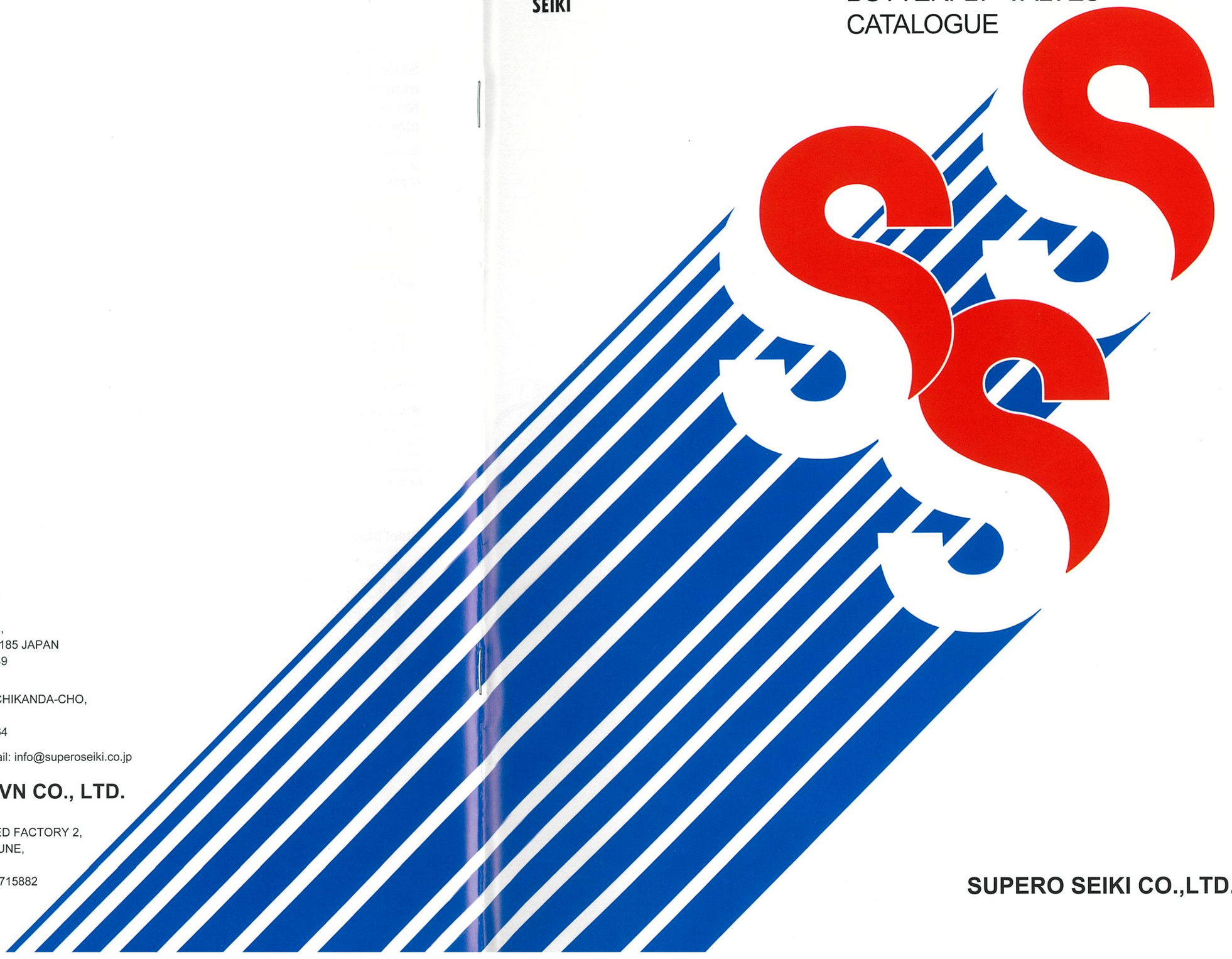
SUPERO
SEIKI

SUPERO SEIKI

VULCANIZED RUBBER SEAT
BUTTERFLY VALVES
CATALOGUE



SUPERO
SEIKI

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SUPERO SEIKI CO.,LTD.

Technical integration to fluid transport tomorrow. Valve high technology.

In industries of all sectors, piping running lengthwise and crosswise in the plant is an important equipment indispensable for operation of the plant. Depending on the type of industries such as electric utility, petrochemical, steelmaking, etc., including public works such as water supply, sewage, agricultural water, the fluid flowing in the pipeline has various characteristics and requires precise flow adjustment function as necessary.

Since our establishment, SUPERO SEIKI CO., LTD. has pursued highly reliable products under the philosophy of “Give the valve the same durability as piping” . In particular, “Vulcanized rubber lining butterfly valve” by technical collaboration with OKANO VALVE MFG. CO., LTD. boasts superior sealability and durability, and realizes maintenance free. We position this as our standard product, and we are distinguishing it from other companies.

Elaborate flow control similar to human blood circulation — We respond precisely to everyday sophisticated needs with comprehensive technical strength accumulated over the quarter century and open tomorrow of fluid transportation.

Features

SUPERO VULCANIZED LINING MECHANISM

SUPERO's *vulcanized* rubber lining butterfly valve, having exceedingly high quality functions.

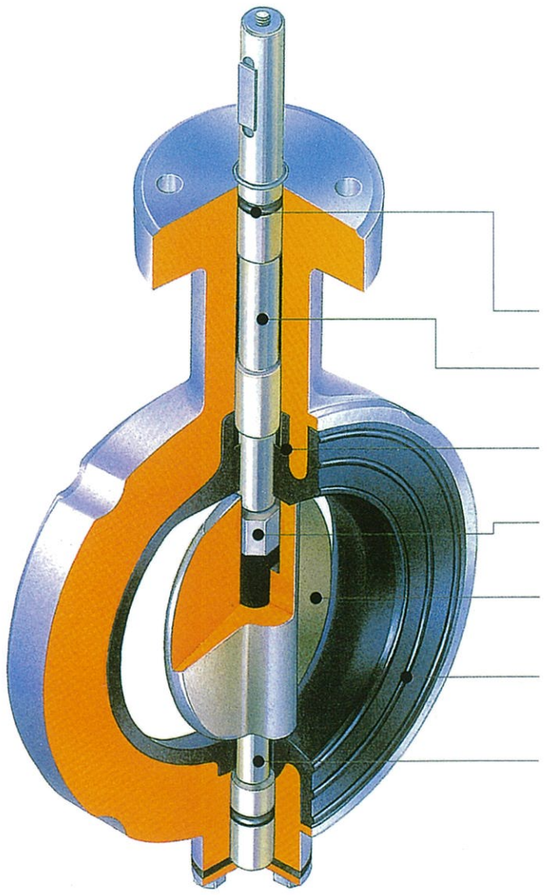
Completely sealed type and realize maintenance-free.

Butterfly valves have features such as simple structure, light weight, good flow characteristics, but how to improve and maintain sealing performance is a big issue. In general, "Rubber seat fitting type" is adopted, but it is based on periodical replacement to the last, the range of use is also restricted.
"SUPERO' s butterfly valve" is a fully sealed type with vulcanized rubber bonded to the valve body, unlike "fitting type" , boasting superior sealability and durability, it is the biggest feature that it can be used without maintenance.

Adapt under all circumstances.

The SUPERO's butterfly valve has superior characteristics compared with "fitting type" because its lining is strong and there is no defect inside the rubber.

① Maintain high initial performance for a long time.
② It also supports harsh circumstances such as high pressure, high flow velocity and vacuum.
③ There is no corrosion of the valve body due to fluid.
④ It is also ideal for automatic valves and control valves.
⑤ It can be plumbed easily to flanges of all standards.



Simple structure proves reliable function.

O-ring
It prevents dust from entering from outside and guarantees a gland-less seal.

Upper stem
By adopting a split type stem, the cross section area of the disc has become smaller. In addition, the long guide system prevents the stem from running out.

Glandless seal
It is a perfect grand-less structure with lifespan and airtightness that far exceeds the V type packing and O ring.

Square shape joining
Since pins and screws are not used, reliable operation is possible without worry of slack and play.

Disc
Lightweight operation is possible with self-aligning and high-precision machining. Of course, it can be used irrespective of the direction of flow.

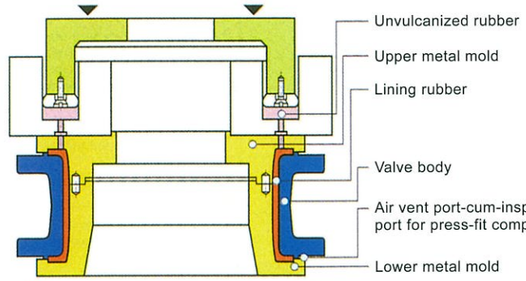
Seat lining(Vulcanized rubber seat)
Since it is press-fitted into the inside of the body by the mold and vulcanization-baked, the durability and the airtightness is outstanding.

Lower stem
It keeps the rotation of the disc smooth and helps the self-aligning action.

■Valve caliber size 40 to 65A are single stem structure, 450A or more is a taper pin or reamer bolt joining.

Powerful vulcanized rubber lining by integral molding.

"Press-fit molding and vulcanized adhesion method" is adopted for rubber lining. Adhesives are applied on the inside of valve body before lining, and metal mold is attached to the body, and unvulcanized rubber is press-fitted between the body and metal mold and is vulcanized, so adhesion is completed with vulcanization at the same time. By integral molding with high pressure that is not bonding, a dense rubber-like lining without pinholes can be obtained.
The adhesive strength between rubber and metal (the valve body) is also strong, there is no peeling of the rubber in a severe test, and the result that rubber part breaks at the same tensile strength as the rubber strength has come out.



■Press-fit and vulcanized adhesion of rubber by mold

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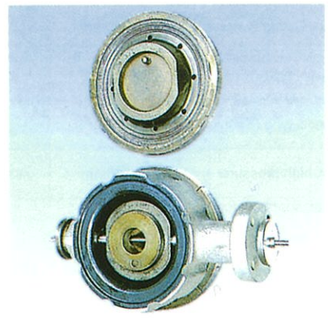

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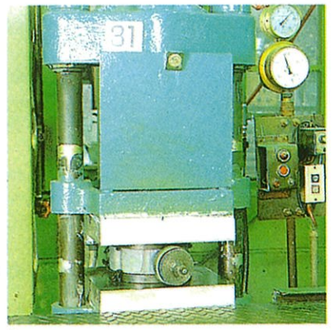

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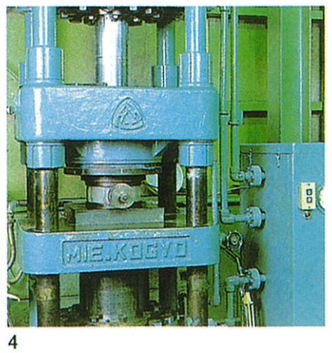

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Manufacturing process of vulcanized rubber lining.

1.Apply adhesive on the inside of the body.
2.Attach the body to metal mold.
3.Press in unvulcanized rubber.
4.Vulcanize and adhere.
5.Completion.

SUPERO's butterfly valve is a product through technical collaboration with OKANO VALVE MFG. CO., LTD., the top manufacturer of high temperature / high pressure valves.

Technical integration to fluid transport tomorrow. Valve high technology.

Standard specification table

Valve type		Model	Features	Nominal diameter	Maximum allowable pressure	Operating temperature limits	Suitable flange standard
butterfly valve Vulcanized rubber lining type	Wafer type	S L -1000	JIS general-purpose	50～600mm	0.98MPa (10kgf/cm²)	NBR -10～80℃ EPDM -20～120℃	JIS 5K JIS 10K JIS 16K JIS 20K Waterworks 7.5k ANSI 125Lb/150Lb API 125Lb/150Lb JPI BS NP10/NP 16 ISO DIN PN10/NP16 AWWA Others
		S L -1100	Manufacturer standard	40～1350mm	0.98MPa (10kgf/cm²)		
		S L -1200	16K high pressure	50～800mm	1.57MPa (16kgf/cm²)		
			20K high pressure	50～300mm	1.96MPa (20kgf/cm²)		
	Flange type	S L -2000	MSS short face-to-face	50～1300mm	50～800mm 1.57MPa (16kgf/cm²) 850～1300mm 0.98MPa (10kgf/cm²)		
		S L -2100	ANSI gate valve face-to-face	50～600mm			
		S L -2200	JWWA standard type	150～1200mm			
	Lug type	S L -3000		50～600mm	1.57MPa (16kgf/cm²)		
	Joint type	S L -5000	Joint G type (Groove)	50～200mm	1.57MPa (16kgf/cm²)		
		S L -5100	Joint N type (Ring)	50～400mm			
		S L -5200	Joint S type (Shoulder)	50～400mm			
Eccentric butterfly valve		S R -6000	30K high pressure	80～600mm	2.94MPa (30kgf/cm²)	NBR -10～80℃ EPDM -20～120℃	JIS 20K JIS 30K ANSI 300Lb Others
		S M-7000	Metal seat type for high temperature and high pressure	100～1000mm	5.1MPa (52kgf/cm²)	Stellite 500℃	
		S E -8000	Steel plate welded structure	700～2400mm	0.34MPa (3.5kgf/cm²)	Rubber ring -20～120℃ Metal seat -100～600℃	JIS 2K JIS 5K JIS 10K ANSI 125/150Lb Others
High performance butterfly valve		S H -9000	OEM collaborative product with Kubota Corporation	80～250mm	1.96MPa (20kgf/cm²)	-25～180℃	JIS 10K JIS 16K JIS 20K ANSI 125/150Lb Others
Steel plate made butterfly valve		S S -9100	Joint G type Joint N type Joint S type Single flange G type Double flange type	50～150mm	1.57MPa (16kgf/cm²)	NBR -10～80℃ EPDM -20～120℃	JIS 5K JIS 10K JIS 16K JIS 20K
Aluminum cast butterfly valve		S A -9200	For tank lorry	80、100mm	0.98MPa (10kgf/cm²)	NBR -10～80℃ FKM -20～150℃	Special flange

Main materials				Operating methods		Special specifications
Box / Disc	Disc surface treatment	Stem	Rubber / Seat			
FC250 FCD450 FCDS SCPH2 SC480 SCS13 SCS14 SCS16 and other ALBC Monel Hastelloy Others	Hard chrome plating Kanigen (abrasion-resistant) plating Epoxy resin coating Nylon coating Fluorocarbon resin coating Ceramic thermal spraying Hard rubber lining Others	SUS403 SUS304 SUS316 SUS316L SUS420J2 ALBC Monel Hastelloy Others	NBR EPDM CR IIR NR U FKM Others	Manual type	Lock lever	Shaft extension type Double-floor type with switchgear Chain operating type Post indicator Supporting leg Others
					Worm gear	
					Worm gear with attachment	
					Center handle gear	
				Electric type	Various makers	
FCD450 SCPH2 SCS13/14		SUS403 SUS420J2 SUS630	NBR EPDM			
SCPH2 Others			Stellite			
SS400 SB410 SUS304 SUS316 Others		SUS403 SUS304 SUS316 Others	NBR EPDM FKM Metal seat			
SCS13		SUS630	PTFE			
SS400 SPHC Others		SUM24L	NBR EPDM FKM	Pneumatic type	Horizontal type / Vertical type	
					Double acting type / Single acting type	
AC4C SPHC		SUS303	NBR FKM			
SCS13 SUS304		SUS304	Metal seat NBR EPDM FKM	Hydraulic type	Horizontal type	

Please consult with us about the production of special specifications other than the above.

SL-1000

Wafer type　JIS conformity general- purpose type

Ductile cast iron realizes tough and light weight.

General-purpose type conforming to JIS B2032 (wafer type rubber-seated butterfly valve) and public office specifications. For fire extinguishing equipment, it is a performance evaluation accepted product by Fire Equipment and Safety Center of Japan. We adopted a strong ductile cast iron for the main body material, to make it harder and lighter, and realized low torque by improving rubber shape and improving rubber performance. The material of the disc and lining rubber can be freely combined and can be selected according to fluid conditions.

Standard specification

Applicable flange		JIS5K、10K、ANSI125Lb/150Lb、DIN PN10、BS 4504 NP10
Nominal diameter		50mm～600mm
Face-to-face dimension		JIS B2032/ISO5752
Maximum allowable pressure		0.98MPa (10kgf/cm²)
Operating temperature limits		NBR-10～80℃ EPDM-20～120℃　It depends on rubber material.
Standard material	Body	FCD450
	Disc	FCD450＋Plating /FCD450＋Nylon coating/SCS13
	Stem	SUS403
	Lining rubber	NBR/EPDM/Others
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

Please consult with us about special materials and special specifications other than the above.

JIS face-to-face wafer

LEVER

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	Q	L				
50	2	50	43	96	50	105	42	70	200			3	Lock lever
65	2 1/2	65	46	118	60	120	42	70	200			4	Lock lever
80	3	75	46	129	89	125	48	70	220			5	Lock lever
100	4	92	52	150	102	145	48	70	220			7	Lock lever
125	5	120	56	186	120	160	48	70	300			9.5	Lock lever
150	6	142	56	214	134	170	48	70	300			12	Lock lever

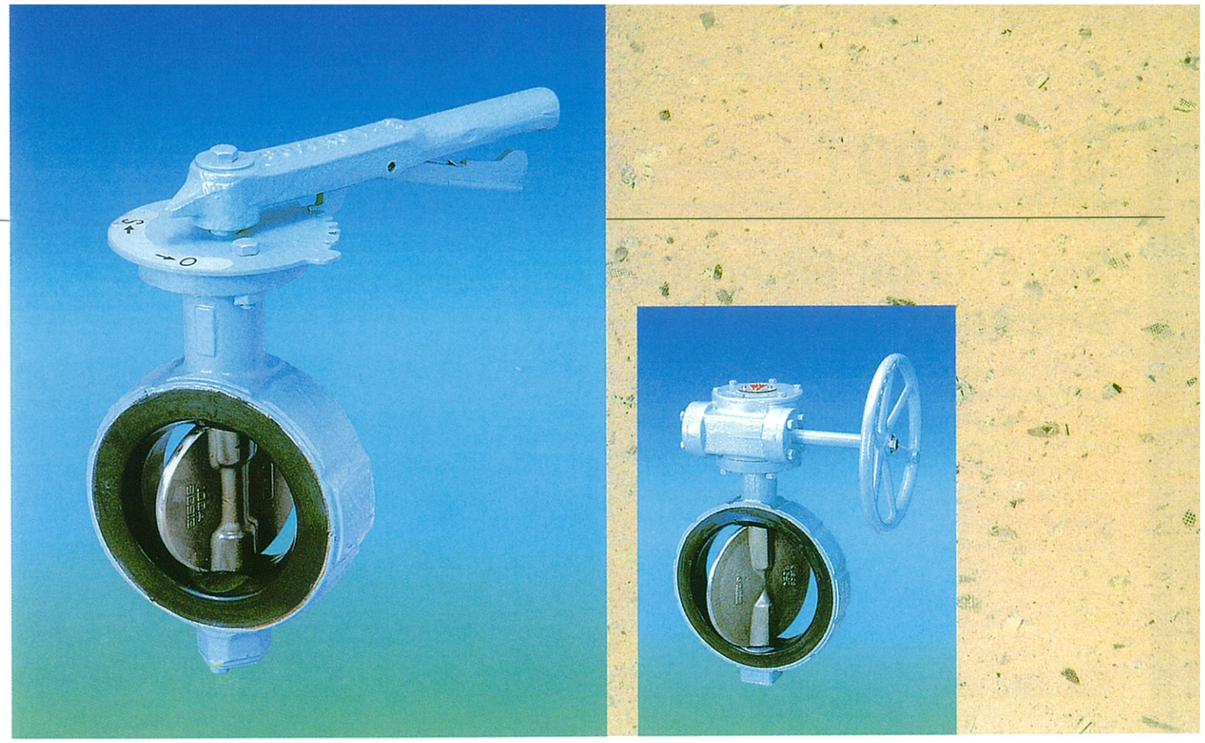
GEAR

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	S	G	L	φW		
50	2	50	43	96	50	105	32	41	45	143	130	6	BVG 02A
65	2 1/2	65	46	118	60	120	32	41	45	143	130	7	BVG 02A
80	3	75	46	129	89	125	32	41	45	143	130	8	BVG 02A
100	4	92	52	150	102	145	32	41	45	143	130	10	BVG 02A
125	5	120	56	186	120	160	32	41	45	149	200	12	BVG 02A
150	6	142	56	214	134	170	32	41	45	149	200	14	BVG 02A
200	8	194	60	262	164	210	40	68	75	300	300	30	BVG 1H
250	10	244	68	328	195	250	40	68	75	300	300	41	BVG 1H
300	12	282	78	366	257	300	40	68	75	300	300	61	BVG 1H
350	14	322	78	406	282	375	40	68	75	300	300	79	BVG 1H
400	16	370	102	466	317	410	50	110	88	336	410	130	BVG 2H
450	18	420	114	526	337	450	50	110	88	336	410	151	BVG 2H
500	20	470	127	578	382	500	70	145	105	338	460	190	BVG 4H
550	22	520	154	635	417	530	70	145	105	338	460	282	BVG 4H
600	24	559	154	685	447	550	70	215	160	393	460	320	BVG 4HB

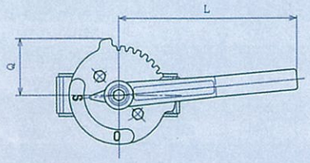
Acquisition of performance evaluation for fire and disaster prevention equipment

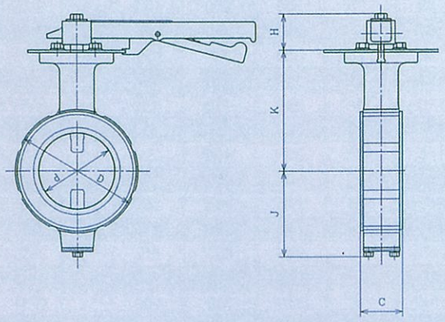
●The mark on the left shows the voucher for each product that is a rating item of the Fire Equipment and Safety Center of Japan.

■Please understand that specifications, shapes and dimensions described in this catalogue may be changed without notice.

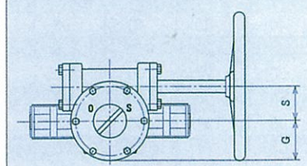


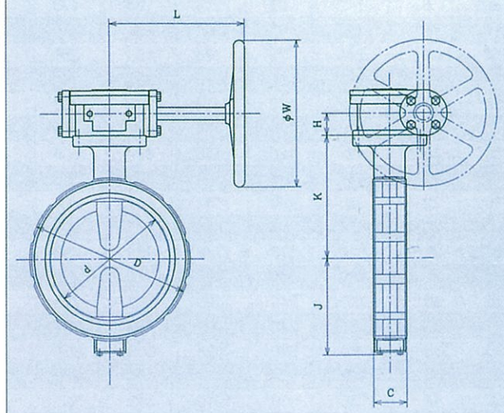
Lock lever 100mm



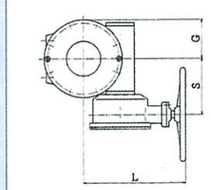


Gear 250mm





● Gear 600mm～



SL-1100

Wafer type Manufacturer standard face-to-face and special specification type

Suitable for large diameter, special material, and special fluid.

SL-1100 corresponds to large diameter of 650A or more, special material, etc. not covered by SL-1000 (JIS general-purpose type). It is widely used under governmental specifications such as water supply and sewage and agricultural water requiring inspection by JAPAN WATER WORKS ASSOCIATION, and under special fluids and specified conditions of various chemical plants such as electric power and petroleum refining and petrochemical.

Standard specification

Applicable flange		JIS5K、10K、Water works（JISG5527）、ANSI125Lb/150Lb、DIN PN10、BS 4504 NP10
Nominal diameter		40mm~1350mm
Face-to-face dimension		Manufacturer standard
Maximum allowable pressure		0.98MPa（10kgf/cm²）
Operating temperature limits		NBR-10~80℃ EPDM-20~120℃ It depends on rubber material.
Standard material	Body	FC250/FCD450/SCPH2/Others
	Disc	FC250/FCD450/SCPH2/SCS13/SCS14/ALBC/Others
	Disc surface treatment	Various plating such as hard chrome plating/Nylon coating Epoxy resin coating/Fluorocarbon resin coating/Hard rubber lining
	Stem	SUS403/SUS304/SUS316/Others
	Lining rubber	NBR/EPDM/CR/NR/IIR/FKM/Others
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

Please consult with us about special materials and special specifications other than the above.
Those with diameter exceeding 1200mm can also be manufactured by order.

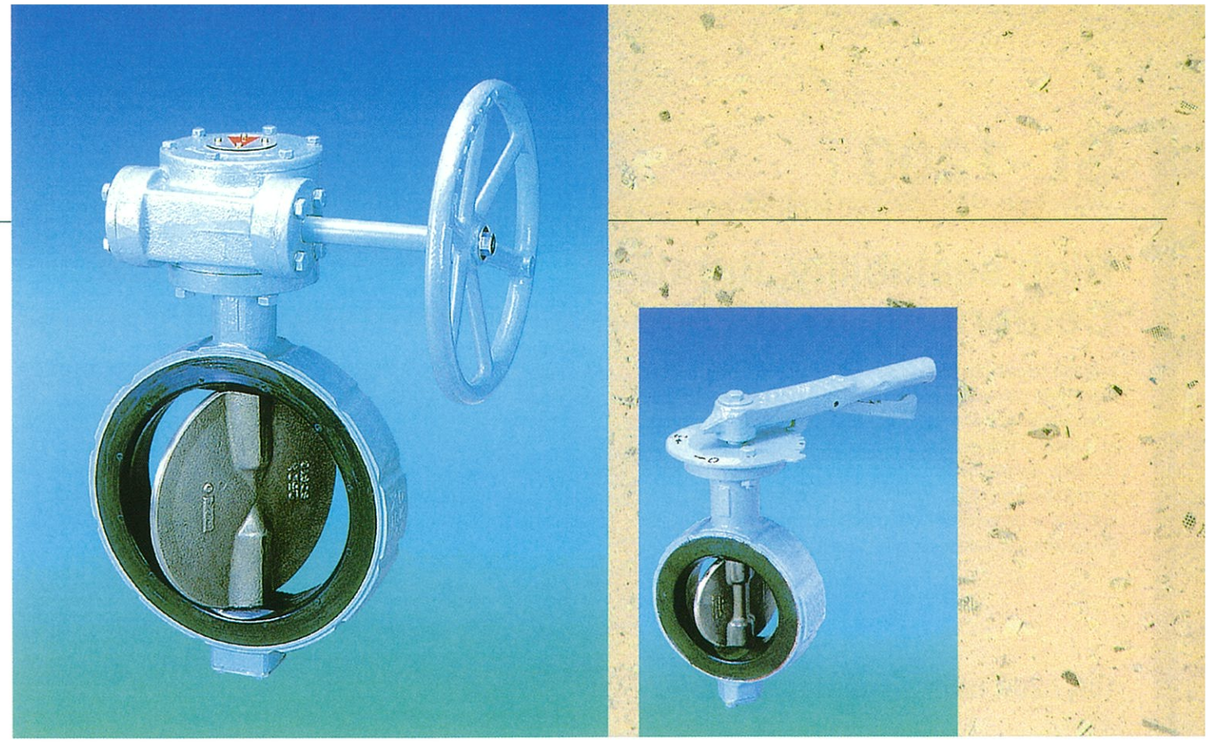
Standard wafer

LEVER

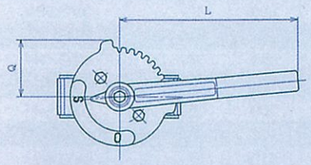
Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	Q	L				
40	1 1/2	40	40	8	43	95	42	70	200			3	Lock lever
50	2	50	50	10	50	105	42	70	200			3.5	Lock lever
65	2 1/2	65	50	12	60	120	42	70	200			4.5	Lock lever
80	3	75	50	12	89	125	48	70	220			5.5	Lock lever
100	4	92	65	15	102	145	48	70	220			7.5	Lock lever
125	5	120	65	18	120	160	48	70	300			10	Lock lever
150	6	142	65	21	134	170	48	70	300			12.5	Lock lever

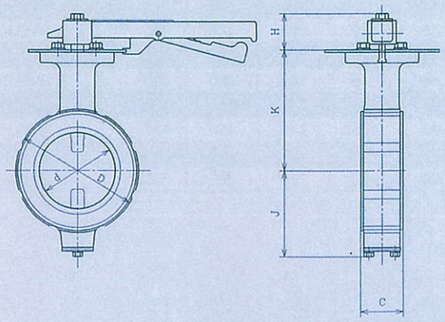
GEAR

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	S	G	L	ϕW		
40	1 1/2	40	40	85	43	95	32	41	45	143	130	6	BVG 02A
50	2	50	50	100	50	105	32	41	45	143	130	6.5	BVG 02A
65	2 1/2	65	50	120	60	120	32	41	45	143	130	7.5	BVG 02A
80	3	75	50	129	89	125	32	41	45	143	130	8.5	BVG 02A
100	4	92	65	154	102	145	32	41	45	143	130	10.5	BVG 02A
125	5	120	65	186	120	160	32	41	45	149	200	12.5	BVG 02A
150	6	142	65	214	134	170	32	41	45	149	200	14.5	BVG 02A
200	8	194	65	262	164	210	40	68	75	300	300	31	BVG 1H
250	10	244	75	328	195	250	40	68	75	300	300	42	BVG 1H
300	12	282	90	366	257	300	40	68	75	300	300	57	BVG 1H
350	14	322	100	414	282	330	40	68	75	300	300	78	BVG 1H
400	16	370	110	478	317	370	50	110	88	336	410	124	BVG 2H
450	18	420	120	536	337	505	50	110	88	336	410	158	BVG 2H
500	20	470	130	582	382	550	70	145	105	338	460	223	BVG 4H
550	22	520	140	642	417	560	70	145	105	338	460	274	BVG 4H
600	24	559	175	688	447	595	70	215	160	393	460	340	BVG 4HB
650	26	610	175	718	505	630	90	240	175	246	460	500	BVG 8B
700	28	658	200	790	545	680	90	240	175	246	460	570	BVG 8B
750	30	710	240	820	580	735	90	240	175	246	460	650	BVG 8B
800	32	758	240	895	605	764	90	240	175	246	460	770	BVG 8B
900	36	860	240	995	685	805	84	181	236	510	730	900	BRM-18-2BH
1000	40	950	304	1111	767	890	84	181	236	510	730	1450	BRM-18-2BH
1100	44	1050	330	1219	843	830	108	233	290	662	730	1850	BRM-40-2BH
1200	48	1150	356	1300	925	1050	108	233	290	662	730	2500	BRM-40-2BH
1300	52	1250	356	1440	975	1200	108	233	290	448	430	3000	BRM-40-3BH
1350	54	1285	356	1480	1030	1200	108	233	290	448	430	3100	BRM-40-3BH

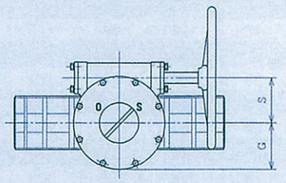


Lock lever 100mm

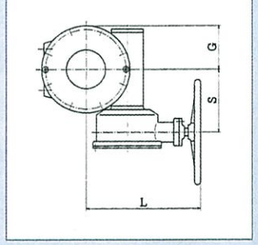


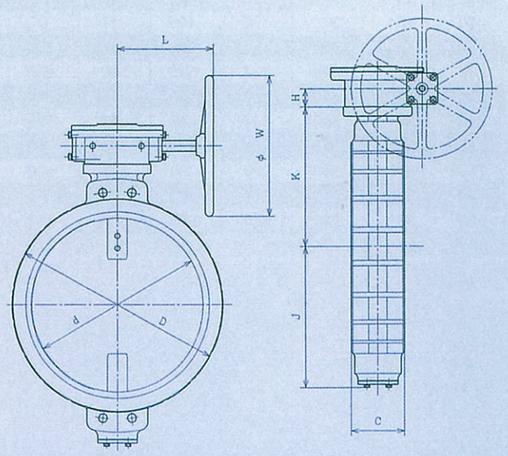


Gear 500mm



● Gear 600mm~





SL-1200

Wafer type　16K/20K high pressure type

High sealability, durability.
Conforming to JIS and governmental specifications.

It is the largest feature of SUPERO's rubber lining butterfly valve that can guarantee airtight performance of 16K/20K. Even with on / off and flow rate adjustment under high pressure of 1.96MPa (20Kgf/㎠)at the maximum, high sealability and durability are retained for a long period of time. Its diameter of up to 600㎜ is compliant with JIS and governmental specifications, and it is a performance evaluation accepted product of Fire Equipment and Safety Center of Japan.

Standard specification

Valve type		16K	20K
Nominal diameter		50mm～800mm ※1	50mm～300mm ※2
Applicable flange		JIS10K、16K、20K、DIN PN10、PN16 ANSI125Lb/150Lb、BS4504 NP10、NP16	
Face-to-face dimension		50mm～600mm JIS B2032/ISO5752 650～800mm Maker's standard	
Maximum allowable pressure		1.57MPa (16kgf/cm²)	1.96MPa (20kgf/cm²)
Body pressure test		2.35MPa (24kgf/cm²)	2.94MPa (30kgf/cm²)
Seat leak test		1.57MPa (16kgf/cm²)	1.96MPa (20kgf/cm²)
Operating temperature limits		NBR-10～80℃ EPDM-20～120℃ It depends on rubber material.	
Standard material	Body	FCD450	
	Disc	FCD450+Plating/SCS13/SCS14/Others	
	Stem	SUS420J2	
	Lining rubber	NBR/EPDM/Others	
Operating method		Lever, gear, center handle	
		Pneumatic cylinder	
		Electric motor	

※1. Please consult with us about more than 850mm of 16K type.
※2. Please consult with us about more than 350mm of 20K type.

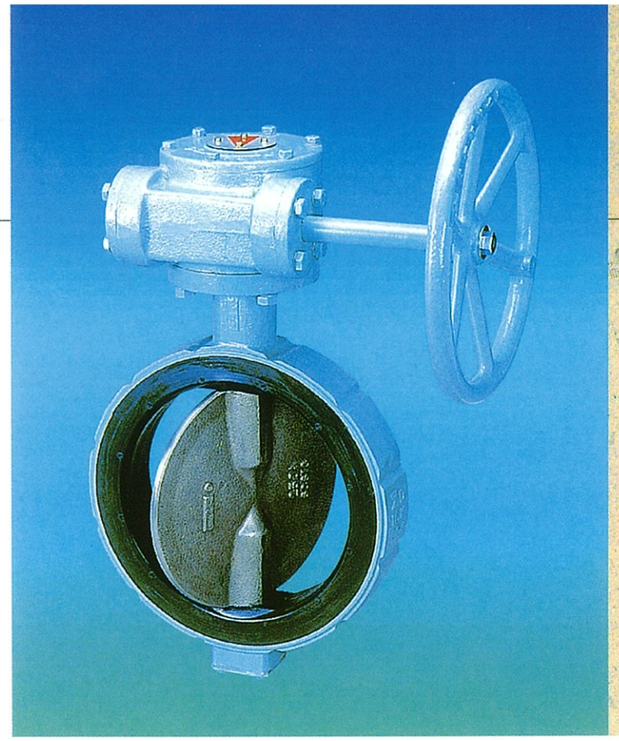
16K / 20K high pressure type wafer

LEVER

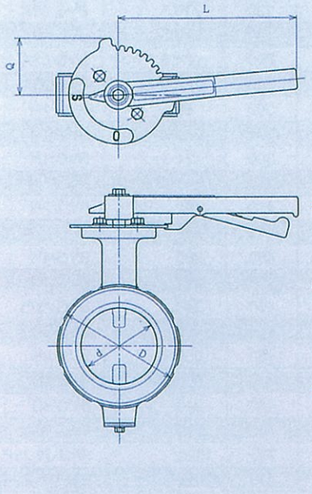
Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	Q	L				
50	2	50	43	96	50	105	42	70	200			3	Lock lever
65	2 1/2	65	46	118	60	120	42	70	200			4	Lock lever
80	3	75	46	129	89	125	42	70	220			5	Lock lever
100	4	92	52	150	102	145	48	70	220			7	Lock lever

GEAR

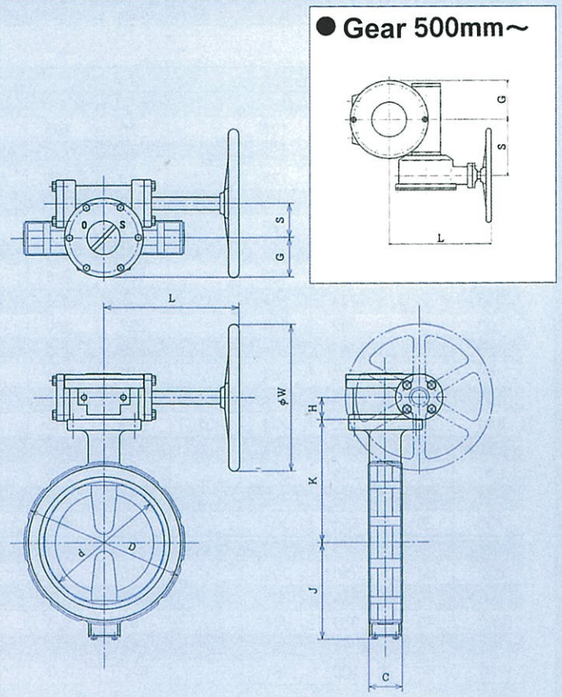
Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C	D	J	K	H	S	G	L	φW		
50	2	50	43	96	50	105	32	41	45	143	130	6	BVG 02A
65	2 1/2	65	46	118	60	120	32	41	45	143	130	7	BVG 02A
80	3	75	46	129	89	125	32	41	45	143	130	8	BVG 02A
100	4	92	52	150	102	145	32	41	45	143	130	10	BVG 02A
125	5	120	56	186	120	160	32	41	45	149	200	12	BVG 02A
150	6	142	56	214	134	170	32	41	45	149	200	14	BVG 02A
200	8	194	60	262	164	210	40	68	75	300	300	30	BVG 1H
250	10	244	68	328	195	250	40	68	75	300	300	41	BVG 1H
300	12	282	78	366	257	300	40	68	75	300	300	61	BVG 1H
350	14	322	78	406	282	330	50	110	88	336	410	99	BVG 2H
400	16	370	102	466	317	370	50	110	88	336	410	130	BVG 2H
450	18	420	114	526	337	505	70	145	105	338	460	173	BVG 4H
500	20	470	127	578	382	550	70	215	160	393	460	220	BVG 4HB
550	22	520	154	635	417	560	90	240	175	246	460	362	BVG 8B
600	24	559	154	685	447	595	90	240	175	246	460	400	BVG 8B
650	26	610	175	718	505	630	90	240	175	246	460	500	BVG 8B
700	28	658	200	790	545	680	90	240	175	246	460	570	BVG 8B
750	30	710	240	820	580	735	100	350	236	458	460	690	BRF 20
800	32	758	240	895	605	760	100	280	230	738	635	855	BRF 20



Lock lever 100mm



Gear 250mm



SL-2000

Flange type　MSS short face-to-face type

Correspond to companion pipe flange freely.

SL-2000 has a flange attached to the main body itself and is a type that connects with companion pipe flange. We recommend a flange type when it is expected to remove piping on one side during maintenance. It is a short-faced type that conforms to MSS and AWWA C504 short.

Standard specification

Applicable flange		JIS5K、10K、16K、20K、Waterworks(JISG5527)、ANSI125Lb/150Lb、DIN PN10、PN16、BS 4504 NP10、NP16
Nominal diameter		50mm～1300mm (Up to 800mm for 16K high pressure specification.)
Face-to-face dimension		MSS.SP-67/AWWA C504 short
Maximum allowable pressure		1.57MPa (16kgf/cm2)
Operating temperature limits		NBR-10～80℃ EPDM-20～120℃　It depends on rubber material.
Standard material	Body	FC250/FCD450/SCPH2/
	Disc	FC250/FCD450/SCPH2/SCS13/SCS14/ALBC/Others
	Disc surface treatment	Various plating such as hard chrome plating/Nylon coating Epoxy resin coating/Fluorocarbon resin coating/Hard rubber lining
	Stem	SUS403/SUS420J2/SUS304/SUS316/Others
	Lining rubber	NBR/EPDM/CR/NR/IIR/FKM/Others
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

Please consult with us about special materials and special specifications other than the above.
Those with diameter exceeding 1200mm can also be manufactured by order.

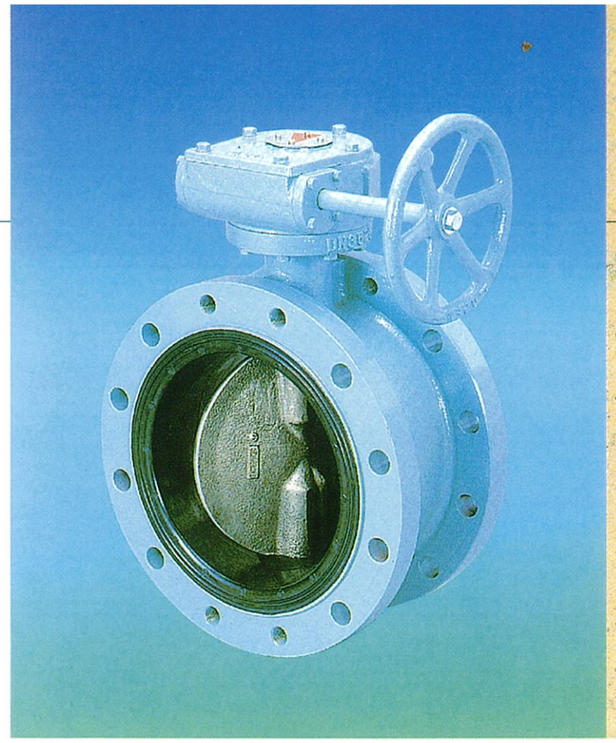
MSS short face-to-face flange

LEVER

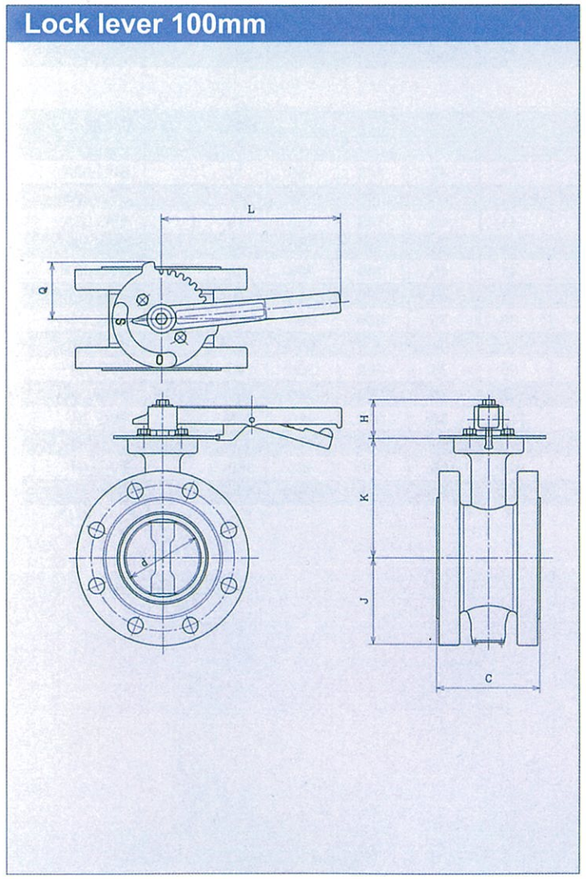
Nominal diameter		Main dimension									Mass (kg)	Actuator
mm	inch	d	C		J	K	H	Q	L			
50	2	50	128		50	105	42	70	200		6	Lock lever
65	2½	65	128		60	120	42	70	200		8	Lock lever
80	3	75	128		89	125	42	70	220		11	Lock lever
100	4	92	128		102	145	48	70	220		16	Lock lever
125	5	120	128		120	160	48	70	300		23	Lock lever
150	6	142	128		134	170	48	70	300		26	Lock lever

GEAR

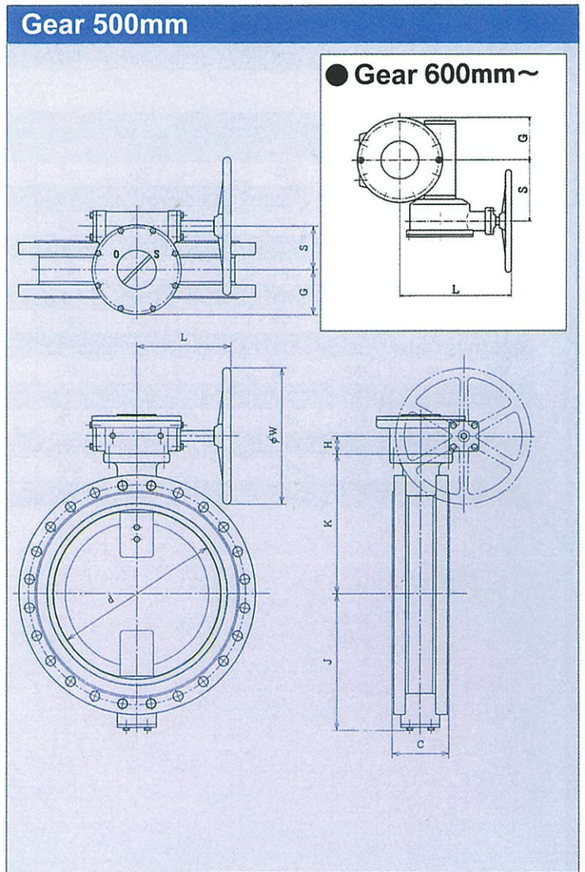
Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C		J	K	H	S	G	L	ϕW		
50	2	50	128		50	105	32	41	45	143	130	10.5	BVG 02A
65	2½	65	128		60	120	32	41	45	143	130	14.5	BVG 02A
80	3	75	128		89	125	32	41	45	143	130	16.5	BVG 02A
100	4	92	128		102	145	32	41	45	143	130	19.5	BVG 02A
125	5	120	128		120	160	32	41	45	149	200	24.5	BVG 02A
150	6	142	128		134	170	32	41	45	149	200	29.5	BVG 02A
200	8	194	152		164	210	40	68	75	300	300	59	BVG 1H
250	10	244	204		195	250	40	68	75	300	300	81	BVG 1H
300	12	282	204		257	300	40	68	75	300	300	121	BVG 1H
350	14	322	204		282	330	40	68	75	300	300	141	BVG 1H
400	16	370	204		317	370	50	110	88	336	410	182	BVG 2H
450	18	420	204		337	505	50	110	88	336	410	227	BVG 2H
500	20	470	204		382	550	70	145	105	338	460	280	BVG 4H
550	22	520	204		417	560	70	145	105	338	460	324	BVG 4H
600	24	559	204		447	595	70	215	160	393	460	344	BVG 4HB
650	26	610	254		505	630	90	240	175	246	460	560	BVG 8B
700	28	658	304		545	680	90	240	175	246	460	650	BVG 8B
750	30	710	304		580	735	90	240	175	246	460	875	BVG 8B
800	32	758	304		605	760	90	240	175	246	460	940	BVG 8B
900	36	859	304		685	805	84	181	236	510	730	1050	BRM-18-2BH
1000	40	950	304		767	890	84	181	236	510	730	1320	BRM-18-2BH
1100	44	1050	381		843	830	108	233	290	662	730	2000	BRM-40-2BH
1200	48	1150	381		925	1050	108	233	290	662	730	2200	BRM-40-2BH
1300	52	1250	381		975	1200	108	233	290	448	430	2900	BRM-40-3BH
1350	54	1285	403		1030	1200	108	233	290	448	430	3100	BRM-40-3BH



Lock lever 100mm



Gear 500mm



SL-2100

Flange type ANSI 150Lb gate valve face-to-face type

Easy to replace with gate valve.

SL-2100 has the same face-to-face dimension as that of ANSI 125Lb/150Lb and JIS 10K gate valve. When replacing the existing gate valve to the butterfly valve, it can be replaced as it is comfortably without sandwiching the short pipe in face-to-face alignment. We offer a size of up to 50~600㎜.

Standard specification

Applicable flange		JIS10K, ANSI125Lb/150Lb
Nominal diameter		50mm~600mm
Face-to-face dimension		Same as ANSI 150Lb gate valve and JIS 10K gate valve.
Maximum allowable pressure		0.98MPa (10kgf/cm²)
Operating temperature limits		NBR-10~80℃ EPDM-20~120℃ It depends on rubber material.
Standard material	Body	FC250/FCD450
	Disc	FCD450+ Plating /FCD450+Nylon coating /SCS13
	Stem	SUS403
	Lining rubber	NBR/EPDM
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

Please consult with us about special materials and special specifications other than the above.

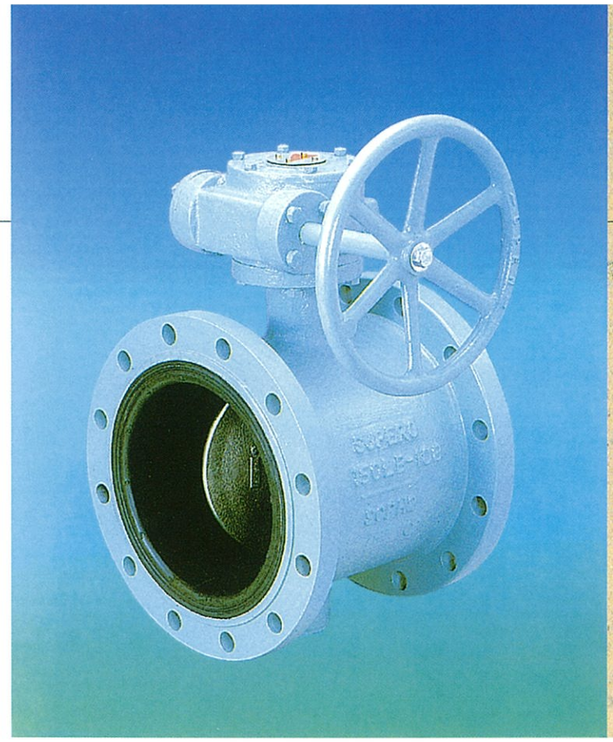
ANSI gate valve face-to-face flange

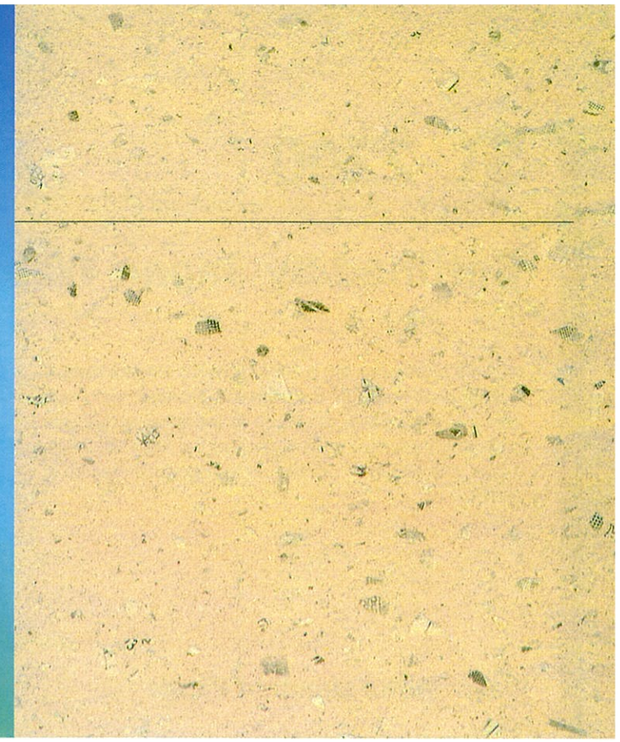
LEVER

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C		J	K	H	Q	L				
50	2	50	178		50	105	42	70	200			7	Lock lever
65	2 1/2	65	190		60	120	42	70	200			10	Lock lever
80	3	75	203		89	125	48	70	220			14	Lock lever
100	4	92	229		102	145	48	70	220			23	Lock lever
125	5	120	254		120	160	48	70	300			29	Lock lever
150	6	142	267		134	170	48	70	300			35	Lock lever

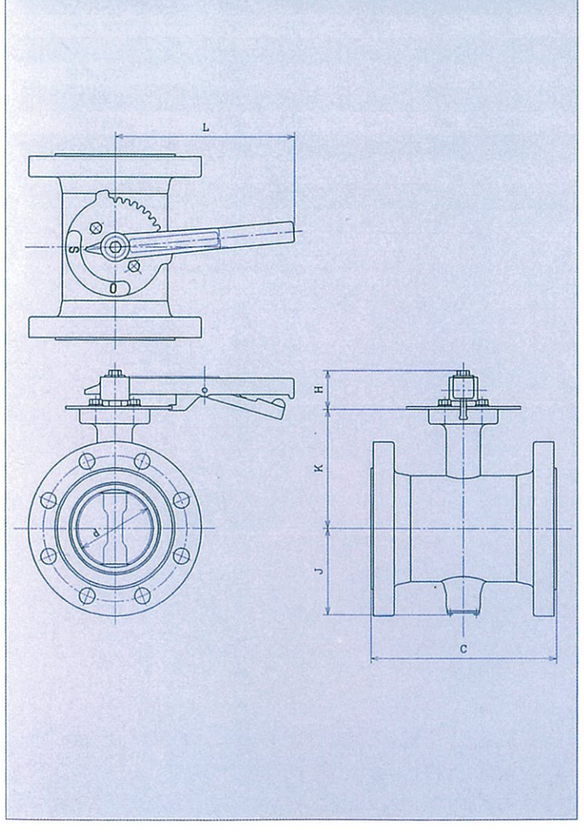
GEAR

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C		J	K	H	S	G	L	ϕW		
50	2	50	178		50	105	32	41	45	143	130	13	BVG 02A
65	2 1/2	65	190		60	120	32	41	45	143	130	17	BVG 02A
80	3	75	203		89	125	32	41	45	143	130	19	BVG 02A
100	4	92	229		102	145	32	41	45	143	130	27	BVG 02A
125	5	120	254		120	160	32	41	45	149	200	34	BVG 02A
150	6	142	267		134	170	32	41	45	149	200	40	BVG 02A
200	8	194	292		164	210	40	68	75	300	300	65	BVG 1H
250	10	244	330		195	250	40	68	75	300	300	90	BVG 1H
300	12	282	356		257	300	40	68	75	300	300	140	BVG 1H
350	14	322	381		282	330	40	68	75	300	300	180	BVG 1H
400	16	370	406		317	370	50	110	88	336	410	275	BVG 2H
450	18	420	432		337	505	50	110	88	336	410	310	BVG 2H
500	20	470	457		382	550	70	145	105	338	460	360	BVG 4H
600	24	559	508		447	595	70	215	160	393	460	500	BVG 4HB

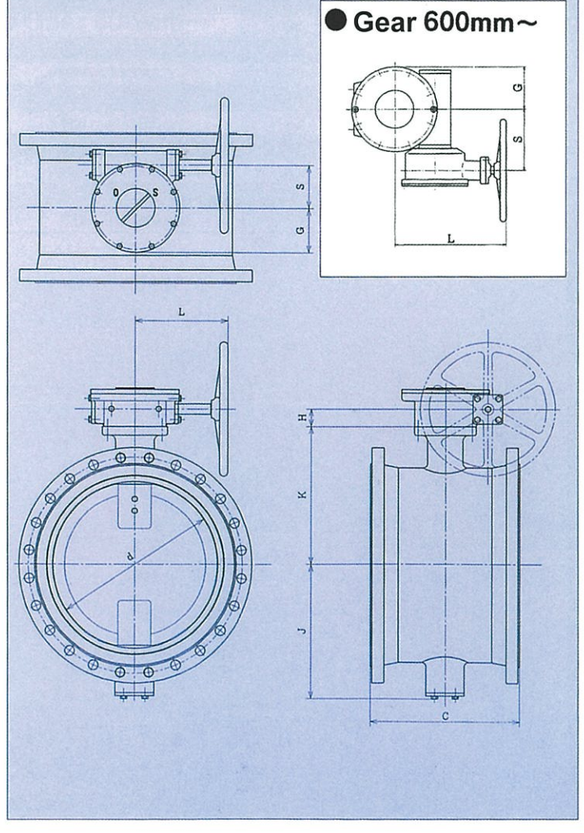




Lock lever 100mm



Gear 500mm



SL-2200

Flange type　Water works standard (JIS B 2064) type

Certified by Japan Water Works Association.

SL-2200 conforms to JIS B 2064 (JWWA B 114) standard. It is a complete watertight butterfly valve for water works with the same face-to-face dimension as the water supply gate valve and the entire inner surface of the body lined with rubber. Our factory is certified as an inspection factory of JWWA.

Standard specification

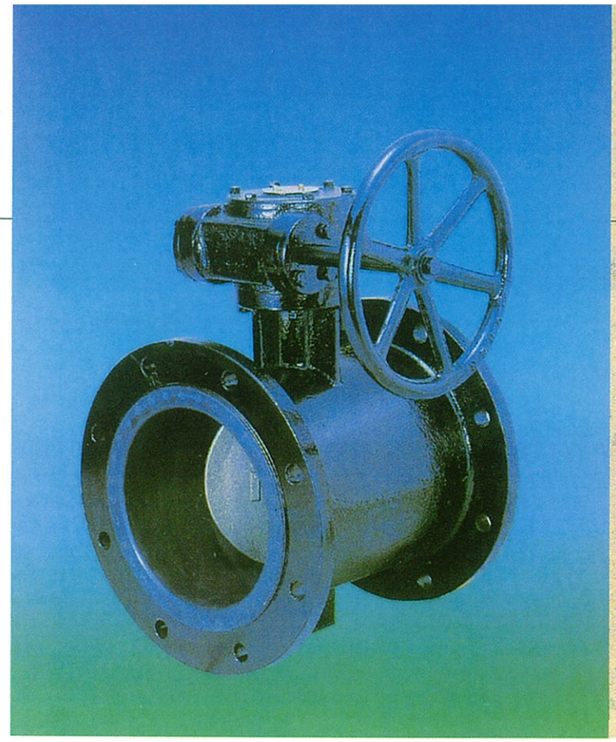
Applicable flange		Waterworks (JISG5527)
Nominal diameter		150mm～1200mm
Face-to-face dimension		JISB2064
Maximum allowable pressure		1.57MPa (16kgf/cm²)
Operating temperature limits		NBR-10～80℃
Standard material	Body	FC250/FCD450
	Disc	FCD450/SCS13
	Disc surface treatment	Hard chrome plating/Epoxy resin coating/Nylon coating
	Stem	SUS403/SUS420J2
	Lining rubber	NBR/Others
Operating method		Lever, gear round handle type, gear cap type
		Pneumatic cylinder
		Electric motor

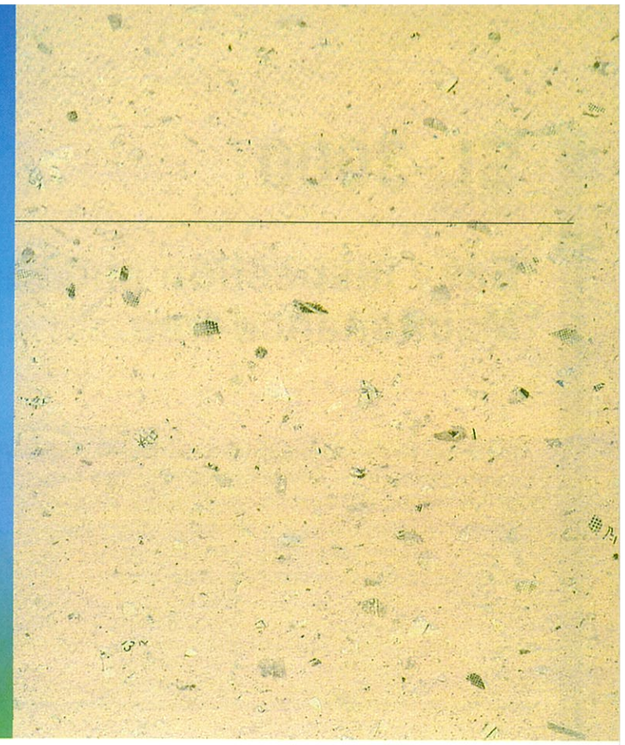
Please consult with us about special materials and special specifications other than the above.

Water works standard flange

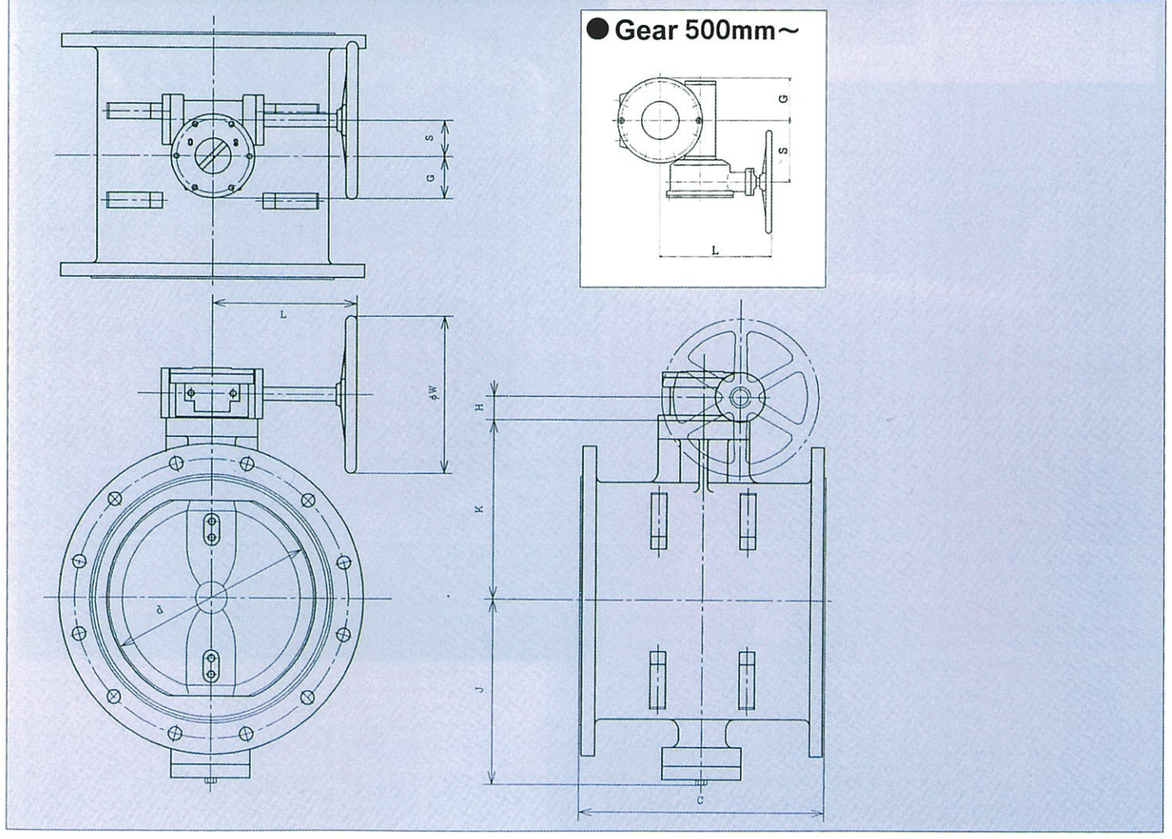
GEAR

Nominal diameter		Main dimension										Mass (kg)	Actuator
mm	inch	d	C		J	K	H	S	G	L	φW		
150	6	150	280		134	185	32	41	45	149	200	65	BVG-02A
200	8	194	300		164	210	40	68	75	300	300	80	BVG 1H
250	10	244	380		195	250	40	68	75	300	300	115	BVG 1H
300	12	282	400		257	300	40	68	75	300	300	180	BVG 1H
350	14	322	430		282	330	40	68	75	300	300	210	BVG 2H
400	16	370	470		317	375	50	110	88	336	410	290	BVG 2H
450	18	420	500		337	415	50	110	88	336	410	320	BVG 2H
500	20	470	530		440	490	70	145	105	336	410	360	BVG 4H
600	24	560	560		520	540	70	215	160	393	460	630	BVG 4HB
700	28	658	610		590	600	90	240	175	246	460	850	BVG 8B
800	32	758	690		665	660	90	240	175	246	460	1060	BVG 8B
900	36	859	740		735	720	100	218	186	738	635	1380	BRM-10-2BH
1000	40	950	770		805	770	100	218	220	738	635	2030	BRM-18-2BH
1100	44	1088	800		858	830	108	330	272	795	635	2150	BRM-18-2BH
1200	48	1387	820		910	880	108	430	272	823	745	2280	BRM-40-2BH





Gear 500mm



SL-3000

Lug type

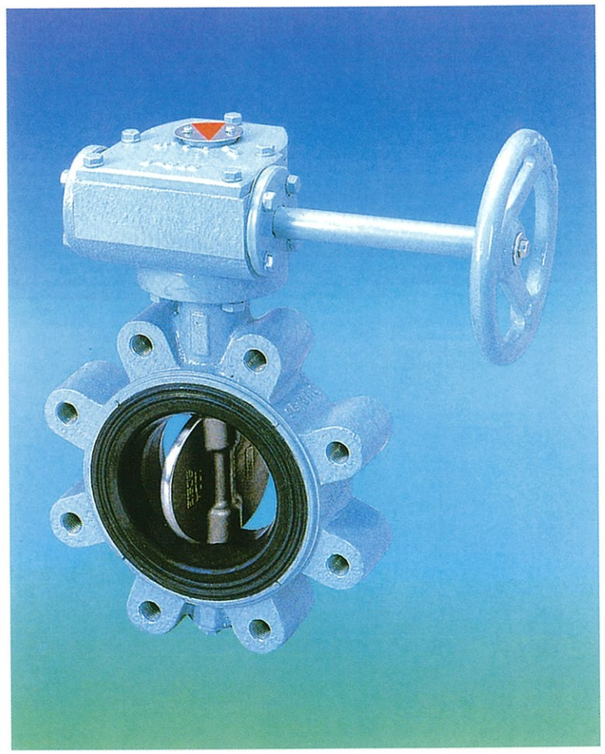
Easy inspection and repair. Maintenance-free.

The threads corresponding to the bolt hole of the pipe flange are processed on the outer periphery of the main body. When inspecting and repairing the piping system, by closing the lug type butterfly valve, it is possible to remove pumps and other equipment from piping without draining the inside of the pipe. It is the same short face-to-face as “Wafer type SL-1100”.

Standard specification

Applicable flange		JIS5K、10K、ANSI125Lb/150Lb
Nominal diameter		50mm～600mm
Face-to-face dimension		Maker's standard
Maximum allowable pressure		1.57MPa(16kgf/cm²)
Operating temperature limits		NBR -10～80°C EPDM -20～120°C It depends on rubber material.
Standard material	Body	FC250/FCD450
	Disc	FCD450+ Plating/FCD450+ Nylon coating /SCS13
	Stem	SUS403/SUS420J2
	Lining rubber	NBR/EPDM/Others
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

Please consult with us about special materials and special specifications other than the above.



SL-5000

Joint connection type

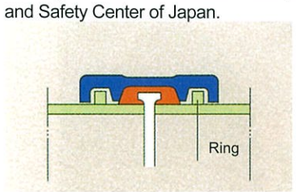
Combine butterfly valve with joint construction method.

Joint connection type butterfly valve is a new type of butterfly valve which made joints possible by changing joints to conventional flange connections. Although the characteristics of the butterfly valve and the advantages of the joint method are already well known as evidenced by its remarkable dissemination, even in the spread of joint method, only the joining of the valves has the form of conventional flange piping and screwed piping, and there were some aspects where the merit of the joint method could not be fully utilized.
We, SUPERO SEIKI have developed butterfly valves with very unique structure combining the merit of both, and after considerable achievements, we decided to expand sale as a general-purpose valve by mass-production system.
It is a performance evaluation accepted product of Fire Equipment and Safety Center of Japan.

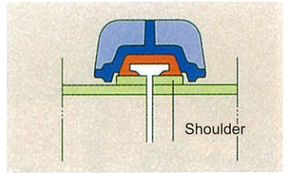
Standard specification

Connection		Japan Victaulic N type, S type, G type Taiyo Joint C type, S type, G type
Nominal diameter		50mm～400mm
Maximum allowable pressure		1.57MPa(16kgf/cm²)
Operating temperature limits		NBR -10～80°C EPDM -20～120°C
Standard material	Body	FC250/FCD450
	Disc	FCD450+ Plating /FCD450+ Nylon coating/SCS13
	Stem	SUS403/SUS420J2
	Lining rubber	NBR/EPDM
Operating method		Lever, gear, center handle
		Pneumatic cylinder
		Electric motor

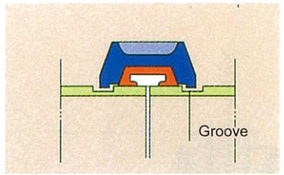
Please consult with us about special materials and special specifications other than the above.



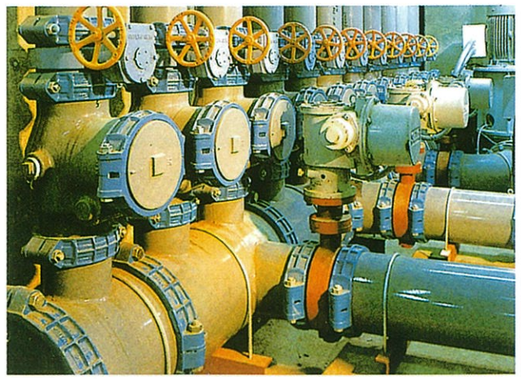
N type



S type



G type



Shin-Osaka station

SE-8000

Eccentric, steel plate welded structure type butterfly valve

Reliable sealability and high operation efficiency, Suitable for bidirectional specifications.

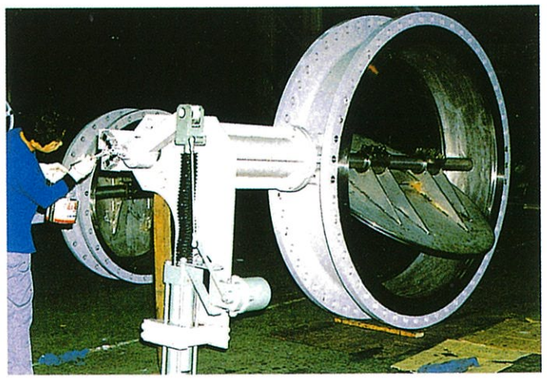
SE-8000 is a fully sealed butterfly valve with single eccentricity and welded steel plate structure developed for low pressure such as low pressure steam valve for condenser, turbine exhaust valve, and cooling water shut-off valve etc. Its disc has a high rigidity biplane structure, minimizing the deflection of the disc due to fluid pressure, demonstrating reliable sealing. It also fully comply with bidirectional specifications. Furthermore, when the valve is fully opened, the fluid flows through the biplane section and the opening area increases by about 10% of the conventional lens type, so the pressure loss of the valve decreases and operation efficiency improves.

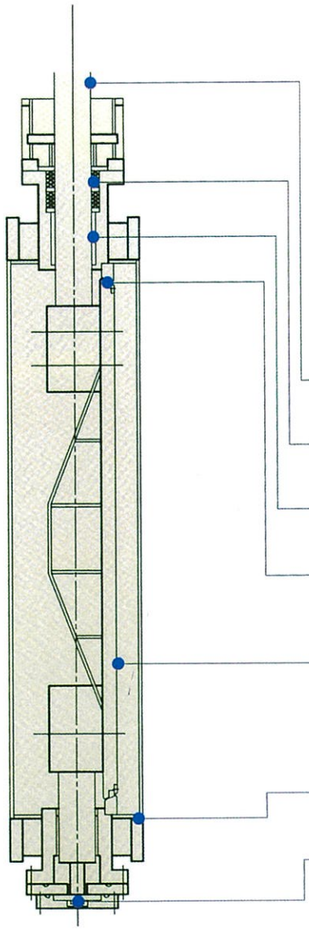
For high-temperature areas where rubber seats cannot be used, we also design and manufacture metal touch, double-eccentric highly sealed butterfly valves with steel plate welded structure.

Standard specification

Applicable flange		JIS2K、5K、10K、ANSI125Lb/150Lb
Nominal diameter		700mm～2400mm
Face-to-face dimension		Maker's standard(We will respond to customer's request.)
Maximum allowable pressure		0.34MPa(3.5kgf/cm²)
Operating temperature limits		EPDM/FKM -20～150℃ Metal sheet -100～600℃
Standard material	Body	SS400/SB410/SUS304/SUS316/Others
	Disc	SS400/SB410/SUS304/SUS316/Others
	Stem	SS403/SUS304/SUS316/Others
	Lining rubber	EPDM/FKM
		Metal seat
Operating method		Gear
		Pneumatic cylinder
		Electric motor

On account of production on order, we will make an arrangement in detail such as fluid and service condition.





Description of the structure

- **Stem**
  We use two-division stem made of SUS403 as a standard, and we will manufacture it with SUS304 etc. on request.
- **Shaft seal**
  V packing of cloth-combined CR rubber is standard, but other material is also available. In addition, open bonnet shape is standard, making it possible to retighten packing.
- **Bearing**
  Non-lubricated bearing made of free-cutting brass is standard, and low friction special resin parts for medium pressure specification are also available.
- **Rubber seat**
  EPDM and FKM are used depending on operating temperature. Seat ring can be replaced easily by removing the seat retainer, and the leakage can be corrected easily by retightening the attaching bolt for seat retainer.
- **Disc**
  It has a high rigidity biplane structure, and the opening area when fully opened is increased by about 10% compared to the conventional type (lens type). SS400 is standard material, but we will manufacture it with SUS304 etc. on request.
- **Joining stem with disc**
  Most backlash-free taper pin joining is adopted, we use the same material as that of stem.
- **Body**
  It is a welded structure, and SS400 is standard. Thanks to its welded structure, various types of piping flanges are available.
- **Thrust bearing**
  It is made of bronze and packed in grease and can receive thrust load in both up and down.

SH-9000

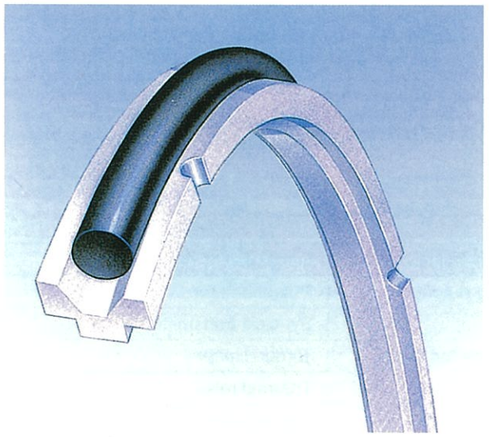
High performance butterfly valve

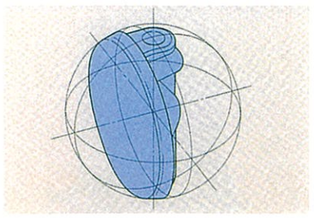
Long-life performance and economy, pulsing in light and compact body, cover the range of gate valve and ball valve brilliantly.

High sealability of ball valve. Excellent economy and compactness of butterfly valve. High performance butterfly valve is revolutionary valve that combines the advantages of these two valves. Besides, whereas the usual high performance valve is an improved version of the conventional butterfly valve, a ball valve with high sealability is our starting point. Therefore, SH-9000 can adapt to a wide range of fluids and can do frequent opening and closing work for a long time without difficulty. Moreover, it is cleared at a high standard of economic efficiency and maintainability. Considering lightweight and compactness, it can replace most existing valves. True high performance created by original dynamic seal mechanism. We promise long life and excellent cost performance.

Standard specification

Valve type	PTFE seat type
Applicable size	80、100、150、200、250mm
Face-to-face dimension	ISO 5752 short face-to-face
Connection type	Wafer type
Pressure rating	ANSI B16.34 CLASS 150
Applicable flange	JIS 10K、16K、20K、ANSI#150、7.5K waterworks flange
Maximum allowable pressure	1.96MPa (Up to 2Torr for vacuum)
Pressurizing direction	Bidirectional seal
Operating temperature limits	-25～180℃
Operational fluid	Gas, air, steam, high temperature water, oil, industrial water etc.
Test pressure	2.94MPa (30kgf/cm²)
Seat leakage test pressure	2.16MPa (22kgf/cm²)
Seat leak amount	Tight shut-off
Operating method	Lever, gear, Pneumatic cylinder, Electric motor

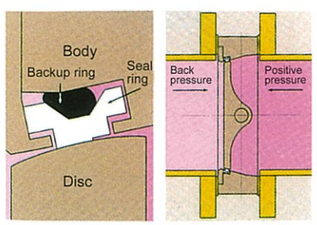




Came out of excellent seal structure of ball valve.

Ball-segment design

First, we pay attention to the sealability of the ball valve. We have created an original ball segment design by replacing the heavy spherical disc (ball) used for the ball valve with a streamlined valve disc (ball-segment). This structure is a basic factor which brings out true high performance.

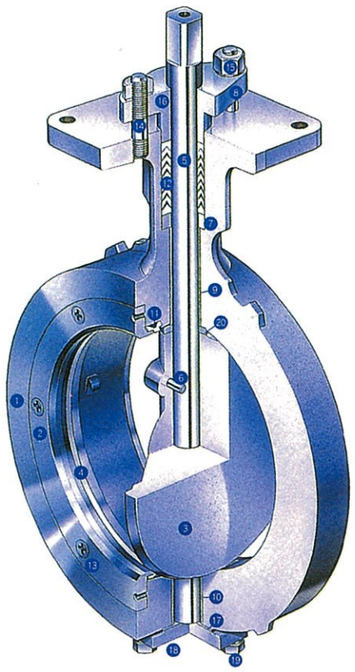


Improve sealing performance according to height of fluid pressure.

Dynamic seal mechanism

We adopt our own dynamic sealing mechanism which maintains high sealing performance even if the fluid pressure applied to the disc and seal ring becomes high and does not break the balance to the pressure from both directions. For the material of seal ring, we use elastomer (PTFE) excellent in corrosion resistance and abrasion resistance. Highly elastic Viton is adopted as a backup ring.

SH-9000 high performance butterfly valve is OEM tie-up product with KUBOTA Corporation.



1. Body — SUSF304 or SCS13A
2. Retaining ring — SUS304
3. Disc — SUSF304 or SCS13A
4. Seal ring — PTFE
5. Stem — SUS630
6. Pin — SUS630
7. Spacer (Under 200mm) — SUS304
8. Gland — SCS13
9. Bearing — High intensity resin (Polyimide resin)
10. Bearing — High intensity resin (Polyimide resin)
11. Backup ring — Viton
12. Gland packing — PTFE
13. Retaining screw — SUS304
14. Stud bolt — SUS304
15. Hexagon nut — SUS304
16. Spring washer — SUS304
17. Retainer gasket — Non-asbestos
18. Retainer — SUS304
19. Retainer bolt — SUS304
20. Thrust bearing — High intensity resin (Polyimide resin)

Actuator

Technical integration to fluid transport tomorrow. Valve high technology.

Type of actuator

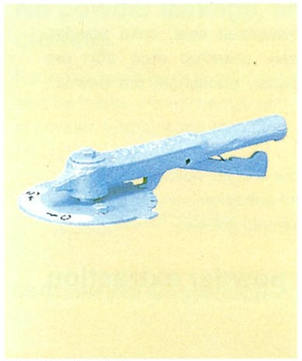
	Control division	Power source	Type of actuator
Manual			Lock lever
			Worm gear
			Worm gear with attachment
			Center handle gear
Automatic	For ON-OFF	Pneumatic	Double acting air cylinder
			Single acting air cylinder
		Electric	Electric motor
		Hydraulic	Hydraulic cylinder
	For control	Pneumatic	Diaphragm actuator
			Double acting air cylinder (with positioner)
			Single acting air cylinder (with positioner)
		Electric	Electric motor (with electric positioner)
		Hydraulic	Hydraulic actuator

Accessory for pneumatic type

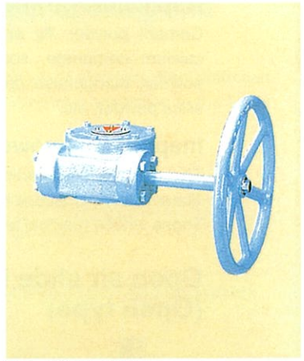
Air cleaning	Air filter	
	Mist separator	
	Dryer	
Air lubrication	Lubricator	
Pressure control	Relief valve	
	Air regulator	
Flow rate control	Throttle valve	
	Speed controller	
	Booster relay	
	Quick exhaust valve	
Direction control	Direction selector valve	Hand operated valve
		Foot valve
		Air controlled valve
		Machine controlled valve
		Solenoid valve
	Check valve	
	Shuttle valve	
	Lock up valve	
Position control	positioner	
Others	Silencer	
	Limit switch	
	Bypass valve	

Accessory for electric type

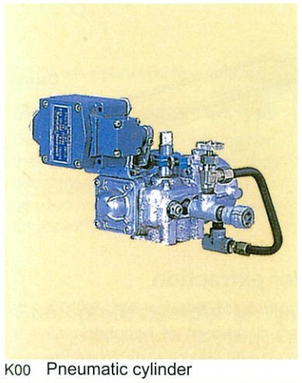
Opening contact output	Limit switch
Opening output	Potentiometer
	Synchro transmitter
Protection for motor	Torque limiter
	Thermal relay
Position control	E.E. positioner
Others	Space heater



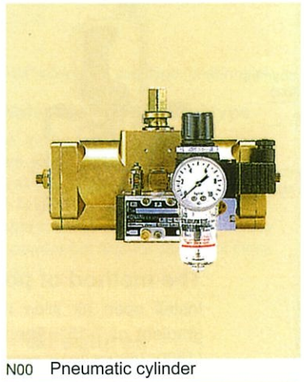
100 Lock lever



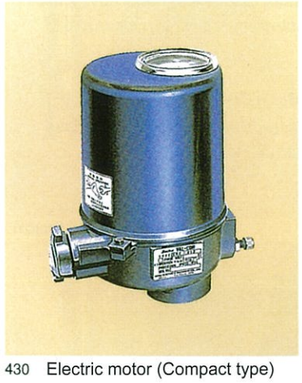
200 Worm gear



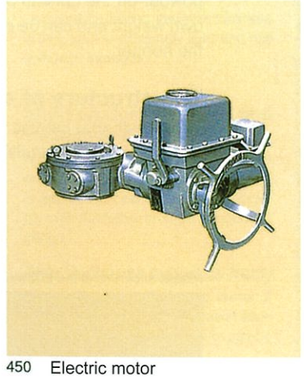
K00 Pneumatic cylinder



N00 Pneumatic cylinder



430 Electric motor (Compact type)



450 Electric motor

Lock lever

Opening and closing operation can be done by rotating the lever 90 degrees. Flow rate adjustment is also possible with 8-step lock mechanism.

Worm gear

The wheel operation is decelerated by the worm mechanism and lightened, and the valve can be easily opened and closed. The valve opening position can be seen by the opening indication scale.

Worm gear with attachment

By attaching a bevel gear to the worm gear, you can use it in the state which direction is changed 90°.

Center handle gear

It is decelerated by the planetary gear, it is even smaller and lighter than the worm gear. It is also characterized that the handle shaft and stem are on the same axis.

Pneumatic cylinder

It is a driving device that opens and closes a valve by air pressure of air cylinder. It is generally used for remote operation for ON-OFF, but flow rate adjustment is also possible by combining with a positioner.
Single acting type air cylinder can be used as fail safe.
Manual operation can also be done by attaching a handle, and other various accessories can be attached.

Electric motor

Electric actuator is designed and manufactured compactly for butterfly valves and can be opened and closed manually. Although the opening degree meter is attached to the actuator itself, it can also be operated remotely and set to an arbitrary degree of opening by attaching an opening transmitter.
It drastically improves the automatic operability of the butterfly valve, and responds to needs for labor-saving and automation.

Steel plate fabrications

Pneumatic transport system for powder etc.

The number one transport efficiency. Air slide conveyer for powder transport.

What is Air slide conveyer?

In general, if air is passed through the powder, the cohesion between powder particles becomes extremely small, and the powder flows like a liquid. Air slide uses this phenomenon and transports powder from the upstream to the downstream by the gravity inside the case which is generally installed at a gradient of about 7°to 15°. There are two types of air slides, "closed type" and "open type" depending on the purpose of use.

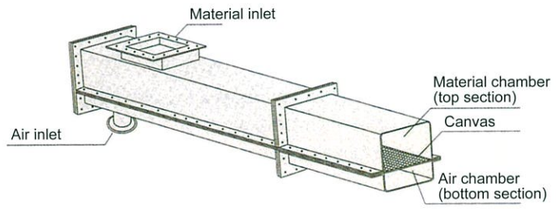
Applicable powder

Cement powder, fly ash, pulverized coal, coke powder, calcium carbonate, soda ash, collected dust, iron ore powder, manganese ore powder, phosphate ore powder, silica powder, etc.

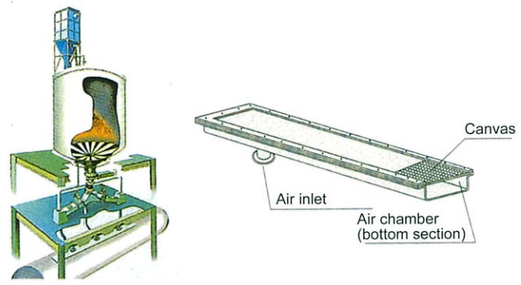
Inapplicable powder

Those with a large particle size and not fluidized.
Those with hygroscopicity and adhesion.
Those whose residual layer should not rot.

Closed air slide for powder transport (Closed type)



Open air slide for powder extraction (Open type)



The method of powder transport

A small amount of hypobaric air (600-800mmAq) generated by a turbo blower etc. is sent from the air inlet of the air slide into the air chamber. Since both ends of the air chamber are hermetically sealed, air blows through over the canvas and enters between the powder particles. Then the powder loses its cohesive force and flows downwards by its own weight.

No moving and sliding part

The structure of air slide
A breathable canvas is sandwiched between upper and lower cases made of steel plate and assembled with bolts to form a sealed monolithic structure. It is maintenance-free because there is no moving and sliding part. There is no restriction on the transport distance as long as the inclination permits if you connect the case of specified lengths (3000mmL) one after another.

The method of powder extraction

Install open air slide the bottom of hopper etc. with a gradient of 7-15°. Then a small amount of hypobaric air (1500-2500mmAq) is sent from air inlet into air slide. Then the powder on the canvas becomes fluidized, it flows out by its own weight and can be extracted smoothly from the outlet of the hopper.

The structure of open air slide

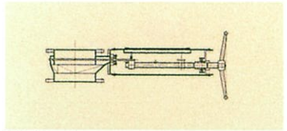
The breathable canvas is assembled into steel plate case and made into a monolithic structure.

Please inform us of the following matters when referring.

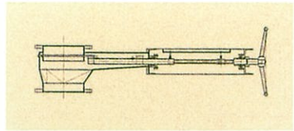
1	Amount of transport or extraction
2	Name of powder
3	Presence of moisture
4	Specific gravity
5	Granularity
6	Angle of repose
7	Hygroscopicity
8	Temperature of powder
9	Corrosiveness
10	Abrasiveness
11	Pyrophoric

Slide gate valve for the powder shutoff, maintenance of the lower part of the hopper. No powder leakage, smooth opening and closing.

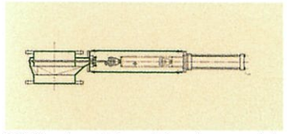
Round/square type or special materials such as stainless steel plate can also be made. We will design and manufacture it according to the kinds of powder, terms of use etc.



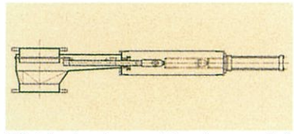
DS-02 valve plate seal type (manual)



RS-02 valve stem seal type (manual)



DS-04 valve plate seal type (pneumatic)



RS-04 valve stem seal type (pneumatic)

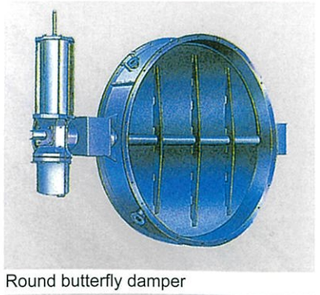
■Valve plate gland seal type

Due to the valve plate seal method, the total length of the main body becomes short and compact. It can be used not only for powder but also for shutoff of block object.

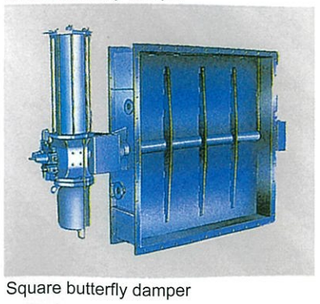
■Valve stem gland seal type

Due to the valve stem seal method, there is no powder leakage. Smooth opening and closing is possible even with long-term use because the operation torque is small. It can be used not only for powder but also for shutoff of block object.

Steel plate damper for gas.



Round butterfly damper



Square butterfly damper

■Features

Light and tough.
Compared to casting, the entire thickness is thin, so it is extremely light and has sufficient strength.

Short production period and inexpensive.
Because cost and time of wooden mold etc. are not required, machining is also small, cost is cheap and it can be manufactured in short production period.

Able to choose materials freely.
Depending on the fluid and terms of use, ordinary steel plate, special steel plate, stainless steel plate etc. can be freely used separately.

●We will design and manufacture it according to the customer's request such as kinds of fluid and terms of use.

Company profile

Company name
SUPERO SEIKI Co. , Ltd.

President and representative director
Keishiro Hashimoto

Established
April 25, 1973

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Line of products

- Rubber lining type butterfly valve
- Metal touch type butterfly valve for high temperature and high pressure
- Steel plate joint type butterfly valve
- Aluminum butterfly valve for tank lorry
- Knife gate valve
- Eccentric steel plate welded structure butterfly valve
- Butterfly damper
- Air-operated piston valve
- 3-way, 4-way, 5-way, 6-way switching valve
- Slide gate valve, vacuum valve, gauge valve
- Air slide conveyor (Pneumatic transport system for powder)

Factory outline

- Inspection factory certified by Japan Water Works Association
- Model evaluation acquisition factory approved by Fire Equipment and Safety Center of Japan