

Quadruple-Eccentric Structure Butterfly Valve

The Circular Seal Structure is achieved by adding the Quadruple-Eccentric.

What is the Quadruple-Eccentric?

- 1 The positions of the seat and the valve stem center are Eccentric.
- 2 The valve stem center is Eccentric to the centerline of pipe lines.
- 3 The center axis of the seat surface is Eccentric to the centerline of pipe lines. (Elliptical shape seat surface)
- 4 The seal surface made to the shape of a slice from this elliptical cone, results in a seal that is perfectly round.

High Pressure/
High Temp.
High Sealing
Performance

FEATURES

1 Super-low Friction Valve Seat

The valve body seat and disc seat do not touch each other until the valve is fully closed because the both seats are perfectly round. The seat surface friction is nearly zero because the both seats do not slide. As a result, it achieves a great sealing performance over a long period of time.

2 Low Torque

As there is no sliding motion in between the seats, open / close torque is very small which can help minimize the actuator size that provides an energy saving after all.

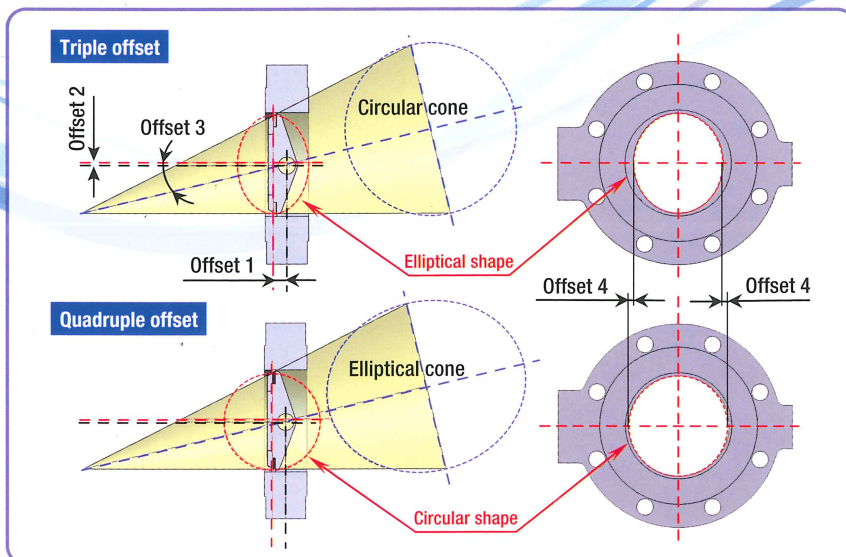
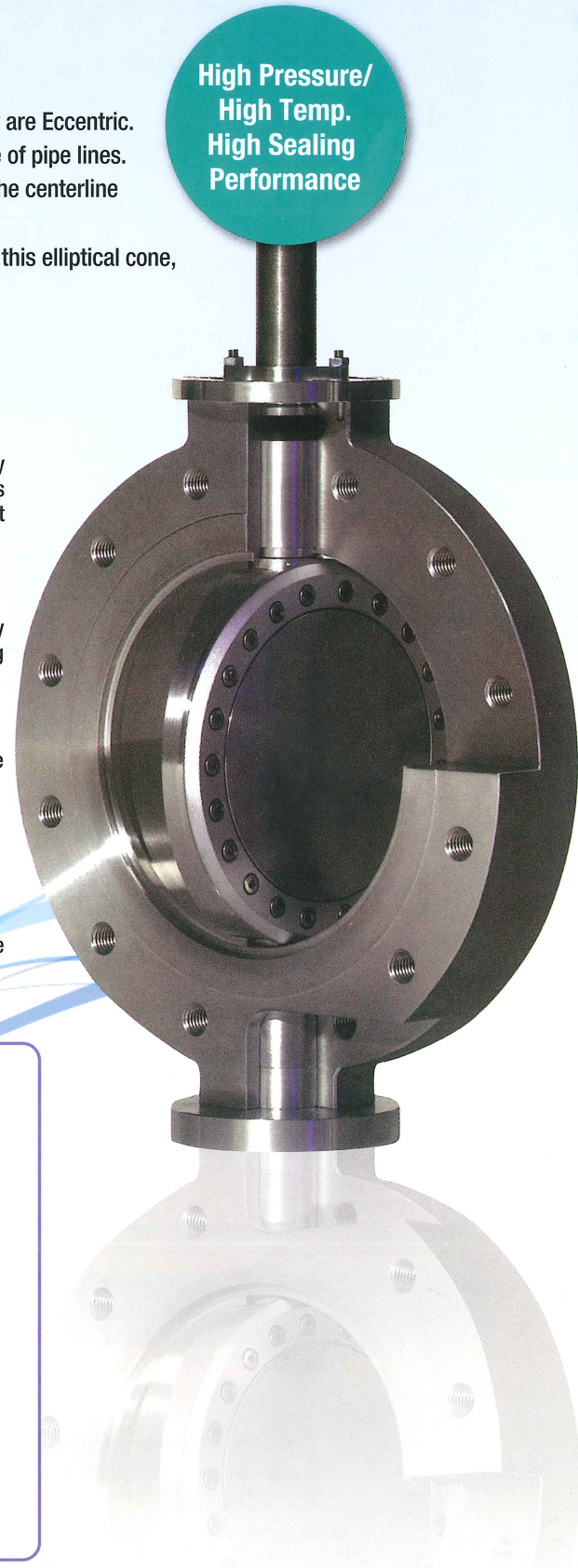
3 Excellent Flow Characteristic (Cv Value)

Excellent Flow Characteristic (Cv Value) can be obtained through this design base due to the following reasons.

- The circulation cross-section part of body seat is round.
- There is no fluid resistance i.e. no extending part out in the inner side that may be seen on a triple-eccentric butterfly valve.

4 Wide range of Valve Seat Option

We provide replaceable O-ring Seat and different types of seat options for the circular seat structure of Quadruple-Eccentric Butterfly Valve.



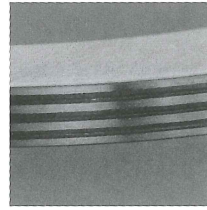
STANDARD SPECIFICATION

Applicable Fluid	Water / Air / Steam
Nominal Size	50 ~ 1000 mm
Max. Working Pressure	0 ~ 5 MPa
Temperature	Room Temp. to 450°C
Body Type	Lug & Double Flange Type
Flange	ANSI · ISO · (EN)
Face-to-Face Dimension	Lug:API 609 Double Flange:ISO 5752 R13
Seat Leakage Standards	ANSI/FCI 70.2 Class VI
Operation	Manual, Electric, Air Cylinder & Hydraulic

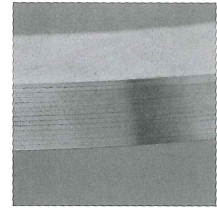
Standard Materials

Body	A216 WCB
Disc	A216 WCB
Stem	AISI 431
Body Seat	Inconel 625 (A216 WCB for Body)
Disc Seat	AISI316Ti+Graphite

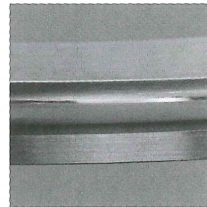
Various Valve Seat Types.



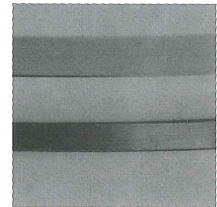
Graphite laminate



Stainless steel laminate

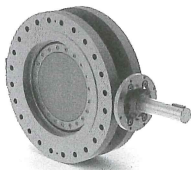


Inconel O-ring

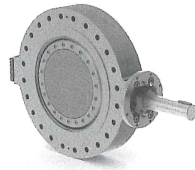


PTFE O-ring

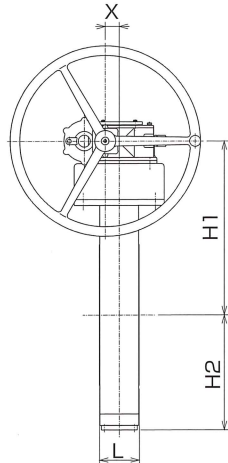
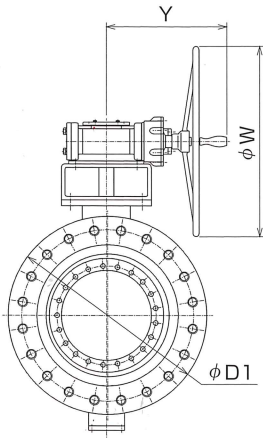
Outline



Double Flange type



Lug type



Dimensions

(Unit:mm)

Nominal diameter	L		D1	H1	H2	X	Y	W
	Lug ^(*)	Flange						
50	43	108	165	183	106	63	261	435
75	48	114	190	206	129	63	261	435
100	54	127	230	250	158	75	273	435
150	57	140	280	306	204	75	273	435
200	64	152	352	376	241	75	273	435
250	71	165	405	422	281	91	381	635
300	81	178	485	448	307	91	381	635
350	92	190	550	560	333	91	381	635
400	102	216	590	631	383	117	418	635
450	114	222	640	653	403	47	401	635
500	127	229	700	698	441	44	446	635
600	154	267	815	804	541	67	481	745
700	-	292	927	924	643	67	481	745
750	-	318	984	918	643	233	624	745
800	-	318	1085	988	713	233	624	745
900	-	330	1168	1133	836	233	624	745
1000	-	410	1290	1220	926	305	774	745

This dimension table shows the pressure class ANSI 150lb specification.

(*1) Lug type is applied to API609.

Please inquire about lug type larger than 700mm.

*The contents written in this catalogue may be changed without a prior notice for improvement.

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