GVK(GDO)

HP BUTTERFLY VALVE

Total Engineering Solution Service

Mission

기초에 근거하여 원천 기술을 살리고 원천 기술을
극대화하여 세계 중심에 서는 것
To stand at the centre of the world by
utilizing original technology based on the
foundation and maximizing original technology

Vision

우리는 옳은 일과 가치 있는 일에 주저함이 없이
최선을 다하고 실천하여 세계의 중심에 서자
Let us put ourselves at the center of the world by
doing our best and not hesitating to stand up for
what is right and worthy

GLOBAL VISION KOREA

VMV®
Value MFG Valve

ACEFLOW
Valve Engineering

Valve Product Service

GVK Limited, founded in June 2020 by a leader with 38 years of experience, focuses on R&D while ensuring quality, price, and functionality through domestic production. The company offers Process Valves, Valve Equipment, and Total Engineering services for industries such as Gas, Refining, Petroleum, Power generation, Environment, and Water treatment.
With a management team possessing 30-40 years of experience, GVK has developed numerous patents and adheres to quality standards like ISO 9001, 14001, 45001, and CE. Recognized for its advanced automatic control valves, GVK also supplies a range of Control Valves globally through OEM and ODM partnerships.
Although still in the early design and manufacturing stages, GVK has emerged as a leading company in Korea, equipped with skilled personnel and testing capabilities. The company aims to lower production costs, enhance efficiency, and improve quality while accumulating Hyper-Intelligence Valve Engineering (HIVE) technology. GVK Limited is committed to meeting customer needs with competitive pricing and high value-added services.

The Professional Provider of Automatic valve Actuastors





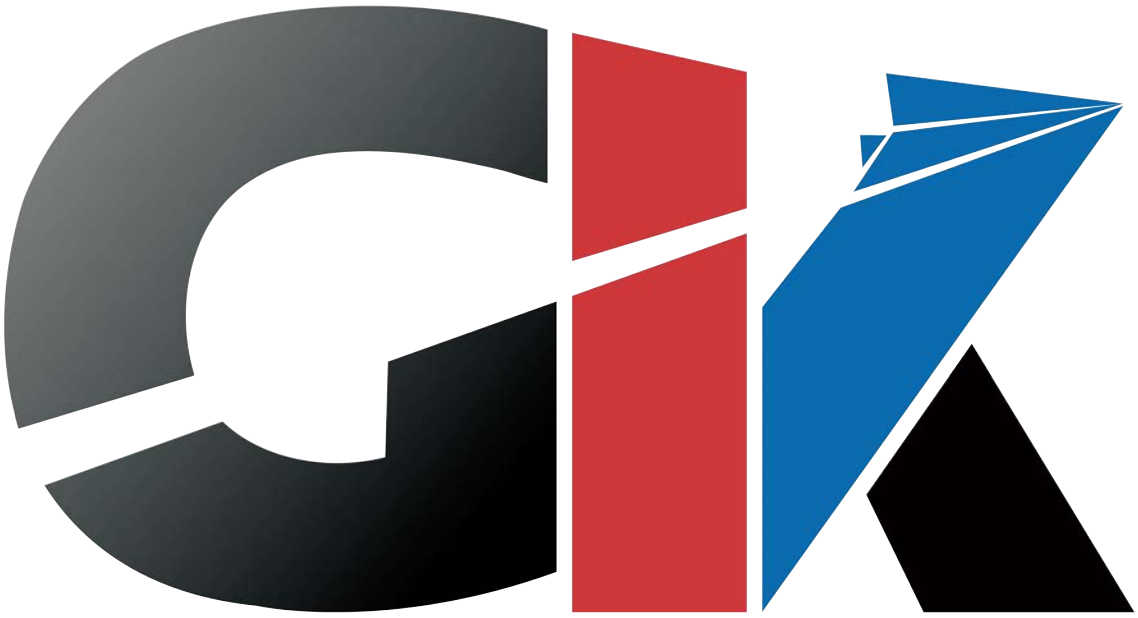


Mutually Beneficial Relationships

To Be Your Best Partner

Twenty years experience "one stop" goods and services



GDO SERIES

HP Butterfly Valves

Total Engineering Solution Service

GVK / GDO Series HP-Butterfly Valves

Contents

Series GDO

Butterfly Valve

Butterfly Control Valve

GVK Limited, based on foreign butterfly control valve manufacturing experience,manufactures product design based on customers' need. Different structural designs are adopted for various engineering conditions and media requirements. Among them, the high -performance soft seal structure and the three -eccentric stir - sealed structure are designed with absolute "zero" leakage design and lining butterfly valve for various corrosive work conditions, which can meet the essentials of ordinary and harsh fluid cutting and adjustment.

Range of Butterfly Control Valve we manufacture

Size Range：2"--120"
DN50--DN3000

Pressure Range：ANSI CLASS125--600
PN0.6--PN6.4MPa

Temperature Range：-196--1100°C

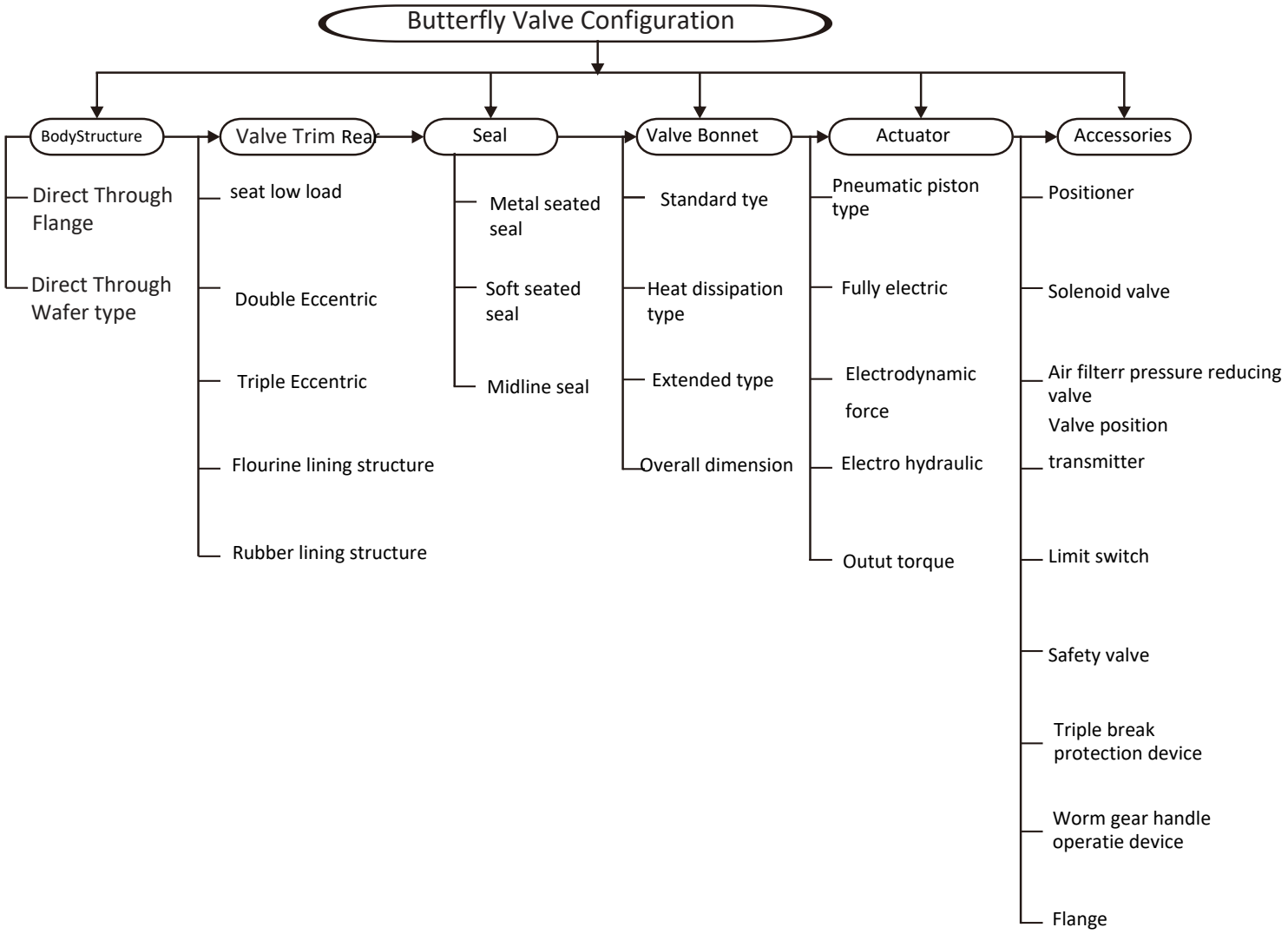
(Detailed manufacturing scope of different structural design, please refer to the following specific content)

The choice of the three major internal parts of the butterfly valve control valve

GDO-3 High performance soft-seal butterfly valve GBF-3 Triple-eccentric butterfly valve

GBF-1 Inner lining tetrafluoro seal butterfly valve

Configuration



NOTE:

- The above list is the diagram of the control butterfly valve configuration. You ca n press according to the arrow ,fullfil the requirements of meeting the process paramet ers, the most suitable control valve structure is selected.
- The above configuration guidance diagram involves only part of the important content
- Please check the relevant content you follow according to the page P.
- The electric actuator, electric hydraulic actuator, and related attachments that are not described in this information. If you need specific parameters, please consult GVK engineers.
- The maximum voltage difference allowed when the butterfly valve configuration execution agency is not listed in this information, and the CV value corresponding to the corresponding opening of the valve to control the performance parameters of the valve. Case's selection software calculates the process parameters and selects the most suitable control valve.

Body Construction

Valve Body Type

The butterfly valve control valve involves the single nature of its internal structure. The direct -through valve body structure is its unique valve body structure selection

Direct-through Maximum size:DN3000

Direct-through Butterfly Body Structure Length Standard:
IEC-60534-3-1-2001
API-609
The inner cavity of the valve is a direct runner, with a very small fluid resistance and a large circulation capacity. For the circulation capacity of each specification, please refer to the specific CV value table

Valve body and process pipeline connection method:
Flange Type Wafer type

Flange connection form standard: ASME B 16.5, 16.47

Clamp connection form: ASME B 16.5
ASME B 16.47

- Strength design of valve body sheeel achieve the ASME B 16.34, API 598, EN 10204 pressure test
- The installation flow of the valve body process needs to be installed according to the flow direction marked on the actual product. The different internal structure structure will produce the best performance. For example flow-open or flow-close
- The use of different materials to cast or forge can meet the requirements of different temperature and pressure in the process
  Maximum Pressure : Class600 / 6.4Mpa
  Temperature Range : -196℃--+538℃
  Low load butterfly valve can meet the maximum ±1100 range
- The valve body and upper bonnet can be cast or forged by carbon steel, Austeen stainless steel or special alloy material

Name	Materia
Valve body	ASTM A216 WCB/WCC ASTM A217 WC6/WC9 ASTM A105
	ASTM A351 CF8/CF3/CF8M/CF3M

Note：a. Special alloy materials have not been expressed in the list. If you need to understand, please consult OKA-V engineers.

Valve stem seal structure

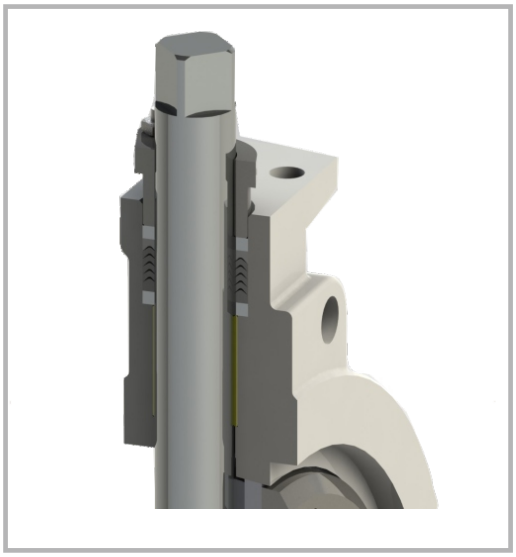
GVK uses two types of sealing structures for the butterfly control valve stem seal:

VMV's patented technology of self-sealing structure standard stuffing box

The high -temperature filler structure with a sulfur -free V -shaped flexible graphite

◆ The sealing structure of the sealing and fillers is the self -sealing design of OKA-V 's patented technology. It uses 100,000 full schedule experiments to ensure that there is no leakage and no increase in friction
The permanent low friction force of the valve angle stroke ensures the long -term accur acy of the control valve.

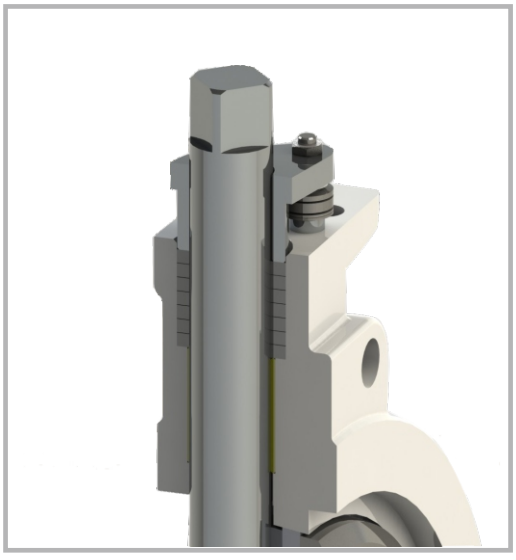
◆ Using a sulfur-free V-type flexible graphite as a high temperature filler structure.The design of V-type flexible graphite has changed the disadvantages of using flexible graphite fillers without compensation and deformation. And it keeps the long serving life



◆ The sulfur -free V -type flexible graphite is used as a high -temperature type filler structure to increase the pre -tightening compensation design of the spring pad to ensure that the filler letter is used for a long time without maintenance.

◆ Standard filler letter module with pressure and temperature range:
The maximum tolerance pressure is: Class600 / 6.4MPa
The temperature range is: -196 ~+250

◆ High -temperature filler letter module with pressure and temperature range The maximum tolerance is: Class600 / 6.4MPa
The temperature range is: -196 ~+1100



◆ filler material

Name	Material
standard filler	PTFE/R.TFE/PPL
H-temperature	V type sulfate flexible graphite

Butterfly Valve GDO Series

Size specification: 2"~48" DN50~DN1200 Pressure class: ANSI 150~300# PN1.0~PN4.0Mpa

图1

◆ The GDO-2 series of high -performance butterfly valves, with dual -eccentric structural design. The center of the axial center deviates from the center of the valve body structure. At the same time, combines the design of the circular cover of the valve board, so that the valve board quickly leaves the seal when the valve board is opened to reduce the friction of the cover and the valve board has better seal performance. The central custom sealing valve seat structure design combines unique valve seat compensation sealing, so that the wear of the valve seat can be effectively compensated while reducing the friction when the sealing, which greatly reduces the operating force of the valve, and effectively improves the accuracy of the control of the butterfly valve. This series of butterfly valve has a long sealing life; the sealing performance is excellent, suitable for general corrosive gases, adjustment and cutting of liquid media.

◆ Butterfly valve parameter description
Features of the inside of the valve: axial two eccentric structural compensation sealing valve seat valve board round dense cover
Valve Type: Direct Through Type
Upper valve bonnet type: standard integration
Temperature range: -45C ~ 250C
Valve shaft sealing form: Self -seal filling letter structure Flexible graphite filler structure
Standard leakage level: Class vi
Flow characteristics: approximate equal percentage percentage
Connect to pipeline: Plasses of clamp -style flange
Tune ratio: 30: 1

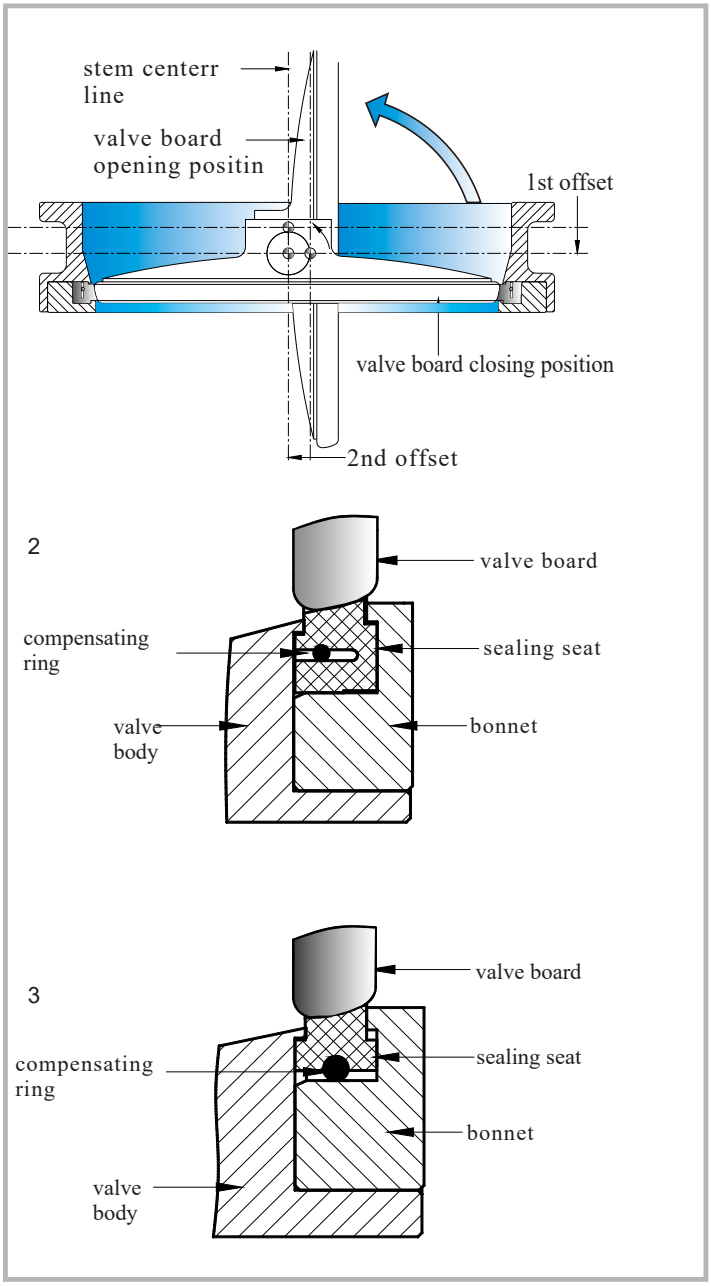
Name	Material
Valve Body	ASTM A216 WCB/WCC ASTM A351 CF8/CF3/CF8M/CF3M
Valve plate	ASTM A216 WCB/WCC ASTM A351 CF8/CF3/CF8M/CF3M
Valve Seat	R.TFE PTFE
Valve Shaft	ASTM A276 420 ASTM A276 F304/F316/F316L
Pressing Ring	ASTM A276 410 ASTM A182 F304/F316/F316L

◆ Flange connection form standard
Flange: JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47
Wafer type: JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47

◆ Leakage execution standard: ANSI B16.104
◆ Adaptive angular stroke actuator:

a. Pneumatic piston actuator
b. Electric actuator
c. Electric hydraulic actuator

Note: Special alloy materials are not expressed in the list. If you need to understand, please consult Okawi engineers.



◆GDO-2 dual -eccentric design reduces the wear of the valve seat and ensures the two -way air density shutdown function within the entire pressure range. At the starting point of the valve seat, the eccentric valve board produces a similar cam. If you do not have too much pressure, you can pull the valve board to leave the valve seat. The entire similar cammaker in the starting position is reduced to reduce the wear of the valve seat and minimize the deformation of the valve seat as much as possible. When the valve is turned on, because the valve board does not contact the valve seat, the life of the valve seat is prolonged, and the torque operation is small. When the valve is turned off, the rotation movement of the entire cam -like conversion valve is a direct itinerary, which effectively promotes the valve board to touch the valve seat. The built -in compensation spring can effectively compensate the wear of the sealing seat, so that the sealing seat in the switch process has elasticity, greatly reduce the friction, improves the sensitivity, and enables the entire valve to have excellent cutting performance and regulating performance.

◆ Design of valve seat:
The GBF-2 series provides two optional valve seat structures

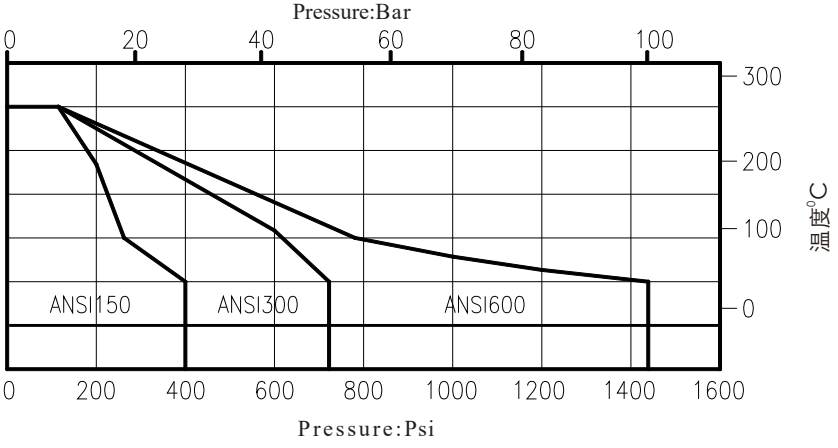
◆ The valve seat adopts an internal U -groove structure. Realize self -sealing by medium pressure and built -in compensation reeds, so that the sealing mechanism can achieve real dynamic sealing through system medium pressure.

◆ Valve leakage volume: rated under CV ×10 $^{-6}$ %

◆ The valve seat adopts an external O -groove structure. When the valve board is not completely closed, the valve seat radius has a certain degree of flexibility, thereby reducing the wear of the valve seat and reducing the torque. When the valve board is closed, the pre -tightening force of the valve board is provided to ensure the sealing.

◆ Valve leakage volume: rated under CV ×10 (-6) %

◆ PTFE valve seat pressure/temperature



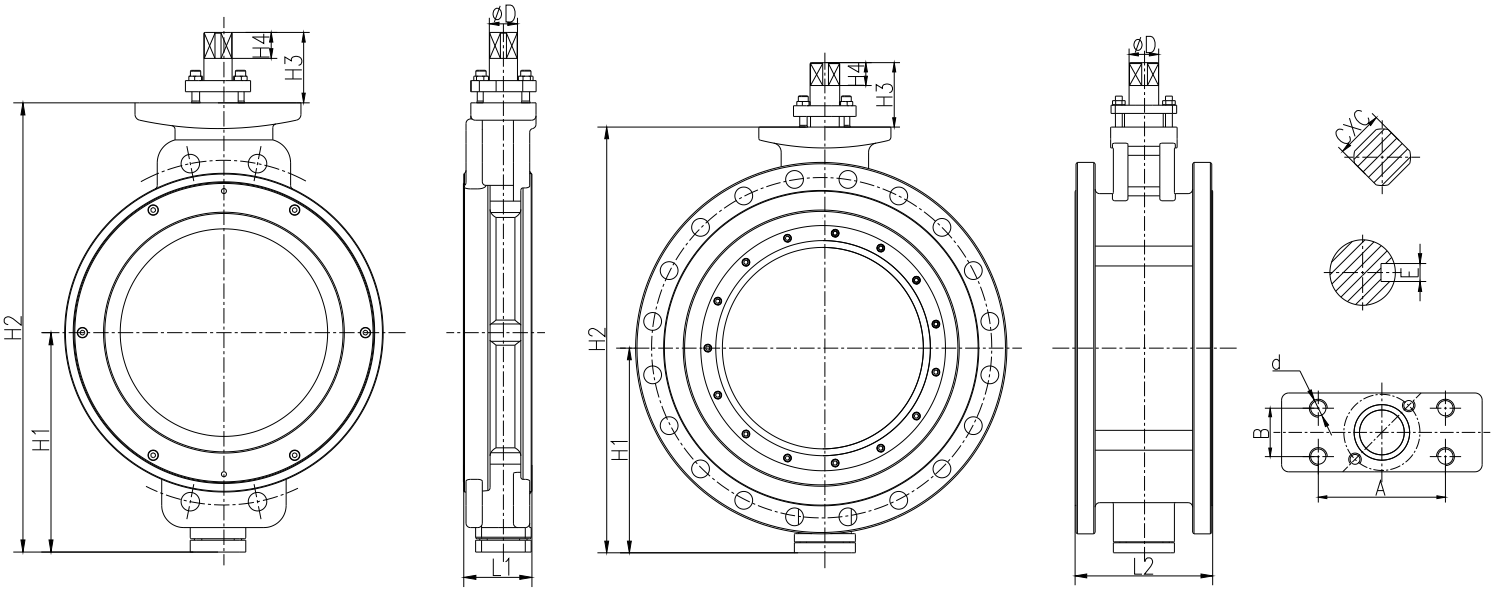
Butterfly Valve GDO Series

Rated CV and Trip

DN		Rated CV	DN		Rated CV
inch	mm	90°	inch	mm	90°
3"	80	179	18"	450	11314
4"	100	429	20"	500	14870
5"	125	456	24"	600	21450
6"	150	1008	28"	700	30516
8"	200	2171	32"	800	41603
10"	250	3441	36"	900	54193
12"	300	4946	40"	1000	62177
14"	350	6484	48"	1200	77390
16"	400	8526			

Different Valve Opening -CV

DN		Different Valve Opening -CV								
inch	mm	10^0	20^0	30^0	40^0	50^0	60^0	70^0	80^0	90^0
2"	50	1.5	4.2	10	12	16	20	41	80	93
$2^1/_2$"	65	2.5	6.3	15	17	20	33	65	120	132
3"	80	3.1	9.8	18	25	26	52	101	165	179
4"	100	9.1	36	74	153	211	280	328	388	429
5"	125	29	88	145	210	254	285	340	419	456
6"	150	42	124	221	361	442	686	852	993	1008
8"	200	63	175	340	584	928	1330	1693	2049	2171
10"	250	143	373	686	1069	1591	2228	2795	3305	3441
12"	300	217	531	919	1395	2063	2959	3782	4547	4946
14"	350	284	682	1135	1827	2688	3637	5950	5956	6484
16"	400	348	823	1410	2297	3445	4973	6509	8162	8526
18"	450	410	985	1689	2770	4175	6066	8160	10121	11314
20"	500	572	1272	2115	3315	5222	7612	10335	12983	14870
24"	600	882	1956	3295	5026	7665	11036	14951	19100	21450
28"	700	1010	2000	3668	6192	9713	14970	20891	26570	30516
32"	800	1570	3575	5536	9030	13697	20370	28647	36677	41603
36"	900	2543	4256	7132	11725	17423	26000	37000	46282	54193
40"	1000	4258	11669	14016	16629	21585	30713	37407	48000	62177
48"	1200	5030	16384	19720	24950	28834	35524	43980	50340	77390



Valve Body Structure Dimensions

DN		PN1.0/1.6/150LB		H1	H2	H3	H4	A	B	d	ΦD	C×C	E
inch	mm	L1Wafer	L2Flange										
3"	80	64	114	122	269	90	20	75	40	M10	20	17×17	---
4"	100	56	127	132	294	68	20	90	40	M10	20	17×17	---
5"	125	64	140	145	297	68	25	90	40	M10	26	17×17	---
6"	150	70	140	159	331	75	25	110	46	M12	26	22×22	---
8"	200	71	152	198	406	75	25	110	46	M12	28	22×22	---
10"	250	76	165	224	479	80	30	130	50	M16	32	26×26	---
12"	300	83	178	259	534	80	30	130	50	M16	32	26×26	---
14"	350	92	190	304	605	95	35	142	54	M20	38	32×32	---
16"	400	102	216	325	665	95	35	142	54	M20	45	32×32	---
18"	450	114	222	364	744	100	40	170	80	M24	50	38×38	---
20"	500	127	229	394	814	100	40	170	80	M24	50	38×38	---
24"	600	154	267	449	934	120	50	184	98	M27	65	54×54	---
28"	700	165	292	490	1000	120	50	184	98	M27	75	54×54	---
32"	800	190	318	545	1125	160	60	268	105	M27	85	---	22
36"	900	203	330	603	1255	160	60	268	140	M30	90	---	25
40"	1000	216	410	675	1395	160	60	268	140	M30	100	---	28
48"	1200	254	470	870	1450	180	70	268	140	M30	100	---	28

Note: For the size of the flange connection, please refer to P20-P21

Butterfly Valve GTR-S Series

Size specification: 2"~48" DN50~DN1200 Pressure class: ANSI 150~600# PN1.0~PN6.4Mpa

图1

◆ The GTR-S series triple-eccentric butterfly valve, adopts a shaft center dual departure valve structure center, combined with the sealing non-symmetrical design, so that the valve board has no friction with the valve seat within the full stroke range of 0-90 °. Calcium wear and friction produced. The rotating control valve needs to be squeezed to seal, and the pressure is tightly sealed. The valve s eat adopts a multi -level structure, and the cover of the combination of metal and special non -metal materials is more effectively guaranteed to ensure no leakage. This series of butterfly valve has a long sealing life; the sealing performance is excellent, and at the same time, it can meet the requirements of high temperature working conditions. It is applicable to the adjustment and cutting of almost all gas and liquid in the control of industrial process control.

◆ Butterfly valve parameter description:
Features of the inside of the valve: the axial two eccentric structure asymmetric cover structure, multi -level sealing valve seat
Valve Type: Direct Through Type
Upper valve cover type: standard integration
Temperature range: -196c ~ 538°C

◆ Valve shaft sealing form: self -seal filling letter structure, flexible graphite filler structure,
Standard leakage level: class VI
Flow characteristics: approximate equal percentage percentage
Connect to pipeline: Wafer ty0e, Flange type
Tune ratio: 30: 1
(ANSI Class 600 or PN6.4 only meets the DN600 caliber)

Name	Material
Valve Body	ASTM A216 WCB/WCC ASTM A351 CF8/CF3/CF8M/CF3M
Valve plate	ASTM A216 WCB/WCC ASTM A351 CF8/CF3/CF8M/CF3M
Valve Seat	ASTM A182 F304/F316/F316L/RTFE
Valve Shaft	ASTM A276 420 ASTM A276 F304/F316/F316L
Pressing Ring	ASTM A276 410 ASTM A182 F304/F316/F316L

Note: Special alloy materials are not expressed in the list. If you need to understand, please consult Okawi engineers.

◆ Flange connection form standard
Flange: JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47
Wafer : JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47

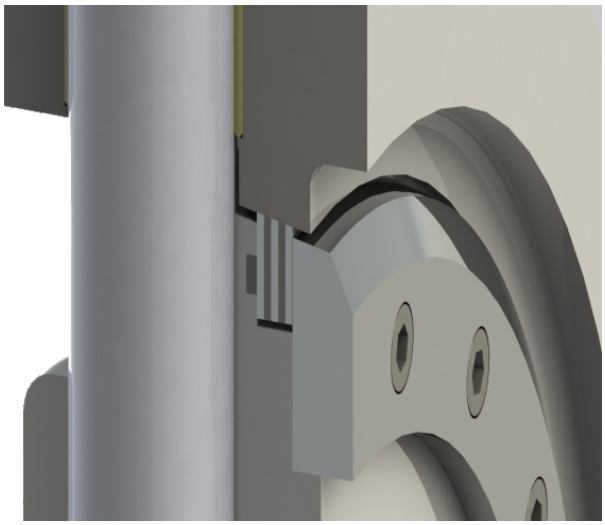
◆ Leakage execution standard: ANSI B16.104
◆ Adaptive angular stroke actuator:

a. Pneumatic piston actuator
b. Electric actuator
c. Electric hydraulic actuator

1

◆ Triple eccentric geometric design:
Using metal densely seal without interference can provide long service life.
◆ The first eccentric is the edge of the valve stem deviation of the valve board to ensure that the seal surface is not interrupted by the valve stem.
◆ The second eccentric is the side of the middle line of the valve stem. When the valve board is separated from the valve seat, the valve board rotates to achieve a similar cam. When the valve board enters the closure state, the valve board movement has shifted from a cammot movement to a linear movement. During the entire motion, the edge of the valve board did not contact the valve seat.
◆ The third eccentric is composed of two cone valve seats and sealing parts of the rotating center shaft and the middle line of the valve. The offset of the two cone (compared to the cone angle of the valve) makes it easier to get rid of the valve seat from the valve plate. And when this " vertebral" design makes the valve open, the edge of the entire valve seat is quickly separated, and the valve seat will only be in contact when it is closed, so that the mutual interference between the valve board and the sealing parts eliminates the mutual interference.

2



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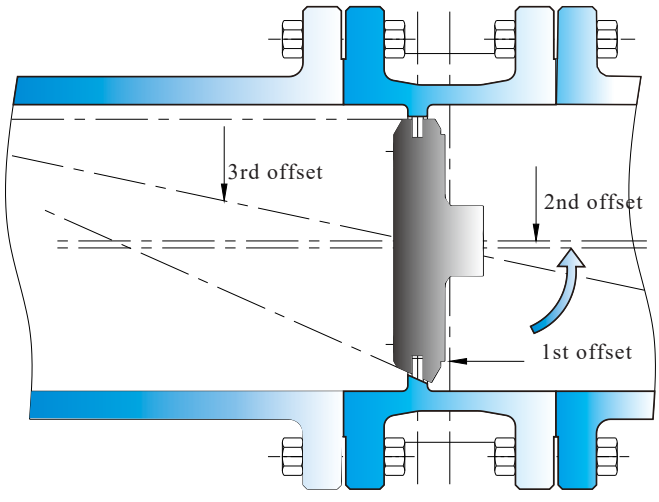

Butterfly Valve GTR-S Series

Rated CV and Trip

DN		Rated CV	DN		Rated CV
inch	mm	90°	inch	mm	90°
3"	80	179	18"	450	11314
4"	100	429	20"	500	14870
5"	125	456	24"	600	21450
6"	150	1008	28"	700	30516
8"	200	2171	32"	800	41603
10"	250	3441	36"	900	54193
12"	300	4946	40"	1000	62177
14"	350	6484	48"	1200	77390
16"	400	8526			

Different Opening CV

DN		Different Opening CV								
inch	mm	10^0	20^0	30^0	40^0	50^0	60^0	70^0	80^0	90^0
2"	50	1.5	4.2	10	12	16	20	41	80	93
$2^1/_2$"	65	2.5	6.3	15	17	20	33	65	120	132
3"	80	3.1	9.8	18	25	26	52	101	165	179
4"	100	9.1	36	74	153	211	280	328	388	429
5"	125	29	88	145	210	254	285	340	419	456
6"	150	42	124	221	361	442	686	852	993	1008
8"	200	63	175	340	584	928	1330	1693	2049	2171
10"	250	143	373	686	1069	1591	2228	2795	3305	3441
12"	300	217	531	919	1395	2063	2959	3782	4547	4946
14"	350	284	682	1135	1827	2688	3637	5950	5956	6484
16"	400	348	823	1410	2297	3445	4973	6509	8162	8526
18"	450	410	985	1689	2770	4175	6066	8160	10121	11314
20"	500	572	1272	2115	3315	5222	7612	10335	12983	14870
24"	600	882	1956	3295	5026	7665	11036	14951	19100	21450
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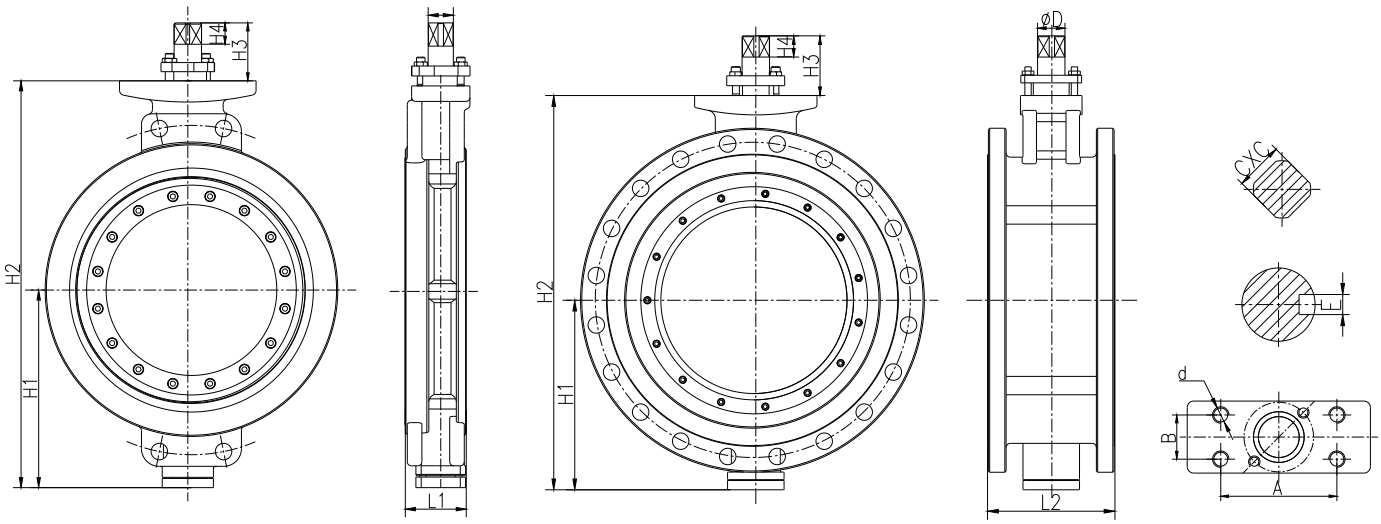


Valve Body Structure Dimension

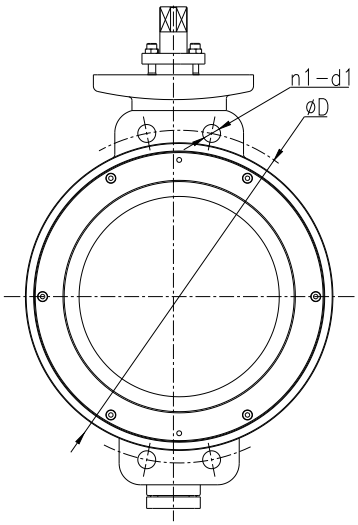
Unit: mm

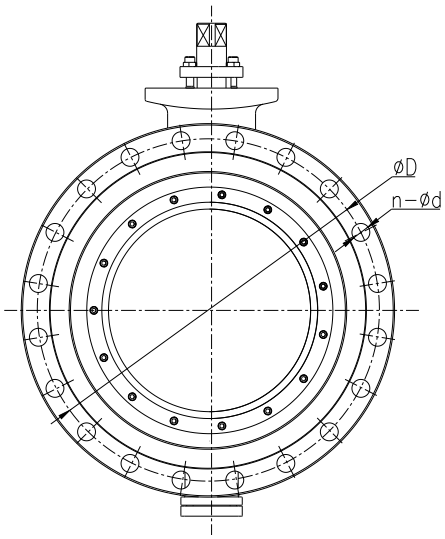
DN		PN1.0/1.6/150LB		H1	H2	H3	H4	A	B	d	ΦD	C×C	E
inch	mm	L1Wafer	L2Flange										
3"	80	64	114	122	269	90	20	75	40	M10	20	17×17	---
4"	100	56	127	132	294	68	20	90	40	M10	20	17×17	---
5"	125	64	140	145	297	68	25	90	40	M10	26	17×17	---
6"	150	70	140	159	331	75	25	110	46	M12	26	22×22	---
8"	200	71	152	198	406	75	25	110	46	M12	28	22×22	---
10"	250	76	165	224	479	80	30	130	50	M16	32	26×26	---
12"	300	83	178	259	534	80	30	130	50	M16	32	26×26	---
14"	350	92	190	304	605	95	35	142	54	M20	38	32×32	---
16"	400	102	216	325	665	95	35	142	54	M20	45	32×32	---
18"	450	114	222	364	744	100	40	170	80	M24	50	38×38	---
20"	500	127	229	394	814	100	40	170	80	M24	50	38×38	---
24"	600	154	267	449	934	120	50	184	98	M27	65	54×54	---
28"	700	165	292	490	1000	120	50	184	98	M27	75	54×54	---
32"	800	190	318	545	1125	160	60	268	105	M27	85	---	22
36"	900	203	330	603	1255	160	60	268	140	M30	90	---	25
40"	1000	216	410	675	1395	160	60	268	140	M30	100	---	28
48"	1200	254	470	870	1450	180	70	268	140	M30	100	---	28

DN		PN4.0/300/600LB		H1	H2	H3	H4	A	B	d	ΦD	C×C
inch	mm	L1Wafer	L2Flange									
4"	100	64	190	132	294	68	20	90	40	M10	26	17×17
6"	150	76	210	159	331	75	25	110	46	M12	28	22×22
8"	200	89	230	198	406	75	25	110	46	M12	32	26×26
10"	250	114	250	224	479	80	30	130	50	M16	38	32×32
12"	300	114	270	259	534	80	30	130	50	M16	45	32×32
												38×38
16"	400	140	310	325	665	95	35	142	54	M20	60	52×52
												52×52
20"	500	152	350	394	814	100	40	170	80	M24	70	54×54
												60×60

Note: For the size of the flange connection, please refer to P20-P21

Butterfly Valve GTR-S Series





PN4.0Valve body end face Flange Connection size

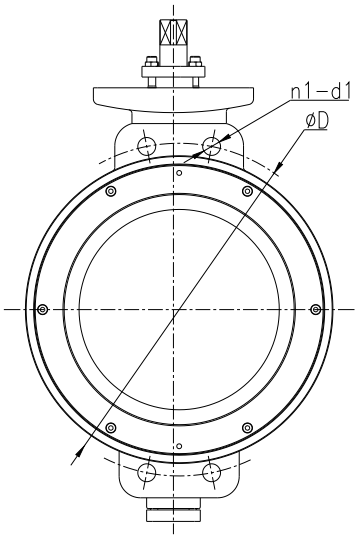
DN		ϕD	Flange		Wafer	
inch	mm		n	ϕd	n1	d1
3"	80	160	8	ϕ18	4	M16
4"	100	190	8	ϕ23	4	M22
5"	125	220	8	ϕ25	4	M22
6"	150	250	8	ϕ25	4	M22
8"	200	320	8	ϕ30	4	M27
10"	250	385	12	ϕ34	4	M30
12"	300	450	12	ϕ34	4	M30
14"	350	510	16	ϕ34	4	M30
16"	400	585	16	ϕ41	4	M36
18"	450	610	20	ϕ41	4	M36
20"	500	670	20	ϕ48	4	M45
24"	600	795	20	ϕ48	4	M45

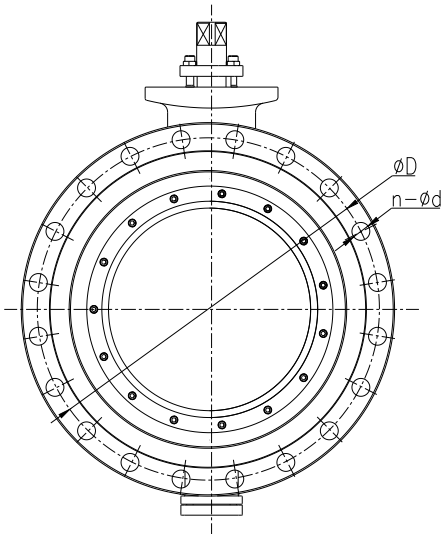
PN1.0 Valve body end face Flange Connection size

DN		ϕD	Flange		Wafer	
inch	mm		n	ϕd	n1	d1
3"	80	160	4	ϕ18	4	ϕ18
4"	100	180	8	ϕ18	4	ϕ18
5"	125	210	8	ϕ18	4	ϕ18
6"	150	240	8	ϕ23	4	ϕ23
8"	200	295	8	ϕ23	4	ϕ23
10"	250	350	12	ϕ23	4	ϕ23
12"	300	400	12	ϕ23	4	ϕ23
14"	350	460	16	ϕ23	4	M22
16"	400	515	16	ϕ25	4	M22
18"	450	565	20	ϕ25	4	M22
20"	500	620	20	ϕ25	4	M22
24"	600	725	20	ϕ30	4	M27
28"	700	840	24	ϕ30	4	M27
32"	800	950	24	ϕ34	4	M30
36"	900	1050	28	ϕ34	4	M30
40"	1000	1160	28	ϕ34	4	M30
48"	1200	1390	32	ϕ48	4	M45

PN1.6Valve body end face Flange Connection size

DN		ϕD	Flange		Wafer	
inch	mm		n	ϕd	n1	d1
3"	80	160	8	ϕ18	4	ϕ18
4"	100	180	8	ϕ18	4	ϕ18
5"	125	210	8	ϕ18	4	ϕ18
6"	150	240	8	ϕ23	4	ϕ23
8"	200	295	12	ϕ23	4	ϕ23
10"	250	355	12	ϕ25	4	ϕ23
12"	300	410	12	ϕ25	4	ϕ23
14"	350	470	16	ϕ25	4	M22
16"	400	525	16	ϕ30	4	M27
18"	450	585	20	ϕ30	4	M27
20"	500	650	20	ϕ34	4	M30
24"	600	770	20	ϕ41	4	M36
28"	700	840	24	ϕ41	4	M36
32"	800	950	24	ϕ41	4	M36
36"	900	1050	28	ϕ41	4	M36
40"	1000	1170	28	ϕ48	4	M45
48"	1200	1390	32	ϕ48	4	M45





600LB Valve body end face Flange Connection size

DN		ΦD	Flange		Wafer	
inch	mm		n	Φd	n1	d1
3"	80	168.5	8	Φ22	8	M20
4"	100	216	8	Φ26	8	M24
5"	125	267	8	Φ29.5	8	M27
6"	150	292	12	Φ29.5	12	M27
8"	200	349	12	Φ32.5	12	M30
10"	250	432	16	Φ35.5	16	M33
12"	300	489	20	Φ35.5	20	M33
14"	350	527	20	Φ39	20	M36
16"	400	603	20	Φ42	20	M39
18"	450	654	24	Φ45	24	M42
20"	500	724	24	Φ45	24	M42
24"	600	838	24	Φ51	24	M48

150LBValve body end face Flange Connection size

DN		ΦD	Flange		Wafer	
inch	mm		n	Φd	n1	d1
3"	80	152.5	4	Φ18	4	Φ18
4"	100	190.5	8	Φ18	4	Φ18
5"	125	216	8	Φ22	4	Φ18
6"	150	241.5	8	Φ22	4	Φ23
8"	200	298.5	8	Φ22	4	Φ23
10"	250	362	12	Φ26	4	Φ23
12"	300	432	12	Φ26	4	Φ23
14"	350	476	12	Φ29.5	4	M27
16"	400	540	16	Φ29.5	4	M27
18"	450	578	16	Φ32.5	4	M30
20"	500	635	20	Φ32.5	4	M30
24"	600	749.5	20	Φ35.5	4	M33
28"	700	863.5	28	Φ35.5	4	M33
32"	800	978	28	Φ41	4	M36
36"	900	1086	32	Φ41	4	M36
40"	1000	1200	36	Φ41	4	M36
48"	1200	1390	36	Φ48	4	M45

300LBValve body end face Flange Connection size

DN		ΦD	Flange		Wafer	
inch	mm		n	Φd	n1	d1
3"	80	168.5	8	Φ22	4	M20
4"	100	200	8	Φ22	4	M20
5"	125	235	8	Φ22	4	M20
6"	150	270	12	Φ22	4	M20
8"	200	330	12	Φ26	4	M24
10"	250	387.5	16	Φ29.5	4	M27
12"	300	451	16	Φ32.5	4	M30
14"	350	514.5	20	Φ32.5	4	M30
16"	400	571.5	20	Φ35.5	4	M33
18"	450	628.5	24	Φ35.5	4	M33
20"	500	686	24	Φ35.5	4	M43
24"	600	813	24	Φ42	4	M39

Butterfly Valve GCB-T Series

Size specification: 2"~24" DN50~DN600

Pressure Class : ANSI 125~150# PN0.6~PN1.6Mpa

图1

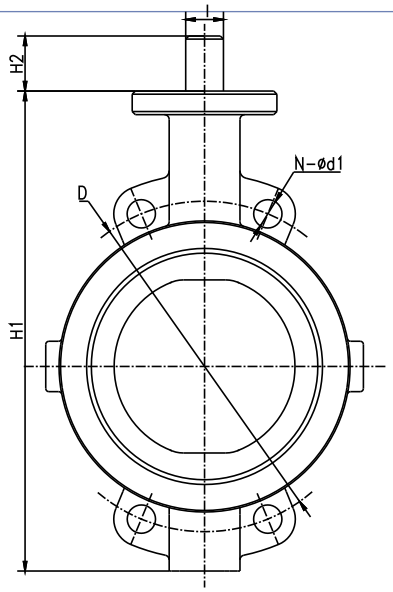
◆ The GCB-T series high -performance fluorine butterfly valve uses the medium -line fluorine structure. The valve body and valve board are lined with strong corrosion materials such as PTFE or F46, which can effectively avoid the corrosion of the valve and have good sealing performance. The butterfly valve of this series is mainly used in the control of corrosive fluids in the industrial process of chemical industry. It is an ideal solution to regulate or cut off various chemical corrosive media.

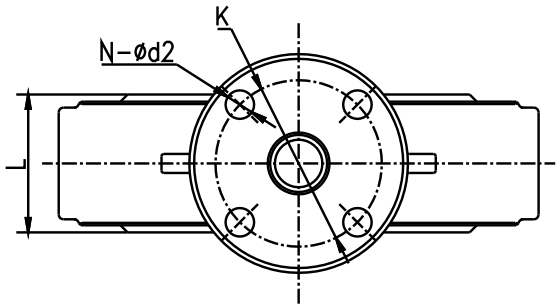
◆ Butterfly valve parameter description
Valve Type: Direct Through Type
Valve bonnet type: standard integration
Temperature range: -20C ~ 180°C
Valve shaft sealing form: O -type synthetic rubber RTFE
Standard leakage level: class vi
Flow characteristics: approximate equal percentage
percentage
Connect to pipeline: Plasses of clamp -style flange
Tune ratio: 30: 1

◆ Flange connection form standard
Flange: JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47
Wafer : JB/T79.1-94 ~ JB/T79.4-94/HG20616-97
ANSI B16.5 ANSI B16.47
◆ Leakage execution standard: ANSI B16.104
◆ Adaptive angular stroke actuator:
a. Pneumatic piston actuator
b. Electric actuator
c. Electric hydraulic actuator

Name	Material
Valve Body	ASTM A216 WCB
Valve plate	ASTM A216 WCB
Lining Material	PTFE / F46/PFA
Valve shaft	ASTM A276 420 ASTM A276 F304/F316/F316L

Note: Special alloy materials are not expressed in the list. If you need to understand, please consult Okawi engineers.





Valve Body Structure Dimension

Unit: mm

DN		L	H1	H2	PN1.0MPa		PN1.6MPa		d	K	N-φd2
inch	mm				D	N-ϕd1	D	N-ϕd1			
2"	50	43	218	27	125	4-ϕ18	125	4-ϕ18	14	57	4-ϕ7
2 1/2"	65	46	235	27	145	4-ϕ18	145	4-ϕ18	14	57	4-ϕ7
3"	80	46	251	27	160	4-ϕ18	160	8-ϕ18	14	57	4-ϕ7
4"	100	52	284	27	180	8-ϕ18	180	8-ϕ18	16	70	4-ϕ11
5"	125	56	313	27	210	8-ϕ18	210	8-ϕ18	20	70	4-ϕ11
6"	150	56	339	27	240	8-ϕ23	240	8-ϕ23	20	70	4-ϕ11
8"	200	60	403	35	295	8-ϕ23	295	12-ϕ23	22	88	4-ϕ14
10"	250	68	466	35	350	12-ϕ23	355	12-ϕ27	22	88	4-ϕ14
12"	300	78	535	35	400	12-ϕ23	410	12-ϕ27	28	108	4-ϕ14
14"	350	78	605	35	460	16-ϕ23	470	16-ϕ27	32	108	4-ϕ14
16"	400	102	680	42	515	16-ϕ27	525	16-ϕ30	32	160	4-ϕ21
18"	450	114	730	42	565	20-ϕ27	585	20-ϕ30	32	160	4-ϕ21
20"	500	127	792	42	620	20-ϕ27	650	20-ϕ33	36	160	4-ϕ21
24"	600	154	850	42	725	20-ϕ30	770	24-ϕ36	36	215	4-ϕ21

Noted: Flanged Dimension ,please consult Okawi engineers.

Rated CV and Trip

DN		Rated CV	DN		Rated CV
inch	mm	90°Opening	inch	mm	90°Opening
2"	50	70	10"	250	3740
2 1/2"	65	175	12"	300	5100
3"	80	265	14"	350	6860
4"	100	480	16"	400	8960
5"	125	750	18"	450	11340
6"	150	1350	20"	500	14000
8"	200	2310	24"	600	20160

Product Service Qualified Certificate

ISO 9001:2015	ISO 14001:2015	ISO 45001:2018


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that the Quality Management System of the company mentioned above meets the requirements of

ISO 9001:2015

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate No. : GSR-Q-950
Initial Certification : 2021. 04. 09.
Date Of Issue : 2021. 04. 09.
Expiry Date : 2024. 04. 08.

Global Systems Register Co.,Ltd


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that the Environmental Management System of the company mentioned above meets the requirements of

ISO 14001:2015

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate No. : GSR-E-950
Initial Certification : 2021. 04. 09.
Date Of Issue : 2021. 04. 09.
Expiry Date : 2024. 04. 08.

Global Systems Register Co.,Ltd


Certificate of Registration

GVK INDUSTRY CO., LTD.

This is to certify that Occupational Health and Safety Management System of the company mentioned above meets the requirements of

ISO 45001:2018

SCOPE

Design/Development and Manufacture of Automatic Valves

Certificate Number: GSR-O-950 Issue Date: 2023. 10. 20.
Initial Certification: 2023. 10. 20. Expiry Date: 2026. 10. 19.

Global Systems Register Co., Ltd.

CE: Globe Control Valve	CE : Ball Valve	Research Institute


SZUTEST CE

CERTIFICATE OF COMPLIANCE
UYGUNLUK SERTİFİKASI


SZUTEST CE

CERTIFICATE OF COMPLIANCE
UYGUNLUK SERTİFİKASI


제 2023111848 호

기업부설연구소 인정서

1. 연 구 소 명: 지브이케이인더스트리(주) 기업부설연구소
[소속기업명: 지브이케이인더스트리(주)]
2. 소 재 지: 인천광역시 부평구 주부토로 236
C동 503호 (갈산동)
3. 신고 연월일: 2023년 06월 08일
(최초인정일 : 2023년 5월 10일)

과학기술정보통신부

「기초연구진흥 및 기술개발지원에 관한 법률」 제14조의 2제1항 및 같은 법 시행령 제27조제1항에 따라 위와 같이 기업부설연구소로 인정합니다.

2023년 6월 15일

한국산업기술진흥협회장

ASME U, PP Stemp

The American Society of Mechanical Engineers

CERTIFICATE OF AUTHORIZATION

The named company is authorized by The American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the ASME Single Certification Mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with the ASME Single Certification Mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

GVK INDUSTRY CO., LTD.
C-504, 236, Juhuto-ro, Ibayeong-gu
Incheon 21330
Republic of Korea

SCOPE:

Manufacture of pressure vessels at the above location and field sites controlled by the above location (This authorization does not cover impregnated graphite)

AUTHORIZED: March 25, 2024
EXPIRES: March 25, 2027
CERTIFICATE NUMBER: 61476

Board Chair, Conformity Assessment

Senior Director, Engineering Operations

EAC : RUSSIA TRCU

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

СЕРТИФИКАТ СООТВЕТСТВИЯ

EAC

№ ЕАЭС RU C-KR.АЖ58.В.01722

Серия RU № 0388216

ОРГАН ПО СЕРТИФИКАЦИИ

ЗАЯВИТЕЛЬ

ИЗГОТОВИТЕЛЬ GVK INDUSTRY CO.,LTD

ПРОДУКЦИЯ

КОДЫ ТН ВЭД ЕАЭС

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ

СРОК ДЕЙСТВИЯ С ПО

ВЫДАЛ(ИСТЕКШЕЕ)

API 6D / 600 By KSM

Certificate of Authority to use the Official API Monogram

License Number: 6D-0646

KEY SUNG METAL CO., LTD.
20, Nokseonsandan 17-ro, Gangseo-gu
Busan
South Korea

American Petroleum Institute

Effective Date: MARCH 20, 2024
Expiration Date: MARCH 20, 2027

Certificate of Authority to use the Official API Monogram

License Number: 600-0065

KEY SUNG METAL CO., LTD.
20, Nokseonsandan 17-ro, Gangseo-gu
Busan
South Korea

American Petroleum Institute

Effective Date: MARCH 20, 2024
Expiration Date: MARCH 20, 2027

Venture company

벤처기업확인서

CERTIFICATE OF VENTURE ENTERPRISE

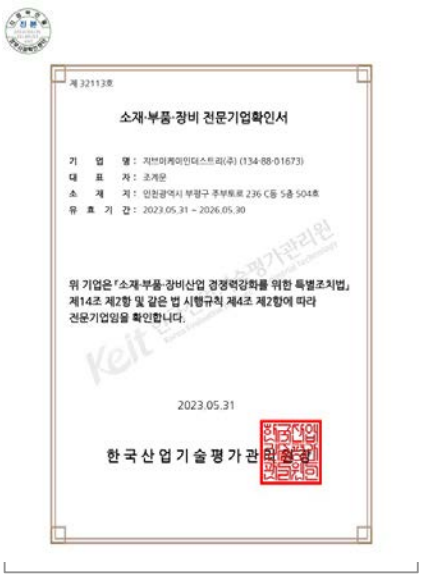
- 기업명 지브이케이인더스트리(주)
- 사업자등록번호 134-88-01673
- 대표자 조계문
- 주소 경기도 부천시 석천로 397 (삼정동) 301동 303-4호
- 확인유형 혁신성장유형
- 유효기간 2023년 06월 07일 ~ 2026년 06월 06일

위 기업은 「벤처기업육성에 관한 특별조치법」 제25조의 규정에 의거 벤처기업임을 확인합니다.

2023년 06월 07일

벤처기업확인기관장

Material · Part · Equipment



제 32113호

소재·부품·장비 전문기업확인서

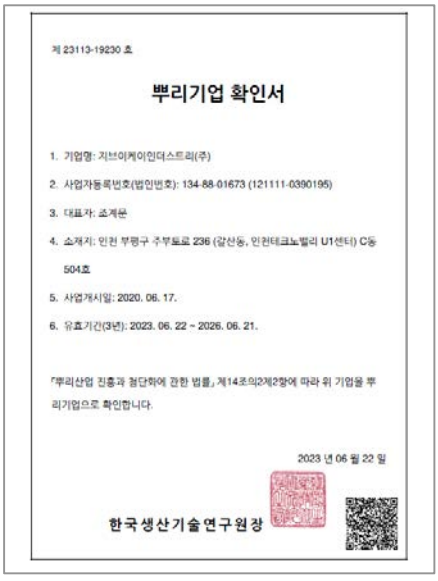
기 업 명 : 지브이케이인더스트리(주) (134-88-01673)
대 표 자 : 조계문
소 재 지 : 인천광역시 부평구 주부토로 236 C동 5층 504호
유 효 기 간 : 2023.05.31 ~ 2026.05.30

위 기업은 「소재·부품·장비산업 경쟁력강화를 위한 특별조치법」 제14조 제2항 및 같은 법 시행규칙 제4조 제2항에 따라 전문기업임을 확인합니다.

2023.05.31

한국산업기술평가관리원장

Rooting Enterprise



제 23113-19230 호

뿌리기업 확인서

1. 기업명: 지브이케이인더스트리(주)
2. 사업자등록번호(법인번호): 134-88-01673 (121111-0390195)
3. 대표자: 조계문
4. 소재지: 인천 부평구 주부토로 236 (갈산동, 인천테크노밸리 U1센터) C동 504호
5. 사업개시일: 2020. 06. 17.
6. 유효기간(3년): 2023. 06. 22 ~ 2026. 06. 21.

「뿌리산업 진흥과 첨단화에 관한 법률」 제14조의2제2항에 따라 위 기업을 뿌리기업으로 확인합니다.

2023 년 06 월 22 일

한국생산기술연구원장

GVK(GDO)
HP BUTTERFLY VALVE

Total Engineering Solution Service

GVK CO.,LTD.

HEAD OFFICE

Techno Valley C-503, 236, Jubuto-ro,
Bupyeong-gu, Incheon, Republic of Korea

TEL +82-32-678-7972
FAX +82-32-678-7973
EMAIL ican@gvkvalve.com

www.gvkvalve.com