McSYS®

TRIPLE OFFSET BUTTERFLY VALVE

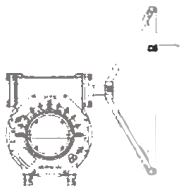
LIMINATED SEAT

TRIPLE OFFSET BUTTERFLY VALVE SPECIFICATION

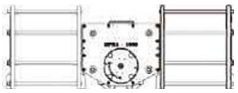
LAMIATED SEAT TYPE SPECIFICATION

950 Series

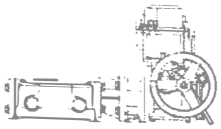
OPERATING METHOD



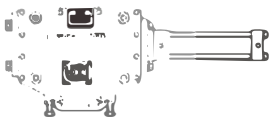
MANUAL



PNEUMATIC



ELECTRIC



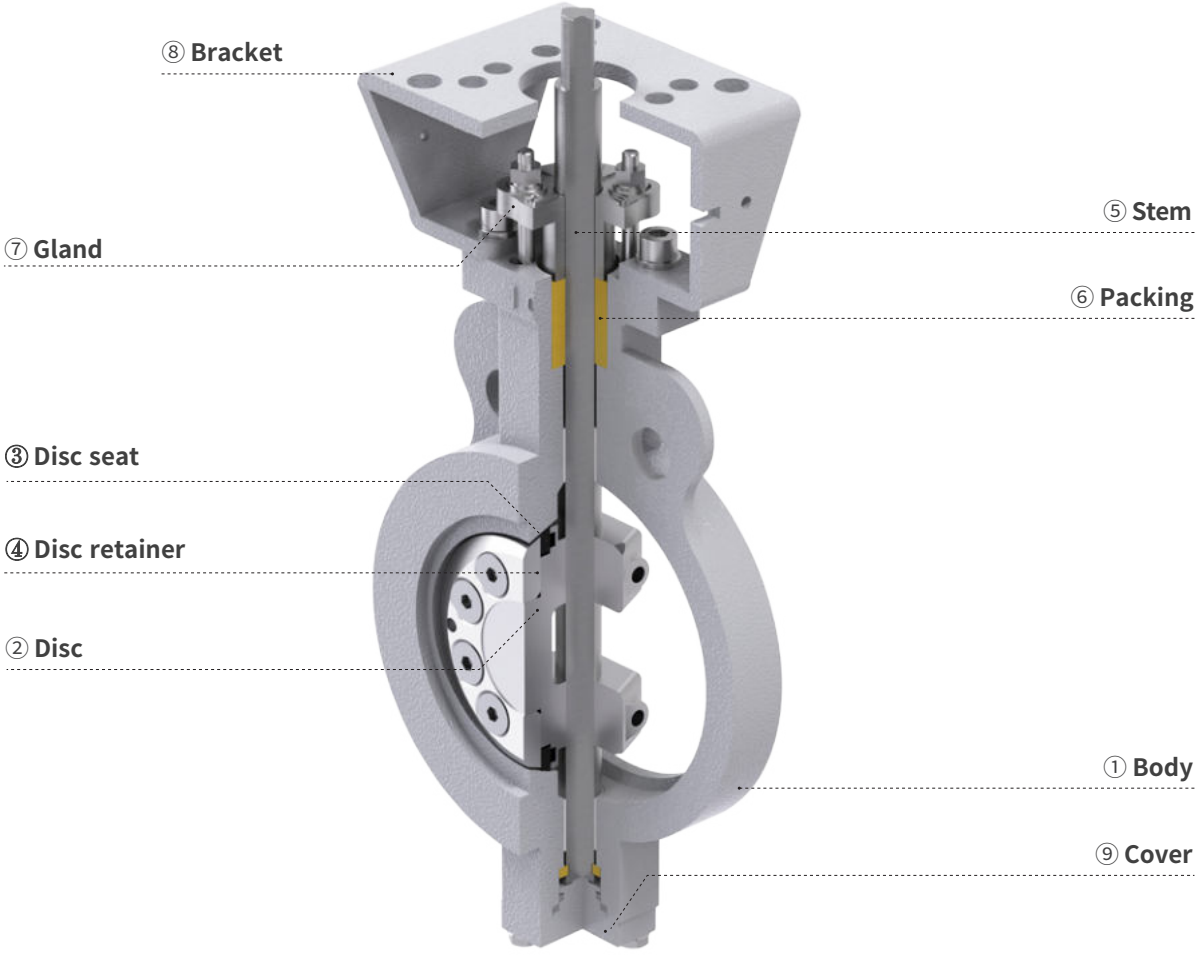
HYDRAULIC

DESCRIPTION

SIZE RANGE:	2"~120"
TEMP. RANGE:	-50~650℃
DESIGN:	API 609 / BS 5155 / ANSI B 16.34
TEST INSPECTION:	API598 / ISO 5208
PRESSURE TEMP'RATINGS:	ASME / ANSI B 16.34,16.24
LEAKAGE:	ZERO LEAKAGE
FLUID:	WATER/SEA WATER/O2/CO2/H2/ COG/LDG/BFG/FOG/MIXED GAS/ DUST/STEAM/AIR/ HYDROCHLORIC ACID/SULFURIC ACID NITRIC ACID
FLANGE RATING:	ASME B16.5/16.47 CLASS 150LB,300LB,600LB KS(JIS)10K,16K,20K,30K,40K BS 4504 DIN PN 10,PN 16,PN 25,PN 40 AWWA C207 CLASS B & D,E,F

Triple Offset Butterfly Valve

BTO model is manufactured based on fundamental triple offset valve structure. So that it is applicable in the condition of low or high temperature as well as high pressure. The combination of three offset provides an uninterrupted sealing surface, minimzes wear between the seat and seal, and preserves sealing integrity over the life cycle of the valve.
It is able to designed as manual, automatic and proprtional types of control according to customer's needs, so very applicable for various conditions.



CHARACTERISTICS OF TRIPLE OFFSET VALVE

Maximum working pressure : 100Bar(Customization Available)
Maximum working temperature : 650°C(Customization Available)

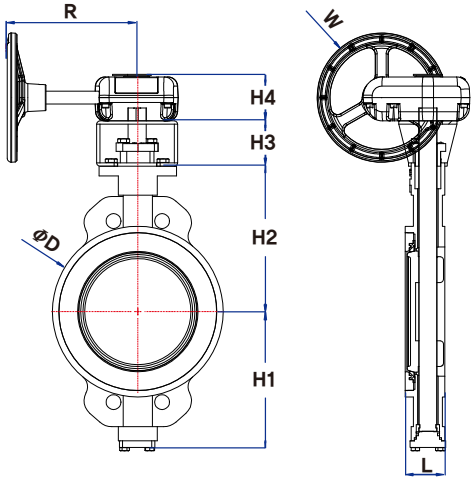
To prevent the secession of the valve of the valve seat it is fabricated as a structure fixed to the body and the structure is designed to maintain easily when pipes are laid.

Metal seat	Usage	Non-Rubbing
• Zero leakage • Available in low or high temperature as well as high pressure	• No limitation for temperature and pressure • Alternative for gate, globe and ball valve	• Excellent durability of seat • Low valve operating torque • Metal seat

SPECIFICATION

VALVE TYPE		Triple Offset Butterfly Valve	
CONFIGURATION		Wafer Type (option : Lug, Flange)	
SIZE RANGE		50A ~ 600A (2" ~ 24")	
VALVE OPERATOR		Bare Stem (Non Operator) Manual (Hand Lever, Gear) Auto (Pneumatic, Electric)	
APPLICABLE FLANGE		KS/JIS 10K, 16K, 20K, 30K, 40K AISN 150Lb, 300Lb, 600Lb DIN PN10, PN16, PN25, PN40, PN63, PN100	
FLUID APPLICATION		Steam, Air (Hot), Water (Hot), Oil, Chemical Product, etc	
MAX. WORKING PRESSURE		MAX. 100Bar ※ Customization available	
WORKING TEMPERATURE		MIN. -165°C / MAX. 650°C ※ Customization available	
MATERIAL	BODY	WCB(SCPH2) CF8 (SSC13, SCS13), 304 CF8M (SSC14, SCS14), 316 CF3M (SSC16, SCS16), 316L	+ STELITE #6 (Surface hardening treatment)
	DISC	CF8 (SSC13, SCS13), 304 CF8M (SSC14, SCS14), 316 CF3M (SSC16, SCS16), 316L	
	SEAT	316L - MAX. 500°C INCONEL 625 - MAX. 650°C E.T.C	
	STEM	SUS630, E.T.C	
PRESSURE TEST	SHELL	More 1.5 times than working presure	
	SEAL	More 1.1 times than working presure	

SOLID SEAT TYPE 951 Series



Valve Dimension(mm)

SIZE		중량	DIMENSION(mm)							
Inch	mm		L	ϕD	H1	H2	H3	H4	R	ϕW
2	50	4.5	43	96	77	100	65	50	160	120
2.5	65	5.2	46	116	90	110				
3	80	6.5	46	126	95	120				
4	100	7.5	52	150	110	140				
5	125	14	57	180	145	170	70	70	200	200
6	150	18	62	212	150	175				
8	200	29	61	264	210	225				

SIZE		중량	DIMENSION(mm)							
Inch	mm		L	ϕD	H1	H2	H3	H4	R	ϕW
10	250	43	70	325	238	257	70	70	220	250
12	300	83	78	370	255	265	76	90	320	300
14	350	91	81	415	275	300				
16	400	118	102	475	355	375				
18	450	147	115	534	380	408		95	420	400
20	500	171	120	583	410	441				
22	550	190	154	642	435	475	115			
24	600	208	154	675	460	490				

Ordering Guideline

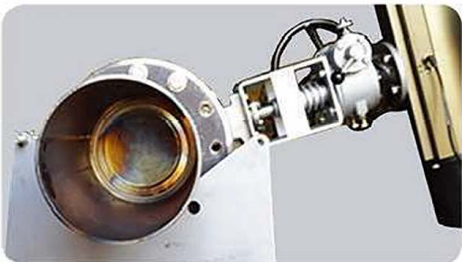
Size	Series	Class	Body	Disc	Shaft	Packing	Seat Ring	Operator	Mode	Fail Action
x	xxx	xxx	xx	xx	xx	x	xxx	xx	xx	xx
3" 4" 5" 6" 8" 10" 12" 14" 16" 18" 20" 24"	950-Water 951-LUG 952-Double Flange	150 300 600	CS-Carbon Steel S4-304SS S6-316SS BX-Special Alloy	D1-Carbon Steel D2-304SS D3-316SS DX-Special Alloy	S1-410SS S2-316SS S3-304SS S4-630 SS (17-4PH) S5-402SS SX-Special Alloy	G-Graphite T-PTFE R-RTFE N-Nitronic	LR1-Laminated 304SS/Graphite LR2-Laminated 316SS/Graphite SR1-Solid 304 SS SR2-Solid 316 SS SRX-Special Alloy	LV-Lever GO-Grar Operator PN-Pneumatic Actuator EL-Electric Actuator HY-Hydraulicy Actuator	DA-Double Acting SR-Spring Acting	LP-Last Position FC-Fail Closed FO-Fail Open

LIMINATED SEAT

Technical Data

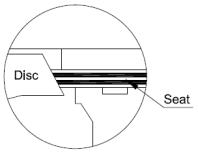
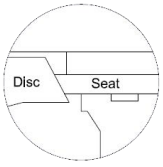
SOLID SEAT TYPE SPECIFICATION

High temperature test Seat structure



Operation test after high temperature heating

High temperature test
Triple offset seat structure Valve opening shape

Type	Seat Structure	Material	Temperature Range	Characteristic
Laminate Seat		316L	-20℃~400℃	금속재질과 그라파이프 적충구조 되어 있음
Solid Metal Seat		316L	-20℃~650℃	금속재질 단일재질 되어 있음고온고유속 안정적임

McSYS®

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