

Technological Knowhow of ACE VALVE



A Top - ranking company in the 21st century by
challenging the potential

ACE VALVE has provided the best quality products by using accumulated technological knowhow and the most advanced machinery.

Now we challenge the whole world market of butterfly valve.

Specification of Concentric Butterfly Valve

The valve shall be capable of bi-directional flow with bubble tight shut-off at full rating pressure.

TYPE NUMBERING SYSTEM

- AV-CWR Concentric WAFER type Rubber lined Butterfly Valves
- AV-CSR Concentric SEMI-LUG type Rubber lined Butterfly Valves
- AV-CLR Concentric LUG type Rubber lined Butterfly Valves
- AV-CFR Concentric FLANGE type Rubber lined Butterfly Valves

STANDARD COMPLIANCE

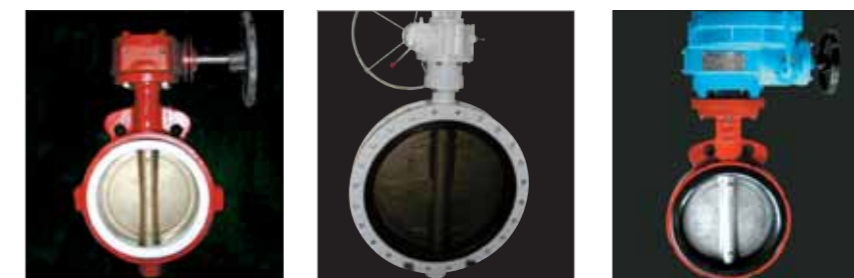
- ACE Concentric Butterfly valves conform to ISO 5752, KSV 7490, JIS F 7480, JIS B 2032, API 609, BS 5155, DIN2501.

PRODUCTION RANGE

- SIZE : DN 50mm (2 inch) ~ DN 4000mm (160 inch)
- RATING PRESSURE : UP to 20 bar depend on related size
- RATING TEMPERATURE : -20°C ~ +200°C

APPLICABLE FLANGE

- KS/JIS 5K, 10K, 16K
- ASME B 16.1 Class 125LB
- ASME B 16.5 Class 150LB
- EN 1092 PN6, PN10, PN16
- ISO 7005 PN6, PN10, PN16

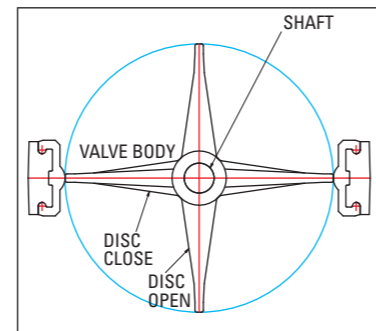


Concentric Butterfly Valves

The Concentric Design

CCENTER OF SHAFT / 'Seat in the 'Center of Valve Body'
Applicable for BUTTERFLY VALVE WITH ELASTOMER LINING.

- Symmetric disc design ensures favorable flow characteristics and low pressure drop
- Concentric shaft ensures low operating torque
- Lining gives a good protection to valve body, and acts as flange gasket
 - Shaft penetrates the valve seat
 - Limited choice of seating materials(Elastomer, only)



Schema of concentric type

The valve shall be a 90° turn clockwise to close, non-jamming, resilient seated valve for zero leakage service.

The valve shall be torque seated and designed in such a manner that the disc can not be rotated freely at the closed position.

Also this valve enables the fluid perfect shut-off regardless of the flow direction.

Operations

The various operator of the valve is available depend on the valve location, driving medium and dedicated service of the valve to be provided.

- Manual lever operation
- Manual worm gear operation
- Pneumatic actuator operation
- Hydraulic actuator operation
- Electric motor actuator operation



Classification by Connection type

Appearance	Type	General Characteristics
	AV-CWR (WAFFER)	<ul style="list-style-type: none"> • General Applications <ul style="list-style-type: none"> - Shipbuilding, water works, heating and ventilation, power plants, oil refinery chemical plants etc. • Valve to be installed by long bolts between the flanges of adjacent pipe only • Easy handling and light weight. • Easy installation, less bolt quantity and low cost. • Inconvenient maintenance of adjacent pipe.
	AV-CSR (SEMI-LUG)	<ul style="list-style-type: none"> • General Applications <ul style="list-style-type: none"> - Shipbuilding, water works, heating and ventilation, power plants, oil refinery chemical plants etc. • Similar as wafer type except a pair of the tap bolt hole in way of upper and lower sides for easy maintenance of adjacent pipe. • Easy handling and light weight. • Easy installation, less bolt quantity and low cost. • Keep liquid remained during repairing adjacent pipe.
	AV-CLR (FULL-LUG)	<ul style="list-style-type: none"> • General Applications : general piping system pump outlets, tank drains, ship sides etc. • Ring shape bolt hole for bolting with flange of connecting pipe. • Keep pressure inside during repairing adjacent the other side pipe. • Different flange shape. • Possible damage on full face gasket. • Hard repairing of corroded bolt. • More man-hour for installation and body can be cracked by misaligned thread. • Heavy weight.
	AV-CFR (FLANGE)	<ul style="list-style-type: none"> • General Applications <ul style="list-style-type: none"> - Shipline valves, ballast valves, water works, power plants, etc all piping system. • Both ends with complete flange. • Suitable to general pipe flange. • Suitable for shipline valve in the ship. • Heavy weight. • Same installation as ordinary valve.

Construction of Materials

NO.	PART NAME	MATERIAL
1	BODY	CAST IRON / DUCTILE IRON STAINLESS STEEL / CARBON STEEL (NICKEL) ALUMINUM BRONZE
2	DISC	STAINLESS STEEL / ALLOY STEEL (NICKEL) ALUMINUM BRONZE
3	SEAT	NBR / VITON / SILICON / EPDM
4	STEM	STAINLESS STEEL(SS304, 316, 410, 420, 17-4PH) / MONEL / DUPLEX
5	DISC PIN	STAINLESS STEEL OR MONEL
6	O-RING	RUBBER SAME AS SEAT MATERIAL
7	PACKING GLAND	BRONZE / STAINLESS STEEL / STEEL(HOT DIP GALV.)
8	GLAND BOLT	STAINLESS STEEL
9	BEARING	PTFE + PB
10	O-RING	RUBBER SAME AS SEAT MATERIAL
11	BOTTOM COVER	CARBON STEEL / STAINLESS STEEL AL-BRONZE / MILD STEEL
12	BOLT & WASHER	STEEL / STAINLESS STEEL
13	KEY	MILD STEEL / IF NECESSARY

