

## 609A对夹式蝶阀 609A Wafer Butterfly Valve

### ■控制装置法兰 Driving device flange

可以配用手柄、蜗轮蜗杆传动、电动或气动控制装置。  
Can be used in handles, gear operators, electric or pneumatic actuators.

### ■轴套 Bushing

减小转动力矩，支撑阀杆，并使其与阀体有效分离，减小阀杆的磨损。  
Reduced riving to rque, support stem, and effectively sepa rate it with valve body, reduce wear of stem.

### ■阀板轴孔端面 Surface of disc axle hole

经过抛光处理，与阀座精密配合。  
Through treatment of polishing, precisely fit with seat.

### ■高精度阀板外缘 High precision disc external profile

实现气密性试验零泄漏要求，启闭力矩小，延长阀座使用寿命。  
Reach the requirement of bubble-tight, small start and stop to rque, longer usage life of seat.

### ■阀杆密封 Stem seal

阀杆密封不易变形，从而避免了通常的阀杆泄漏现象。  
Stem is not easy to be distorted, eliminating possible leakage in stem.

### ■连接键 Strong precision key

精度高，强度大，适用于手柄及其它控制装置的安装。  
Give possible attachment for manual lever and actuator.

### ■高精度锥销 Precision taper pin

牢固连接阀杆与阀板，具有防松动特点，且易于更换。  
Ensure positive vibration proof stem to disc connection. Easily field replaceable.

### ■整体阀杆结构 Integral stem design

整体性好，便于控制阀板启闭。  
Ensures dependable and positive disc control.

### ■侧密封 Side seal

无需法兰垫圈  
With no need of flange gasket.

### ■靠背阀座 Backed seat

具有不脱落、抗拉、防泄漏、更换方便等特点。  
Non-collapsible, stretch-resistant and leakage proof. Easily field replaceable.



■适用压力 Applicable Pressure: PN1.0~1.6MPa

■适用规格 Applicable Size: DN50~1200

■适用温度 Applicable Temperature: -10℃~150℃

■主体材质 Body material: 铸铁、球墨铸铁、碳钢、不锈钢、铝青铜  
CI, DI, Carbon steel, Stainless steel, Al-bronze



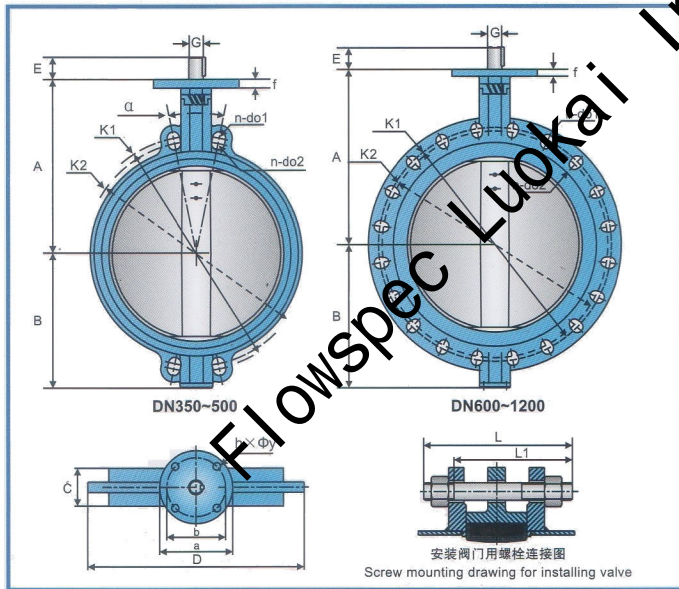
## 对夹式蝶阀 · 技术参数

### Wafer Butterfly Valve Technical Parameters



## 对夹式蝶阀 · 外形尺寸

### Wafer butterfly Valve Dimensions



## 流量曲线

### Curve of Flow Rate

注：流量特性曲线表示阀门开启程度和流量的关系，一般蝶阀适用于流量控制，当阀门开启角度在30°以下时，不推荐用于控制流量。

Note: Performance curve of flow volume means the relationship between open degree of valve and flow volume. Normally butterfly valve suitable to use in control flow. When valve's open degree under 30°, not recommend to use in flow volume control.

	部件 Component	材质 Material	Material
DN50~350	阀体 Body	铸铁/球墨铸铁/铝青铜/不锈钢/碳钢	CI, DI, Al-bronze, Stainless steel, Carbon steel
	轴套 Bushing	润滑青铜/复合F4	Lubricated bronze, PTFE
	转轴 Shaft	不锈钢	Stainless steel
	阀座 Seat	橡胶	Rubber
	阀板 Disc	球墨铸铁/铝青铜/不锈钢	DI, Al-bronze, Stainless steel
	圆锥销 Taper pin	不锈钢	Stainless steel
	O型圈 O-ring	橡胶	Rubber
	键 Key	45(适用于DN300~350)	45(Only for DN300~350)
DN400~1200	阀体 Body	铸铁/球墨铸铁/铝青铜/不锈钢/碳钢	CI, DI, Al-bronze, Stainless steel, Carbon steel
	螺钉 Hex. bolt	碳钢	Carbon steel
	O型圈 O-ring	橡胶	Rubber
	底端盖 End plate	碳钢/不锈钢	Carbon steel, Stainless Steel
	轴套 Bushing	润滑青铜/复合F4	Lubricated bronze, PTFE
	阀座 Seat	橡胶	Rubber
	转轴 Shaft	不锈钢	Stainless steel
	阀板 Disc	球墨铸铁/铝青铜/不锈钢	DI, Al-bronze, Stainless steel
圆锥销 Taper pin	不锈钢	Stainless steel	
键 Key	45	45	

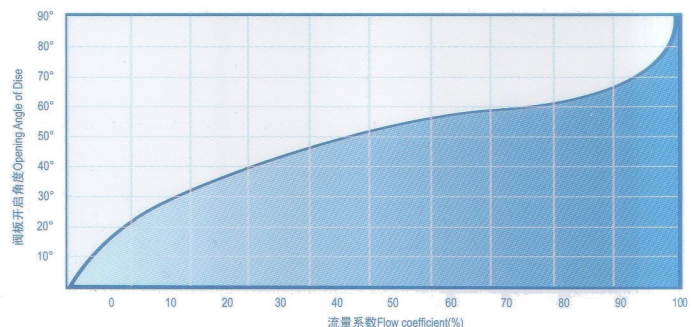
注：上表中列材质为常规配置，如有特殊需要，请在合同中注明。  
Note: Materials indicated in above table are for common usage, please give clear declaration in your contract if the re is special need.

## 性能规范

1. 作为管路中调节或截断介质的设备。
2. 适用于手柄控制装置 (DN50~300)，蜗轮蜗杆、电动及气动控制装置。
3. 设计与制造标准符合API 609。
4. 压力试验符合API 598。
5. 结构长度符合API 609。
6. 侧法兰标准符合GB/T17241中PN1.0MPa、PN1.6MPa及ASME B16.1 125PSI。
7. 有关安装信息，请参见“安装与维护使用说明书”。

## Technical Data

1. Equipment used in regulating or cutting off medium in pipeline.
2. Suitable for handles (DN50~300), Gear Operators, electric and pneumatic control actuators.
3. Standards of design and manufacture conform to API 609.
4. Pressure test conform to API 598.
5. Structure length meet to API 609.
6. Side flange standard meet to GB/T17241 of PN1.0MPa, PN1.6Mpa and ASME B16.1 125PSI.
7. For installation information, please refer to "Operation manual of installation and maintenance".







## 对夹式蝶阀 · 外型尺寸 PN10 · PN16

## Wafer Butterfly Valve Overall Dimension PN10 · PN16

单位 Unit: mm

规格 Size	A	B	C	D	E	G	K1	n-do1	K2	n-do2	a	a	b	f	h-Φy	
PN10 · PN16 · ASME CL 125	50	140	80	43	100	32	12.6	120.65	2-Φ22	125	2-Φ22	90°	77	57.15	13	4-Φ6.7
	65	152	89	46	120	32	12.6	139.7	2-Φ22	145	2-Φ22	90°	77	57.15	13	4-Φ6.7
	80	159	95	45.21	127	32	12.6	152.4	2-Φ22	160	2-Φ22	45°/90°	77	57.15	13	4-Φ6.7
	100	178	114	52.07	156	32	15.77	180	2-Φ24	190.5	2-Φ24	45°	92	69.85	13	4-Φ10.3
	125	190	127	55.5	190	32	18.92	210	2-Φ22	215.9	2-Φ26	45°	92	69.85	13	4-Φ10.3
	150	203	139	55.75	212	32	18.92	240	2-Φ27				92	69.85	13	4-Φ10.3
	200	238	175	60.58	268	45	22.1	295	2-Φ26	298.45	2-Φ26	45°/30°	115	88.9	13	4-Φ14.3
	250	268	203	68	325	45	28.45	352	2-Φ29	361.95	2-Φ29	30°	115	88.9	13	4-Φ14.3
	300	306	242	76.9	403	45	31.6	405	2-Φ30	431.8	2-Φ30	30°	140	107.95	20	4-Φ14.3
	350	368	267	76.17	436	45	31.6	460	2-Φ27	476.25	2-Φ32	22.5°/30°	140	107.95	20	4-Φ14.3
PN10 · ASME CL 125	400	400	308.5	102	488	50.5	33.15	515	4-Φ30	539.75	4-Φ30	22.5°	197	158.75	20	4-Φ20.6
	450	422	327	114	539	50.7	37.95	565	4-Φ28	577.85	4-Φ30	22.5°/18°	197	158.75	20	4-Φ20.6
	500	480	359.5	130.28	593	52.7	41.12	620	4-Φ30	635	4-Φ35	18°	197	158.75	22	4-Φ20.6
	600	562	459	151.36	816	69.6	50.62	725	20-Φ32	749.3	20-Φ38		276	215.9	22	4-Φ22.2
	700	624	520.2	163	927	66	63.35	840	24-Φ31	865.6	24-Φ35 4-1 1/2"		300	254	30	8-Φ18
	800	672	591.2	188	1060	66	63.35	950	24-Φ34	977.9	24-Φ42 4-1 1/2"		300	254	29	8-Φ18
	900	720	656	203	1169	117.5	75	1050	24-Φ34 4-M30	1085.85	28-Φ42 4-1 1/2"		300	254	34	8-Φ18
	1000	801	722	216	1289	141	85	1160	24-Φ36	1200.15	32-Φ42 4-1 1/2"		300	254	35	8-Φ18
	1200	940	874.1	276	1511	149.6	105	1380	28-Φ36	1422.4	40-Φ42 4-1 1/2"		350	298	35	8-Φ22

注：表中的连接尺寸以PN1.0MPa为例，实际产品中DN50-300规格的K和n×Φ中尺寸包含了PN10，PN16和ASME CL.125三种法兰连接标准，DN350-1200规格的K和n×Φ尺寸包含了PN10 ASME CL.125两种法兰连接标准。  
 Note: Mounting size in the above table take PN1.0MPa as example, in actual product, K and n×Φ dimension in DN50-300 contain PN10, PN16 and ASME CL.125 three flange mounting standards, K and n×Φ dimension of DN350-1200 contain PN1.0 and ASME CL.125 two flange mounting standards.

## CV值—流量系数 (US-GPM@1ΔP) DN50-DN1000 CV Valve-Flow Rate Coefficient

规格 Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	0.1	5	12	24	45	64	90	125	135
65	0.2	8	20	37	65	98	144	204	220
80	0.3	12	22	39	70	116	183	275	302
100	0.5	16	36	78	139	230	364	546	600
125	0.8	29	61	133	237	392	620	930	1022
150	2	45	95	205	366	605	958	1437	1579
200	3	89	188	408	727	1202	1903	2854	3136
250	5	151	320	694	1237	2047	3240	4859	5340
300	8	234	495	1072	1911	3162	5005	7507	8250
350	5	338	715	1549	2761	4568	7230	10844	11917
400	8	464	983	2130	3797	6282	9942	14913	16388
450	11	615	1302	2822	5028	8320	13168	19752	21705
500	14	791	1674	3628	6465	10698	16931	25396	29908
600	22	1222	2587	5605	9989	16528	26157	39236	43116
700	36	1813	3639	6636	10000	14949	22769	34898	49500
800	45	2387	4791	8736	13788	20613	31395	48117	68250
900	60	3021	6063	11055	17449	26086	39731	60895	86375
1000	84	4183	8395	15307	24159	36166	55084	84425	119750
1200	106	5370	10741	19641	30690	46065	70587	107568	153450

CV=当阀门全开时，阀门两端压差为1磅/英寸<sup>2</sup>，流体用60°F的清水时，通过阀门的美加仑/分的流量数。  
 CV=when valve entirely opened, pressure difference in both sides of valve will be 1 pound/inch<sup>2</sup>, when fluid is 60°F clean water, flow volume of per gallon/min. flowing through valve.

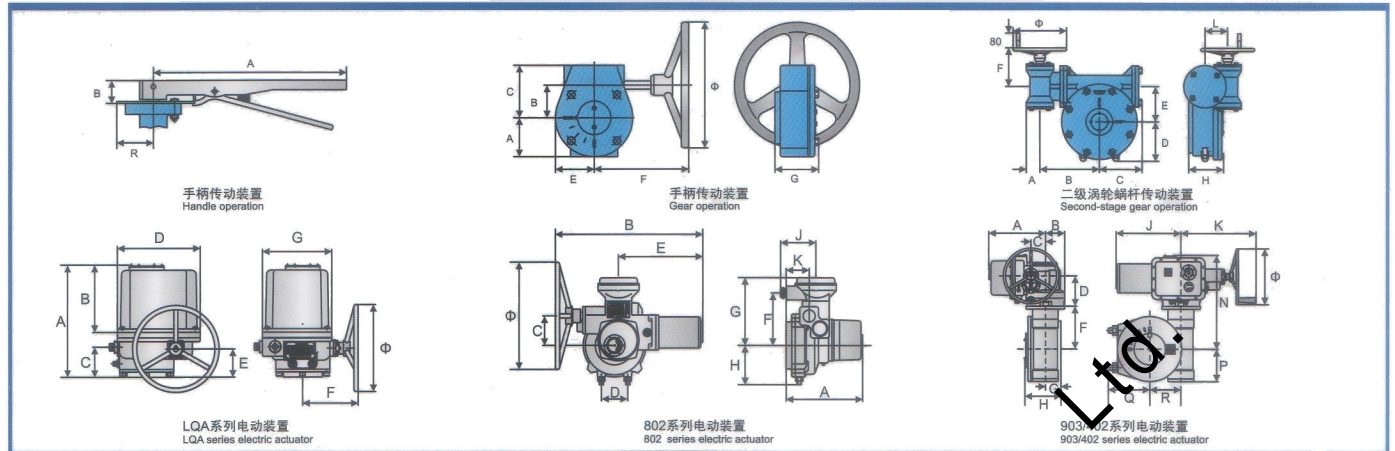
$CV=Q(G/\Delta P)^{1/2}$  式中: Q=最大流量 (美加仑/分)       $CV=Q(G/\Delta P)^{1/2}$       Whereas: G=Specific gravity, clean water will be 1.0  
 G=比重 (水=1)      Q=Max. flow rate  
 $\Delta P$ =压力降 (磅/英寸<sup>2</sup>)       $\Delta P$ =Pressure difference, lb/in<sup>2</sup>

C=当阀门全开时，阀两端压差为100KPa(1Kg/cm<sup>2</sup>)，流体用常温清水时，某给定行程的流量以m<sup>3</sup>/h计，介质密度取Kg/m<sup>3</sup>的流量数值(m<sup>3</sup>)。CV=1.17C  
 C=The valve CV is the flow rate(m<sup>3</sup>/h) of pure water at normal temperature passing through the valve when the valve disc is fully opened and the pressure differential between the two ends of the valve is 100Kpa(1Kg/cm<sup>2</sup>) CV=1.17C



## 传动装置 · 外型尺寸 Actuator Technical Parameters

单位 Unit: mm



型号 Type	适用规格 Size	最大输出扭矩 Max. Torque Output (N · m)	电机功率 Motor Power(W)	90°旋转时间 Time for 90° turning(s)	A	B	C	D	E	F	G	H	J	K	N	P	Q	R	Φ	总重 Weight (kg)			
3D-15	DN50~150				226.7	32														0.9			
	DN200~300				359	50																2.3	
	DN50~150				52	45	74					52	152.5	115							52	150	5.2
	DN200~250				75	62.75	101					75	152.5	115								300	13
	DN300~350				81	80	118					81	152.5	115								300	15
3D-30/250	DN400~500				56.5	178.5	121	115	144	174		125.5								300	56.9		
	DN600				56.5	197.5	142	144	174		145.5										300	72.37	
LQA5-1	DN50~80	50	16	15	255	154	70	70	65	126	160									200	17		
LQA10-1	DN100	100	30	15	255	154	70	70	65	126	160									200	17		
LQA20-1	DN125~150	200	60	15	255	154	70	70	65	126	160									200	17		
LQA40-1	DN200	400	90	15	302	171	96	140	86	175	198									300	35		
LQA80-1	DN250~300	800	180	15	302	171	96	140	86	175	198									300	35		
802.10-1	DN50~100	100	30	15	250	120	79	82	253	156	213	110	132	62						220	35		
802.20-1	DN125~150	200	60	15	250	120	79	82	253	156	213	110	132	62						220	35		
802.60-1	DN200~300	600	180	15	287	552	110	101	330	196	254	156	134	86						360	55		
802.120-1	DN350	1200	370	15	287	552	110	101	330	196	254	156	134	86						360	55		
802.150-0.5	DN400~450	1500	370	30	287	552	110	101	330	196	254	156	134	86						360	55		
802.250-1	DN500	2500	750	15	330	625	140	152	365	230	288	185	134	120						500	100		
802.500-0.5	DN600	5000	750	30	330	625	140	152	365	230	288	185	134	120						500	100		
802.1000-0.2	DN700~900	10000	750	30	330	625	140	152	365	230	288	185	134	120						500	100		
9033.60/4026	DN1000/PN10	1100	50	25	311	113	79	160		230	85	195	487	400	506	188	230	170	300				
9033.60/4026	DN1000/PN10	1100	50	25	311	113	79	160		230	85	195	487	400	506	188	230	170	300				
9033.60/4026	DN1000/PN10	1500	38	25	311	113	79	160		230	85	195	487	400	506	188	230	170	300				
9033.60/4026	DN1000/PN10	2200	25	25	311	113	79	160		230	85	195	487	400	506	188	230	170	300				
9034.90/4027	DN900/PN16	1500	75	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.90/4027	DN900/PN16	2200	50	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.90/4027	DN900/PN16	3000	38	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.120/4027	DN1200/PN10 DN1000/PN16	1500	75	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.120/4027	DN1200/PN10 DN1000/PN16	2200	50	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.120/4027	DN1200/PN10 DN1000/PN16	3000	38	30	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9034.120/4027	DN1200/PN10 DN1000/PN16	4000	25	25	334	150	98	172		280	105	228	508	450	563	232	255	202	400				
9035.250/4028	DN1200	3000	75	30	359	175	128	238		320	135	290	600	535	646	300	305	238	500				
9035.250/4028	DN1200	4000	50	30	359	175	128	238		320	135	290	600	535	646	300	305	238	500				
9035.250/4028	DN1200	5500	38	30	359	175	128	238		320	135	290	600	535	646	300	305	238	500				
9035.250/4028	DN1200	7500	25	25	359	175	128	238		320	135	290	600	535	646	300	305	238	500				

注: 1. LQA系列电动装置, 防护性能为IP54(GB4208-1998)不具备防爆功能。  
 2. PN16 DN300用802.120-1  
 3. 802系列电动装置基本型可用于户外, 防护性能为IP65(GB4208-1998); 另有防爆型, 如有需要, 请索取相关技术资料。  
 4. 903系列电动装置基本型可用于户外, 防护性能为IP65(GB4208); 另有防水型, 如有需要, 请索取相关技术资料。  
 5. 欲查询表中未列出的产品数据请与本公司联系。  
 Note: 1. The protective class of LQA series electric actuator is IP54(GB4208-1998)without flame-proof capability.  
 2. 802.120-1 is for PN16 and DN300  
 3. Basic type of 802 series electric actuator can be used outdoors, protective class is IP65(GB4208-1998) Also have flame-proof type, please ask for relevant technical information if necessary.  
 4. 903 series electric actuator can be used outdoor, the protective class of it is IP65(GB4208); also with water-proof type, please ask for detail information if necessary.  
 5. Please contact technical department when you want to check date in the list.