm) | A           | E [O.D.]     | D [I.D.]    | B            | C1 [no CT]    | C2 [CU4 CT]   | C3 [WCB CT]   |
|----------------------|-------------|--------------|-------------|--------------|---------------|---------------|---------------|
| 1.00 (25,0)          | 3.85 (98,0) | 1.00 (25,0)  | 0.87 (22,0) | 3.42 (87,0)  | 10.60 (269,0) | 17.77 (451,5) | 17.50 (444,0) |
| 1.50 (38,0)          | 3.85 (98,0) | 1.50 (38,0)  | 1.37 (34,0) | 3.78 (96,0)  | 10.95 (278,0) | 10.94 (278,0) | 17.80 (452,0) |
| 2.00 (50,0)          | 3.85 (98,0) | 2.00 (51,0)  | 1.87 (47,0) | 4.01 (102,0) | 11.18 (284,0) | 11.18 (284,0) | 18.10 (459,0) |
| 2.50 (63,0)          | 3.85 (98,0) | 2.50 (63,5)  | 2.37 (60,0) | 4.33 (110,0) | 11.45 (291,0) | 18.64 (473,5) | 18.38 (467,0) |
| 3.00 (76,0)          | 3.85 (98,0) | 3.00 (76,1)  | 2.87 (72,0) | 4.44 (113,0) | 11.73 (298,0) | 11.87 (301,0) | 18.50 (471,0) |
| 4.00 (101,0)         | 3.85 (98,0) | 4.00 (101,6) | 3.83 (97,0) | 5.00 (127,0) | 12.20 (310,0) | 12.18 (309,0) | 19.10 (485,0) |

### DN SIZES

| VALVE SIZE mm (inch) | A            | E [O.D.]      | D [I.D.]     | B            | C1 [no CT]    | C2 [CU4 CT]   | C3 [WCB CT]   |
|----------------------|--------------|---------------|--------------|--------------|---------------|---------------|---------------|
| 25,0 (1.00)          | 98,0 (3.85)  | 29,0 (1.14)   | 26,0 (1.02)  | 87,0 (3.42)  | 271,0 (10.68) | 451,5 (17.77) | 444,0 (17.50) |
| 40,0 (1.60)          | 98,0 (3.85)  | 41,0 (1.61)   | 38,0 (1.49)  | 96,0 (3.78)  | 280,0 (11.00) | 280,0 (11.02) | 452,0 (17.80) |
| 50,0 (2.00)          | 98,0 (3.85)  | 53,0 (2.08)   | 50,0 (1.96)  | 102,0 (4.01) | 286,0 (11.25) | 286,0 (11.26) | 459,0 (18.10) |
| 65,0 (2.55)          | 98,0 (3.85)  | 70,0 (2.75)   | 66,0 (2.59)  | 110,0 (4.33) | 294,0 (11.57) | 473,5 (18.64) | 467,0 (18.38) |
| 80,0 (3.15)          | 98,0 (3.85)  | 85,0 (3.34)   | 81,0 (3.18)  | 117,0 (4.60) | 301,5 (11.87) | 301,5 (11.87) | 471,0 (18.50) |
| 100,0 (3.93)         | 98,0 (3.85)  | 104,0 (4.09)  | 100,0 (3.93) | 127,0 (5.00) | 312,0 (12.28) | 311,5 (12.26) | 485,0 (19.10) |
| 125,0 (4.92)         | 108,0 (4.25) | 129,0 (5.07)  | 125,0 (4.92) | 181,0 (7.12) | 491,0 (19.33) | 643,0 (25.31) | 664,0 (26.14) |
| 150,0 (5.90)         | 108,0 (4.25) | 154,0 (6.06)  | 150,0 (5.90) | 194,3 (7.63) | 505,0 (19.88) | 657,0 (25.86) | 678,0 (26.69) |
| 200,0 (7.87)         | 107,0 (4.21) | 204,4 (8.04)  | 200,0 (7.87) | 222,2 (8.74) | 573,0 (22.55) | 723,0 (28.46) | 746,0 (29.37) |
| 250,0 (9.84)         | 107,0 (4.21) | 254,4 (10.01) | 250,0 (9.84) | 250,4 (9.84) | 602,0 (23.70) | 751,0 (29.56) | 775,0 (30.51) |

## Options and Accessories:

### PROXIMITY SWITCH ONLY

- Available with manual handle and pneumatic actuators
- Yoke mounted 10-30 VDC prox sensors with LED
- Feedback for valve open/valve closed position detection



## Control Tops

### WAUKESHA CHERRY-BURRELL CONTROL TOPS

#### FEATURES AND BENEFITS

- Transparent Control Top keeps all electrical components visible.
- Maintainable, designed with the user in mind, making assembly and troubleshooting worry free and easy.
- Waukesha Cherry-Burrell uses the industry's most widely recognized electrical components, so access to off the shelf replacement parts is easy, ensuring quick delivery and less down time.
- NEMA 4x (IP64)
- Stainless Steel Control Top Option



#### CONNECTOR OPTIONS

- S/O Cord Grip for hard wire (std)
- Quick Disconnect Pin Connectors



New Set & Forget Control Top

#### INTERFACE OPTIONS

- ASi Field Bus Card
- Device Net Field Bus Network Card

#### POSITION INDICATION

- Set & Forget Switch
- Inductive Proximity Switches 20-140V AC/DC, 2-Wire (Std)
- Microswitches 24VDC, 110VAC
- Intrinsically safe options 5-24VDC



#### SOLENOID VALVES

- 24V DC or 110V AC

### ELECTROPNEUMATIC POSITIONER

- 4-20mA feedback signal
- Throttle/Control flow
- LCD display and simple set-up
- Optional DeviceNet, Profibus or As-i Communication



### APV CONTROL TOPS

#### FEATURES AND BENEFITS

- Reliability and long service life - robust clamp connection, reinforced Stainless Steel air coupling threads to avoid air leakages, and water tight seals
- Reduced costs - few parts and simple design
- 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 convenient location
- Standardization - same control top used on various APV valve lines, offers common look and controls interface
- NEMA 6 (I67)



#### CONNECTOR OPTIONS

- S/O Cord Grip for hard wire (std)
- Quick Disconnect Pin Connectors



#### INTERFACE OPTIONS

- AS-i Field® Bus Card
- Profibus and DeviceNet (CU3)

#### POSITION INDICATION

- 2 internal or 2 external feedback sensor switches for valve open/valve closed position detection

#### SOLENOID VALVES

- 24V DC or 110V AC
- Select 1 or 3 Solenoids

### 8681 CONTROL TOP



#### FEATURES AND BENEFITS

- Contact free position sensor including (3) programmable feedback signals
- Positions easily taught via intuitive push buttons or Autotune feature to ensure quick & easy set-up
- Ultra-bright 360° visual LED position indication with adjustable red, yellow, & green color assignments provide clarity from all points of view and avoid confusion
- Manual override and air throttle adjustable solenoids to assist start-up, maintenance, and troubleshooting
- Up to IP69K washdown rating available (IP65/67 as standard) for high washdown environments
- Built-in microcontroller tracks cycles and alerts operator when preventive maintenance is required
- Simple and robust stainless steel adapter & chemically resistant polycarbonate head
- Similar price as WCB control tops
- Supplied by industry leading Burkert Fluid Controls

#### CONNECTOR OPTIONS

- S/O Cord Grip for hard wire (STD)
- Quick Disconnect Pin Connectors

#### INTERFACE OPTIONS

- AS-i Field® Bus Card
- DeviceNet® Field Bus Network Card

#### POSITION INDICATION

- (3) programmable position sensors in control top

#### SOLENOID VALVES

- 24V DC or 110V AC
- Manual override and air throttle adjustment
- Up to (3) available in control top

# SPXFLOW

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