



# The Optimum Choice for Viscous Liquids

## Alfa Laval SBV Ball Valve

### Concept

SBV is a hygienic ball valve designed for use as a product valve, in applications within food, beverage, pharmaceutical and chemical industries. The full bore design with zero flow restriction makes SBV the optimum choice for viscous or particulate liquids.

### Working principle

A precision made ball with a bore is positioned inside the valve body between two flanges and two PTFE valve seats. A 90° rotation of the valve stem is transferred to the ball and thereby opening or closing the valve. A special selected PTFE material grade secures long lifetime of the product wetted seals. Reliable valve stem sealing is achieved by the use of spring loaded and self adjusting seal rings. SBV is operated by a pneumatic actuator or manually operated by means of a handle with lockable positions. The valve is assembled with screws for easy inspection and maintenance.

### Standard Design

The standard actuator is prepared for position indication with inductive proximity switches. The actuator is maintenance free. Two inspection holes in the bonnet connecting valve body and actuator allow for easy inspection of the stem seal tightness. Actuated valves are delivered NC (normally closed) and are easily rebuilt to NO (normally open).



### TECHNICAL DATA

#### Temperature

Temperature range: . . . . . 0°C to 130°C (EPDM)  
However max. 95°C when  
operating the valve

#### Pressure

Max. product pressure: . . . . . 1600 kPa (16 bar)  
Min. product pressure: . . . . . 0 bar

#### Actuator:

Operating pressure: . . . . . 600 - 1000 kPa (6 - 10 bar)  
Temperature range: . . . . . 4°C to +60°C  
Air consumption actuator  $\varnothing$ 104: . . . . . 0.5 NI  
Air consumption actuator  $\varnothing$ 129: . . . . . 0.75 NI  
Max. recommended pressure during  
activation: . . . . . 600 kPa (6 bar)

#### Note!

If welding both flanges, ensure that the flanges can be moved axially 30-40 mm depending on size to allow for valve maintenance (see manual for further details).

Actuated valves are delivered NC (normally closed) and are easily rebuilt to NO (normally open). See manual for further details.

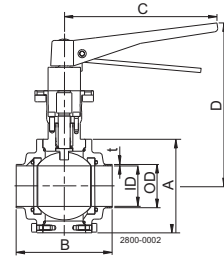
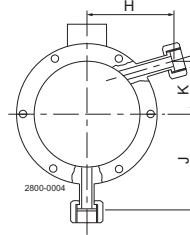
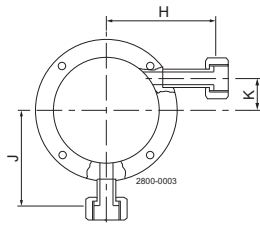
### PHYSICAL DATA

#### Materials

Product wetted steel parts: . . . . . 1.4404 (316L)  
Other steel parts: . . . . . 1.4307 (304)  
External surface finish: . . . . . Semi-bright (blasted)  
Internal surface finish: . . . . . Bright (polished), Ra < 0.8  $\mu$ m  
Product wetted seals: . . . . . EPDM  
Other seals: . . . . . NBR

### Options

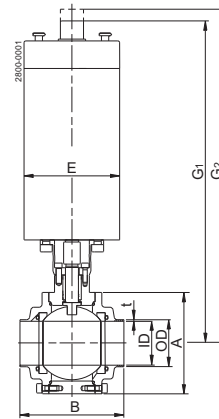
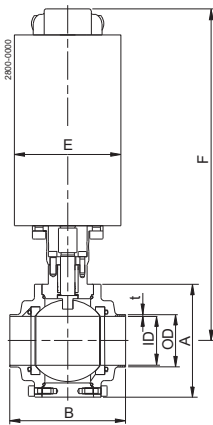
- A. Male parts or clamp liners in accordance with required standard.
- B. Actuator for mounting of the Alfa Laval.: IndiTop, ThinkTop or ThinkTop Basic.
- C. Cavity cleaning connections, (ISO 228 - 6 1/2).
- D. Cavity fillers (encapsulating valve seats).
- E. Handle and bracket for inductive proximity switches (manual valves).
- F. Product wetted elastomer seals of NBR, Q or FPM.



DN/OD 25 - 63.5 / DN 25-65

DN/OD 76.1 - 101.6 / DN 80100

Cavity cleaning connections (optional)



### Dimensions (mm)

| Size                               | Inch tube |       |       |       |       |       |       |       |       |       |       |        |
|------------------------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                    | DN/OD     | DN/OD | DN/OD | DN/OD | DN/OD | DN/OD | DN 25 | DN 40 | DN 50 | DN 65 | DN 80 | DN 100 |
| A                                  | 74        | 95    | 110   | 130   | 159   | 195   | 74    | 95    | 110   | 130   | 159   | 195    |
| OD                                 | 25        | 38    | 51    | 63.5  | 76.1  | 101.6 | 29    | 41    | 53    | 70    | 85    | 104    |
| ID                                 | 21.8      | 34.8  | 47.8  | 60.3  | 72.9  | 97.6  | 26    | 38    | 50    | 66    | 81    | 100    |
| t                                  | 1.6       | 1.6   | 1.6   | 1.6   | 1.6   | 2     | 1.5   | 1.5   | 1.5   | 2     | 2     | 2      |
| B                                  | 93        | 103   | 113   | 125   | 163   | 220   | 93    | 103   | 113   | 125   | 163   | 220    |
| C                                  | 180       | 180   | 180   | 180   | 180   | 291   | 180   | 180   | 180   | 180   | 180   | 291    |
| D                                  | 117       | 125   | 135   | 145   | 156   | 206   | 117   | 125   | 135   | 145   | 156   | 206    |
| E                                  | 104       | 104   | 104   | 104   | 104   | 129   | 104   | 104   | 104   | 104   | 104   | 129    |
| F                                  | 307       | 315   | 324   | 335   | 346   | 395   | 307   | 315   | 324   | 335   | 346   | 395    |
| G1                                 | 334       | 342   | 350   | 362   | 372   | 422   | 334   | 342   | 350   | 362   | 372   | 422    |
| G2                                 | 344       | 352   | 360   | 372   | 382   | 432   | 344   | 352   | 360   | 372   | 382   | 432    |
| H                                  | 70.5      | 79    | 84    | 90.5  | 104   | 114   | 70.5  | 79    | 84    | 90.5  | 104   | 114    |
| J                                  | 55        | 65.5  | 73    | 83    | 97.5  | 115.5 | 55    | 65.5  | 73    | 83    | 97.5  | 115.5  |
| K                                  | 13        | 19    | 25    | 33    | 54.5  | 65.5  | 13    | 19    | 25    | 33    | 54.5  | 65.5   |
| Weight manual (kg)                 | 2.3       | 3.4   | 4.8   | 7     | 13.5  | 27    | 2     | 3.1   | 4.5   | 6.4   | 12.3  | 24     |
| Weight actuated (kg)               | 6.7       | 7.8   | 9.2   | 11.4  | 17.9  | 35.8  | 6.4   | 7.5   | 8.9   | 10.8  | 17.9  | 32.8   |
| Weight with ThinkTop® adapter (kg) | 8.6       | 9.7   | 11.1  | 13.3  | 19.8  | 37.7  | 8.3   | 9.4   | 10.8  | 12.7  | 19.8  | 34.7   |

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