

# Butterfly Valve

## Triple offset butterfly valve

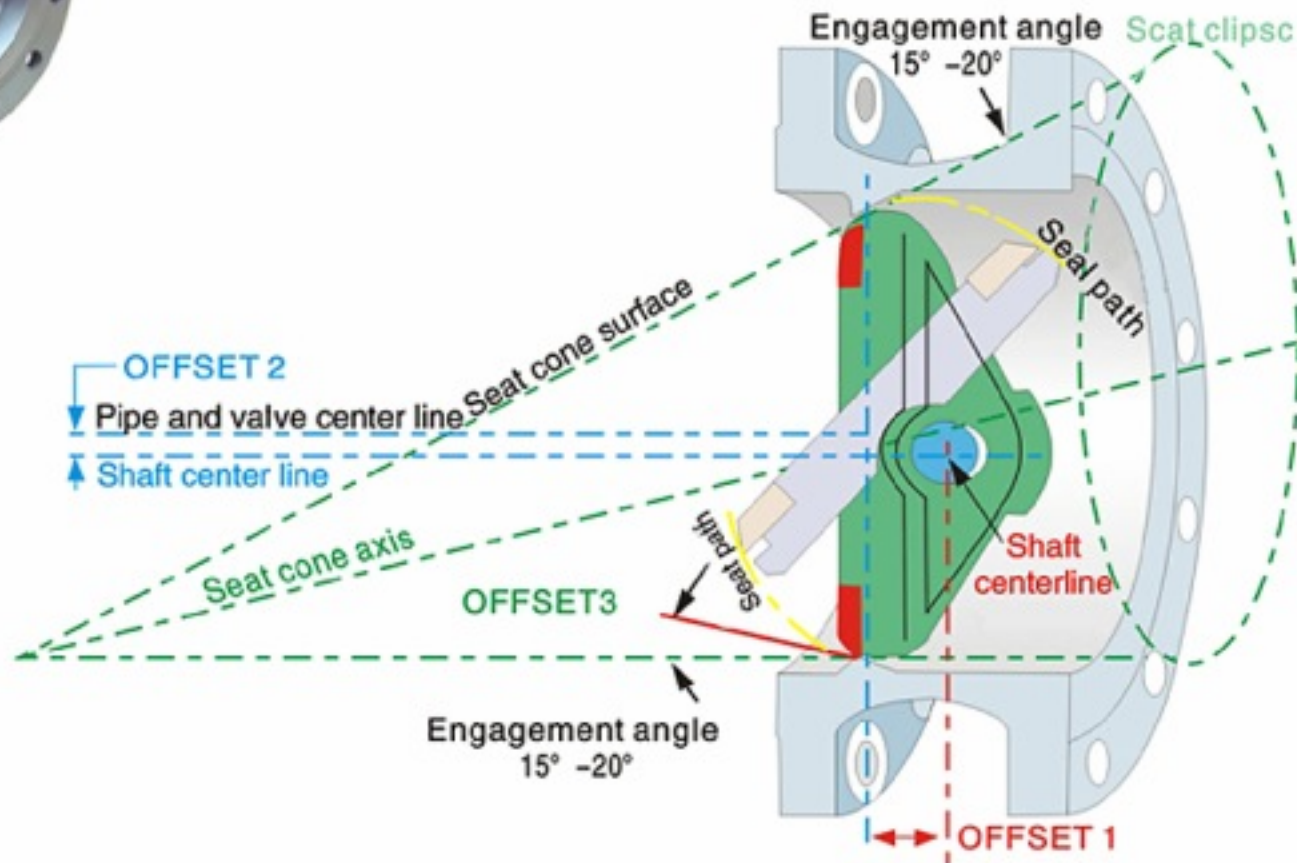
### Trait and purpose:

Hard Seal Butterfly Valve triple offset series are our company's leading products, which are used in such fields as metallurgy, light industry, electric power, petrochemistry, coal gas channel etc.



### The seal principle of hard Seal Butterfly Valve triple offset:

The Triple Offset Butterfly Valve provides a bi-directional bubble tight shut-off. This geometry ensures that the disc seal contacts the body seat only at the final shut-off position without rubbing or galling, providing a torque generated resilient seal with sufficient "wedging" to ensure uniform seal contact.

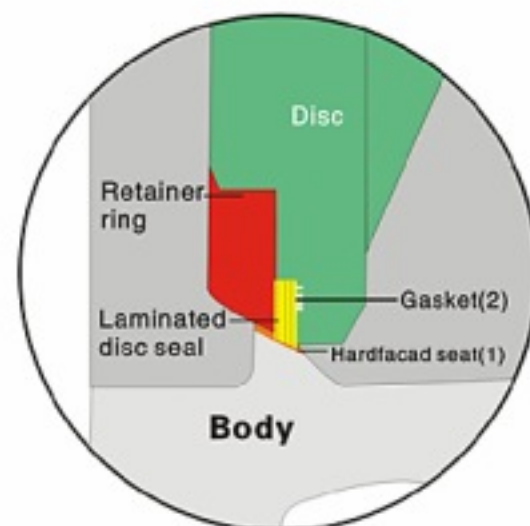


### The triple offset geometry

- OFFSET1 The shaft is offset behind the seat axis to allow complete sealing contact around the entire seat
- OFFSET2 The shaft centerline is offset from the pipe and valve which provides interference free opening and closing of the valve
- OFFSET3 The seat cone axis is offset from the shaft centerline to eliminate friction during closing and opening and to achieve uniform compressive sealing around the entire seat.

### Friction free sealing for long cycle life

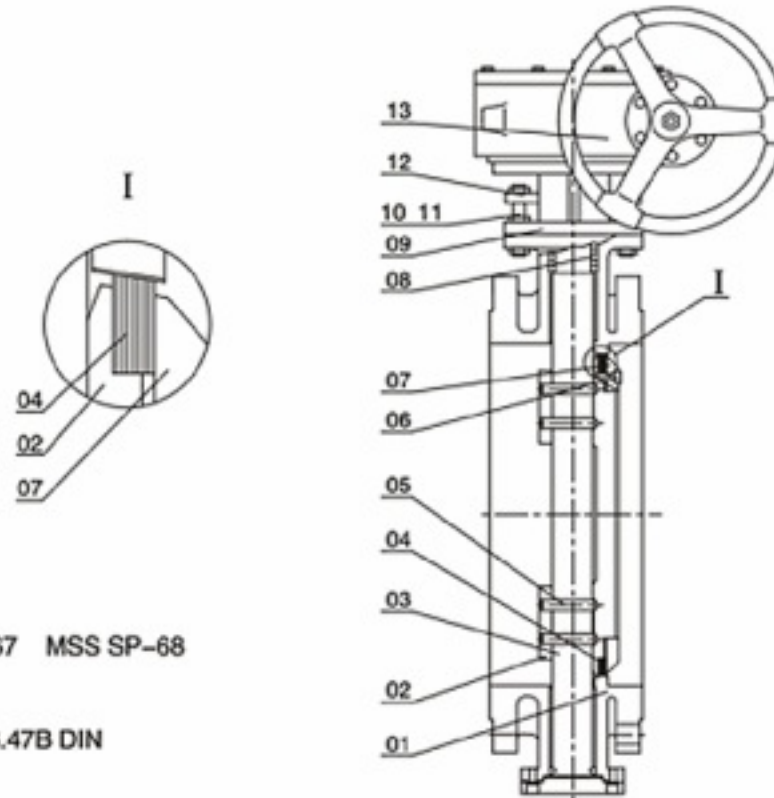
- (1) Seat is Cr13 Metal alloy or hardfaced with Stellite as standard.
- (2) The gasket is spiral wound SS/Graphite for zero leakage
- (3) Seat ring forces are generated by the torque during closing uniformly around the entire circumference. The resilient seal flexes and energizes, assuming the shape of the seat. The compression forces equally distributed around the perimeter provide a tight bi-directional shut off. The resiliency of the seal allows the valve body and disc to contract or expand, without the risk of jamming due to temperature fluctuations. It is self-adjusting.



# Triple offset butterfly valve material

# Butterfly Valve

## Triple offset butterfly valve main parts materials and specification



(Adopt Standard):

- 1.Design Standard :API609 MSS SP-67 MSS SP-68
- 2.Face To Face:ISO5752
- 3.Tubing Flange:ANSI B16.5 ANSI B16.47B DIN
- 4.Inspection and Test:API598

### Main parts materials

Part Name		Material				
01	Body	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF3	ASTM A351 CF8M	ASTM A351 CF3M
02	Disc	WCB	CF8	CF3	CF8M	CF3M
03	Stem	A276 420 or 304 or 316	A276 304	A276 304L	A276 316	A276 316L
04	Seal Ring	SS 304 or 316+Graphite or PTFE	SS 304+Graphite or PTFE	SS 304L+Graphite or PTFE	SS 316+Graphite or PTFE	SS 316+Graphite or PTFE
05	Spin	A276 420 or 304 or 316	A276 304	A276 304L	A276 316	A276 316L
06	Capscrew	A193 B7 or B8 or B8M	A193 B8	A193 B8	A193 B8M	A193 B8M
07	Retaining ring	A105 or A182 F304 F316	A182 F304	A182 F304L	A182 F316	A182 F316L
08	Packing	Soft graphite				
09	Yoke	WCB	WCB GALVAN CF8	WCB GALVAN CF8 or CF3	WCB GALVAN CF8 or CF8M	WCB GALVAN CF8 or CF3M
10	Bolt	A193 B7	A193 B8	A193 B8	A193 B8M or B8	A193 B8M or B8
11	Nut	A194 2H	A194 8	A194 8	A194 8M or B8	A194 8M or 8
12	Gland	WCB	CF8	CF8	CF8M	CF3M
13	Drive actuator	Hand actuator, Electric actuator, Worm gear actuator, Pneumatic actuator				

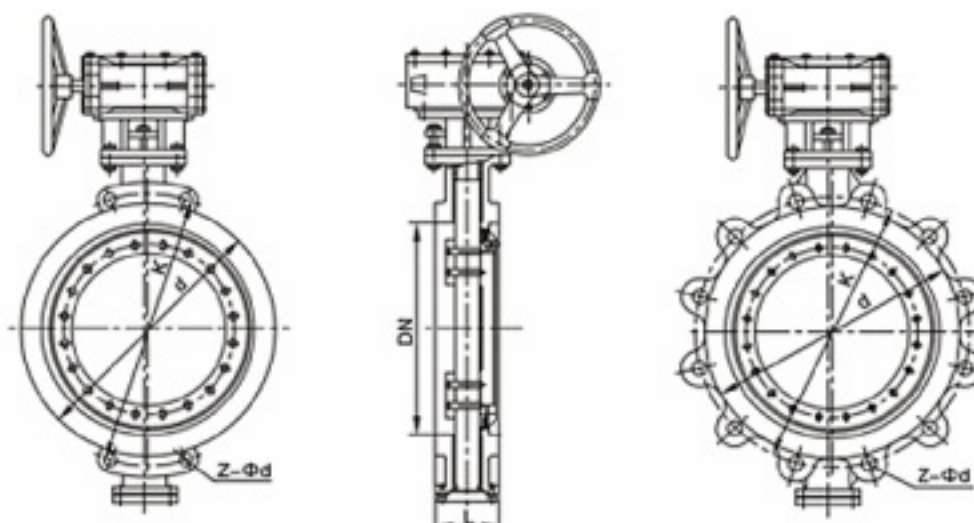
Note: The chart above only lists out some common composition of valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.



# DIN Wafer and lug triple offset butterfly valve

## Butterfly Valve

DIN Wafer and lug triple offset butterfly valve main connection dimension



Main connection dimension

Unit: mm

Type	NPS (In)	DN (mm)	L	K	Z-Φd	d
<b>PN10</b>						
D673H-10C	2	50	43	125	4-18	99
	2 1/2	65	46	145	4-18	118
	3	80	48	160	8-18	132
D673Y-10C	4	100	54	180	8-18	156
	6	150	57	240	8-22	211
	8	200	64	295	8-22	266
D673W-10 <sup>P</sup> <sub>R</sub>	10	250	71	350	12-22	319
	12	300	81	400	12-22	370
	14	350	92	460	16-22	429
D673Y-10 <sup>P</sup> <sub>R</sub>	16	400	102	515	16-26	480
	18	450	114	565	20-26	530
D673F-10 <sup>P</sup> <sub>R</sub>	20	500	127	620	20-26	582
	24	600	154	725	20-30	682
<b>PN16</b>						
D673H-16C	2	50	43	125	4-18	99
	2 1/2	65	46	145	4-18	118
	3	80	48	160	8-18	132
D673Y-16C	4	100	54	180	8-18	156
	6	150	57	240	8-22	211
	8	200	64	295	12-22	266
D673W-16 <sup>P</sup> <sub>R</sub>	10	250	71	355	12-26	319
	12	300	81	410	12-26	370
	14	350	92	470	12-26	429
D673Y-16 <sup>P</sup> <sub>R</sub>	16	400	102	525	16-30	480
	18	450	114	585	20-30	548
D673F-16 <sup>P</sup> <sub>R</sub>	20	500	127	650	20-33	609
	24	600	154	770	20-36	720
<b>PN25</b>						
D673H-25C	2	50	43	125	4-18	99
	2 1/2	65	46	145	8-18	108
	3	80	48	160	8-18	132
D673Y-25C	4	100	54	190	8-22	156
	6	150	57	250	8-26	211
	8	200	64	310	12-26	274
D673W-25 <sup>P</sup> <sub>R</sub>	10	250	71	370	12-30	330
	12	300	81	430	16-30	389
	14	350	92	490	16-33	448
D673Y-25 <sup>P</sup> <sub>R</sub>	16	400	102	550	16-36	503
	18	450	114	600	20-36	548
D673F-25 <sup>P</sup> <sub>R</sub>	20	500	127	660	20-36	609
	24	600	154	770	20-39	720