

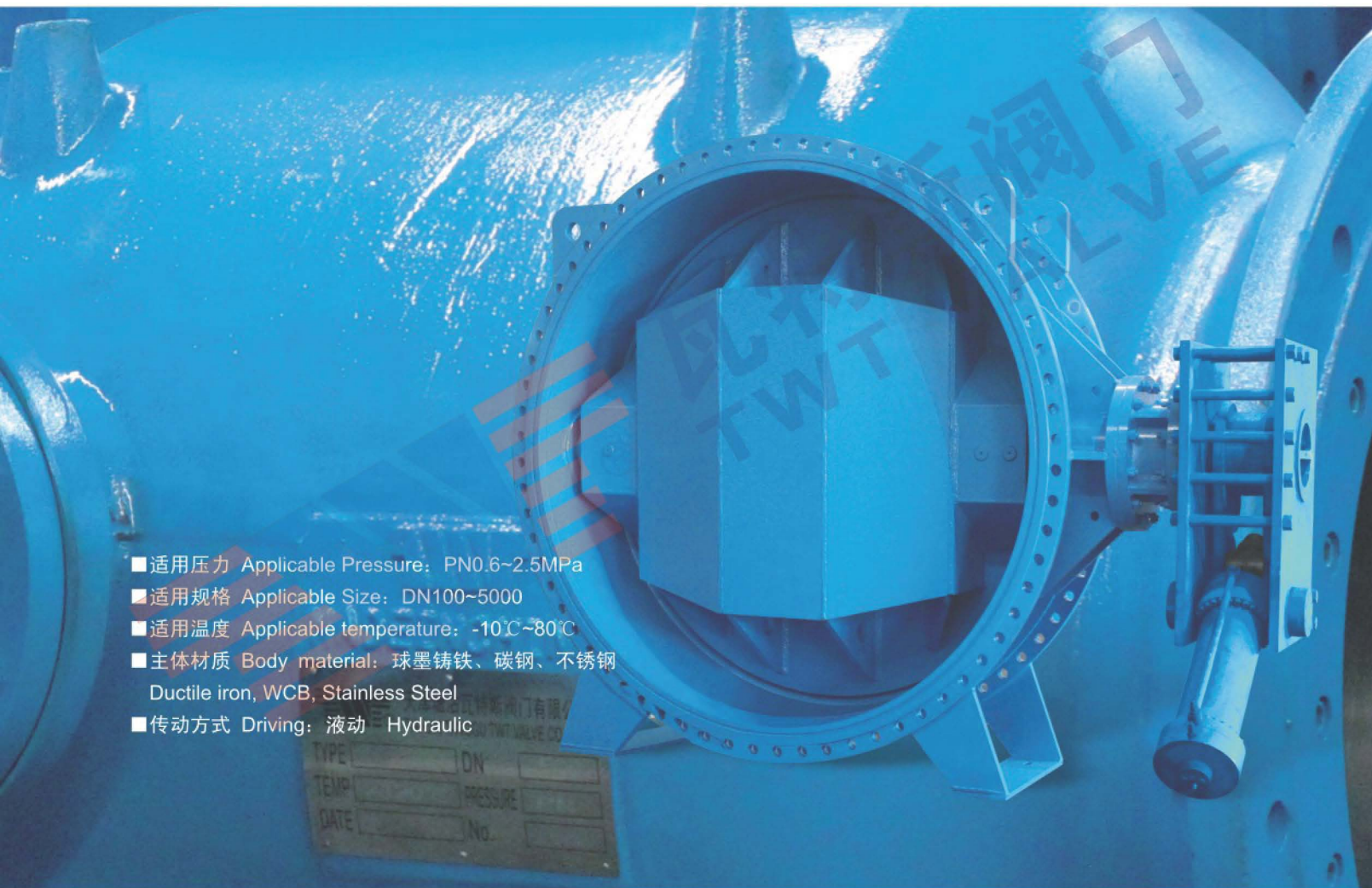


2014 EDITION



液控蝶阀

Hydraulic Control Butterfly Valve



- 适用压力 Applicable Pressure: PN0.6~2.5MPa
- 适用规格 Applicable Size: DN100~5000
- 适用温度 Applicable temperature: -10℃~80℃
- 主体材质 Body material: 球墨铸铁、碳钢、不锈钢
Ductile iron, WCB, Stainless Steel
- 传动方式 Driving: 液动 Hydraulic

A leader

In Valve Technology

天津塘沽瓦特斯阀门有限公司
TIANJIN TANGGU TWT VALVE CO., LTD.

www.twtvalve.com

液控蝶阀产品特性

Characteristics of Hydraulic Control Butterfly Valve

■更安全的蓄能装置

靠自身重锤蓄能或者靠两个蓄能器蓄能，无外来能源时可自动关阀。

■更灵活的多用途性

可取代水泵出口截止阀和止回阀，并集机、电、液于一体，占地面积小。

■更高效的密封

密封可靠，流阻系数小。

■更高的控制方式

自动化程度高，可就地、远程及联动控制。

■更智能的操作界面

采用PLC智能控制系统，可实现文本、触摸屏等多种人性化操作界面，也可以采用普通型继电器式系统。

■更高的工作效率

液压系统电机功率小，工作效率高，保压性能好，油泵启动间隔时间长。

■更长的使用寿命

有明显的开度指示和机械限位调节机构，行程开关装置防水防尘设计，不外露，性能稳定，使用寿命长。

■更完善的自动化操作

能按预定程序实现与其他管路设备联动操作。

■更安全的保护功能

关闭时能够实现缓闭功能，有效消除水锤危害，保护水泵及管网的安全。

■Energy storage device more secure

Relying on its own weight storage or by two accumulators storage, can be automatically shut off the valve without external energy.

■Multi use more flexible

Reliable sealing, small flow resistance coefficient.

■The seal is more efficient

A high degree of automation, local, remote and linkage control.

■Control mode of higher

PLC intelligent control system, can realize the text, touch screen and other humanized operation interface, can also adopt ordinary relay system.

■More intelligent interface

The hydraulic system of small power motor, high work efficiency, good pressure maintaining performance, oil pump start-up time interval length.

■The higher working efficiency

There are obvious opening indication and mechanical spacing adjusting mechanism, a travel switch device waterproof dustproof design, not exerted, stable performance, long service life.

■A longer life

According to a predetermined program and other pipeline equipment linkage operation.

■Automatic operation more perfect

Closed to achieve slow closing function, effectively eliminate water hammer, water pump and pipe network security protection.

■The protection function is more secure

Can replace the water pump outlet valve and check valve, and the machine, electricity, liquid in a body, has the advantages of small occupation area.

液控蝶阀工作原理

Working Principle of Hydraulic Control Butterfly Valve

■开阀

液控蝶阀的锁定机构由传动油缸，机械锁定轴，电磁锁定轴，电磁铁等零件组成，具有机械电磁联合锁定功能，当阀门全开后，先由传动油缸的作用力驱动机械锁定轴投入到锁定位置进行初锁，后由电磁铁的电磁力驱动电磁锁定轴进行终锁，其锁定过程在一系列行程开关的作用下，完全自动进行，一气呵成。重锤的巨大作用力完全由机械锁定轴承受，机械锁定轴的退出受到电磁锁定轴的约束，而电磁锁定轴的退出则受到电磁铁的电磁力控制，只要电磁铁不失电，其电磁锁定轴和机械锁定轴就被牢牢控制住，不管阀门开启多长时间，不管重锤有多重、重锤(蝶板)决不会下落一丝一毫，确保蝶板开启后始终处于全开状态(最小流阻状态)，其间无需任何补油、补压措施。

■锁定

液控蝶阀的锁定机构由传动油缸，机械锁定轴，电磁锁定轴，电磁铁等零件组成，具有机械电磁联合锁定功能，当阀门全开后，先由传动油缸的作用力驱动机械锁定轴投入到锁定位置进行初锁，后由电磁铁的电磁力驱动电磁锁定轴进行终锁，其锁定过程在一系列行程开关的作用下，完全自动进行，一气呵成。重锤的巨大作用力完全由机械锁定轴承受，机械锁定轴的退出受到电磁锁定轴的约束，而电磁锁定轴的退出则受到电磁铁的电磁力控制，只要电磁铁不失电，其电磁锁定轴和机械锁定轴就被牢牢控制住，不管阀门开启多长时间，不管重锤有多重、重锤(蝶板)决不会下落一丝一毫，确保蝶板开启后始终处于全开状态(最小流阻状态)，其间无需任何补油、补压措施。

■关阀

关阀有三种情况，A：人为关阀B：水泵或阀门自身故障失电关阀C：外线失电关阀。不管哪种情况关阀，只须让电磁铁失电即可按预定程序自动关闭，在电磁铁失电瞬间、电磁力即刻同步消失。电磁锁定轴一旦失去电磁力的作用则即刻开锁，机械锁定轴在市区电磁锁定轴的约束后也即刻开锁，此时重锤的势能立即重锤杆、举臂、阀轴等零件带动蝶板按照预先调定的快关、缓冲、慢关程序作关闭运动，整个过程一气呵成。液控蝶阀在关闭过程中，必须排除举升油缸下腔的油液，据此，采取控制并调节举升油缸排油速度的方法，能有效地对阀门的关闭速度进行控制。液控蝶阀的关闭过程又快关、缓冲、慢关三个程序，其快关时间、慢关时间、快关角度、慢关角度都可以调节。

■Opening

Upon opening hydraulic control butterfly valve, under the acting force of hydraulic control station and lift cylinder, disc will rotate by 90° driven by lift arm, weight dropper rod and valve shaft etc.. Meanwhile, the acting force of hydraulic control station and lift cylinder will vertically lift the weight dropper through lift arm and weight dropper rod, making the gravity of weight dropper into potential energy to be used for valve closing.

■Lock

Composed of drive cylinder, mechanical lock shaft, electromagnetic lock shaft and electromagnet etc., the locking mechanism of hydraulic control butterfly valve is provided with the dual function of mechanical and electromagnetic lockup. When valve is fully opened, the acting force of drive cylinder drives the mechanical lock shaft into the locking position for primary lockout, and then the force of electromagnet drives the electromagnetic lock shaft for final lockout. The process of lockout is completely automatic without any letup under the help of a series of position switches. The huge acting force of weight dropper is completely endured by mechanical lock shaft. The withdrawal of mechanical lock shaft is restricted by electromagnetic lock shaft, while the withdrawal of electro-magnetic lock shaft is controlled by the force of electromagnet. Provided that electromagnet is electrified, both electromagnetic lock shaft and mechanical lock shaft are under well control. No matter how long the valve is kept open and how weight the weight dropper is, the weight dropper(disc) will not fall a tiny bit, thus to ensure disc always fully opened(state of minimum fluid resistance). It doesn't need extra oiling and pressure in the process.

■Closing

Valve is closed by A: man-made closed; B: closed due to failure or power breakdown of pump or valve; C: closed due to breakdown of outside wire. No matter in which case, as soon as the electromagnet is disconnected to power, valve will be closed according to the predetermined procedure. Upon the breakdown of electromagnet, electromagnetic force will disappear immediately. Electromagnetic lock shaft will be unlocked when electromagnetic force disappears, and the mechanical lock shaft will also be unlocked upon the loss of restriction of electromagnetic lock shaft. Here the potential energy of weight dropper will immediately close the disc driven by weight dropper rod, lift arm and valve shaft etc. by the procedures of quick closing, cushioning and slow closing. The whole process is done without any letup. In the process of closing of hydraulic control butterfly valve, the oil liquor in the lower cavity of lift cylinder shall be discharged. For reasons given above, the method to control and adjust the speed of oil discharging in lifting cylinder can effectively control the closing speed of valve. The closing process of hydraulic control valve goes through the three procedures of quick closing, cushioning and slow closing. Both the time and angle of quick and slow closing are adjustable.

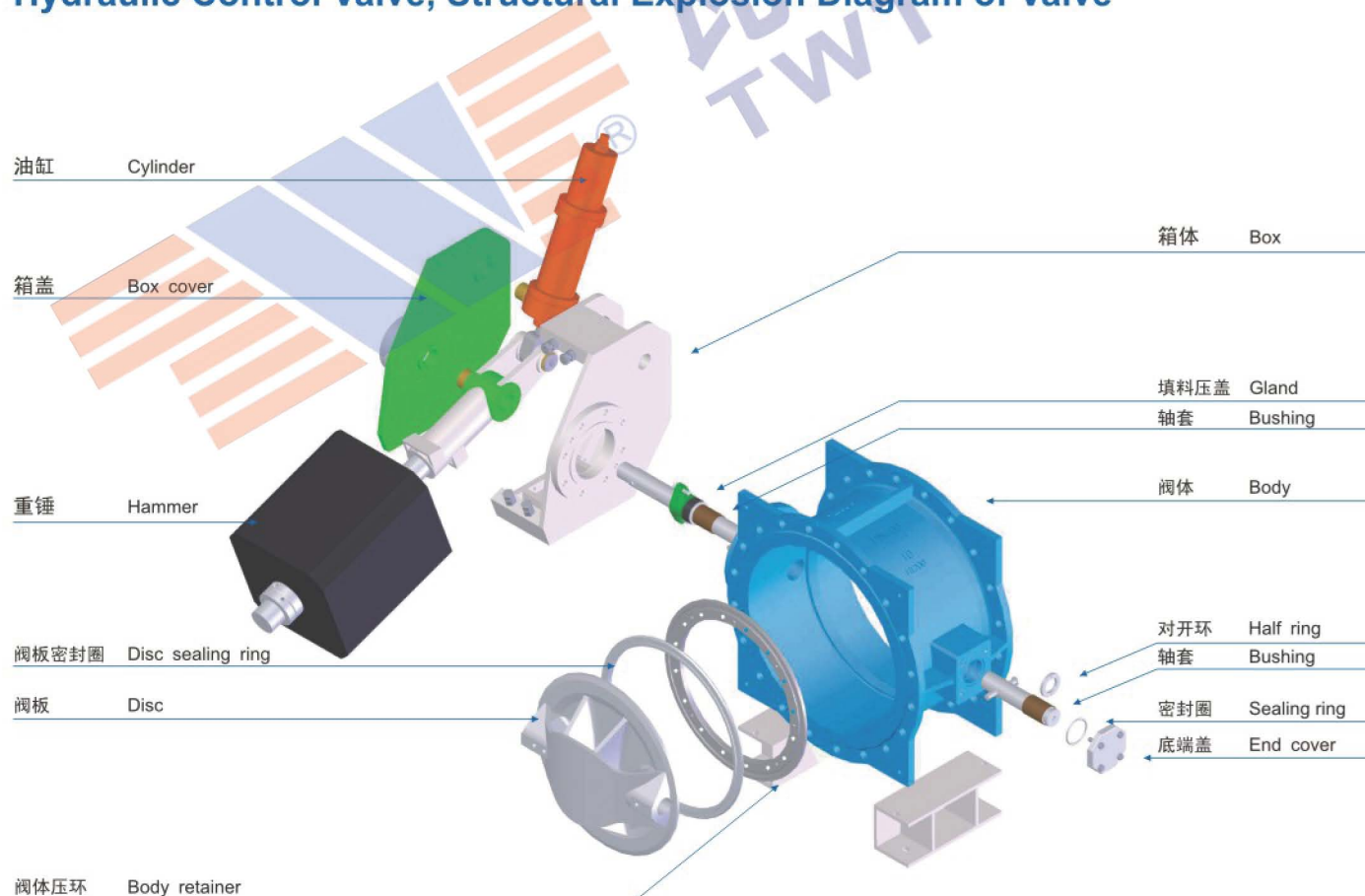
液控蝶阀——性能参数

Hydraulic Control Valve -- Performance Parameter

项目 Item	尺寸 Size	DN<1000	DN≥1000-2000	DN≥2100-3000	DN≥3000
开阀时间S（可调） Opening Valve Time(adjustable)		10-60	20-90	30-120	40-150
关阀时间S（可调） Closing Valve Time(adjustable)	快关fast closing	2-20	3-30	4-40	5-150
	缓冲buffering	2-4	3-6	4-8	5-10
	慢关slow closing	2-60	3-90	4-120	5-200
开阀角度Opening Valve Angle		90°			
关阀角度S（可调） Cloing Valve Angle(adjustable)	快关fast closing	50°-70°			
	缓冲buffering	10°			
	慢关slow closing	10°-30°			
泄漏量 Leakage volume	橡胶密封	无可见泄露 No visible leakage			
	金属密封	根据GB/T13927规定的D级精度验收，即泄露量<0.1DN(mm ³ /s) Confrmation according to GB/T13927 D class accuracy That is leakage volume less than 0.1DN			

液控蝶阀结构示意图

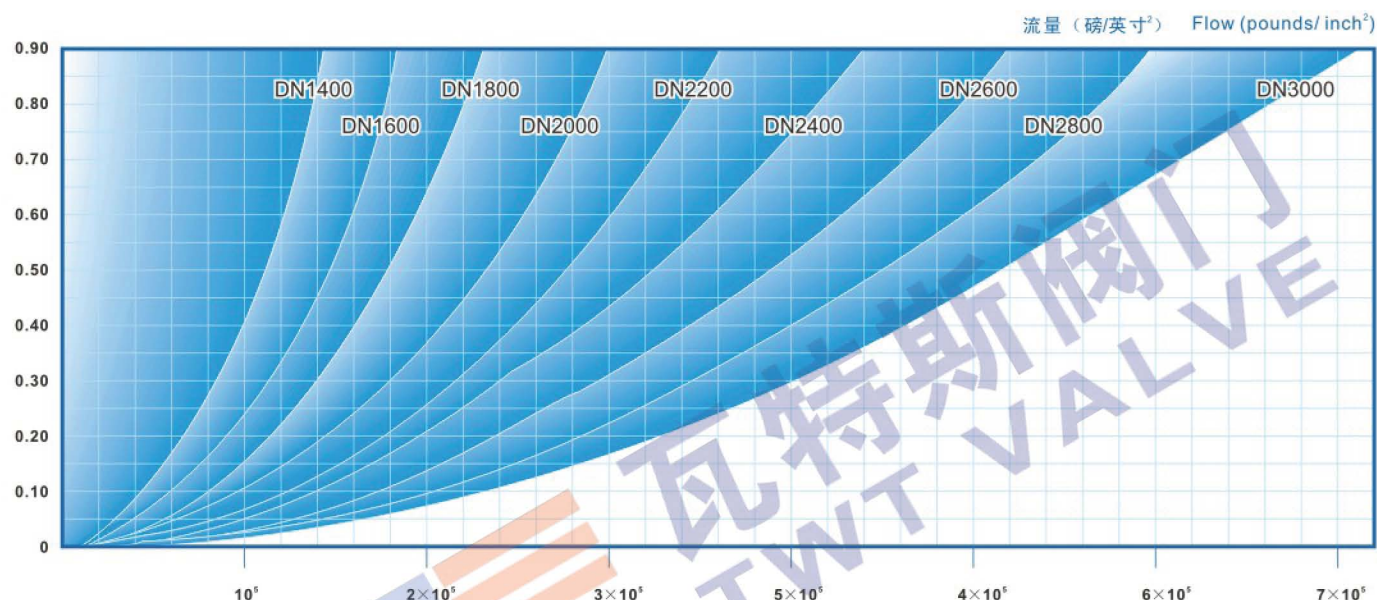
Hydraulic Control Valve, Structural Explosion Diagram of Valve



液控蝶阀——流量系数

Hydraulic Control Valve -- Flow coefficient

DN	300	350	400	450	500	600	700	800	900	1000	1200
Cv	5593	7685	10030	13377	15788	23162	31870	41911	58196	71175	102845



CV=当阀门全开时, 阀门两端压差为1磅/英寸², 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/inch², when fluid is 60°F clean water, flow volume of per gallon/min. flowing through valve.

$$CV=Q(G/\Delta P)^{1/2}$$

Q: 最大流量 (美加仑/分)

G: 比重 (水=1)

ΔP : 压力降 (磅/英寸²)

$$CV=Q(G/\Delta P)^{1/2}$$

Whereas: G=Specific gravity, clean water will be 1.0

Q=Max. flow rate

ΔP =Pressure difference, lb/in²

C=当阀门全开时, 阀两端压差为100KPa(1Kg/cm²), 流体用常温清水时, 某给定行程的流量以m³/h计, 介质密度取Kg/m³的流量数值(m³)。

CV=1.17C

C=The valve CV is the flow rate(m³/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/cm²)

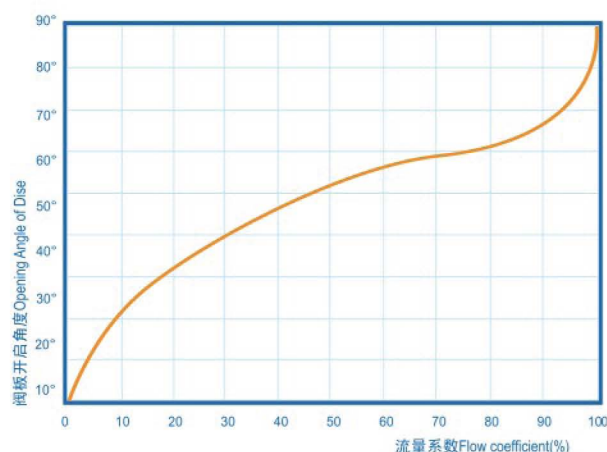
CV=1.17C

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。

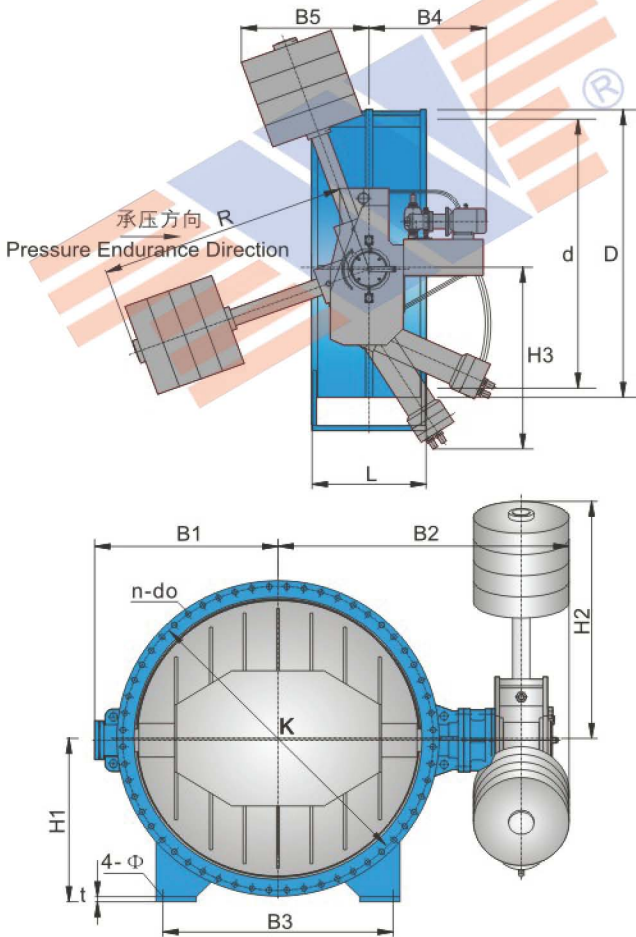
Note: Performance curve of flow volume means the relationship between open degree of valve and flow volume. Normally butterfly valve suitable to use in control flow. When valve's open degree under 30°, not recommend to use in flow volume control.



重锤型液控蝶阀技术参数
Hammer Hydraulic Control Butterfly Valve Technical Parameters



DIMENSIONS



部件	Component	材质 Material
底端盖	End cover	QT450-10
下轴套	Packing gland	DF-1
下转轴	Down shaft	2Cr13
阀板密封圈	Disc sealing ring	NBR/EPDM
阀板	Disc	QT450-10
阀体	Body	QT450-10
摇臂	Rocker arm	Q235A
重锤	Hammer	ASTM A126CL.B
填料	Packing	丁腈橡胶NBR
填料压盖	Gland	HT200
箱体	Box	Q235A
箱盖	Box cover	Q235A
底端盖密封圈	Bottom cover sealing ring	丁腈橡胶NBR
对开环	Half ring	2Cr13
阀体压环	Body retainer	QT450-10
上转轴	Top shafts	2Cr13
上轴套	Up shaft bushing	DF-1
箱体支座	Box support	Q235A
箱体轴套	Box shaft bushing	ZCuZn38Mn2Pb2

注：所有部件可根据实际工况选用不同材质。
Note: All parts can choose different material, according to the actual condition of selection.

1. 侧法兰连接符合GB/T17241.6-2008标准。
2. DN300-DN1000结构长符合GB/T12221标准。
1. Connection between side flanges is in conformity with standard GB/T17241.6-2008.
2. The structure of DN300-DN1000 face to face in accordance with GB/T12221 standard.

■重锤型液控蝶阀

本蝶阀靠液压驱动开启，靠重锤势能关闭。安装后，可代替闸阀（蝶阀）和止回阀两台阀门，且流阻系数小，因此该阀门为节能型产品。关闭时，分快、慢关两阶段关闭，前阶段为快关段，后阶段为慢关段，根据工况不通，可调节快慢关时间及角度。液压系统设有开阀自动保压和自动复位功能，具有开阀双保险，电气控制可根据用户需要实行普通控制与PLC控制，实现泵阀联动，并可实现就地远控及与计算机联控。

本液控蝶阀取消重锤后，可改为蓄能型液控蝶阀。

■Mammer Hydraulic Control Butterfly Valve

This butterfly valve is opened by hydraulic drive and closed by potential energy of weight dropper.It is used to substitute to gate valve (butterfly valve)and check valve,and is given low fluid resistance coefficient,making it an energy-saving product.It is closed by quick and slow stanges,firstly quick close and then slow close.According to different working conditions,the time and angle of quick and slow close may be adjusted,Hydraulic system is provided with automatic pressure-sustaining and automatic reset functions upon opening,performed as dual protection for valve opening .Electrical control may be ordinary control and PLC control responding to users'repquests to carry out the in-line action between pump and valve,or spot remote control andcomputer integrated control. The hydraulic control valve which can be canceled the weight, can be changed into energy storage type fluid control valve.

重锤型液控蝶阀外型尺寸

Hammer Hydraulic Control Butterfly Valve Overall Dimension

(单位 Unit:mm)

PN	DN	L	D	d	K	n-do	B1	B2	B3	B4	B5	H1	H2	H3	R	Φ	t
PN6	300	178	440	363	395	12-Φ23											
	350	190	490	413	445	12-Φ23											
	400	216	540	463	495	16-Φ23	430	1000	500	815	800	380	1120	780	1200	27	25
	500	229	645	568	600	20-Φ23	460	1060	560	885	835	430	1220	855	1300	27	25
	600	267	755	667	705	20-Φ26	525	1160	600	935	870	490	1320	955	1400	30	30
	700	292	860	772	810	24-Φ26	670	1300	700	985	905	540	1420	1055	1500	30	30
	800	318	975	878	920	24-Φ31	775	1525	800	1035	940	600	1520	1155	1600	33	30
	900	330	1075	978	1020	24-Φ31	815	1675	900	1085	1010	650	1720	1255	1800	33	30
	1000	300	1175	1078	1120	28-Φ31	875	1815	1000	1135	1080	690	1920	1355	2000	33	30
	1200	360	1405	1295	1340	32-Φ34	975	1915	1200	1185	1115	805	2020	1385	2100	33	30
	1400	390	1630	1510	1560	36-Φ37	1075	2015	1400	1235	1150	915	2130	1425	2200	36	35
	1600	440	1830	1710	1760	40-Φ37	1175	2115	1600	1285	1185	1020	2220	1475	2300	36	35
	1800	490	2045	1918	1970	44-Φ40	1275	2215	1800	1335	1220	1080	2330	1515	2400	39	35
	2000	540	2265	2125	2180	48-Φ43	1375	2315	2000	1385	1255	1235	2430	1550	2500	42	40
	2200	600	2475	2335	2390	52-Φ43	1475	2415	2100	1405	1290	1340	2530	1600	2600	42	40
	2400	600	2685	2545	2600	56-Φ43	1585	2535	2150	1415	1325	1455	2630	1650	2700	42	40
	2600	760	2905	2750	2810	60-Φ49	1705	2630	2250	1475	1360	1550	2730	1710	2800	48	45
	2800	800	3115	2960	3020	64-Φ49	1845	2750	2350	1525	1395	1650	2830	1810	2900	48	45
	3000	800	3315	3160	3220	68-Φ49	2005	2850	2500	1575	1430	1760	2930	1910	3000	48	45
	4000	800	4500	4370	4420	84-Φ39											
	4300	800	4790	4560	4650	84-Φ39											
	4800	800	5290	5150	5200	100-Φ45											
PN10	300	178	445	370	400	12-Φ23											
	350	190	505	429	460	16-Φ23											
	400	216	565	480	515	16-Φ28	430	1000	500	815	800	380	1120	780	1200	27	25
	500	229	670	582	620	20-Φ28	460	1060	560	885	835	430	1220	855	1300	27	25
	600	267	780	682	725	20-Φ31	525	1160	600	935	870	490	1320	955	1400	30	30
	700	292	895	794	840	24-Φ31	670	1300	700	985	905	540	1420	1055	1500	30	30
	800	318	1015	901	950	24-Φ34	775	1525	800	1035	940	600	1520	1155	1600	33	30
	900	330	1115	1001	1050	28-Φ34	815	1675	900	1085	1010	650	1720	1255	1800	33	30
	1000	300	1230	1112	1160	28-Φ37	885	1835	1000	1135	1080	720	1920	1355	2000	33	30
	1200	360	1455	1328	1380	32-Φ40	985	1935	1200	1185	1115	830	2020	1385	2100	33	30
	1400	390	1675	1530	1590	36-Φ43	1085	2035	1400	1235	1150	940	2130	1425	2200	36	35
	1600	440	1915	1750	1820	40-Φ49	1185	2135	1600	1285	1185	1060	2220	1475	2300	36	35
	1800	490	2115	1950	2020	44-Φ49	1285	2235	1800	1335	1220	1110	2330	1515	2400	39	35
	2000	540	2325	2150	2230	48-Φ49	1385	2335	2000	1385	1255	1265	2430	1550	2500	42	40
	2200	600	2550	2370	2440	52-Φ56	1485	2435	2100	1405	1290	1380	2530	1600	2600	42	40
	2400	600	2760	2570	2650	56-Φ56	1605	2550	2150	1415	1325	1490	2630	1650	2700	42	40
	2600	760	2960	2780	2850	60-Φ56	1745	2650	2250	1475	1360	1580	2730	1710	2800	48	45
	2800	800	3180	2960	3070	64-Φ56	1885	2750	2350	1525	1395	1685	2830	1810	2900	48	45
	3000	800	3410	3200	3290	68-Φ62	2045	2850	2500	1575	1430	1805	2930	1910	3000	48	45
PN16	300	178	460	370	410	12-Φ28											
	350	190	520	429	470	16-Φ28											
	400	216	580	480	525	16-Φ31	435	1010	500	815	800	390	1120	780	1200	27	25
	500	229	715	609	650	20-Φ34	465	1065	560	885	835	440	1220	855	1300	27	25
	600	267	840	720	770	20-Φ37	535	1180	600	935	870	500	1320	955	1400	30	30
	700	292	910	794	840	24-Φ37	680	1330	700	985	905	550	1420	1055	1500	30	30
	800	318	1025	901	950	24-Φ40	785	1545	800	1035	940	615	1520	1155	1600	33	30
	900	330	1125	1001	1050	28-Φ40	835	1705	900	1085	1010	670	1720	1255	1800	33	30
	1000	300	1255	1112	1170	28-Φ43	905	1850	1000	1135	1080	730	1920	1355	2000	33	30
	1200	360	1485	1328	1390	32-Φ43	1005	1950	1200	1185	1115	845	2020	1385	2100	33	30
	1400	390	1685	1530	1590	36-Φ49	1105	2050	1400	1235	1150	945	2130	1425	2200	36	35
	1600	440	1930	1750	1820	40-Φ56	1205	2150	1600	1285	1185	1070	2220	1475	2300	36	35
	1800	490	2130	1950	2020	44-Φ56	1305	2250	1800	1335	1220	1120	2330	1515	2400	39	35
	2000	540	2345	2150	2230	48-Φ62	1405	2350	2000	1385	1255	1275	2430	1550	2500	42	40
	2200	600	2555	2360	2440	52-Φ62	1505	2450	2100	1405	1290	1380	2530	1600	2600	42	40
	2400	600	2765	2570	2650	56-Φ62	1605	2550	2150	1415	1325	1490	2630	1650	2700	42	40
PN25	300	178	485	389	430	16-Φ31											
	350	190	555	448	490	16-Φ34											
	400	216	620	503	550	16-Φ37	440	1020	500	815	800	400	1120	780	1200	27	25
	500	229	730	609	660	20-Φ37	474	1085	560	885	835	450	1220	855	1300	27	25
	600	267	845	720	770	20-Φ40	550	1200	600	935	870	510	1320	955	1400	30	30
	700	292	960	820	875	24-Φ43	690	1350	700	985	905	560	1420	1055	1500	30	30
	800	318	1085	928	990	24-Φ49	805	1565	800	1035	940	630	1520	1155	1600	33	30
	900	330	1185	1028	1090	28-Φ49	855	1735	900	1085	1010	690	1720	1255	1800	33	30
	1000	300	1320	1140	1210	28-Φ56	905	1850	1000	1135	1080	730	1920	1355	2000	33	30
	1200	360	1530	1350	1420	32-Φ56	1005	1950	1200	1185	1115	845	2020	1385	2100	33	30
	1400	390	1755	1560	1640	36-Φ62	1105	2050	1400	1235	1150	945	2130	1425	2200	36	35
	1600	440	1975	1780	1860	40-Φ62	1205	2150	1600	1285	1185	1070	2220	1475	2300	36	35
	1800	490	2195	1985	2070	44-Φ70	1305	2250	1800	1335	1220	1120	2330	1515	2400	39	35
	2000	540	2425	2210	2300	48-Φ70	1405	2350	2000	1385	1255	1275	2430	1550	2500	42	40

注：产品范围PN6~PN40，DN300~DN5500，欲查询表中未列出的产品数据可与本公司联系。

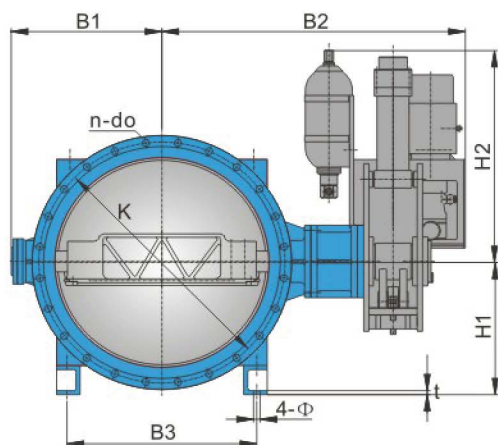
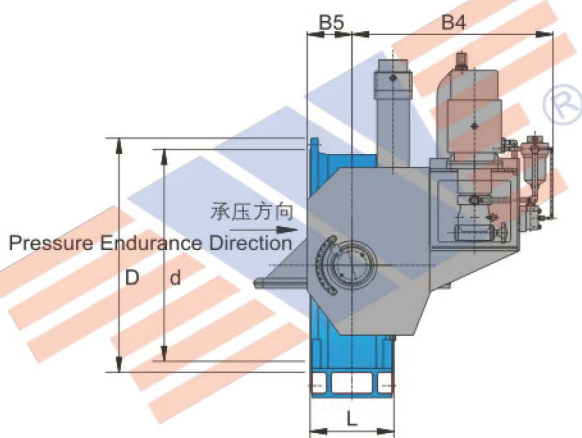
Note: The range of products PN6~PN40, DN300~DN5500, please contact technical department when you want to check the data in the list.

蓄能型液控蝶阀技术参数

Energy Storage Hydraulic Butterfly Valve Technical Parameters



DIMENSIONS



部件	Component	材质 Material
底端盖	End cover	QT450-10
下轴套	Packing gland	DF-1
下转轴	Down shaft	2Cr13
阀板密封圈	Disc sealing ring	NBR/EPDM
阀板	Disc	QT450-10
阀体	Body	QT450-10
摇臂	Rocker arm	Q235A
重锤	Hammer	ASTM A126CL.B
填料	Packing	丁腈橡胶NBR
填料压盖	Gland	HT200
箱体	Box	Q235A
箱盖	Box cover	Q235A
底端盖密封圈	Bottom cover sealing ring	丁腈橡胶NBR
对开环	Half ring	2Cr13
阀体压环	Body retainer	QT450-10
上转轴	Top shafts	2Cr13
上轴套	Up shaft bushing	DF-1
箱体支座	Box support	Q235A
箱体轴套	Box shaft bushing	ZCuZn38Mn2Pb2

注：所有部件可根据实际工况选用不同材质。
Note: All parts can choose different material, according to the actual condition of selection.

1. 侧法兰连接符合GB/T17241.6-2008标准。

2. DN300-DN1000结构长符合GB/T12221标准。

1. Connection between side flanges is in conformity with standard GB/T17241.6-2008.

2. The structure of DN300-DN1000 face to face in accordance with GB/T12221 standard.

蓄能型液控蝶阀

本蝶阀控制采用全液压形式，开启靠泵，关闭靠蓄能器。由于采用了蓄能器关闭，从而省掉了重锤，因此此阀具有占用空间小，安装方便，结构紧凑等优点。本阀关闭分快、慢两阶段，前段快关，后段慢关，其快、慢角度可根据用户要求设定。电气控制分为普通控制与PLC控制，能实现泵阀联动，并可实现就地远控及与计算机联控。

Energy Storage Hydraulic Control Butterfly Valve

This butterfly valve is full hydraulic control, opened by pump and closed by accumulator. As it is closed by accumulator, weight dropper is not used, making it with small occupation and compact structure etc.

It is closed by quick and slow stages, firstly quick close and then slow close. The angle of quick and slow close may be adjusted according to users' requests. Electrical control may be ordinary control and PLC control responding to users' requests to carry out the in-line action between pump and valve, or spot remote control and computer integrated control.

蓄能型液控蝶阀外型尺寸

Energy Storage Hydraulic Butterfly Valve Overall Dimension

(单位 Unit:mm)

PN	DN	L	D	d	K	n-do	B1	B2	B3	B4	B5	H1	H2	Φ	t
PN6	300	178	440	363	395	12-Φ23									
	350	190	490	413	445	12-Φ23									
	400	216	540	463	495	16-Φ23	430	1000	500	818	405	380	1120	27	25
	500	229	645	568	600	20-Φ23	460	1060	560	885	420	430	1220	27	25
	600	267	755	667	705	20-Φ26	525	1160	600	935	440	490	1320	30	30
	700	292	860	772	810	24-Φ26	670	1300	700	985	455	540	1420	30	30
	800	318	975	878	920	24-Φ31	775	1525	800	1035	470	600	1520	33	30
	900	330	1075	978	1020	24-Φ31	815	1675	900	1085	500	650	1720	33	30
	1000	300	1175	1078	1120	28-Φ31	875	1815	1000	1135	530	690	1920	33	30
	1200	360	1405	1295	1340	32-Φ34	975	1915	1200	1185	570	805	2020	33	30
	1400	390	1630	1510	1560	36-Φ37	1075	2015	1400	1235	610	915	2130	36	35
	1600	440	1830	1710	1760	40-Φ37	1175	2115	1600	1285	640	1020	2220	36	35
	1800	490	2045	1918	1970	44-Φ40	1275	2215	1800	1335	670	1080	2330	39	35
	2000	540	2265	2125	2180	48-Φ43	1375	2315	2000	1385	700	1235	2430	42	40
	2200	600	2475	2335	2390	52-Φ43	1475	2415	2100	1405	730	1340	2530	42	40
	2400	600	2685	2545	2600	56-Φ43	1585	2535	2150	1415	760	1455	2630	42	40
	2600	760	2905	2750	2810	60-Φ49	1705	2630	2250	1475	790	1550	2730	48	45
	2800	800	3115	2960	3020	64-Φ49	1845	2750	2350	1525	820	1650	2830	48	45
	3000	800	3315	3160	3220	68-Φ49	2005	2850	2500	1575	850	1760	2930	48	45
	4000	800	4500	4370	4420	84-Φ39									
	4300	800	4790	4560	4650	84-Φ39									
	4800	800	5290	5150	5200	100-Φ45									
PN10	300	178	445	370	400	12-Φ23									
	350	190	505	429	460	16-Φ23									
	400	216	565	480	515	16-Φ28	430	1000	500	818	405	380	1120	27	25
	500	229	670	582	620	20-Φ28	460	1060	560	885	420	430	1220	27	25
	600	267	780	682	725	20-Φ31	525	1160	600	935	440	490	1320	30	30
	700	292	895	794	840	24-Φ31	670	1300	700	985	455	540	1420	30	30
	800	318	1015	901	950	24-Φ34	775	1525	800	1035	470	600	1520	33	30
	900	330	1115	1001	1050	28-Φ34	815	1675	900	1085	500	650	1720	33	30
	1000	300	1230	1112	1160	28-Φ37	885	1835	1000	1135	530	720	1920	33	30
	1200	360	1455	1328	1380	32-Φ40	985	1935	1200	1185	570	830	2020	33	30
	1400	390	1675	1530	1590	36-Φ43	1085	2035	1400	1235	610	940	2130	36	35
	1600	440	1915	1750	1820	40-Φ49	1185	2135	1600	1285	640	1060	2220	36	35
	1800	490	2115	1950	2020	44-Φ49	1285	2235	1800	1335	670	1110	2330	39	35
	2000	540	2325	2150	2230	48-Φ49	1385	2335	2000	1385	700	1265	2430	42	40
	2200	600	2550	2370	2440	52-Φ56	1485	2435	2100	1405	730	1380	2530	42	40
	2400	600	2760	2570	2650	56-Φ56	1605	2550	2150	1415	760	1490	2630	42	40
	2600	760	2960	2780	2850	60-Φ56	1745	2650	2250	1475	790	1580	2730	48	45
	2800	800	3180	2960	3070	64-Φ56	1885	2750	2350	1525	820	1685	2830	48	45
	3000	800	3410	3200	3290	68-Φ62	2045	2850	2500	1575	850	1805	2930	48	45
PN16	300	178	460	370	410	12-Φ28									
	350	190	520	429	470	16-Φ28									
	400	216	580	480	525	16-Φ31	435	1010	500	815	405	390	1120	27	25
	500	229	715	609	650	20-Φ34	465	1065	560	885	420	440	1220	27	25
	600	267	840	720	770	20-Φ37	535	1180	600	935	440	500	1320	30	30
	700	292	910	794	840	24-Φ37	680	1330	700	985	455	550	1420	30	30
	800	318	1025	901	950	24-Φ40	785	1545	800	1035	470	615	1520	33	30
	900	330	1125	1001	1050	28-Φ40	835	1705	900	1085	500	670	1720	33	30
	1000	300	1255	1112	1170	28-Φ43	905	1850	1000	1135	530	730	1920	33	30
	1200	360	1485	1328	1390	32-Φ49	1005	1950	1200	1185	570	845	2020	33	30
	1400	390	1685	1530	1590	36-Φ49	1105	2050	1400	1235	610	945	2130	36	35
	1600	440	1930	1750	1820	40-Φ56	1205	2150	1600	1285	640	1070	2220	36	35
	1800	490	2130	1950	2020	44-Φ56	1305	2250	1800	1335	670	1120	2330	39	35
	2000	540	2345	2150	2230	48-Φ62	1405	2350	2000	1385	700	1275	2430	42	40
	2200	600	2555	2360	2440	52-Φ62	1505	2450	2100	1405	730	1380	2530	42	40
	2400	600	2765	2570	2650	56-Φ62	1605	2550	2150	1415	760	1490	2630	42	40
PN25	300	178	485	389	430	16-Φ31									
	350	190	555	448	490	16-Φ34									
	400	216	620	503	550	16-Φ37	440	1020	500	815	405	400	1120	27	25
	500	229	730	609	660	20-Φ37	474	1085	560	885	420	450	1220	27	25
	600	267	845	720	770	20-Φ40	550	1200	600	935	440	510	1320	30	30
	700	292	960	820	875	24-Φ43	690	1350	700	985	455	560	1420	30	30
	800	318	1085	928	990	24-Φ49	805	1565	800	1035	470	630	1520	33	30
	900	330	1185	1028	1090	28-Φ49	855	1735	900	1085	500	690	1720	33	30
	1000	300	1320	1140	1210	28-Φ56	905	1850	1000	1135	530	730	1920	33	30
	1200	360	1530	1350	1420	32-Φ56	1005	1950	1200	1185	570	845	2020	33	30
	1400	390	1755	1560	1640	36-Φ62	1105	2050	1400	1235	610	945	2130	36	35
	1600	440	1975	1780	1860	40-Φ62	1205	2150	1600	1285	640	1070	2220	36	35
	1800	490	2195	1985	2070	44-Φ70	1305	2250	1800	1335	670	1120	2330	39	35
	2000	540	2425	2210	2300	48-Φ70	1405	2350	2000	1385	700	1275	2430	42	40

注：产品范围PN6~PN40，DN300~DN5500，欲查询表中未列出的产品数据可与本公司联系。

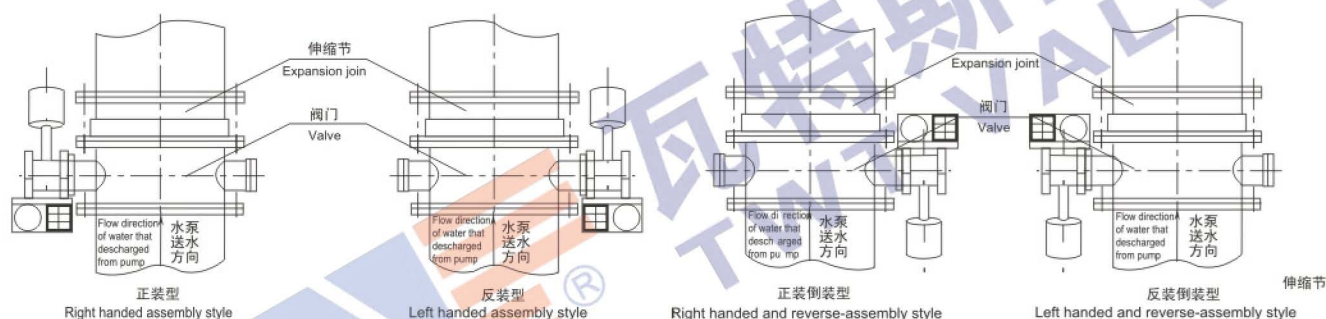
Note: The range of products PN6~PN40, DN300~DN5500, please contact technical department when you want to check the data in the list.

安装型式说明

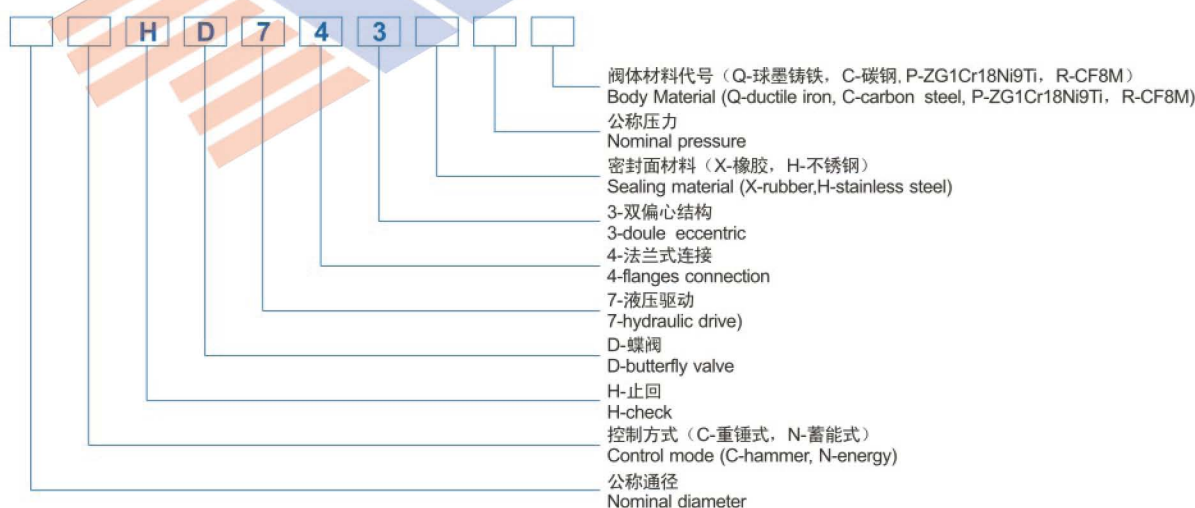
Explanation For Installation Style

1. 液控蝶阀在泵房内根据用户设计布置要求有(图3)所示四种型式。我公司一般按正装型供货。采用其它任一安装型式,蝶阀结构会发生变化,故请用户在订货时应写明蝶阀的安装型式。
2. 倒装型液控蝶阀阀轴中心线在阀体中心线的下方,阀门开启时,蝶阀下半部顺着介质流向打开。特别适用于含泥沙量大的介质工况,并能充分利用泵房空间,减少占地面积。

1. As is shown in the figure 3, hydraulic control butterfly valve in pump room has four styles according to users' design and arrangement. Our company provides users with right handed valve in most cases. The structure of the valve will be varied if it adopts any other styles. So the customers should mark out the valve will be varied if it adopts any other styles. So the customers should mark out the installation style of butterfly valve in the contract or technical agreement.
2. Reverse-assembled hydraulic control butterfly valve is that the center line of the valve shaft located under the center line valve body. When valve is opened, the lower half part of the valve disc will be opened faced the flow direction of the medium. This structure is especially suitable for the condition of medium included much silt. It can adequately utilize the space of pump room as well as save the floor area.



产品型号编制 Constitution of Product Model



示例: 900CHD743-10Q

For Example: 900CHD743-10Q

以上编码表示: DN900, 重锤式DC偏心液控止回法兰蝶阀, 双偏心结构, 橡胶阀座, PN1.0Mpa, 球铁阀体。

Above codes indicate: DN900, Hammer type DC eccentric hydraulic check butterfly valve flange, Double-eccentric structure, Rubber seat, PN1.0Mpa, DI body.

声 明

STATEMENT

天津塘沽瓦特斯阀门有限公司作为“TWT”名称、商标及品牌的合法拥有者，自1956年建厂以来，一贯以良好的质量、优质的服务及先进的技术秉承TWT品牌在业界卓越的声誉。

鉴于近来市场上出现的部分混淆TWT公司名称、侵害TWT商标的行为及假冒TWT产品的公司，我司特此郑重声明：本公司系唯一合法具有“TWT”商标及品牌所有者。天津塘沽瓦特斯阀门有限公司作为本公司的企业名称标识，本公司从未授权任何其它企业、公司使用该名称，从未在任何其他地区开设分公司或者办事处，并从未授权或者与其它企业及公司合作、合资使用本公司的商标、品牌及专利技术。

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特此声明！

Tianjing Tanggu TWT Valve Co., Ltd., as the legal owner for the name, trademark and brand of "TWT", since established in 1956, with TWT Brand, has always been enjoying distinguished reputation in the industry in good quality, excellent service and advance technology.

Considering that recently some behaviors on the market of confusing TWT company name, infringement of TWT trademark as well as some companies counterfeiting TWT products, our company hereby states and declares: our company is the only legal owner of "TWT" trademark and brand. Tianjing Tanggu TWT Valve Co., Ltd., is the official name of our company, our company has never authorized any other company or enterprise to use the name, has never set up any branch company or office in the other areas, and has never cooperated with any other companies or enterprises to use the trademark, brand and know-how of our company.

In order to safeguard the rights and interests of our company and all clients, fight against fake and inferior products, our company, since this Statement on the day, will keep records for each contractual project and agent. From June, 2009, all clients signing contracts with our company can check performance of contract, including the details of contract list and delivery period, etc. from "TWT" official website www.twtvalve.com. If any doubts, clients can call our company for consultation. Any person and enterprise that have provided or reported fake and inferior products, should this be found to be true after examination, will receive awards from our company.

Our company hereby reiterates: "TWT" brand, trademark, patent and copyright all are the property of Tianjing Tanggu TWT Valve Co., Ltd., If any infringement is found, any infringer will be prosecuted for his economic and legal liabilities without exception.

天津塘沽瓦特斯阀门有限公司
二〇一二年



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