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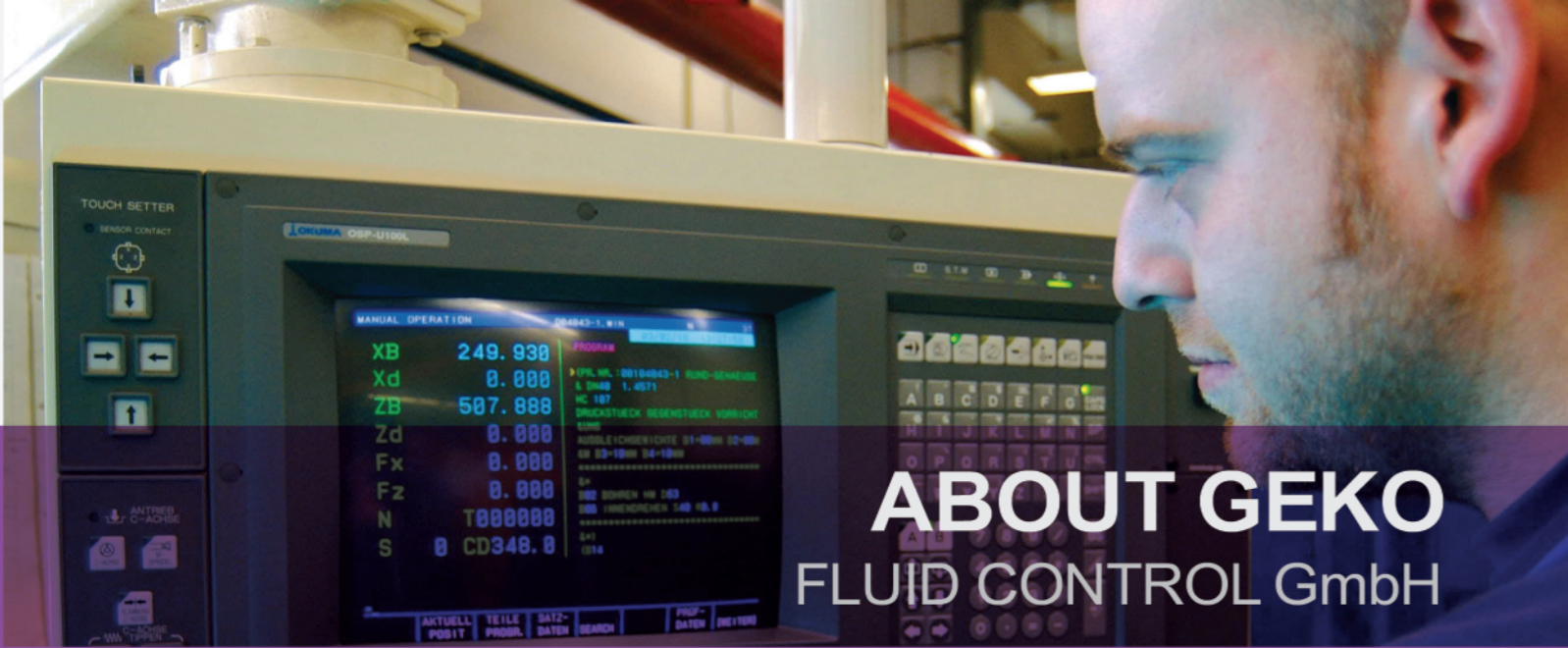
**Centric Rubber Seated  
Butterfly Valve**

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# ABOUT GEKO FLUID CONTROL GmbH

Experience, Responsibility and Innovation Technology



## Quality and Know-How. A Valve's and actuators Most Efficient Combination.

Geko Fluid is one of the leading manufacturers of valves and actuators specially designed for the chemical industrial market.

The professional production capability acquired over more than 60 years, a sophisticated and state-of-the-art fabrication process provide an excellent basis for finding optimum solutions to any special problems versatile response to any specific requirements imposed by the user.

Valve and actuator units supplied by Geko Fluid are of superior quality and come up to the highest standard. They contribute to appreciably enhance both performance and safety of your installation and, besides they cut pollution to the benefit of environment and mankind.

Geko Fluid: We set the standard.

## Quality Assurance

It is the policy of Geko Fluid to achieve adequate quality assurance for the manufacture of all products to ensure they comply with contractual requirements.

All sub-suppliers are totally committed to assure and achieve the contractual requirements through vigorous implementation of the quality assurance program. All purchased material is repeatedly inspected for conformity on receipt and after assembly.

The quality assurance system established according to latest state-of-the-art principles fully complies with the requirements specified in international codes and regulations.



## All the best in every valve

When it comes to butterfly valves, one manufacturer offers this feature. Another offers that. Still another offers these, but not those. Only GEKO Valve has all the best features, all standard in one valve.

Butterfly valves from GEKO Valve combine 200 psi performance with a relatively low operating torque. The secret is a design that matches a specially-shaped disc edge with a unique elastomer contour. The result is a low friction seal that operates easier and lasts longer. And the price for this higher performance is relatively low.

### Stem

- Two-piece stem design allows disc to "float".
- Positive stem retention for safety.
- Low tolerance stem-disc connection for control of disc position.

### Sleeve

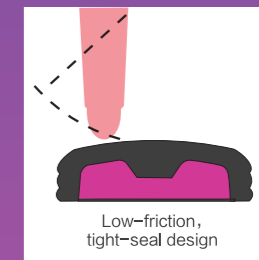
- Cartridge sleeve design for extended service and ease of replacement. Can be used for vacuum service.
- Seating area designed for low friction, tight seal.
- Elastomer molded for primary stem sealing.

### Body

- Extended neck for insulation clearance.
- Locating holes on wafer body for easy installation.
- Standardized mounting flange for manual or actuated operators.
- Meets API-609 and MSS-SP-67 specifications for design and testing.

### Bearings & Seals

- Permanently-lubricated nylatron stem bearing for low friction and side-load support.
- Triple seal reduces possibility of external leakage.
- Upper and lower dirt seals.



### Bearing & Seals

- Disc edge machined for low friction tight seal and reduced sleeve wear.
- Streamlined profile for maximum flow.
- "Floating Disc" design for concentric sealing and reduced sleeve wear.

### Brief Introduction for GEKO central line Butterfly valve

GEKO central line Butterfly valve is produced according to the latest standard MSS sp-67 and API-609 of USA and ISO7005. The production process is managed under the guidance of ISO9001(2008version). The valves are completely and fully tested follow API-598, fluid static force, gas force and overall performance of valve are completely and fully carried out following standard of API-598. Thus the zero leakage and high quality are ensured.

We are capable of supplying butterfly valves with size ranges from DN40-DN600, pressure from PN 1.0-1.6. In the meanwhile, we also adopt European and American design standard for different requirements. GEKO butterfly valves would be applied to:

1. Pipeline flange system of ISO 9005-1992, PN1.0-PN1.6.
2. Pipeline flange system of ASME /ANSI B16.5-1996, CL125 class, CL150 class.
3. Pipeline flange system of JIS B2211-2213-1996, 5K, 10K, 16K
4. Pipeline flange system of GB/T 9113-2000 and PN 1.0-1.6

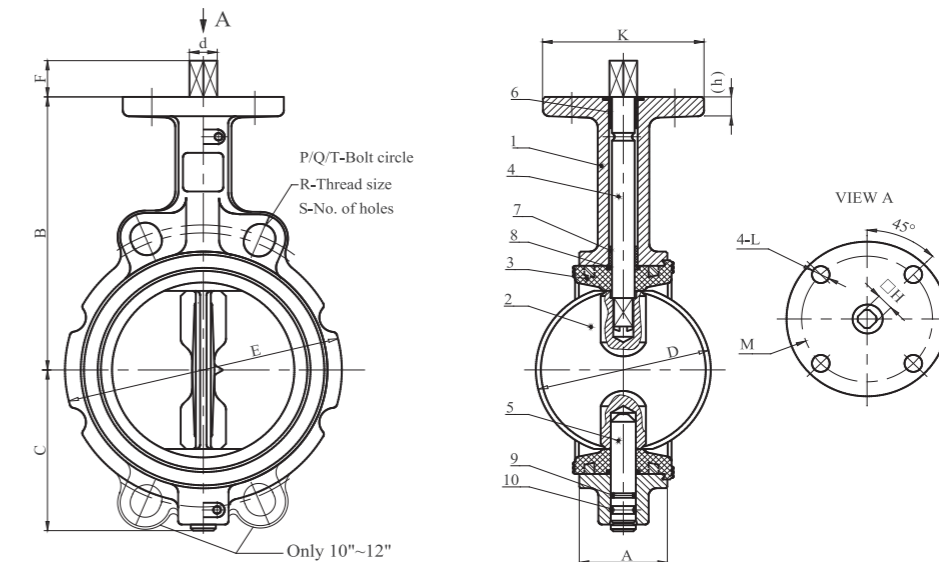
The connection dimension of actuators for the GEKO butterfly valve could be made per ISO5211 and American National Standard or customized.

Once you choose GEKO valves, you will be rewarded with simple operation, reliability, low abrasion, small torque, lighter weight. The valves could be easily equipped with pneumatic and electronic actuators according to different requirements.

#### Key features of GEKO butterfly valves

1. Manufactured per MSS SP-67 and API 609;
2. Tight sealing and Zero leakage under rated pressure (1.0Mpa and 1.6 Mpa);
3. Advanced multi-sealing design to free valve body from direct contact with working media and to ensure Zero leakage .
4. Scientific design for the sealing surface of Valve seat to make a tight connection between the seat and Valve body, between the seat and flange without any additional accessories.
5. Advanced valve shape and mounting pattern design to ensure a better sealing, smaller torque, bigger flow and lower fluid resistance as well as flexible two-side connection.
6. Designed and produced based on multi-standard system so the valve could be applied to flanges of various type, thus the valve enjoys excellent interchangeability.
7. With top flange make per ISO 5211, the valve could be easily mounted with actuators (pneumatic, electronic and lever). Because all the parts are undergone preservative treatment, the valve could be applied to Hard environment.

### GKV-710 SERIES (1.5" ~ 12") WAFER BUTTERFLY VALVE

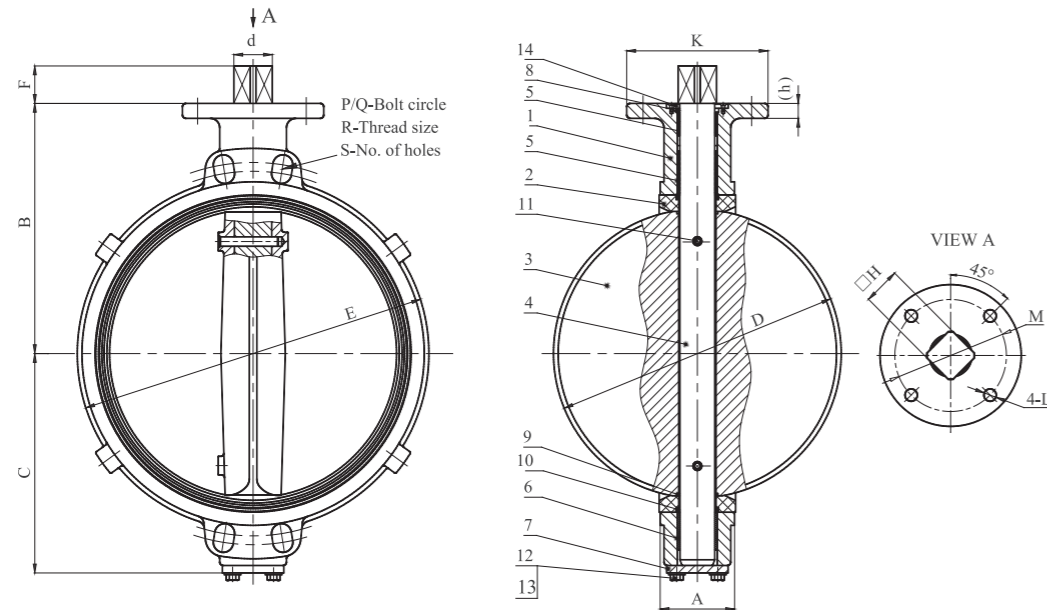


#### DIMENSION & WEIGHTS

SIZE		(mm/kg)									
mm	inch	40	50	65	80	100	125	150	200	250	300
A		33	43	46	46	52	56	56	60	68	78
B		125	140	152	159	178	190.5	203	238	268	306
C		70	80	86	95.5	108	124	137	166	199	234
D		φ 44	φ 56	φ 68	φ 80.5	φ 106	φ 131	φ 153	φ 205	φ 255.5	φ 307
E		φ 90	φ 105	φ 124	φ 137	φ 175	φ 197	φ 222	φ 279	φ 340	φ 410
F		12/15	12/15	12/15	12/15	15/19	15/19	19/24	19/24	24/29	24/29
□H		11/14	11/14	11/14	11/14	14/17	14/17	17/22	17/22	22/27	22/27
d		φ 14/18.5	φ 14/18.5	φ 14/18.5	φ 14/18.5	φ 18.5/23.0	φ 18.5/23.0	φ 23.0/29.5	φ 23.0/29.5	φ 29.5/36.4	φ 29.5/36.4
K		φ 90	φ 90	φ 90	φ 90	φ 90	φ 90	φ 90	φ 125/152	φ 125/152	φ 125/152
L		φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 9.0	φ 9.0	φ 11.0/13.0	φ 11.0/13.0	φ 11.0/13.0
M		φ 50/70	φ 50/70	φ 50/70	φ 50/70	φ 50/70	φ 70	φ 70	φ 102/125	φ 102/125	φ 102/125
h		12	11	11	11	11	11	11	12.5	12.5	12.5
p		φ 98.5	φ 120.5	φ 139.5	φ 152.5	φ 190.5	φ 216.0	φ 241.5	φ 298.5	φ 362.0	φ 432.0
Q		φ 110	φ 125	φ 145	φ 160	φ 180	φ 210	φ 240	φ 295	φ 350	φ 400
T		φ 110	φ 125	φ 145	φ 160	φ 180	φ 210	φ 240	φ 295	φ 355	φ 410
S	CL150	4	4	4	4	8	8	8	8	12	12
	PN1.0	4	4	4	8	8	8	8	8	12	12
	PN1.6	4	4	4	8	8	8	8	12	12	12
R	CL150	1/2"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"
	PN1.0	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20
	PN1.6	M16	M16	M16	M16	M16	M16	M20	M20	M24	M24
WEIGHTS (Kg)		1.9	2.6	3.6	3.8	5.1	6.1	8.1	14.0	22.3	33

Note: 1. P is made per ANSI B 16.5 CL 150;  
 2. Q is made per GB 9113.1(PN1.0);  
 3. T is made per GB9113.1(PN1.6);  
 4. Dim. K, M, L, H could be tailored;  
 5. R is subjected to standard flange of GB PN1.6  
 Please verify dim. R in actual application;  
 6. Coupling flange with 12" should refer to special flange.

### GKV- 710 SERIES (14" ~ 24") WAFER BUTTERFLY VALVE



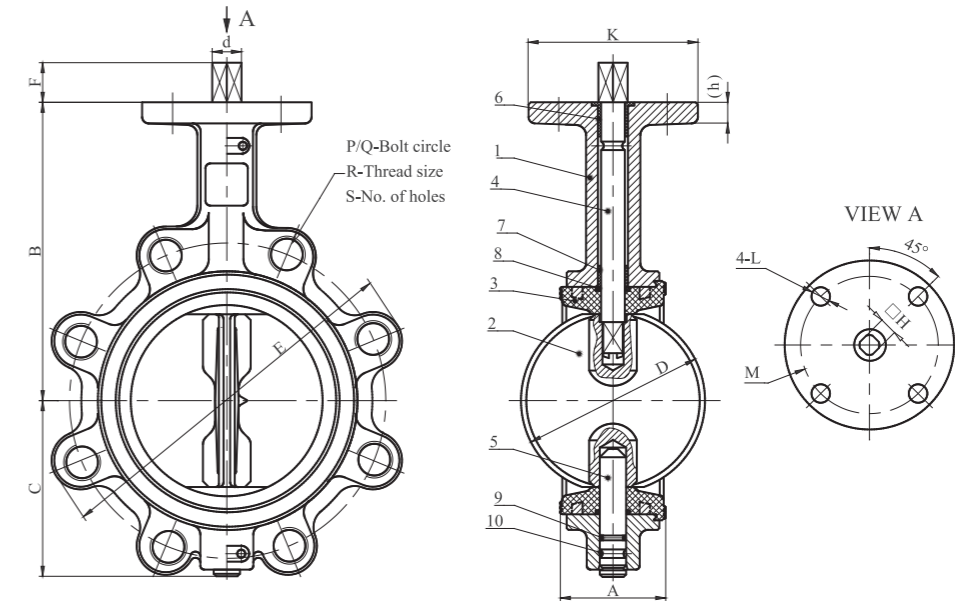
#### DIMENSION & WEIGHTS

(mm/kg)

SIZE	mm	350	400	450	500	600
	inch	14	16	18	20	24
A	78	102	114	127	154	
B	343	375	394	425.5	492	
C	295	323	346	384	458	
D	φ 339	φ 390	φ 440.5	φ 491	φ 593	
E	φ 446	φ 511	φ 543	φ 600	φ 718	
F	29/38	29/38	38	38/48	48	
□H	27/36	27/36	36	36/46	46	
d	φ 36/48	φ 36/48	φ 48	φ 48/60	φ 60	
K	φ 175	φ 175	φ 241	φ 241	□191	
L	φ 14/18	φ 14/18	φ 18/22	φ 22	φ 22	
M	φ 125/140	φ 125/140	φ 140/165	φ 165	φ 165	
h	25.4	25.4	25.4	25.4	28.6	
P	φ 460	φ 515	φ 565	φ 620	φ 725	
Q	φ 470	φ 525	φ 585	φ 650	φ 770	
S	PN1.0	16	16	20	20	20
	PN1.6	16	16	20	20	20
R	PN1.0	M20 × 160	M24 × 180	M24 × 200	M24 × 210	M27 × 250
	PN1.6	M24 × 170	M27 × 195	M27 × 230	M30 × 250	M33 × 300
WEIGHTS (Kg)		50	76	103	130	205

- Note: 1. P is made per GB9113.1(PN1.0);  
 2. If Q is made per GB9113.1(PN1.6), Body material must be Ductile Iron;  
 3. Dim. K, M, L, d, b, F could be tailored to fit ISO, DIN standards;  
 4. Coupling flange should refer to the special flange.

### GKV- 710 SERIES (1.5" ~ 12") LUG BUTTERFLY VALVE



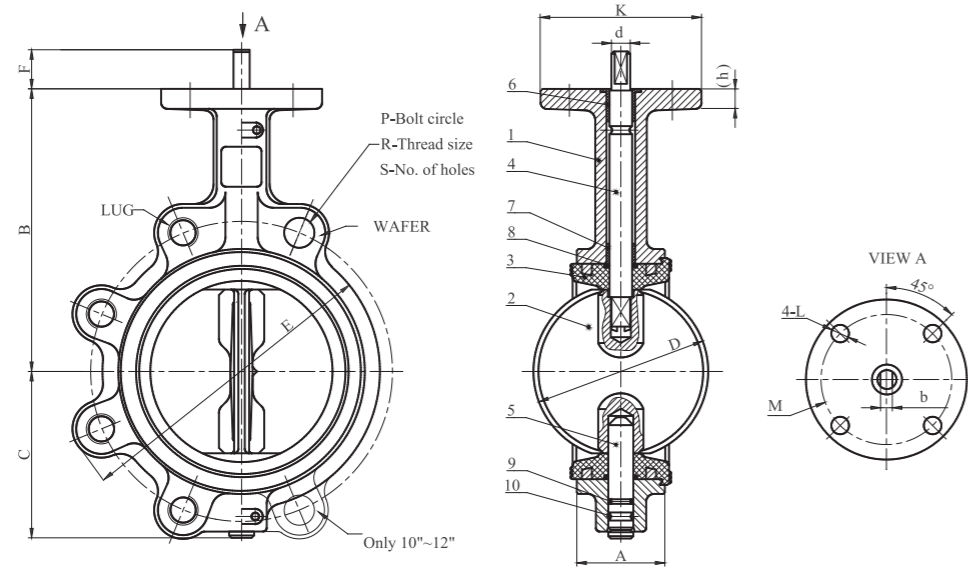
#### DIMENSION & WEIGHTS

(mm/kg)

SIZE	mm	40	50	65	80	100	125	150	200	250	300
	inch	1-1/2	2	2-1/2	3	4	5	6	8	10	12
A	33	43	46	46	52	56	56	60	68	78	
B	125	140	152	159	178	190.5	203	238	268	306	
C	70	80	86	95.5	108	124	137	166	199	234	
D	φ 44	φ 56	φ 68	φ 80.5	φ 106	φ 131	φ 153	φ 205	φ 255.5	φ 307	
E	φ 147	φ 156.5	φ 175.5	φ 196	φ 227	φ 259	φ 284	φ 338	φ 410	φ 481	
F	12/15	12/15	12/15	12/15	15/19	15/19	19/24	19/24	24/29	24/29	
□H	11/14	11/14	11/14	11/14	14/17	14/17	17/22	17/22	22/27	22/27	
d	φ 14/18.5	φ 14/18.5	φ 14/18.5	φ 14/18.5	φ 18.5/23.0	φ 18.5/23.0	φ 23.0/29.5	φ 23.0/29.5	φ 29.5/36.4	φ 29.5/36.4	
K	φ 90	φ 90	φ 90	φ 90	φ 90	φ 90	φ 90	φ 125/152	φ 125/152	φ 125/152	
L	φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 7.0/9.0	φ 9.0	φ 9.0	φ 11.0/13.0	φ 11.0/13.0	φ 11.0/13.0	
M	φ 50/70	φ 50/70	φ 50/70	φ 50/70	φ 50/70	φ 70	φ 70	φ 102/125	φ 102/125	φ 102/125	
h	12	11	11	11	11	11	11	12.5	12.5	12.5	
p	φ 110	φ 125	φ 145	φ 160	φ 180	φ 210	φ 240	φ 295	φ 350	φ 400	
Q	φ 110	φ 125	φ 145	φ 160	φ 180	φ 210	φ 240	φ 295	φ 355	φ 410	
S	PN1.0	4	4	4	8	8	8	8	12	12	
	PN1.6	4	4	4	8	8	8	8	12	12	
R	PN1.0	M16	M16	M16	M16	M16	M16	M20	M20	M20	M20
	PN1.6	M16	M16	M16	M16	M16	M16	M20	M20	M24	M24
WEIGHTS (Kg)		2.3	3.1	3.9	4.3	7.0	8.3	10.2	16.5	24.2	40.4

- Note: 1. P is made per GB9113.1(PN1.0);  
 2. If Q is made per GB9113.1(PN1.6);  
 3. Dim. K, M, L, H could be tailored;  
 4. R is subjected to standard flange of GB PN1.6  
 Please verify dim. R and pcs of bolts in actual application;  
 5. Coupling flange with 12" should refer to special flange.

**GKV- 720 SERIES (2" ~ 12") WAFER LUG BUTTERFLY VALVE**



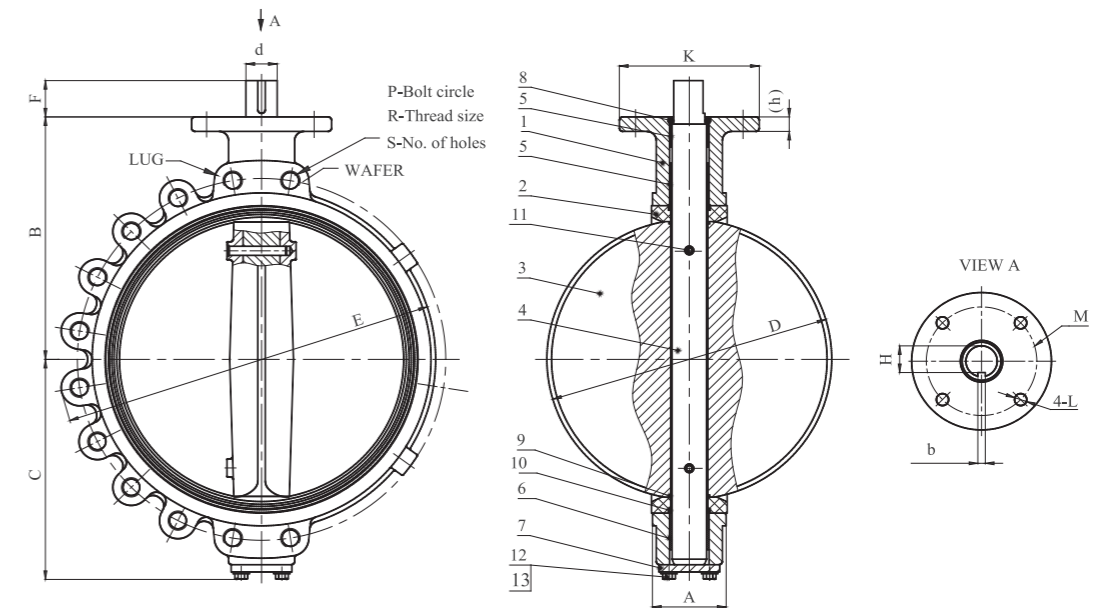
**DIMENSION & WEIGHTS**

(mm/kg)

SIZE	mm	50	65	80	100	125	150	200	250	300
	inch	2	2-1/2	3	4	5	6	8	10	12
A	43	46	46	52	56	56	60	68	78	
B	140	152	159	178	190.5	203	238	268	306	
C	80	86	95.5	108	124	137	166	199	234	
D	WAFER	φ 56	φ 68	φ 80.5	φ 106	φ 131	φ 153	φ 205	φ 255.5	φ 307
	LUG	φ 105	φ 124	φ 137	φ 175	φ 197	φ 222	φ 279	φ 340	φ 410
E	WAFER	156.5	175.5	188	227	259	284	341	410	481
	LUG									
F	27	27	27	27	27	27	41.3	41.3	41.3	
d	φ 14.3	φ 14.3	φ 14.3	φ 15.88	φ 22.23	φ 25.4	φ 28.58	φ 28.58	φ 28.58	
b	11.13	11.13	11.13	11.13	11.13	11.13	19.05	19.05	19.05	
K	φ 101.6	φ 101.6	φ 101.6	φ 101.6	φ 101.6	φ 101.6	φ 152.4	φ 152.4	φ 152.4	
L	φ 10.3	φ 10.3	φ 10.3	φ 10.3	φ 10.3	φ 10.3	φ 13.5	φ 13.5	φ 13.5	
M	φ 76.2	φ 76.2	φ 76.2	φ 76.2	φ 76.2	φ 76.2	φ 127	φ 127	φ 127	
h	11	11	11	11	11	11	12.5	12.5	12.5	
P	φ 120.5	φ 139.5	φ 152.5	φ 190.5	φ 216	φ 241.5	φ 298.5	φ 362	φ 432	
S	4	4	4	8	8	8	8	12	12	
R	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"	
WEIGHTS (Kg)	WAFER	2.8	3.6	3.7	5.1	6.3	8.1	14.0	22.3	31.5
	LUG	3.2	4.1	4.3	7.1	8.4	10.2	16.5	24.5	41.0

- Note: 1. P is made per ANSI B16.5, CL150;  
 2. Recommended working pressure 200 psi;  
 3. Coupling flange with 12" should refer to special flange.

**GKV- 720 SERIES (14" ~ 24") WAFER LUG BUTTERFLY VALVE**



**DIMENSION & WEIGHTS**

(mm/kg)

SIZE	mm	350	400	450	500	600
	inch	14	16	18	20	24
A	78	102	114	127	154	
B	343	375	394	425.5	492	
C	295	323	346	384	458	
D	φ 339	φ 390	φ 440.5	φ 491	φ 593	
E	WAFER	φ 446	φ 511	φ 543	φ 600	φ 718
	LUG	533	597	635	699	832
F	55.5	58.4	76.2	76.2	76.2	
d	φ 38.1	φ 38.1	φ 44.45	φ 47	φ 47	
b	9.53	9.53	9.53	12.7	12.7	
H	32.75	32.75	39.1	39.9	39.9	
K	φ 165	φ 165	φ 241	φ 241	□191	
L	φ 13.5	φ 13.5	φ 13.5	φ 20.6	φ 20.6	
M	φ 127	φ 127	φ 127	φ 158.75	φ 158.75	
h	25.4	25.4	25.4	25.4	28.6	
P	φ 476.25	φ 539.75	φ 577.85	φ 635	φ 749.3	
S	12	16	16	20	20	
R	1"	1"	1-1/8"	1-1/8"	1-1/4"	
WEIGHTS (Kg)	WAFER	56	77	106	131	205
	LUG	67	98	126	162	246

- Note: 1. P is made per ANSI B16.5, CL125;  
 2. Recommended working pressure 200 psi;  
 3. Coupling flange with 12" should refer to special flange.

### 1.5" ~ 12" BUTTERFLY VALVE ASSEMBLY ANNEX

NO	PART NAME	MATERIAL	MATERIAL STANDARD	QUANTITY
1	BODY	CAST IRON	ASTM A126, CLASS B	1
	BODY	DUCTILE IRON	ASTM A536, GR.65-45-12	1
	BODY	CARBON STEEL	GB/T 12229-1989	1
	BODY	STAINLESS STEEL	ASTM A351	1
2	DISC	DUCTILE IRON(NICKEL PLATED)	ASTM A536,GR.65-45-12	1
	DISC	ALUMINUM BRONZE	ASTM B148, ALY.954	1
	DISC	STAINLESS STEEL	ASTM A351	1
	DISC	NYLON COATED、 F46 COATED	ASTM A351	1
3	SEAT	EPDM	ASTM D1418	1
	SEAT	BUNA-N	ASTM D1418	1
	SEAT	NEOPRENE	ASTM D1418	1
	SEAT	SILICONE	ASTM D1418	1
	SEAT	VITON	ASTM D1418	1
	SEAT	PTFE	ASTM D1600	1
4	TOP STEM	STAINLESS STEEL	ASTM A276	1
	TOP STEM	STAINLESS STEEL	ASTM A564	1
	TOP STEM	STAINLESS STEEL	GB1220-92	1
5	BOTTOM STEM	STAINLESS STEEL	ASTM A276	1
	BOTTOM STEM	STAINLESS STEEL	ASTM A564	1
	BOTTOM STEM	STAINLESS STEEL	GB1220-92	1
6	TOP BEARING	NYLON		1
	TOP BEARING	PTFE		1
7	BOTTOM BEARING	NYLON		1
	BOTTOM BEARING	PTFE		2
8	SLEEVE-RING1	BUNA-N		2
	SLEEVE-RING1	EPDM		2
	SLEEVE-RING1	VITON		2
9	SLEEVE-RING2	BUNA-N		1
	SLEEVE-RING2	EPDM		1
	SLEEVE-RING2	VITON		1
10	PIN	STAINLESS STEEL		2

Note: We can provide corresponding China GB and German DIN standard

### 14" ~ 24" BUTTERFLY VALVE ASSEMBLY ANNEX

NO	PART NAME	MATERIAL	MATERIAL STANDARD	QUANTITY
1	BODY	CAST IRON	ASTM A126, CLASS B	1
	BODY	DUCTILE IRON	ASTM A536, GR.65-45-12	1
	BODY	CARBON STEEL	GB/T 12229-1989	1
	BODY	STAINLESS STEEL	ASTM A351	1
2	BODY	EPDM	ASTM D1418	1
	SLEEVE	BUNA-N	ASTM D1418	1
	SLEEVE	NEOPRENE	ASTM D1418	1
	SLEEVE	SILICONE	ASTM D1418	1
	SLEEVE	VITON	ASTM D1418	1
	SLEEVE	PTFE	ASTM D1600	1
3	DISC	DUCTILE IRON(NICKEL PLATED)	ASTM A536, GR.65-45-12	1
	DISC	ALUMINUM BRONZE	ASTM B148, ALY.954	1
	DISC	STAINLESS STEEL	ASTM A351	1
	DISC	NYLON COATED、 F46 COATED	ASTM A351	1
4	STEM	STAINLESS STEEL	ASTM A276	1
	STEM	STAINLESS STEEL	ASTM A564	1
	STEM	STAINLESS STEEL	GB1220-92	1
5	TOP BEARING	NYLON		2
	TOP BEARING	PTFE		2
6	BOTTOM BEARING	NYLON		1
	BOTTOM BEARING	PTFE		1
7	BOTTOM COVER	DUCTILE IRON	ASTM A536, GR. 65-45-12	1
	STEM O-RING1	BUNA-N		1
	STEM O-RING1	EPDM		1
9	STEM O-RING1	VITON		1
	DISC O-RING2	BUNA-N		2
	DISC O-RING2	EPDM		2
10	DISC O-RING2	VITON		2
	SEAT O-RING3	BUNA-N		2
	SEAT O-RING3	EPDM		2
11	SEAT O-RING3	VITON		2
	PIN	STAINLESS STEEL	ASTM A276 321	1 (14") 2 (16"-20") 3 (24")
	BOLT	STEEL	ASTM 1045	4 (14"-20") 5 (24")
13	GASKET	STEEL	ASTM A570 GRA	4 (14"-20") 5 (24")

Note: We can provide corresponding China GB and German DIN standard.

## Introduction for "GKV" special central-line butterfly valve



PTFE coated butterfly valve

PA coated butterfly valve

GEKO manufactures combined special butterfly valves with size ranging from DN50-Dn600. The body, seat and stem of the valve are all coated with PTFE or PA. The valve incorporates mechanical strength of common butterfly valves and PTFE or PA's strong chemical-resistance, so it is widely applied to such hard environment as: Petroleum plant, pharmaceutical company, fine chemical industry and so on. The valve performs well at -30°C~110°C ambient temperature. Thanks to the specific PTFE's low friction, the valve enjoys a longer working life, no matter what frequent open-close operations.

### PTFE coated butterfly valve

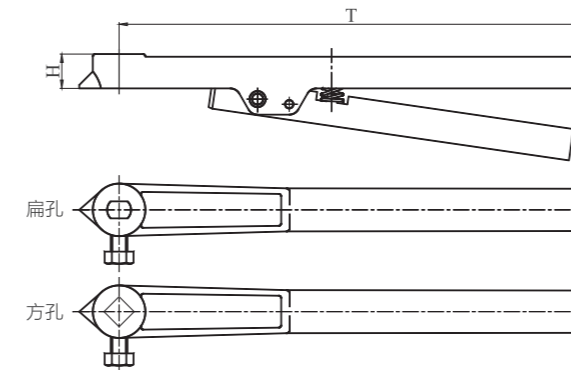
- Such parts contacting with working media as seat, disc are all coated with PTFE;
- Working temperature: -5°C ~ 110°C ;
- Working pressure: 0~1.6Mpa;
- Applicable working media: Petrochemical industry, Pharmaceutical company, Sea, food & Heat power industry, Strong acid, alkali, Strong dioxides
- Flange connection standard: same to GB series of GKV DN40-DN600 butterfly valves.

### PA coated butterfly valve

- The body and disc are coated with Nylon-11, the seat is coated with PTFE or Viton;
- Working temperature: -300°C ~ 100°C ;
- Working pressure: 0~1.6Mpa;
- Applicable working media: animal oil, vegetable oil, mineral oil, weak acid and base, alkali and so on. NOT applicable for strong acid, phenol and formic acid.
- Flange connection standard: same to GB series of GKV DN40-DN600 butterfly valves.

## OPERATOR

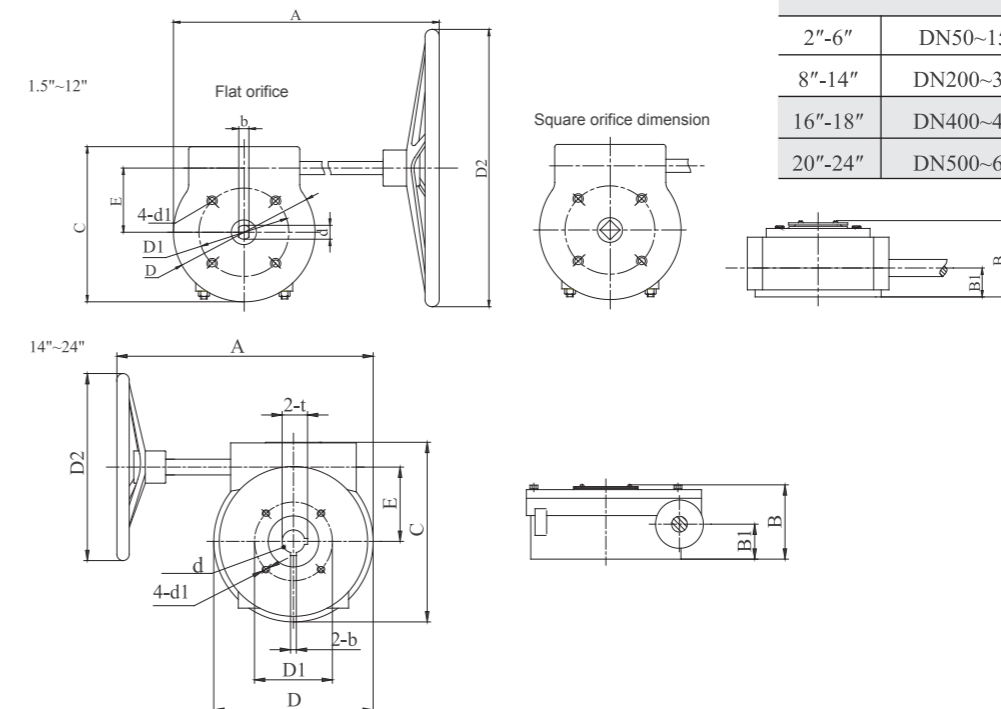
### LEVER OPERATOR



Remark: Flat orifice dimension refer to M series dimension of valve stem head  
Square orifice dimension refer to C series dimension of valve stem head

Valve Size (mm)		T(mm)	H(mm)
2"-3"	DN50~80	229	20.64
4"-5"	DN100~125	280	20.64
6"	DN150	280	20.64
8"	DN200	380	28.58
10"-12"	DN250~300	380	28.58

### GEARBOX OPERATOR



Valve Size (mm)		Square orifice dimension size (mm)
2"-6"	DN50~150	□ 14
8"-14"	DN200~350	□ 22
16"-18"	DN400~450	□ 27
20"-24"	DN500~600	□ 36

Geat ratio	Available Size	Output Torque (N.m)	D	D1	D2	d	b	t	d1	A	B	B1	E	C	Weight (Kg)
24:1	2"-6"	300	φ 105	φ 76.2	φ 152	φ 25.4	11.13	---	3/8"	245	68	36	45	125	4.5
30:1	8"-12"	750	φ 155	φ 127	φ 302	φ 28.58	19.05	---	1/2"	320	80	34	66	178	12
50:1	14"	1200	φ 170	φ 127	φ 305	φ 38.2	9.53	42.53	1/2"	410	87	38.5	78	200	14
80:1	16"-18"	2500	φ 260	φ 127	φ 305	16" φ 38.2	9.53	16" 42.53	1/2"	410	120	56.5	120	290	30
						18" φ 44.55		18" 49.04							
120:1	20"-24"	2500	φ 260	φ 158.75	φ 406	φ 47.1	12.7	52.9	3/4"	410	161	119	120	290	35

Remarks: Dim.D2, d1, d and b could be made per ISO5211 or to be customized.

閥座材質選用參照表:

Materia	Range of Temp	Instructions
BUNA-N	-23°C ~ 82°C -23°C ~ 120°C for short time	BUNA-N (NBR) is a general purpose polymer with good resistance to oil, water, solvents and hydraulic fluids. With good compression, tensile strength and abrasion-resistance, BUNA-N performs well with diverse media such as fatty acids, oils, alcohols, compressed air, Di-ester based fluids, inactive gasses or glycerine.
EPDM	-20°C ~ 100°C -30°C ~ 120°C for short time	EPDM has good abrasion and tear resistance while offering excellent chemical resistance to a variety of acid and weak alkaline-based media. It also has exceptional weather aging and ozone resistance. EPDM is susceptible to attacks by oils and therefore is not recommended for applications involving petroleum oils, hydrocarbons, alcohols, strong acids or strong alkalines. EPDM also should not be used on compressed air lines.
Neoprene	-29°C ~ 100°C -35°C ~ 113°C for short time	Neoprene is an all-purpose polymer that is excellent for a variety of applications. Desirable characteristics include high resiliency with low compression, resistance for vegetable and animal oil, and flame resistance. This sealing material is excellent for refrigerants, ammonia and Freon, and is principally used in pulp and (non-bleached) paper lines. Neoprene is not recommended for strong oxidizing acids, chlorinated solvents, esters, ketones, aromatic hydrocarbons and hydraulic fluids.
Viton	-10°C ~ 180°C -20°C ~ 200°C for short time	Viton is widely recognized for excellent heat resistance. With extensive chemical compatibility spanning a wide range of concentration and temperature ranges, fluorocarbon elastomers have gained acceptance in a variety of applications. Viton offers excellent resistance to aggressive fuels and chemicals as well as diverse media as mineral acids, salt solutions, chlorinated hydrocarbons, and petroleum oils. Viton should not be used in steam or hot water service.
Silicone	-40°C ~ 180°C	Silicone is an elastomer which remains flexible at very low temperatures. Silicone rubbers have poor mechanical properties and abrasion resistance and are therefore mainly used for static sealing applications and are not recommended for dynamic applications. Silicone also has excellent weathering, ozone and aging properties. Silicones are highly permeable to gases, and are generally not recommended for exposure to ketones, concentrated acids, or steam.
PTFE	-5°C ~ 120°C	PTFE is a fluorocarbon based polymer and typically is the most chemically resistant of all plastics while retaining excellent thermal and electrical insulation properties. TFE also has a low coefficient of friction so is ideal for many low torque applications. This material is non-contaminating and accepted by the FDA for use in food services. Although TFE's mechanical properties are low compared to other engineered plastics, its properties remain useful over a wide temperature range.

Valve sizing Coefficients(US-gpm@1 ΔP)

Size	10"	20"	30"	40"	50"	60"	70"	80"	90"
2"	0.06	3	7	15	27	44	70	105	115
2.5"	0.1	6	12	25	45	75	119	178	196
3"	0.2	9	18	39	70	116	183	275	302
4"	0.3	17	36	78	139	230	384	546	600
5"	0.5	29	61	133	237	392	620	930	1022
6"	0.8	45	95	205	366	605	958	1437	1579
8"	2	89	188	408	727	1202	1903	2854	3136
10"	3	151	320	694	1237	2047	3240	4859	5340
12"	4	234	495	1072	1911	3162	5005	7507	8250
14"	6	338	715	1549	2761	4568	7230	10844	11917
16"	8	464	983	2130	3791	6282	9942	14913	16388
18"	11	615	1302	2822	5028	9820	13164	19752	21705
20"	14	791	1647	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116

Sizing

DOUBLE ACTING ACTUATOR/ AIR SUPPLY 5Bar

VALVE SIZE	50	65	80	100	125	150	200
ACTUATOR MODEL	GK020DA	GK035DA	GK075DA	GK160DA	GK160DA	GK255DA	GK255DA

VALVE SIZE	250	300	350	400	450	500	600
ACTUATOR MODEL	GK435DA	GK665DA	GK665DA	GK1000DA	GK1200DA	GK2400DA	GK2700DA

In the selection of actuator, we must consider the medium, pipeline pressure, medium temperature, medium characteristics to calculate the appropriate torque, matching the control actuator output torque table. Optional above are only for reference.

SPRING RETURN ACTUATOR/AIR SUPPLY 5Bar

VALVE SIZE	50	65	80	100	125	150	200
ACTUATOR MODEL	GK035SRK10	GK075SRK10	GK160SRK10	GK255SRK10	GK255SRK10	GK435SRK10	GK665SRK10

VALVE SIZE	250	300	350	400	450	500	600
ACTUATOR MODEL	GK665SRK10	GK1000SRK10	GK1000SRK10	GK1200SRK10	GK2700SRK10		

In the selection of actuator, we must consider the medium, pipeline pressure, medium temperature, medium characteristics to calculate the appropriate torque, matching the control actuator output torque table. Optional above are only for reference.

GKV 710/720 series torque reference

media	inch	Pressure							
		0 bar	3 bar	5 bar	7 bar	9 bar	11 bar	13 bar	15 bar
Oil & Lubricating fluid	2	5.65	5.76	5.87	5.99	6.21	6.33	6.55	6.78
	2 1 / 2	6.78	6.89	7.12	7.34	7.68	7.79	7.91	8.25
	3	8.36	9.04	9.38	10.15	10.62	11.30	11.52	11.75
	4	13.56	14.69	16.38	17.62	18.98	20.33	21.46	22.59
	5	20.90	23.72	25.98	28.24	31.07	33.89	35.02	38.41
	6	31.63	36.15	40.67	45.19	50.27	54.79	59.87	65.52
	8	56.48	65.52	73.43	84.73	93.76	103.93	112.97	122.01
	10	90.38	101.67	120.88	135.56	167.19	180.75	192.05	203.34
	12	135.56	167.19	192.05	203.34	247.40	271.13	299.37	327.61
	14	202.21	247.40	275.08	301.63	342.30	377.32		
	16	260.96	335.52	377.32	414.60	474.47	537.17		
	18	345.12	428.15	488.03	546.20	634.88	720.18		
	20	429.85	541.69	611.16	697.02	821.85	925.21		
	24	634.32	719.61	901.49	1016.72	1201.08	1333.03		
Water & non-lubricating fluid	2	11.30	11.41	11.64	12.43	12.99	13.33	13.56	13.78
	2 1 / 2	11.86	12.09	12.20	12.65	13.33	13.56	14.12	14.46
	3	18.08	18.75	19.43	20.33	20.67	21.01	21.46	22.03
	4	30.84	32.20	33.66	35.02	36.49	37.84	39.31	40.67
	5	47.45	49.71	52.53	54.79	57.61	59.87	62.13	64.96
	6	70.61	74.56	79.08	84.16	89.25	93.20	98.28	101.67
	8	124.27	135.56	144.60	152.51	163.80	171.71	180.75	190.92
	10	192.05	214.64	225.94	249.66	270.00	288.07	305.02	325.35
	12	282.42	316.31	350.20	372.80	404.43	429.28	463.17	492.54
	14	429.73	470.40	500.23	542.25	582.92	622.23		
	16	555.81	622.23	677.81	745.59	807.95	859.47		
	18	734.75	813.38	904.20	982.83	1079.08	1152.28		
	20	910.98	1028.92	1130.59	1253.95	1355.63	1480.34		
	24	1344.78	1525.08	1667.42	1830.09	1981.92	2133.76		
Gas (including non-lubricating gas)	2	19.20	19.32	19.54	19.66	19.88	20.11	20.45	20.67
	2 1 / 2	27.11	27.68	28.02	28.24	28.58	29.03	29.37	29.71
	3	37.96	38.64	39.31	40.67	41.80	41.23	42.93	43.49
	4	64.39	66.09	67.22	68.91	70.04	71.74	72.86	74.56
	5	85.86	90.38	94.33	98.28	101.67	105.63	109.58	112.97
	6	141.21	146.86	152.51	158.16	162.68	169.45	173.97	178.49
	8	265.48	275.64	284.68	293.72	301.63	305.02	319.70	327.61
	10	417.98	440.58	451.88	474.47	497.06	508.36	530.95	553.55
	12	598.73	630.37	655.22	689.11	711.70	745.59	773.84	802.08
	14	644.60	705.60	750.34	813.38	874.38	933.35		
	16	833.71	933.35	1016.72	1118.39	1208.77	1287.84		
	18	1102.12	1220.06	1355.63	1474.24	1618.62	1728.42		
	20	1366.47	1543.38	1695.89	1880.93	2033.44	2219.84		
	24	2017.47	2287.62	2501.81	2745.14	2971.08	3200.41		

Note: The suggested Torque of PTFE is 1.5-2.0 times than materials of rubber



**Large size Resilient seated butterfly valves Features**

22"-72"\*(550mm-1800mm)

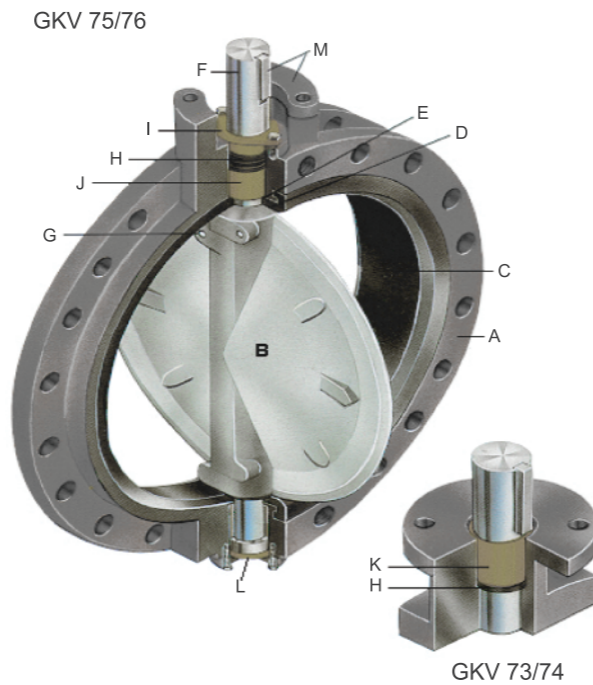
GEKO offers reliable resilient seated butterfly valves for large-size pipeline. GKV 73/74 series is wafer butterfly valves. GKV 73 series'rated pressure is 75psi. and GKV 74 series is 150 psi. GKV 75/76 series is full flanged butterfly valve, its rated pressure is 75 or 150 psi. This valve series has many of the design features and benefits of the smaller Bray valves, such as high Cv ratings, minimum parts exposed to the line media, greater reliability and a proven record of long service life.

**Body** One piece full flanged style. All bodies are drilled to be compatible with ASME 125/150, PN 10 or other international flange standards. Wafer style bodies are also available.

**Disc** High strength discs are first cast, the sealing edges are spherically machined then either hand polished or the entire disc is Nylon 11 coated. The symmetrical disc profile increases CV values, reduces turbulence and increases pressure recovery.

**Seat** The replaceable tongue and groove seat to body retention method is the most advanced design in the industry. Molded O-ring eliminates the requirement of flange gaskets. The seat isolates the valve body and stem from line media and has been specifically designed to seal with slip-on or weld-neck flanges.

**Primary & Secondary SEALS:** These seals prevent line media from coming in contact with the stem or body. Primary Seal is achieved by an interference fit of the molded seat flat with the disc hub. Secondary Seal is created because the stem diameter is greater than the diameter of the seat stem hole.



**BLOW-OUT PROOF STEM:** A retaining ring, installed between the machined stem groove and gland retainer step, provides full retention of the stem in the unlikely event of internal stem failure.

**ADJUSTABLE PACKING SYSTEM:** Design allows for field adjustment of stem packing without removing manual operators or power actuators. The advanced, self-adjusting V-Type stem packing prevents external substances from entering the upper stem bore.

**STEM BEARINGS:** To absorb actuator side thrust and minimize bearing friction torque, upper and lower heavy wall sleeve bearings are utilized.

**VERTICAL THRUST BEARING:** A bronze vertical thrust bearing eliminates disc displacement due to the weight of the stem and disc.

**Large size Resilient seated butterfly valves Standard**

GKV 73/74 Series, GKV 75/76 Series:  
 · Cast iron, wafer or double-flange body  
 · The tongue and groove seat specifically designed to seal with slip-on or weld-neck flanges.  
 · No-online maintenance for best performance  
 · Seat separated from body.  
 · Reducing torque by processing ball surface for best sealing performance.  
 · Corrosion-proof stem bushing and stem seal, suitable for vacuum wafer valve  
 · ADJUSTABLE PACKING without removing manual operators or power actuators. The advanced, self-adjusting V-Type stem packing prevents external substances from entering the upper stem bore.  
 · Bi-directional acting. Test pressure is 110 percent of rated pressure.

**Body:**  
 Cast iron, ASTM A126 B  
 Ductile iron, ASTM A536 Gr.65-45-12  
 ASTM A126 Gr. WCB  
 316 stainless steel, ASTM A351 CF8M

**Disc**  
 Cast iron, ASTM A126 B  
 Nylon coated cast iron, ASTM A126 B  
 ENP Cast iron, ASTM A126 B  
 Ductile iron, ASTM A536 Gr.65-45-12  
 Nylon coated Ductile iron, ASTM A536  
 Aluminium bronze, ASTM B148  
 Alloy C95400  
 Stainless steel 316

**Seat**  
 EPDM, BUMA, FKM

**Stem**  
 Cast steel, 304 Stainless steel,  
 Packing: BUNA-N  
 Bearing: bronze lubricated  
 Thrust bushing: bronze

Cv value GKV 73/74, 75/76

Size		Disc angle								
in	mm	90°	80°	70°	60°	50°	40°	30°	20°	10°
22	550	27,168	22,028	14,562	9,036	5,640	3,510	2,070	916	103
24	600	33,154	27,186	18,235	11,040	6,962	4,244	2,387	1,028	259
26	650	36,220	29,700	19,921	12,496	7,824	4,890	2,752	1,141	289
28	700	41,619	34,683	22,578	13,838	8,636	5,399	3,133	1,324	295
30	750	52,443	43,003	28,844	18,090	11,328	7,080	3,986	1,652	420
32	800	60,658	48,558	32,591	20,410	12,743	7,983	4,636	2,026	550
36	900	77,089	59,667	40,086	25,053	15,572	9,790	5,936	2,775	740
40	1000	90,175	73,990	50,406	30,636	19,307	11,862	6,925	2,971	757
42	1050	102,989	83,421	54,584	35,016	21,010	12,997	7,879	3,502	783
44	1100	112,960	87,430	58,740	36,712	22,818	14,346	8,698	4,066	904
48	1200	132,888	108,968	70,431	43,853	27,242	17,010	10,365	4,651	1,023
54	1400	168,700	138,334	89,411	55,671	34,583	21,594	13,158	5,904	1,299
60	1500	190,000	154,000	102,000	63,200	39,400	24,500	14,500	6,400	1,480
66	1650	211,000	171,000	113,000	70,200	43,800	27,300	16,100	7,110	1,650
72	1800	244,000	198,000	131,000	81,200	50,700	31,500	18,600	8,220	1,900

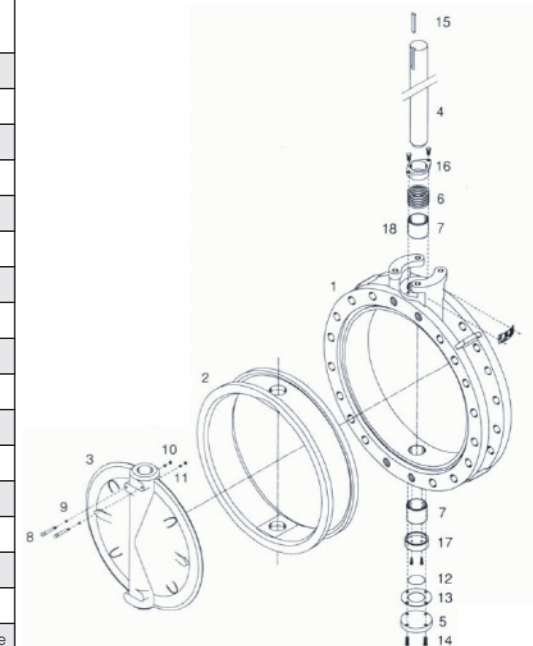
**Seat**

material	max temp	min temp
EPDM	+250°F (121°C)	-40°F (-40°C)
Buna-N	+212°F (100°C)	0°F (-18°C)
FKM*	+400°F (204°C)	0°F (-18°C)

至于其他閥座材料，請諮詢GEKO公司。

**Trim**

Num	Quantity		Name
	GKV 73/74	GKV 75/76	
1	1	1	body
2	1	1	seat
3	1	1	disc
4	1	1	stem
5	1	1	baseplate
6	1	1	packing
7	-	2	bearing
8	2	2	pin
9	2	2	O-ring
10	2	2	nut
11	2	2	washer
12	1	1	thrust bearing
13	1	1	gasket
14	4	6	bolt
15	1	1	pin
16	-	1	pushing gland
17	1	1	locating sleeve
18	1	-	bushing



**GKV73/74 Wafer**

Size		Flange									GKV 73					GKV 74					Weight (LB)
in	mm	A	B	C	D	E	F	PCD	Num	Size	G	H	J	Pin	K	H	J	Pin	K	L	
22	550	25.50	6.06	21.25	24.06	20.12	8.27	6.50	4	.81	2.50	2.50	4.00	.62x.62	20.51	2.50	4.00	.62x.62	20.56	16.50	400
24	600	27.94	5.94	23.25	25.75	19.50	8.27	6.50	4	.81	2.50	2.50	4.00	.62x.62	22.64	2.50	4.00	.62x.62	22.69	17.56	420
26	650	29.36	6.50	24.46	27.83	21.83	11.81	10.00	8	.75	2.50	2.50	4.00	.62x.62	23.67	2.50	4.00	.62x.62	23.71	18.83	540
28	700	31.34	6.50	26.59	29.76	22.82	11.81	10.00	8	.75	2.50	2.50	4.00	.62x.62	25.74	2.50	4.00	.62x.62	25.78	19.28	580
30	750	34.19	6.56	29.25	32.00	23.00	8.27	6.50	4	.81	3.00	2.50	4.00	.62x.62	28.67	3.00	4.00	.75x.75	28.73	20.81	660
32	800	35.555	7.48	30.39	33.70	26.37	11.81	10.00	8	.75	3.00	2.50	4.00	.62x.62	29.57	3.00	4.00	.75x.75	29.61	21.88	785
34+	850	38.75	7.88	33.00	35.75	26.93	13.78	11.73	8	.81	3.50	3.00	4.00	.75x.75	32.18	3.50	5.25	.88x.62	32.22	23.60	905
36	900	40.69	7.88	35.25	38.25	27.75	10.75	8.50	4	1.25	3.50	3.00	4.00	.75x.75	34.54	3.50	5.25	.88x.62	34.60	24.94	1025

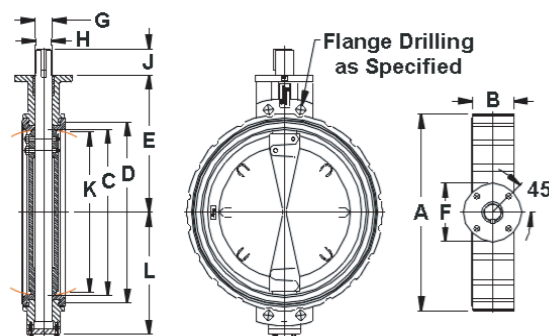
\* The dimensions of the GKV 73 series valves are identical, except that the pin dimensions and H, J and K take a larger value.

**GKV75/76 Double-flange type**

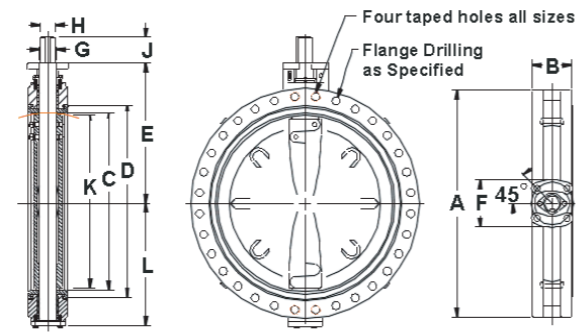
Size		Flange									GKV 75					GKV 76					Weight (LB)
in	mm	A	B	C	D	E	F	PCD	Num	Size	G	H	J	Pin	K	H	J	Pin	K	L	
22	550	29.50	6.06	21.25	24.06	20.12	8.27	6.50	4	.81	2.50	2.50	4.00	.62x.62	20.51	2.50	4.00	.62x.62	20.56	16.50	475
24	600	33.25	5.94	23.25	25.75	19.50	8.27	6.50	4	.81	2.50	2.50	4.00	.62x.62	22.64	2.50	4.00	.62x.62	22.69	17.56	500
26	650	35.75	6.50	24.46	27.83	21.83	11.81	10.00	8	.75	2.50	2.50	4.00	.62x.62	23.67	2.50	4.00	.62x.62	23.71	18.83	675
28	700	37.80	6.50	26.59	29.76	22.82	11.81	10.00	8	.75	2.50	2.50	4.00	.62x.62	25.74	2.50	4.00	.62x.62	25.78	19.78	735
30	750	38.75	6.56	29.25	32.00	23.00	8.27	6.50	4	.81	3.00	2.50	4.00	.62x.62	28.67	3.00	4.00	.75x.75	28.73	20.81	855
32	800	41.75	7.48	30.39	33.70	26.37	11.81	10.00	8	.75	3.00	2.50	4.00	.62x.62	29.57	3.00	4.00	.75x.75	29.61	21.88	1010
34	850	44.69	7.88	33.00	35.75	26.93	13.78	11.73	8	.83	3.50	3.00	4.00	.75x.75	32.18	3.50	5.25	.88x.62	32.22	23.60	1165
36	900	46.00	7.88	35.25	38.25	27.75	9.50	8.50	4	1.25	3.50	3.00	4.00	.75x.75	34.54	3.50	5.25	.88x.62	34.60	24.94	1320
40	1000	50.75	8.50	38.37	41.58	30.78	13.78	11.73	8	.81	4.00	3.50	5.25	.88x.62	37.45	4.00	5.25	1.0x.75	37.49	26.56	2140
42	1050	53.00	9.88	41.25	44.25	32.00	9.50	8.50	4	1.25	4.00	3.50	5.25	.88x.62	40.20	4.00	5.25	1.0x.75	40.25	27.81	2550
44	1100	55.25	9.88	43.25	46.25	33.12	13.78	11.73	8	.81	4.00	3.50	5.25	.88x.62	42.20	4.00	5.25	1.0x.75	42.25	29.06	2800
46+	1150	57.25	10.88	45.25	48.62	34.88	13.78	11.73	8	.81	5.00	4.00	5.25	1.0x.75	44.08	-	-	-	-	30.00	3075
46+	1150	57.25	10.88	45.25	48.62	34.88	16.34	14.02	8	1.30	5.00	-	-	-	-	5.00	6.00	1.25x.88	44.12	30.00	3075
48	1200	59.50	10.88	47.25	50.62	36.00	10.75	8.50	4	1.25	5.00	4.00	5.25	1.0x.75	46.13	5.00	6.00	1.25x.88	46.18	31.06	3200
54	1400	69.00	15.36	54.12	57.50	40.62	13.78	11.73	8	.81	6.00	5.00	5.25	1.25x.88	51.88	-	-	-	-	37.19	6000
54	1400	69.00	15.36	54.12	57.50	40.62	16.34	14.02	8	1.30	6.00	-	-	-	-	6.00	6.50	1.50x1.0	51.88	37.19	6000
60^	1500	73.00	15.00	59.25	63.88	42.62	16.34	14.02	8	1.30	7.00	6.00	6.50	1.5x1.0	57.51	-	-	-	-	40.88	7000
60^	1500	73.00	15.00	59.25	63.88	42.62	18.70	15.98	8	1.56	7.00	-	-	-	-	7.00	6.50	1.75x1.5	57.56	40.88	7000
66	1650	80.00	18.00	65.14	69.89	48.62	16.34	14.02	8	1.30	7.00	6.00	6.50	1.5x1.0	62.91	-	-	-	-	44.56	8000
66	1650	80.00	18.00	65.14	69.89	48.62	18.70	15.98	8	1.56	7.00	-	-	-	-	7.00	6.50	1.75x1.5	62.98	44.56	8000
72	1800	86.50	18.00	69.24	73.75	52.25	18.70	15.98	8	1.56	8.50	7.50	8.00	1.75x1.5	67.03	-	-	-	-	47.44	11250
72	1800	86.50	18.00	69.24	73.75	52.25	22.05	19.02	12	1.56	8.50	-	-	-	-	8.50	10.00	2.0x1.5	67.08	47.44	11250

\* The dimensions of the GKV 76 series valves are identical, except that the pin dimensions and H, J and K take a larger value. 46" and 54"-72" in the GKV 75/76 series have subtle variation, we have listed. Dimensions only for reference, please consult the GEKO for exact dimensions. GEKO reserves the right to change product dimensions without notice.

**GKV 73 / 74**



**GKV 75 / 76**



**GEKO Butterfly Valve**

All parameters, technical data and recommendations in this document are only suitable for general application. Please contact with GEKO expert or manufacturer for your specific requirements and material selection. We reserve the right to make product design changes or product changes without prior notice.