

Manual for Sanitary Butterfly Valve

Concept :

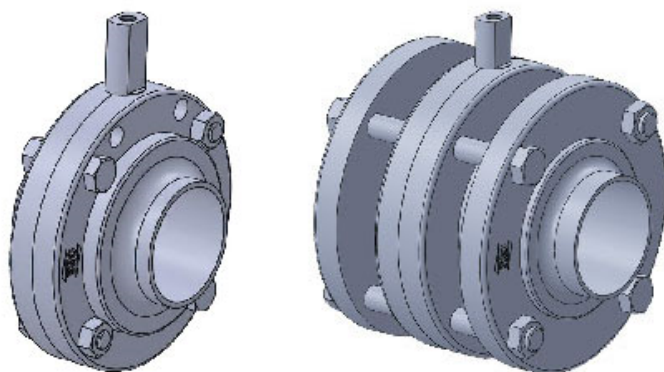
The butterfly valve is a simple regulating valve. The butterfly valve that can be used for the on-off control of low-pressure pipeline media refers to a valve whose closing part (disc or butterfly) is a disc, which rotates around the valve shaft to achieve opening and closing. It mainly plays the role of cutting off and throttling on the pipeline. The butterfly valve opening and closing part is a disc-shaped butterfly plate, which rotates around its own axis in the valve body to achieve the purpose of opening and closing or adjustment.

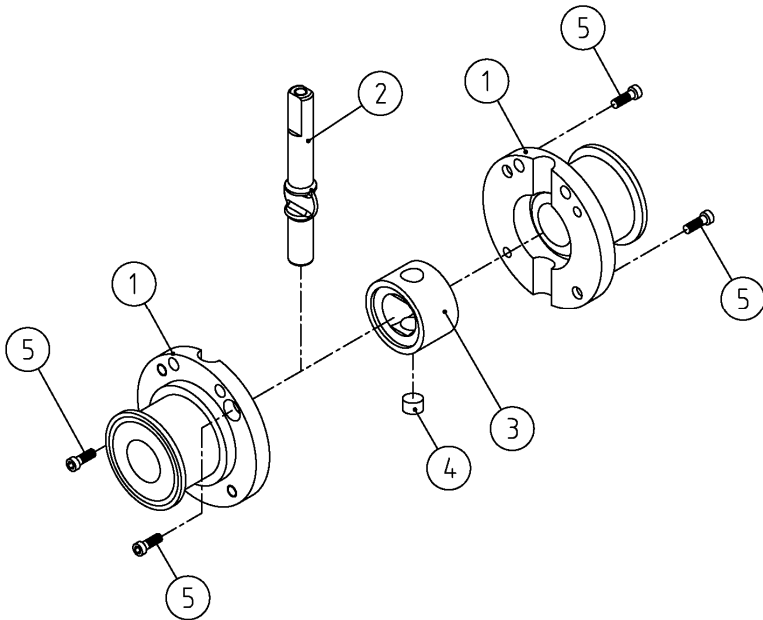
Working principle :

The butterfly valve is a valve that uses a disc-type opening and closing member to reciprocate about 90° to open, close or adjust the flow of the medium. The butterfly valve is not only simple in structure, small in size, light in weight, low in material consumption, small in installation size, small in driving torque, simple and fast in operation, but also has good flow regulation and closing and sealing characteristics at the same time. It has been developed in the past ten years. One of the fastest valve varieties. The use of butterfly valves is very extensive. The variety and number of its use continues to expand, and it is developing towards high temperature, high pressure, large diameter, high sealing performance, long life, excellent adjustment characteristics, and one valve with multiple functions. Its reliability and other performance indicators have reached a high level.

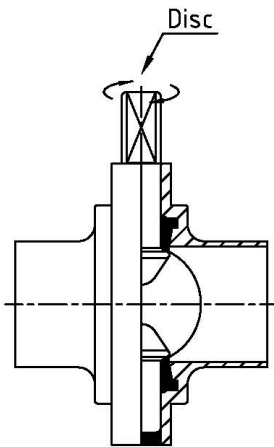
Standard design :

Mainly composed of valve body, valve stem, butterfly plate and oil seal. The valve body is cylindrical with short axial length and built-in discs.





Parts list			
NO.	Parts name	Q'TY	Material
1	Body	2	ST.ST 304 , 316L
2	Disc	1	ST.ST 304 , 316L
3	Rubber seat	1	EPDM, Silicone, Viton
4	Cover	1	PTFE
5	Screw bolt	4	ST.ST 304



Surface Finish :
 ID $Ra \leq 0.8 \mu m$ (32 μin) , OD $Ra \leq 1.6 \mu m$ (63 μin) , by Machining Finish .
 ID $Ra \leq 0.51 \mu m$ (20 μin) , OD $Ra \leq 1.6 \mu m$ (63 μin) , by Electrical Polish .

Instruction :

- 1, Butterfly valve can be equipped with manual handle design or pneumatic control to open and close.
- 2, Manual handle design and pneumatic type can be interchangeable.
- 3, The volume of the fluid can be adjustable through different manual angle controls.

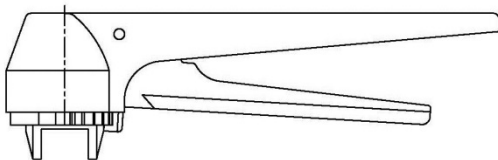


Fig. Lockable Multi-position Handle

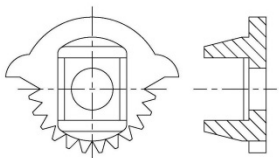


Fig. . Notch

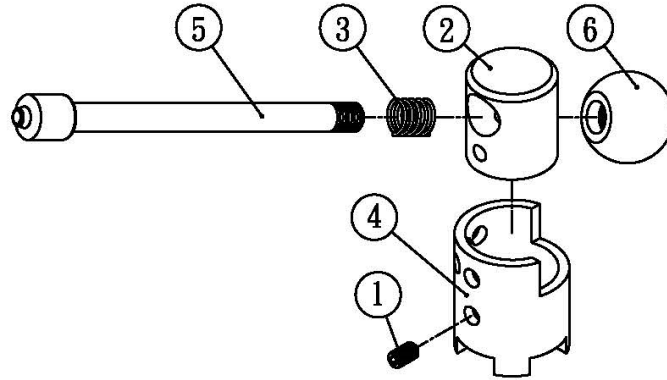
1. On/Off

2. Multi positioning

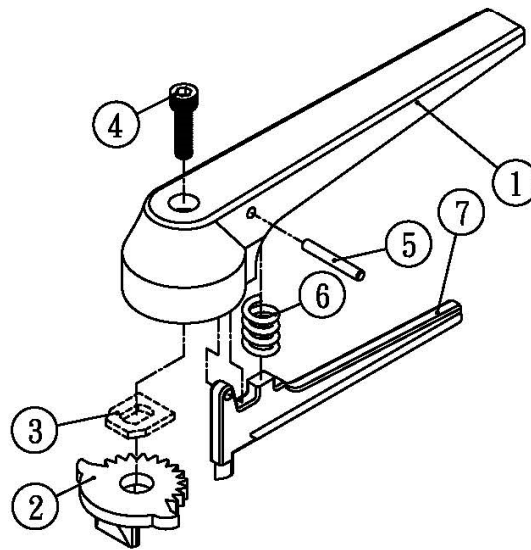


armatec

Parts List			
Item	Parts name	QTY	Material
1	Hex socket screw	1	St. St 304
2	Hub	1	St. St 304
3	Spring	1	St. St 304
4	Locking bushing	1	St. St 304
5	Locking rod	1	St. St 304
6	Button	1	Button

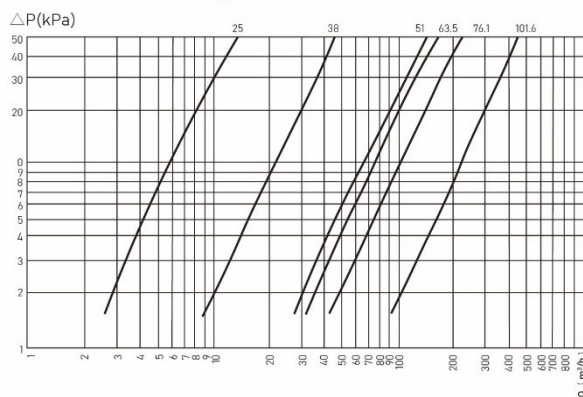


Parts List			
Item	Parts name	QTY	Material
1	Body	1	St. St 304
2	Sprocket	1	St. St 304
3	Metall-inlay	1	St. St 304
4	Screw	1	St. St 304
5	PIN	1	St. St 304
6	Spring	1	St. St 304
7	Trigger	1	St. St 304

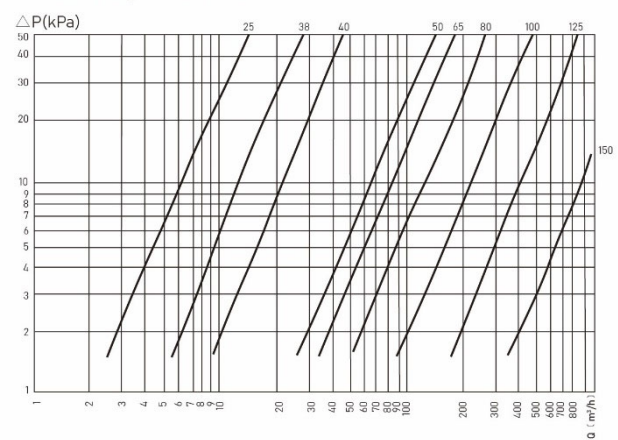


Capacity/Pressure drop diagrams

CSE Butterfly Valve Imperial



CSE Butterfly Valve Metric



Instructions:

1. The butterfly valves are designed using for different standards and low torque.
And the valve can use for different handles or actuators. (as actuator manual)
2. Notice the valve is set in correct position on or off
3. The screws on the body must be locked.
4. Need often to check of the valve on-off in the correct position
5. The handle which connecting with the valve is not loose
6. Need to keep the valve surface clean and to prevent it not being damaged by strong acid
7. Disassemble the valve for cleaning its inner parts and surface and pay attention to keep all screws and gasket
8. Screws loose or bolt shorted on valves are both not allows to work
9. Make sure to check gasket (depends on your operate situation) or to replace a new gasket on schedule for avoid leaking

Notice:

A. PRECAUTION BEFORE USING:

1. Please keep butterfly valve dryly in safe area always
2. Stock handles and the butterfly valves in the right location to avoid being damaged.
3. Keep the valve surface clean and prevent not being damaged by strong acid.

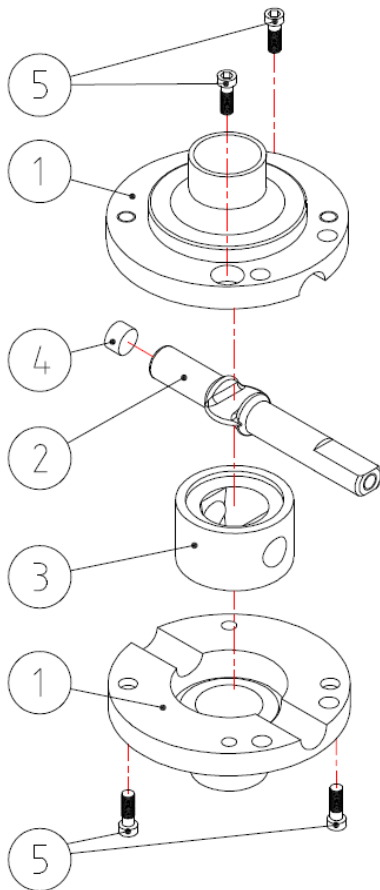
B. CLEAN MODLE:

1. Cleaning In Place(CIP) system
Follow the direction of your own CIP system.
Note: The pH of the cleaning liquid is different from the seal you use.
Avoid using steam cleaning on EPDM seal.
2. Clean Out Place(COP)
not recommended to use on welding valve
Disassemble the valve for cleaning its inner parts and surface.
(adviced to page 7, Dismantling)

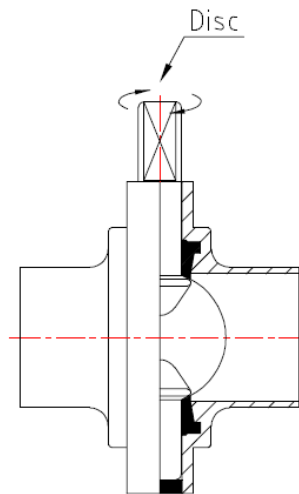
C. WORK TEMPERATURE & PRESSURE:

1. Work pressure for valve: -0.9bar~10bar on water temperature 20°C
2. Work temperature(water):-50°C~210°C depend on Rubber seat:
 Silicon: -50°C~210°C, EPDM: -40°C~110°C, Viton: -10°C~210°C

Torque for full open/close(SIZE)	1.0"	1.5"	2.0"	2.5"	3.0"	4.0"
H/M	<13	<13	<16	<18	<23	<34



Parts list			
NO.	Parts name	Q'TY	Material
1	BODY	2	ST.ST 304 , 316 , 316L
2	DISC	1	ST.ST 304 , 316 , 316L
3	RUBBER SEAT	1	EPDM , Silicone , Viton
4	COVER	1	PTFE
5	SCREWER BOLT	4	ST.ST 304



Part Information

BODY

1. Material: SS304 / SS316 / SS316L
2. Specification: 3A / SMS / DIN / BSetc.
3. Type: Weld / Clamp / Male Ends..... etc.



Disc

1. Material: SS304 / SS316 / SS316L
2. Specification: 3A/SMS/DIN/BS..... etc.
Out from full machined & high level polished, the surface is less than Ra 0.8 μ m Disk assembling with the handle or actuator is square 9.5mm or 8 × 12mm or 12 × 12mm, Connection part is meeting USA and Europe requirement (Electric polished and PTFE coating can be required)

Rubber Seat

1. Material: EPDM / SILICON / VITON
2. Make sure to check gasket (depends on your operate situation) or to replace a new gasket on schedule for avoiding leaking.

Screw Bolt

1. Material: SS304
2. The screws on the body must be locked.
3. Screws loose or bolt shorted on valves are both not allows to work.

Handle:

1. Different Nylon re-force and stainless steel handle in gripper, pull, press type.
2. Form 2 Position up to 12 position, design for your width range and good options

D. ASSEMBLY THE DIFFERENT HANDLE:

1. Please check the dimension of disk to assemble the correct handle
2. Please check handle on-off in correct position after assembling on valve

E. ASSEMBLY ON THE PIPE LINE:

a. Weld end:

1. Please disassemble the weld flanges for welding to avoid the gasket damaged
2. Please clean all inner surface while assembling after welding
3. Please tight up all of screws bolts
4. Please turn on-off position few times for making sure it works smoothly

b. Clamp end & Screw end

1. Please re-check the correct size clamp (ferrule) or thread on valve
2. Please re-check correct clamp (ferrule) / thread on the piece that are going to be connected.
3. Need tight up valve with connecting piece or clamp-ring.
4. Please turn on-off position few times for making sure it works smoothly

G. Dismantling

ON THE PIPELINE

- Weld End

1. Change the Seal
 - a. Loosen the screws of valve.
 - b. Carefully separate the valve body.
 - c. Remove the shaft or the seal ring of valve body.
 - d. Change new seals on.
 - e. Tighten the screws up.
 - f. Change the whole valve
2. Saw the valve on the pipe line.
 - a. (Or any other way to remove the valve)
 - b. Remove the used valve.
 - c. Replace a new valve on.
 - d. Carefully weld the connection of valve and pipe line.
 - e. Clamp End
3. **Clamp End**
 1. Loosen the clamp one the valve.
 2. Remove the wing-nut of the clamp.
 3. Remove the used valve.
 4. Replace a new valve on.
 5. Shackle the valve and pipeline together:
4. **Male End**
 1. Swivel the nut which is the connection of valve and pipeline.
 2. Remove the used valve.
 3. Replace a new valve on.
 4. Swivel the nut back to the pipeline.
5. **Valve**
 1. Set the valve in half open position.
 2. Loosen all the screws.
 3. Remove the seal ring on the valve.
 4. Remove the shaft.
 5. Remove the central ring on the disc.