

## The Optimum Choice for Viscous Liquids

### SBV Sanitary Ball Valve

#### Application

SBV is a sanitary ball valve designed for use as a product valve. The valve is suitable for 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.

SBV is operated by a pneumatic actuator or manually operated by means of a handle.

#### Standard Design

SBV consists of a valve body, two flanges, PTFE valve seats, ball, stem unit and a handle or bonnet and actuator unit. SBV is a full bore valve with a constant pipeline diameter and a flow restriction comparable to that of a straight tube. 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.

The standard actuator is prepared for position indication with inductive proximity switches. A special actuator (option) is designed for mounting of the Alfa Laval ThinkTop®. 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).

The stainless steel handle for manual operation mechanically locks the valve in open or closed position. The valve is assembled with screws for easy inspection and maintenance.



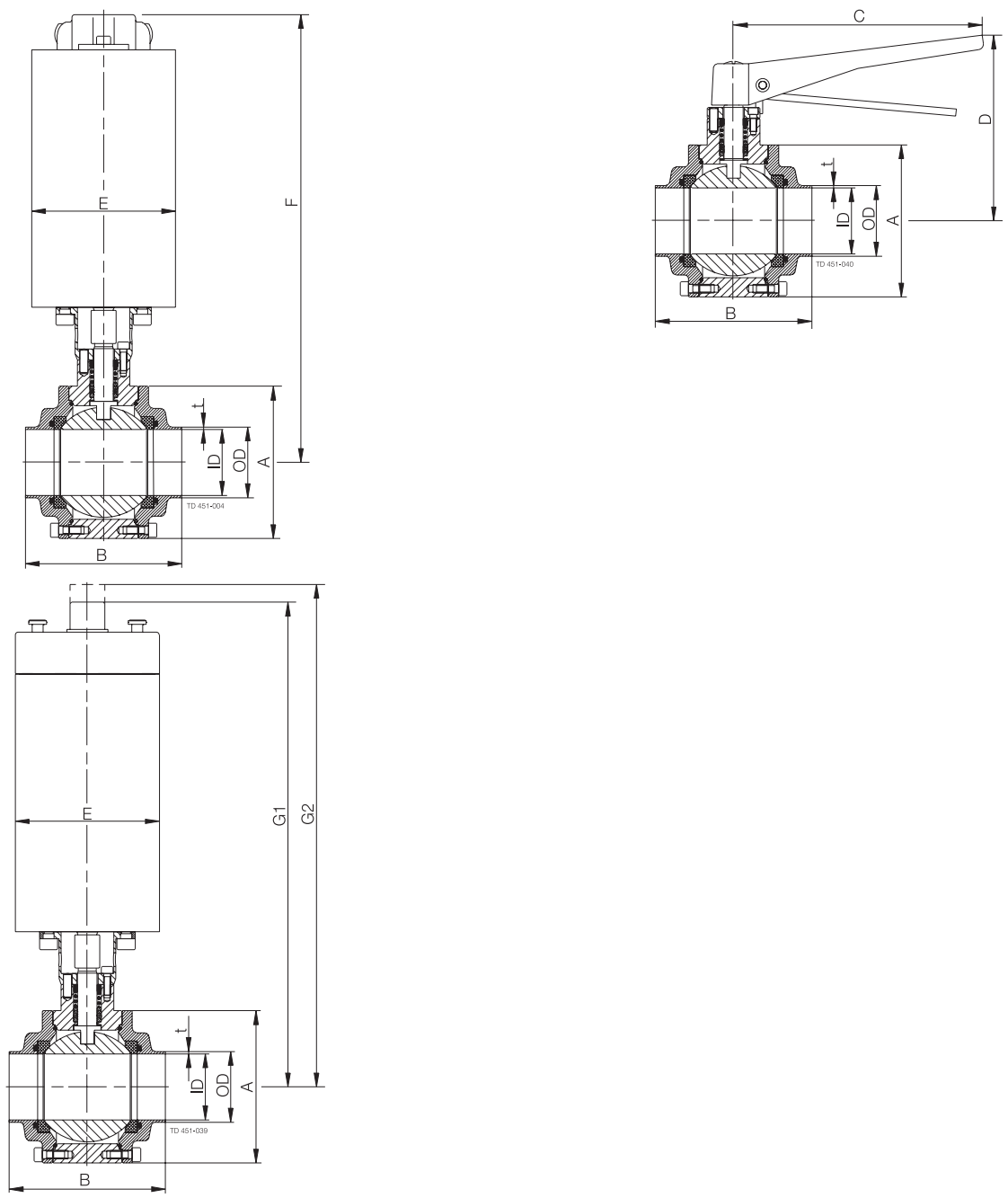
SBV with actuator and ThinkTop® (option)

Manually operated SBV

Dimensions (mm)

Size	DN/OD		DN/OD		DN/OD		DN/OD		DN/OD		DN/OD	
	25 mm	1"	38 mm	1.5"	51 mm	2"	63.5 mm	2.5"	76.1 mm	3"	mm	4"
A	74	2.91	95	3.74	110	4.33	130	5.12	159	6.26	195	7.68
OD	25	0.98	38	1.5	51	2.01	63.5	2.5	76.1	3	101.6	4
ID	21.8	0.86	34.8	1.37	47.8	1.88	60.3	2.37	72.9	2.87	97.6	3.84
t	1.6	0.06	1.6	0.06	1.6	0.06	1.6	0.06	1.6	0.06	2	0.08
B	93	3.66	103	4.06	113	4.45	125	4.92	163	6.42	220	8.66
C	180	7.09	180	7.09	180	7.09	180	7.09	180	7.09	291	11.46
D	117	4.61	125	4.92	135	5.31	145	5.71	156	6.14	206	8.11
E	104	4.09	104	4.09	104	4.09	104	4.09	104	4.09	130	5.12
F	307	12.09	315	12.4	324	12.76	335	13.19	346	13.62	395	15.55
G1	334	13.15	342	13.46	350	13.78	362	14.25	372	14.65	422	16.61
G2	344	13.54	352	13.86	360	14.17	372	14.65	382	15.04	432	17.01
Weight manual (kg)	2.3	0.09	3.4	0.13	4.8	0.19	7	0.28	13.5	0.53	27	1.06
Weight actuated (kg)	6.7	0.26	7.8	0.31	9.2	0.36	11.4	0.45	17.9	0.7	35.8	1.41
Weight with ThinkTop® adapter (kg)/(lb)	8.6	18.96	9.7	21.38	11.1	24.47	13.3	29.32	19.8	43.65	37.7	83.11

3.5



**Technical data**

**Valve:**

Max. product pressure: . . . . .232 psi (16 bar)  
 Max recommended pressure during actration . . . . .86 psi (6 bar)  
 Min. product pressure: . . . . .Full vacuum.  
 Temperature range: . . . . .-50°F to 266°F (EPDM).  
 Max. sterilisation temperature, short time . . . . .+302°F

**Actuator:**

Operating pressure: . . . . .87-145 psi (6 - 10 bar).  
 Temperature range: . . . . .39°F to +140°F.  
 Air consumption ø4.09": . . . . .0.5 NI.  
 Air consumption ø5.08": . . . . .0.75 NI.

**Materials**

Product wetted steel parts: . . . . .1.4404 (316L).  
 Other steel parts: . . . . .1.4307 (304).  
 Surface quality, product wetted parts: . . . . .Ra < 0.8µm  
 External surface finish: . . . . .Semi-bright.  
 External surface finish, actuator: . . . . .Semi bright (brushed)  
 Product wetted seals: . . . . .PTFE, EPDM  
 Other seals: . . . . .PTFE, NBR.

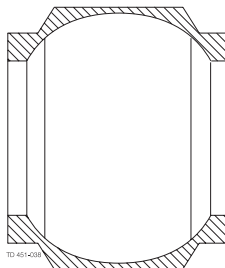
**Note!** If welding both flanges, ensure that the flanges can be moved axially 30-40 mm depending on size to allow for valve maintenance (see manual for further details).  
 Actuated valves are delivered NC (normally closed) and are easily rebuilt to NO (normally open). See manual for further details.

**Options**

- A. Male parts or clamp liners in accordance with required standard.
- B. ThinkTop®.
- C. Cavity cleaning connections (ISO 228 - 6 ½).
- D. Cavity fillers (encapsulating valve seats).
- E. Handle and bracket for inductive proximity switches (manual valves)
- F. Product wetted elastomer seals of nitrile (NBR), silicone rubber (Q) or flourinated rubber (FPM).



Cavity cleaning connections



Cavity fillers



Handle and bracket for inductive proximity switches

**Ordering**

- Valve size and actuation type.
- Connections, if not welding ends.
- Other options.