

- Caution:**
1. For your safety, read this manual before installing or servicing the AS Series butterfly valve.
  2. Before installing or servicing this valve, please ensure line pressure has been relieved and any hazardous media has been drained or purged from the system.
  3. Ensure that all Lockout and Tagout procedures for the system have been properly implemented.

**1. Use:**

- 1.1 A-T Controls, Inc. AS Series Butterfly Valves are available in both lug and wafer styles and are compatible with ANSI B16.5 Class 150 flanges.
- 1.2 Optimal valve life can be maintained under normal service conditions in accordance with pressure vs. temperature ratings of the valve, as well as corrosion data.

**2. Installation Information:**

- 2.1 A-T Controls, Inc, AS Series Butterfly Valves are bi-directional, and can be installed with flow in either direction. The valve can be mounted in any position that allows proper clearance of handles, gears, or actuators. Gears equipped with chain wheels should be mounted to avoid contact with the valve and pipeline.
- 2.2 Before installation of a valve, the pipeline must be flushed clean of debris, burrs, and welding residues. If this step is not completed, the seat may be damaged.
- 2.3 The pipe must be free from tension and in proper alignment for correct installation of the valve.
- 2.4 A PTFE gasket is required for AS Series Butterfly Valves if the sealing surface is not PTFE. The torque ranges below are flange bolt torques. Overtorquing may damage the valve and piping system:

Flange Torques AS Series Valves										
Size	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14" - 24"
Torque (ft*lbs)	40-50	40-50	65-80	40-50	75-95	75-95	100-125	95-120	120-150	CF

- 2.5 Before installing a valve, ensure that there is proper clearance for the disc to be able to fully open and close without being obstructed. The disc projection dimensions are shown below:

Disc Projection AS Series Valves										
Size	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14" - 24"
Disc Projection (Inches)	2.45	2.45	3.23	4.06	5.01	6.03	7.94	9.83	11.95	CF

2.6 Valves should be installed in the pipeline completely assembled and open 5° from the closed position. The valves should **NOT** be open with the disc outside of the seat. Do not remove handles, gears, or actuators to install valve in pipeline.

### 3. Manual Operation:

#### Handle:

Open: Squeeze the handle to unlock it and turn it in the counter-clockwise direction. The handle can be locked in at 10° increments to adjust the flow. The valve will be locked into the 90° marker and parallel to the pipeline when fully open.

Close: Squeeze the handle to unlock it and turn it in the clockwise direction. The handle can be locked in at 10° increments to adjust the flow. The valve will be locked into the 0° marker and perpendicular to the pipeline when fully closed.

#### Gear:

Open: Turn the hand wheel counter-clockwise. The indicator will be pointing to the "O" position and will stop rotating when fully opened. The flow can be adjusted by stopping the indicator anywhere between "O" and "C".

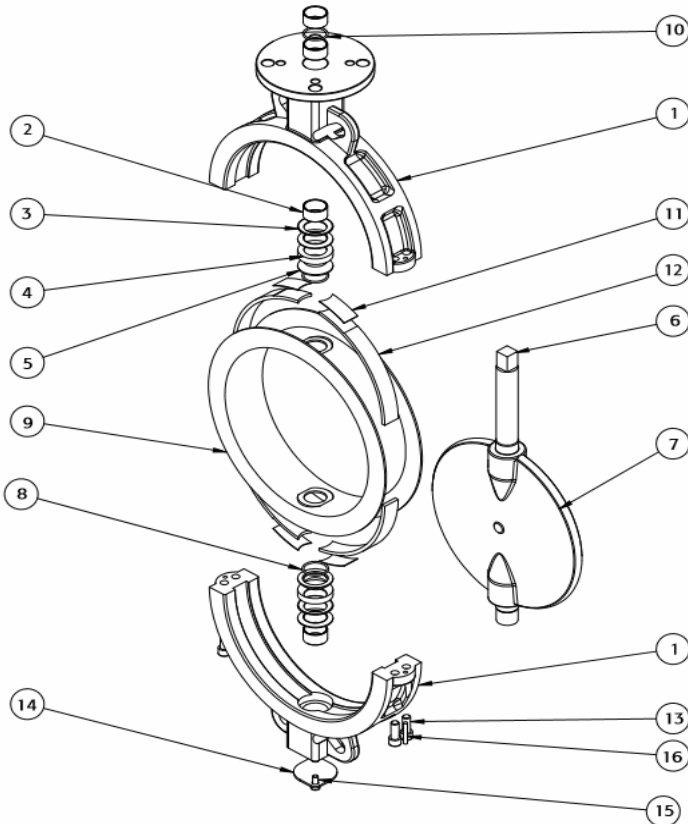
Close: Turn the hand wheel clockwise. The indicator will be pointing to the "C" position and will stop rotating when fully closed. The flow can be adjusted by stopping the indicator anywhere between "O" and "C".

### 4. Automated Operation:

A-T Controls, Inc. AS Series Butterfly Valves can be mounted with quarter turn actuators. Valves with actuators should be checked for proper valve stem alignment. Angular or linear misalignment may result in high torques and unnecessary wear on the valve stem. See the actuator IOM for information of actuator operation. Contact A-T Controls, Inc. for assistance of sizing an actuator for your application.

**5. Disassembly:**

A-T Controls, Inc. AS Series Butterfly Valves are not designed to be disassembled and repaired in the field. Please contact A-T Controls, Inc. for repair options and pricing.



No.	Part	QTY	Material
1	Body	1	ASTM A216 GRADE WCB ASTM A351 GRADE CF8M
2	Bushing	4	PTFE/CS BUSHING
3	Belleville Washer	4	AISI 304
4	V-Seal Gland	2	AISI 304
5	V-Seal Ring	2	PTFE
6	Stem	1	17-4 PH
7	Disc	1	ASTM A351 GRADE CFA/PFA
8	Lower O-ring	2	VITON®
9	Seat	1	PTFE
10	Upper O-ring	1	VITON®
11	Pad Energizer	4	COMPOSITE
12	Resilient Pad	4	SILICONE RUBBER
13	Body Bolt	*	ISO 3506-1 A2-70
14	Cover**	1	ASTM A1020 CARBON STEEL
15	Cover Bolt**	2	ISO 3506-1 A2-70
16	Pin***	2	CARBON STEEL

\*QTY 2 FOR 2" - 5" VALVES, QTY 4 for 6" – 12" VALVES

\*\*ONLY PRESENT ON 10" AND 12" VALVES, AND 8" LUG STYLE VALVE \*\*\*ONLY PRESENT ON 12" WAFER VALVE

A-T Controls product, when properly selected, is designed to perform its intended function safely during its useful life. However, the purchaser or user of A-T Controls products should be aware that A-T Controls products might be used in numerous applications under a wide variety of industrial service conditions. Although A-T Controls can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser / user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of A-T Controls products. The user should read and understand the installation operation maintenance (IOM) instructions included with the product, and train its employees and contractors in the safe use of A-T Controls products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only. Because A-T Controls is continually improving and upgrading its product design, the specifications, dimensions and information contained in this literature are subject to change without notice. Should any question arise concerning these specifications, the purchaser/user should contact A-T Controls.

For product specifications go to <http://download.a-tcontrols.com/>

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