

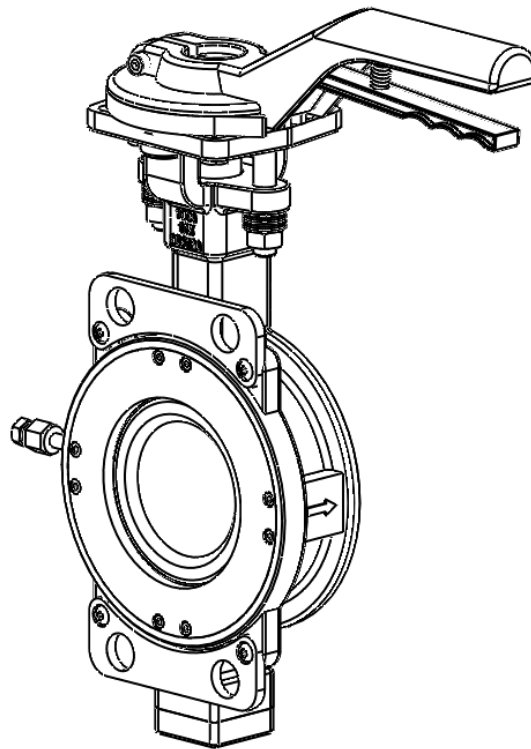


**JDV
CONTROL
VALVES**

JDV CONTROL VALVES CO.,LTD.

JTD-E Instructions for Double Eccentric High Performance Butterfly Valve

Installation, Operation and Maintenance



**VERSION: V 1.0
ISSUING DATE: 2024/01**



Product Manual



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1 · Instructions before use

- (1) Please read the installation, operation and maintenance manual carefully before operating the product to avoid damage caused by improper use.
- (2) Please check the warning signs and descriptions mentioned in this document.
- (3) Please place the installation operation and maintenance manual in a place within easy reach for easy access and use.



Warning slogan

Marked	Illustrate
	Dangerous situations can lead to minor or moderate injuries if not avoided.
	If not avoided, potentially dangerous situations can result in death or serious injury.



1.1 Security Notice

The design engineer or the person in charge of the use of the product will confirm the basic product specifications, and check the compliance of the valve and installation equipment to ensure the safety of use.

Before installing the valve, it is necessary to confirm and check whether the operating conditions, including the operating temperature range, maximum working pressure, fluid characteristics, environmental conditions, installation instruments, etc., meet the operating conditions set by the valve.


	warn: Do not exceed the limits shown in the valve specifications or data sheet, as failure to avoid this may result in death or serious injury.
	note: (1) The valve can be used indoors or outdoors. If used in an exposed atmosphere, attention should be paid to the corrosion and unavoidable conditions of the valve, which may lead to minor or moderate damage. (2) After the valve is used by a higher shut-off pressure, the sealing effect will be reduced at a lower shut-off pressure.

1.2 Precautions for disassembly procedures

	warn: (1) Before disassembly, the valve must be in the semi-open position to ensure that the pressure in the ball cavity is completely released. (2) All hazardous substances must be guaranteed to be removed.
	note: (1) The dismantling product must be operated by a qualified operator. (2) It is recommended to contact JDV for product maintenance and disassembly to avoid danger caused by improper disassembly and assembly.



2 · Product Transportation/Storage/Maintenance Instructions

	<p>warn</p> <ol style="list-style-type: none">(1) When moving or handling, it is necessary to select the appropriate tools according to the size, use the equipment and accessories (such as slings, fasteners, hooks, etc.) correctly, and consider the individual weight of the packaging details and the total weight of the whole.(2) When lifting and handling ball valves, the operator must obtain the operation qualification. Improper lifting will cause the valve body to deform or fall and cause the valve to be damaged.(3) Do not use the lifting point or bracket lifting valve set on the cylinder to avoid danger.(4) Do not use the handle of the manual valve as a way to lift or lift the ball valve, as the handle of the manual valve will be damaged or disconnected from the valve body, which may lead to destruction or personal injury.(5) The valve should be in the closed position during the hanging operation °
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※ The product should be properly packed to avoid unnecessary damage caused by transportation and storage in the warehouse, especially the following precautions:

2.1 Transport

- (1) Both sides of the butterfly valve must be properly protected with appropriate sealing caps, and the butterfly valve must be individually vacuum-packed in a clean room to ensure that the inside and outside of the valve are clean and to prevent foreign objects from entering.
- (2) The type of packing must be such that it can be safely transported to the storage location, please confirm that the vacuum packaging is not invalid and that the carton or wooden box is in good condition.

2.2 Preservation and Maintenance

2.2.1 Save the packaged butterfly valve

- (1) Properly protect the packaging to avoid damage to the packaging.
- (2) Warnings should be placed on the packaging to ensure unnecessary damage caused by the product being moved. Such as: hanging the center of gravity.
- (3) To avoid damage to the connection ends, a sealing cap must be used to protect the inside of the valve and prevent foreign objects from entering.
- (4) Please keep the valve fully closed when storing, as partial opening may deform the ball pad.
- (5) The storage area should be kept clean and dry.
- (6) Please do not expose the product to wind/rain or direct sunlight.
- (7) If the product has been stored for a period of time, check the condition of the product regularly.

2.2.2 Keep the unpacked/disassembled butterfly valve.

- (1) Unpacked/disassembled clean valves must be cleaned without oil and dust, protected with a sealed cap, and vacuum-packed before they can be stored.
- (2) Unpacked/disassembled clean valves must be cleaned without oil and dust, protected with a sealed cap, and vacuum-packed before they can be stored.

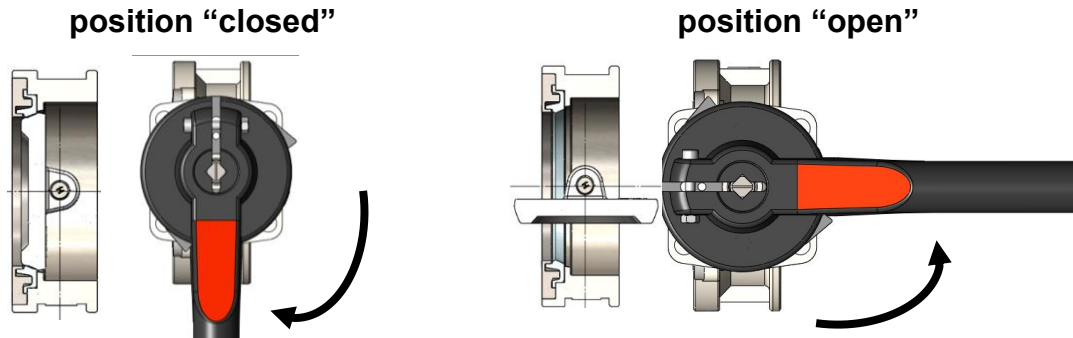


JDV CONTROL VALVES

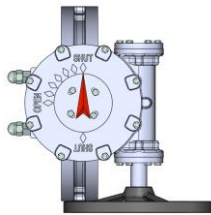
3. Installation preparation instructions

3.1 Manual valve

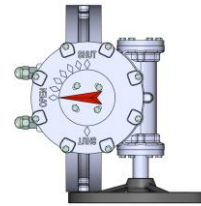
- (1) When a manual valve is operated, excessive or improper operation can damage the mechanism or other components, resulting in indirect leakage.
 - (2) Operate the valve according to the handle instructions, turn it counterclockwise to open or turn it clockwise to close.
- * Butterfly valve operating position: Please confirm that the plane direction of the top of the butterfly valve stem is parallel to the handle.



Gearbox Drive—Gearbox indicator switch
position “closed”

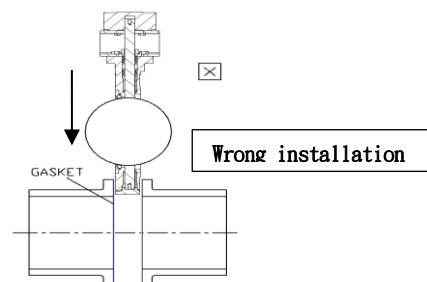
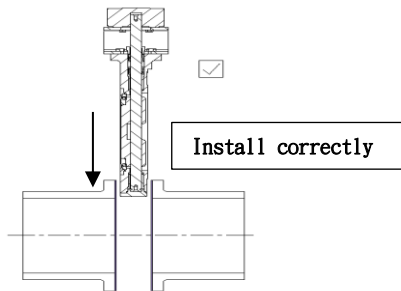


position “open”



3.2 Check before connecting the valve

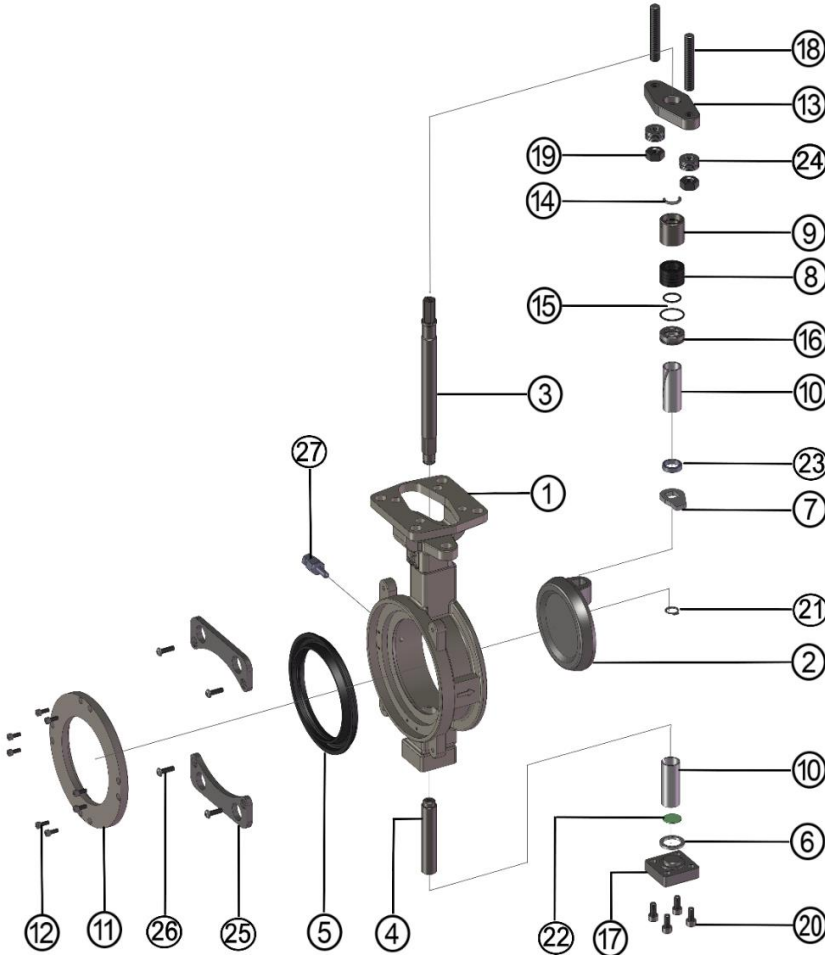
- (1) The Lug butterfly valve shown in this manual is installed in the same way as the Wafer butterfly valve, except for the fasteners.
- (2) Pipes and flange surfaces must be clean and removed from any extraneous contaminants prior to installation.
- (3) Open and close the valve, confirming that the butterfly position matches the handle position or the actuator indicator position.
- (4) Make sure the valve is installed in the indicated flow direction.
- (5) When installed on the pipeline, the valve must be in the closed position to protect the butterfly plate from damage to the sealing surface.



Note:
Failure to properly position the handle can cause the valve to be below or over stroke, resulting in potential leaks, which will affect the valve warranty.



4. Product Description JTD-E
4.1 WAFER TYPE (2-1/2"~12")
4.1.1 Exploded View



4.1.2 Parts List

Number	Part Name
1	Body
2	Disk
3	Stem
4	Trunnion Stem
★5	Sealing Ring
★6	Lower Cover Gasket
7	Retaining Ring
★8	Gland
9	Pressure Ring
★10	Stem Bushing
11	Package
12	Hexagon Socket Screws
13	Gland Packing
14	Fixed Collar
★15	O-Ring
16	Stuffing Pad
17	Lower Cover
18	Bolt
19	Nut
20	Hexagon Socket Screws
21	C-Clip
★22	Trunnion Stem Washer
23	Limit Ring
24	Disc Spring Set
25	Positioning Plate
26	Hexagon Socket Head Screws
27	Purge Port(Opption)

Note: Parts marked “★” are recommended for replacement during maintenance.

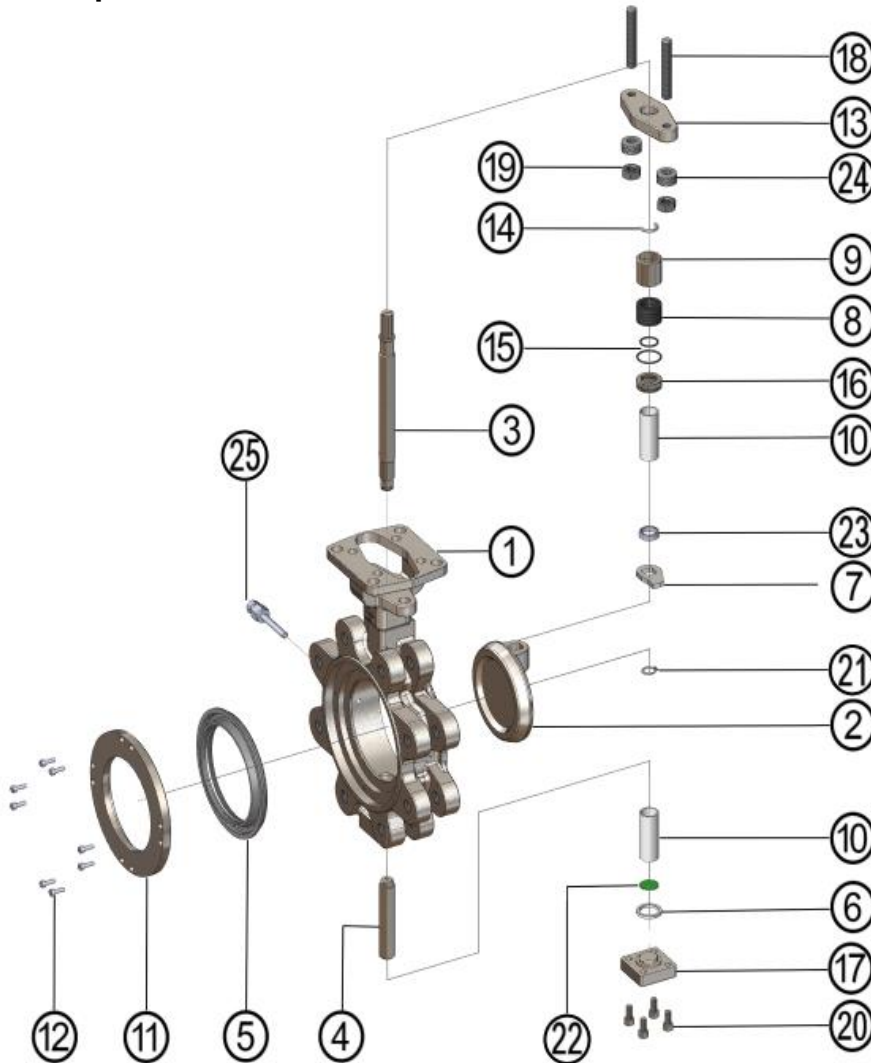
4.1.3 Maintenance package list

Number	Part Name	quantity
5	Sealing Ring	1pcs
6	Lower Cover Gasket	1pcs
8	Gland	1set
10	Stem Bushing	2 pcs
15	O-Ring	2pcs
22	Trunnion Stem Washer	1pcs



4.2 LUG TYPE (2-1/2"~12")

4.2.1 Exploded View



4.2.2 Parts List

Item	Part Name
1	Body
2	Disc
3	Stem
4	Shaft
★5	Sealing Ring
★6	Lower Cover Gasket
7	Retaining Ring
★8	Gland
9	Pressure Ring
★10	Stem Bushing
11	Package
12	Hexagon Socket Screws
13	Gland Packing
14	Fixed Collar
★15	O-Ring
16	Stuffing Pad
17	Lower Cover
18	Bolt
19	Nut
20	Hexagon Socket Screws
21	C-Clip
★22	Trunnion Stem Washer
23	Limit Ring
24	Disc Spring Set
25	Purge Port (Option)

Note : Parts marked “★” are recommended for replacement during maintenance.

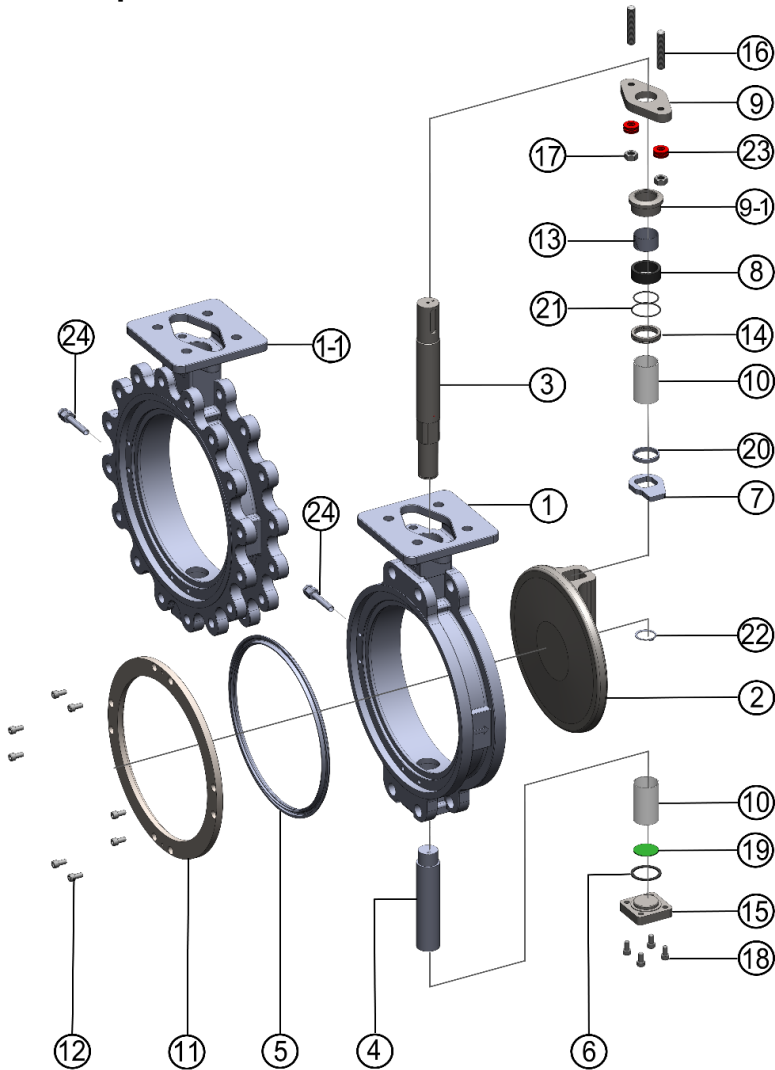
4.2.3 Maintenance package list

Number	Part Name	Quantity
5	Sealing Ring	1pcs
6	Lower Cover Gasket	1pcs
8	Gland	1set
10	Stem Bushing	2 Pcs
15	O-Ring	2pcs
22	Trunnion Stem Washer	1pcs



4.3 Wafer TYPE & LUG TYPE (14"~24")

4.3.1 Exploded View



Note : Parts marked “ ★ ” are recommended for replacement during maintenance.

4.3.2 Parts List

Item	Part Name
1	Body (Wafer Type)
1-1	Body (Lug Type)
2	Disc
3	Stem
4	Shaft
★5	Sealing Ring
★6	Lower Cover Gasket
7	Retaining Ring
★8	Gland
9	Gland Packing
9-1	Pressure Ring
★10	Stem Bushing
11	Package
12	Hexagon Socket Screws
13	Pressure Ring Bushing
14	Stuffing Pad
15	Lower Cover
16	Bolt
17	Nut
18	Hexagon Socket Screws
★19	Trunnion Stem Washer
20	Limit Ring
★21	O-Ring
22	C-Clip
23	Disc Spring Set
24	Purge Port (Option)

4.3.3 Maintenance package list

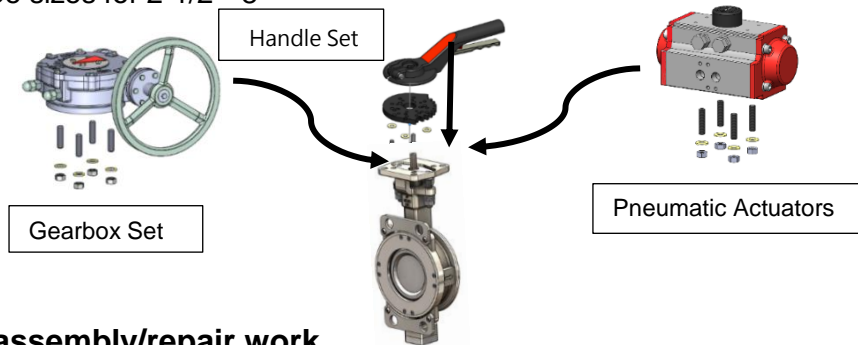
Number	Part Name	Quantity
5	Sealing Ring	1pcs
6	Lower Cover Gasket	1pcs
8	Gland	1set
10	Stem Bushing	2pcs
19	Trunnion Stem Washer	1pcs
21	O-Ring	2pcs



5 · Product disassembly and assembly instructions:

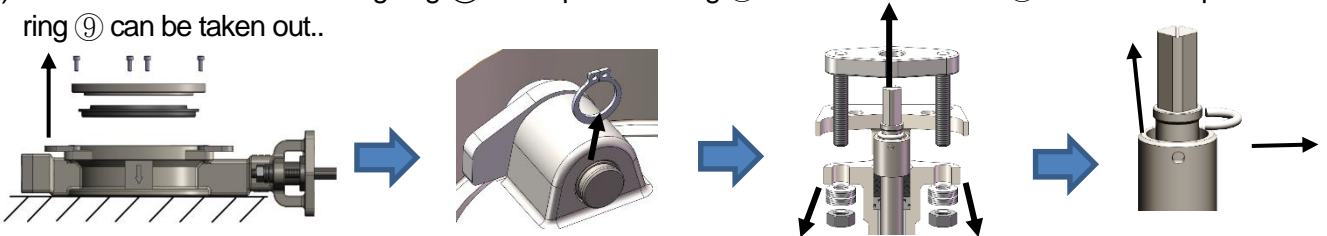
5.1 Valve drive unit dismantling work

- (1) Please make sure that the valve is closed.
- (2) The drive is separated from the valve by loosening the locking nut/hexagon screw and spacer.
- (3) Handle type sizes for 2-1/2"~8" °

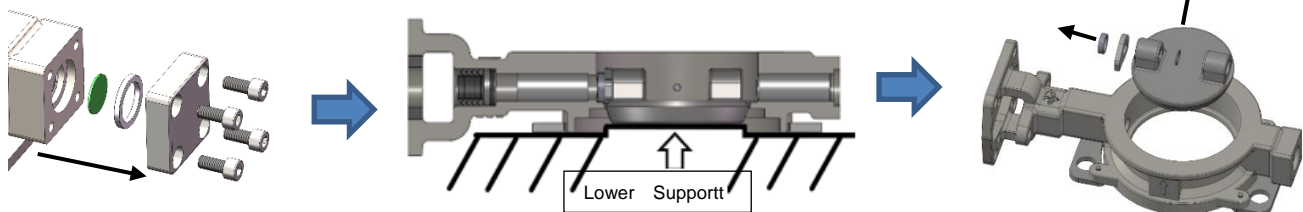


5.2 Valve disassembly/repair work

- (1) Please refer to 4.1/4.2 Exploded View - Applicable (2-1/2"~12") before operation. °
- (2) Leave the valve fully closed with the insert ⑪ facing up for easy removal and place the valve on a flat platform.
- (3) After removing the hexagon socket screws ⑫ in the order shown on the right, take out the insert ⑪. At this time, you can remove the valve seat ⑤.
- (4) Reverse the valve body ① so that the butterfly plate ② is in the closed position, and use a puller to remove the C-type retaining ring ① from the valve stem ③.
- (5) Loosen the nut ⑲ and bolt ⑱ of the packing gland, and then remove the packing gland ⑬ and disc spring assembly ⑲.
- (6) Use a tool to remove the fixing ring ⑭ in the pressure ring ⑨ from the valve stem ③ and then the pressure ring ⑨ can be taken out..



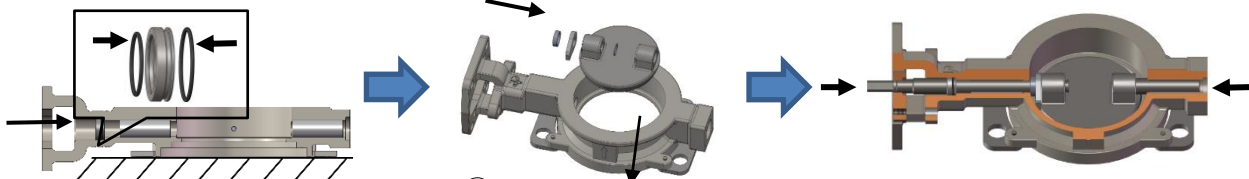
- (7) Loosen the hexagon socket screw ⑳ at the bottom to remove the lower cover ⑰, and then take out the lower cover gasket ⑥ and the support shaft gasket ②.
- (8) In order to prevent the butterfly plate from falling, the bottom of the butterfly plate needs to be protected or supported. **※Please avoid hitting the butterfly board**
- (9) Pull out the upper valve stem ③ and the lower support shaft ④ respectively from the valve body shaft hole. At this time, the butterfly plate ③, retaining ring ⑦ and limit ring ⑳ can be removed.
- (10) Then take out the middle port packing ⑧ from the top of the valve body, and take out the packing pad ⑱ and O-ring ⑮ at the same time.
- (11) Finally, take out the shaft sleeve ⑩ from the upper/lower end of the body shaft hole to complete the valve disassembly.





5.3 Valve assembly work:

- (1) Please refer to 4.1/4.2 Exploded View - Applicable (2-1/2"~12") before operation.
- (2) Place the body fluid indication direction upwards so that the body bonding surface is placed on a flat platform.
- (3) Put the wiped shaft sleeve ⑩ from the upper/lower end of the shaft hole of the body.
- (4) Install the O-ring ⑮ on the inner/outer ring of the packing gasket ⑯ and insert it from the top of the valve body.
- (5) Insert the butterfly plate ③, retaining ring ⑦ and limit ring ⑳ into the valve body flow channel and place them in order, and make the valve body axis hole flush with the butterfly plate axis hole.
- (6) Then insert the upper valve stem ③ and the lower support shaft ④ through the valve body axis hole respectively. The valve stem ③ needs to pass through the limit ring ⑳, retaining ring ⑦ and butterfly plate ③. **※ Please avoid damaging the butterfly plate**



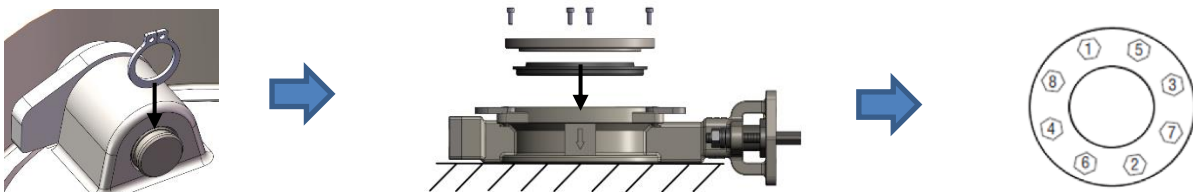
- (7) Insert the support shaft gasket ㉒ and the lower cover gasket ⑥ into the shaft hole in the lower part of the valve body, then install the lower cover ⑰ and tighten the hexagon socket screw ㉑ according to the torque in (Table 1).
- (8) First insert the center packing ⑧ from the top of the valve stem, then install the pressure ring ⑨, and then embed the retaining ring ⑭ on the valve stem.

※Please note that the V-port is facing downwards

- (9) Lock the bolt ⑱ all the way to the packing gland ⑬, then put them into the valve body and install the disc spring group ㉔ and tighten the nut ⑲ according to the torque in (Table 1).



- (10) With the butterfly plate ② in the closed position, use calipers to install the C-type retaining ring ㉕ on the groove of the valve stem ③.
- (11) Reverse the valve body ① so that the fluid direction of the valve body faces downwards, and place the joint surface of the valve body ① on a flat platform.
- (12) Place the wiped valve seat ⑤ into the valve body, and assemble the insert ⑪ to the valve body ①.
- (13) Tighten the hexagon socket screws ⑫ using the torque (Table 1) according to the sequence on the right.



- (14) Open/close the valve actuation and confirm that the actuation is normal.



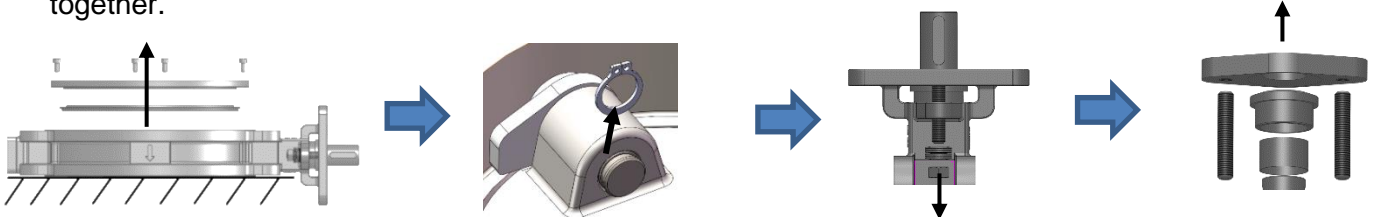
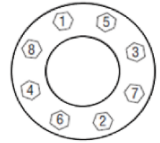
Note:

Care must be taken when removing and assembling the butterfly plate to prevent the sealing surface from being bumped or falling and resulting in a potential risk of leakage, which will affect the valve warranty.



5.4 Large valve disassembly/repair operations: applicable methods (14”~24”)

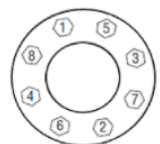
- (1) Please refer to 4.3 Exploded View before operation.
- (2) Keep the valve fully closed, let the insert ⑪ face up for easy removal, and place the valve on a flat platform.
- (3) After removing the hexagon socket screws ⑫ in the order shown on the right, take out the insert ⑪. At this time, you can remove the valve seat ⑤.
- (4) Reverse the valve body ① so that the butterfly plate ② is in the closed position, and use a puller to remove the C-type retaining ring ② from the valve stem ③.
- (5) Loosen the nuts ⑰ and bolts ⑱ of the packing gland and remove the disc spring assembly ⑳.
- (6) Then remove the packing gland ⑨, and take out the pressing ring (9-1) and the bushing ⑬ together.



- (7) Loosen the hexagon socket screw ⑱ at the bottom to remove the lower cover ⑮, and then take out the lower cover gasket ⑥ and the support shaft gasket ⑲ in sequence.
- (8) In order to prevent the butterfly plate ② from falling, protection or support must be provided below the butterfly plate. **※Please avoid damaging the butterfly plate**
- (9) Pull out the upper valve stem ③ and the lower support shaft ④ respectively from the valve body shaft hole. At this time, the butterfly plate ②, retaining ring ⑦ and limit ring ⑳ can be removed.
- (10) Then take out the middle port packing ⑧ from the top of the valve body, and take out the packing pad ⑭ and O-ring ㉑ at the same time.
- (11) Finally, take out the shaft sleeve ⑩ from the upper/lower end of the body shaft hole to complete the valve disassembly.

5.5 Large valve assembly operations : applicable methods (14”~24”):

- (1) Please refer to 4.3 Exploded View before operation.
- (2) Place the body fluid indication direction upwards so that the body bonding surface is placed on a flat platform.
- (3) Put the wiped shaft sleeve ⑩ from the upper/lower end of the shaft hole of the body.
- (4) Install the O-ring ㉑ on the inner/outer ring of packing gasket ⑰ and insert it from the top of the valve body.
- (5) Insert the butterfly plate ③, retaining ring ⑦ and limit ring ⑳ into the flow channel of the valve body and place them in sequence, and make the valve body axis hole flush with the butterfly plate axis hole.
- (6) Then insert the upper valve stem ③ and the lower support shaft ④ through the valve body axis hole respectively. The valve stem ③ needs to pass through the limit ring ㉓, retaining ring ⑦ and butterfly plate ③. **※Please avoid damaging the butterfly plate**
- (7) Insert the support shaft gasket ⑲ and the lower cover gasket ⑥ into the shaft hole in the lower part of the valve body, then install the lower cover ⑮ and tighten the hexagon socket screws ⑱ according to the torque in (Table 1).
- (8) First insert the center packing ⑧ from the top of the valve stem, and then install the pressure ring (9-1) and Ni Nan bushing ⑬. **※Please note that the V-port is facing downwards**
- (9) Lock the bolt ⑰ fully to the packing gland ⑨, then insert it into the valve body and install the disc spring group ㉓ and tighten the nut ⑰ according to the torque in (Table 1).
- (10) With the butterfly plate ② in the closed position, use calipers to install the C-type retaining ring ② on the groove of the valve stem ③.
- (11) Reverse the valve body ① so that the fluid direction of the valve body faces downwards, and place the joint surface of the valve body ① on a flat platform.
- (12) Place the wiped valve seat ⑤ into the valve body, and assemble the insert ⑪ to the valve body ①.
- (13) Tighten the hexagon socket screws ⑫ using the torque (Table 1) according to the sequence on the right.
- (14) Open/close the valve action and confirm that the action is normal.



6 · Product Maintenance:

6.1 Open/close valves regularly :

The valve is in the open or closed position for a long time, and it is recommended to cycle it once at a regular rate to ensure the operation of the valve. The valve is in the open or closed position for a long time, and it is recommended to cycle it once at a regular rate to ensure the operation of the valve.

6.2 Check screws and nuts :

Screws and nuts should be checked regularly, and if necessary, please adjust the torque according to (Table 1).

Size	Insert Screw Size	Torque Unit: N-M	Gland Nut Size	Torque Unit: N-M	Lower Lid Screw Size	Torque Unit: N-M
2-1/2"	M3*0.5	1	M10*1.5	30	M6*1.0	7
3"	M3*0.5	1	M10*1.5	30	M6*1.0	7
4"	M4*0.7	3	M10*1.5	30	M6*1.0	7
5"	M4*0.7	3	M10*1.5	30	M6*1.0	7
6"	M4*0.7	3	M10*1.5	30	M6*1.0	7
8"	M5*0.8	4	M12*1.75	52	M8*1.25	15
10"	M6*1.0	7	M12*1.75	52	M8*1.25	15
12"	M8*1.25	15	M12*1.75	52	M8*1.25	15
14"	M8*1.25	15	M12*1.75	52	M8*1.25	15
16"	M10*1.5	31	M16*2.0	130	M10*1.5	31
18"	M12*1.75	55	M16*2.0	130	M10*1.5	31
20"	M12*1.75	55	M16*2.0	130	M10*1.5	31
24"	M12*1.75	55	M24*3.0	440	M16*2.0	135

(oil-free) (Table 1)

6.3 Routine maintenance : Maintain routine maintenance to ensure optimal sealing function, refer to Table 1 for torque tightening nuts until leakage stops.

7 · Troubleshooting:

Area	Problem Description	Solution
Internal leakage	Valve seat sealing surface leak occurs	(1) Please confirm whether the sealing surface of butterfly plate ③ and sealing ring ⑤ are damaged or scratched. (2) Confirm that the sealing ring ⑤ is damaged, please replace it.
leakage	Stem seal leak occurs	(1) Lock the packing gland nuts ⑱/⑰, please tighten according to the torque (Table 1). (2) If the leakage cannot be stopped, please replace the middle mouth packing ⑧. (3) It is necessary to replace O-RING ⑮/⑲ and bushing ⑩ every time when disassembling.
	The lower cover seal is leaking	(1) Tighten the hexagon socket screws ⑳/⑱, please use the torque tightening (Table 1). (2) If the leakage cannot be stopped, please replace the lower cover gasket ⑥.

Notes: 1. Please refer to the part number description of the structure drawing.

2. The above ball marks ⑰/⑱/⑲ are large valve parts.



Just Delivering Value!

8、Welcome to contact us:

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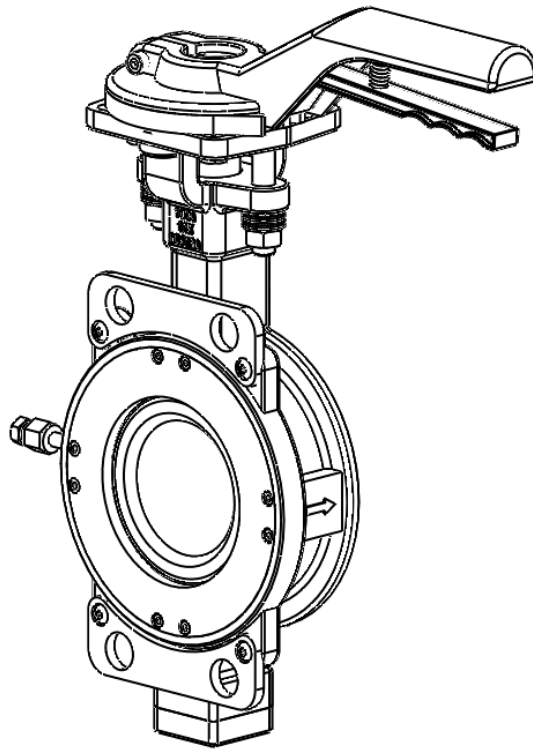


**JDV
CONTROL
VALVES**

進典工業股份有限公司

JTD-E 高性能雙偏心蝶閥

安裝、操作和維護手冊



**VERSION: V 1.0
ISSUING DATE: 2024/01**



Product Manual



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1、使用前須知

- (1) 操作產品前請先仔細閱讀安裝操作維修手冊，避免不當使用造成損壞。
- (2) 請確認此份文件所提及之警告標誌及說明。
- (3) 請將安裝操作維修手冊放置於隨手可取之場所，便利查詢使用。



警告標語

標示	說明
	危險的情況，如果不能避免，可能導致輕微或中度損傷。
	如果不能避免，潛在的危險情況，可能導致死亡或嚴重傷害。



1.1 安全性告知

由設計工程師或產品使用之負責人員做基礎的產品規格確認，並檢查閥門和安裝設備之符合性，已確保使用的安全。


在安裝閥門前，須確認檢查操作條件，包含使用溫度範圍、最大工作壓力、流體特性、環境條件、安裝儀表等，是否符合閥門設定的使用工況。

	警告： 請不要超出閥門規格或技術參數表所示之限值，如果不能避免，可能導致死亡或嚴重傷害。
	注意： (1) 閥門可用於室內或室外。如在暴露大氣環境中使用，應注意閥門之腐蝕及無法避免之情況，可能導致輕微或中度損傷。 (2) 閥門使用時經過較高的關斷壓力後，在較低的關斷壓力下的密封效果會降低。

1.2 拆卸程序注意事項

	警告： (1) 拆卸前，閥門必須處於半開位置，以保證蝶閥腔內的壓力完全釋放。 (2) 所有有害物質必須保證被清除。
	注意： (1) 拆除產品必須由合格的操作人員操作。 (2) 產品維修和拆卸建議聯繫 JDV 進典，避免因拆裝不當造成危險。

2、產品運送/保存/維護須知

	<p>警告</p> <ol style="list-style-type: none"> (1) 移動或搬運時，必須按尺寸選擇合適的工具，正確使用設備和配件（如吊索、緊固物、掛鉤等），須考慮包裝明細的個別重量和全部的總重量。 (2) 吊升和處理閥門時，操作人員必須取得操作資格。不適當的吊升會造成閥體的變形或掉落而使閥損毀。 (3) 不要使用氣缸上設置之吊點或托架吊升閥門，以免發生危險。 (4) 請勿將手動閥之把手做為拿取或吊升閥門用，會使手動閥之把手損壞或與閥體斷開分離，可能導致毀壞或人員傷害。 (5) 吊掛操作過程中閥門應處於關閉位置。
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※ 產品應適當包裝好，以避免運送和存放於倉庫造成不必要損壞，尤其請特別注意下列預防措施：

2.1 運送

- (1) 蝶閥兩側端必須使用適當的密封蓋保護妥當，並在無塵室將蝶閥進行個別真空包裝，以確保閥門內部及外部清潔，並防止異物進入。
- (2) 裝箱的型式必須確保能安全運送到存放地點，抵達存放地點時請確認真空包裝未失效、紙箱或木箱保持完整狀態。

2.2 保存及維護

2.2.1 保存已包裝之蝶閥

- (1) 將包裝加以適當保護，以避免包裝之損壞。
- (2) 對於包裝應要有警語標示，以確保產品移動時造成不必要之損壞。如:吊掛重心。
- (3) 為避免連接端受損，必須使用密封蓋保護，以保證閥門內部清潔，防止異物進入。
- (4) 存放時請將閥門保持全關，部分開啟之狀態可能會使球墊變形。
- (5) 存放場所需保持乾淨及乾燥。
- (6) 請不要將產品暴露於風/雨中或直接日晒。
- (7) 如果產品存放一段時間，請定期檢查產品保存狀況。

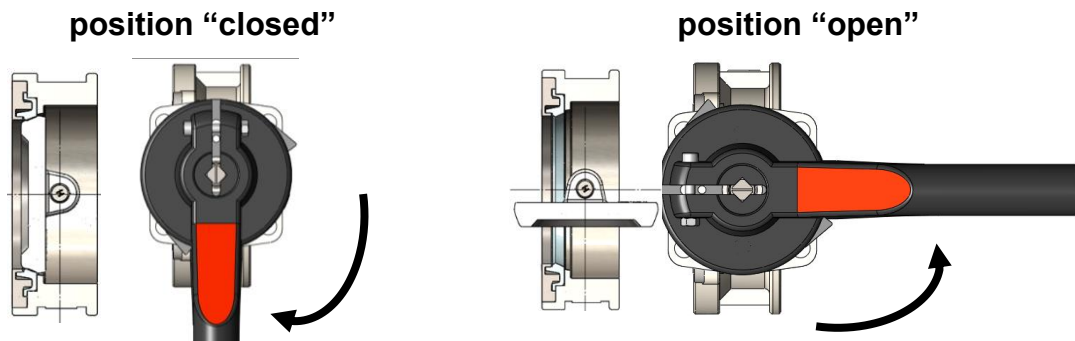
2.2.1.2 保存未包裝 / 已拆裝之蝶閥

- (1) 未包裝/已拆裝之潔淨閥必須經過禁油無塵清潔後，使用密封蓋保護連接端，並以真空包裝才能進行保存。
- (2) 經包裝完成之閥門，請依第一項“保存已包裝之閥門”方式進行保存。

3. 安裝準備須知

3.1 手動閥

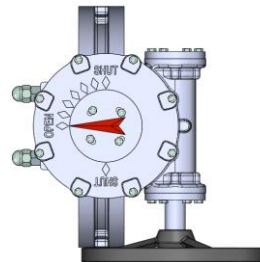
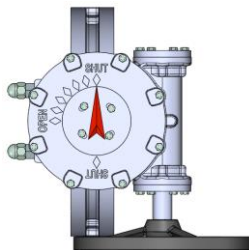
- (1) 手動閥操作時，過度或操作不當會損壞機構或其他部件導致間接洩漏。
 - (2) 依把手指示操作閥門，逆時針旋轉打開或順時針旋轉關閉。
- * 蝶閥操作位置：請確認蝶閥閥桿頂部的平面方向與把手平行。



齒輪箱驅動—齒輪箱指示開關

position “closed”

position “open”



3.2 閥門連接前檢查

- (1) 本手冊中顯示的Lug 型蝶閥和Wafer 型蝶閥採用一樣的安裝方式，除緊固件不同之外。
- (2) 管道和法蘭面必須是乾淨的，安裝前須清除任何外來雜質。
- (3) 打開和關閉閥門，確認蝶板位置與把手位置或執行器指示器位置匹配。
- (4) 確保閥門依照指示的流向進行安裝。
- (5) 於管道上安裝時，閥門必須處於關閉位置，以保護蝶板密封面損壞。

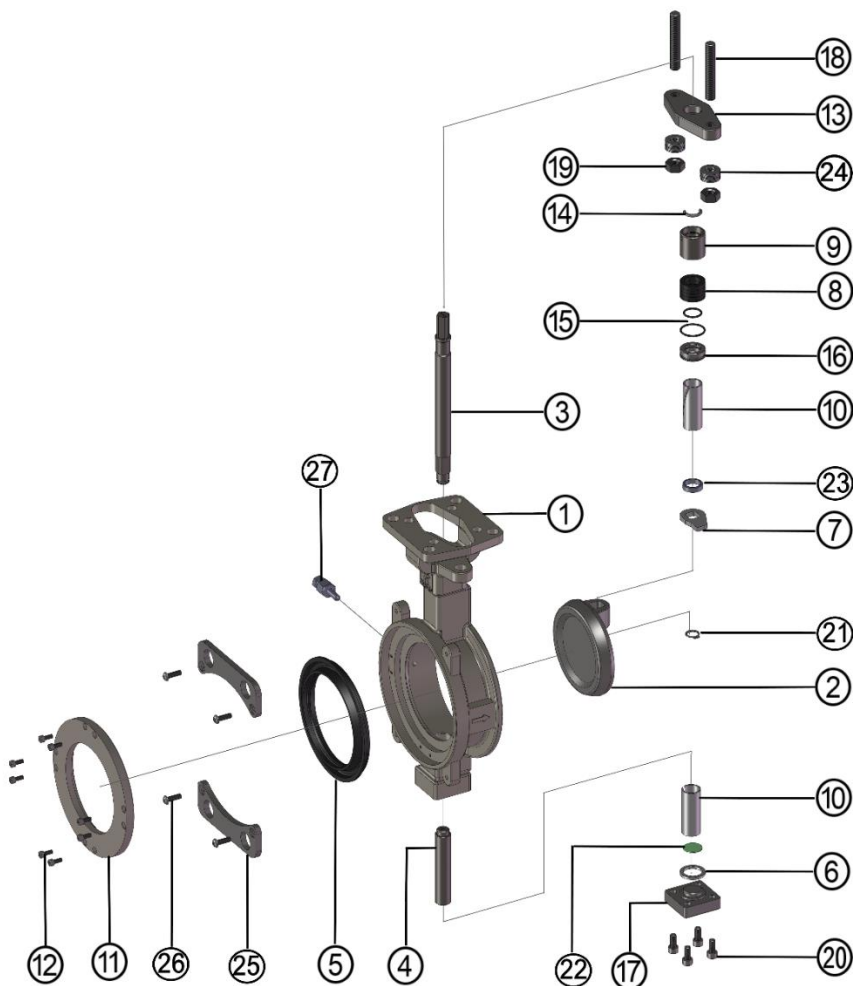


注意:把手未確實定位會導致閥門低於或超過行程，從而導致潛在的洩漏，這將影響閥門保修。

4. 產品說明 JTD-E

4.1 WAFER TYPE (2-1/2"~12")

4.1.1 爆炸視圖



Note:標註★ ”零件於維修時推薦更換

4.1.3 維修包料表

編號	部件名稱	數量
5	密封圈	1pcs
6	下蓋墊片	1pcs
8	中口填料	1set
10	軸套	2 pcs
15	O-RING	2pcs
22	支撐軸墊片	1pcs

4.1.2 零件料表

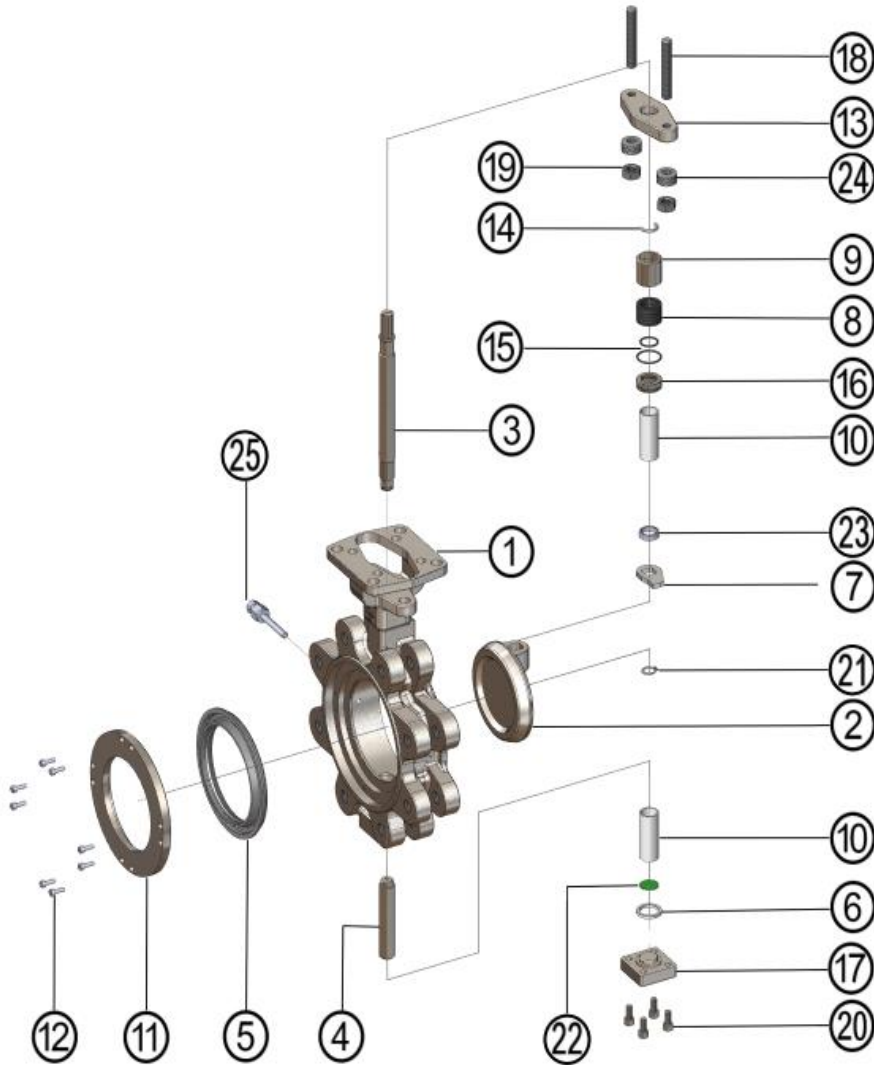
編號	料 件
1	Body
2	Disk
3	Stem
4	Trunnion Stem
★5	Sealing Ring
★6	下蓋墊片
7	檔圈
★8	中口填料
9	壓圈
★10	軸套
11	嵌件
12	內六角螺絲
13	填料壓蓋
14	固定環
★15	O-RING
16	填料墊
17	下蓋
18	螺栓
19	螺帽
20	內六角螺絲
21	C 型扣環
★22	支撐軸墊片
23	限位環
24	盤形彈簧組
25	定位板
26	內六角圓頭螺絲
27	吹掃口 (選項)



JDV CONTROL VALVES

4.2 LUG TYPE (2-1/2"~12")

4.2.1 爆炸視圖



4.2.2 零件料表

編號	料 件
1	本體
2	蝶板
3	閥桿
4	支撐軸
★5	密封圈
★6	下蓋墊片
7	檔圈
★8	中口填料
9	壓圈
★10	軸套
11	嵌件
12	內六角螺絲
13	填料壓蓋
14	固定環
★15	O-RING
16	填料墊
17	下蓋
18	螺栓
19	螺帽
20	內六角螺絲
21	C型扣環
★22	支撐軸墊片
23	限位環
24	盤形彈簧組
25	吹掃口 (選項)

Note:標註“★” 零件於維修時推薦更換

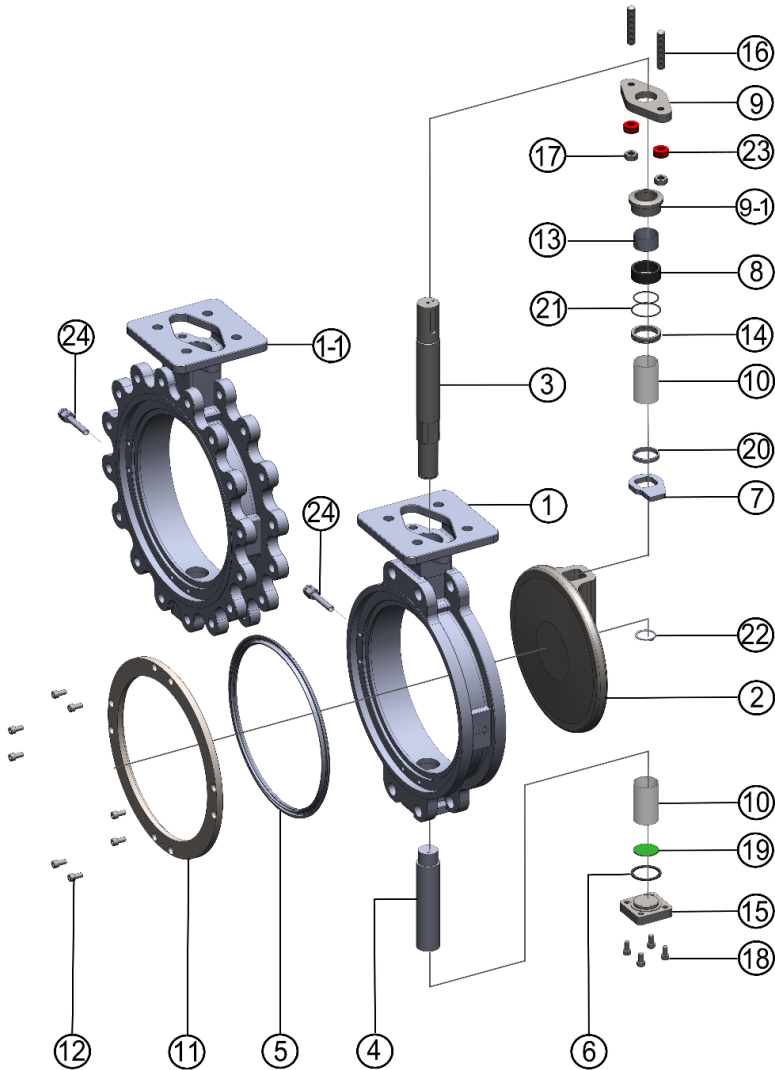
4.2.3 維修包料表

編號	部件名稱	數量
5	密封圈	1pcs
6	下蓋墊片	1pcs
8	中口填料	1set
10	軸套	2 pcs
15	O-RING	2pcs
22	支撐軸墊片	1pcs



4.3 Wafer TYPE & LUG TYPE (14"~24")

4.3.1 爆炸視圖



Note:標註★ ”零件於維修時推薦更換

4.3.3 維修包料表

編號	部件名稱	數量
5	密封圈	1pcs
6	下蓋墊片	1pcs
8	中口填料	1set
10	軸套	2 pcs
19	支撐軸墊片	1pcs
21	O-RING	2pcs

4.3.2 零件料表

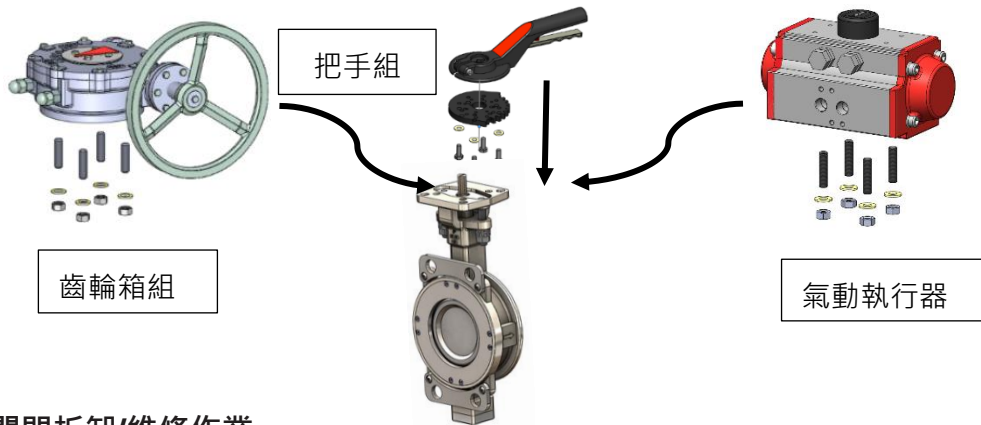
編號	料 件
1	本體(Wafer Type)
1-1	本體(Lug Type)
2	蝶板
3	閥桿
4	支撐軸
★5	密封圈
★6	下蓋墊片
7	檔圈
★8	中口填料
9	填料壓蓋
9-1	壓圈
★10	軸套
11	嵌件
12	內六角螺絲
13	壓圈襯套
14	填料墊
15	下蓋
16	螺栓
17	螺帽
18	內六角螺絲
★19	支撐軸墊片
20	限位環
★21	O-RING
22	C 型扣環
23	盤形彈簧組
24	吹掃口 (選項)



5、產品拆裝說明:

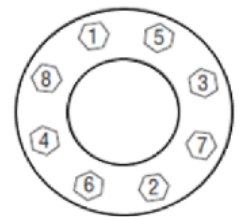
5.1 閥門驅動裝置拆除作業

- (1) 請確認閥門為關閉狀態。
- (2) 再將鎖附螺母/六角螺絲及墊片鬆開後即可將驅動裝置與閥門分開。
- (3) 把手型組尺寸適用於 2-1/2"~8"。

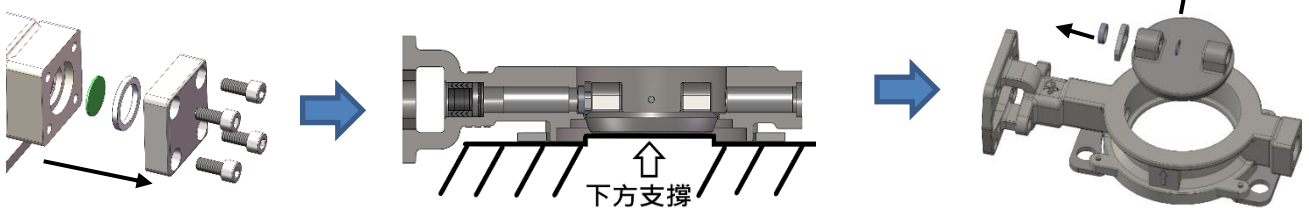


5.2 閥門拆卸/維修作業

- (1) 作業前請參考 4.1/4.2 爆炸視圖-做法適用(2-1/2"~12")。
- (2) 將閥門保持全關，讓嵌件①朝上方方便拆卸，並使閥門置於平坦的平台上。
- (3) 依右圖順序拆除內六角螺絲⑫後，取出嵌件⑪此時可以取下閥座⑤。
- (4) 反轉閥體①，使蝶板②在關閉的位置,使用拔卸器將 C 型扣環⑭從閥桿③取出。
- (5) 鬆開填料壓蓋的螺帽⑮及螺栓⑯，再取下填料壓蓋⑬及盤形彈簧組⑭。
- (6) 利用工具將壓圈⑨內的固定環⑭從閥桿③上拆卸後壓圈⑨即可取出。



- (7) 鬆開底部的內六角螺絲⑳即可拆除下蓋⑰，再依序取出下蓋墊片⑥及支撐軸墊片㉑。
- (8) 為防止蝶板下墜蝶板下方需做防護或支撐。**※請避免撞傷蝶板**
- (9) 分別從閥體軸孔中抽出上部閥桿③和下部的支撐軸④，此時蝶板③和擋圈⑦及限位環②③即可取出。
- (10) 再由閥體上方取出中口填料⑧，並將填料墊⑬及 O-ring⑮同時取出。
- (11) 最後從本體軸孔上/下端向外取出軸套⑩，即完成閥門拆卸。

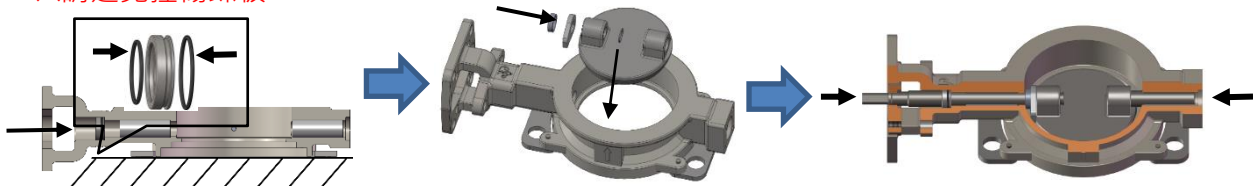




5.3 閥門組裝作業:

- (1) 作業前請參考 4.1/4.2 爆炸視圖-做法適用(2-1/2"~12")
- (2) 將閥體流體指示方向朝上，使閥體結合面置於平坦的平台上。
- (3) 從本體軸孔上/下端放入擦拭乾淨的軸套⑩。
- (4) 將填料墊⑩內/外圈安裝 O-ring⑮後 由閥體上方置入。
- (5) 由閥體流道內置入蝶板③和擋圈⑦及限位環②③依序擺放，並使閥體軸孔與蝶板軸孔平齊。
- (6) 再分別由閥體軸孔置入上部閥桿③和下部的支撐軸④，閥桿③需穿過限位環②③和擋圈⑦及蝶板③。

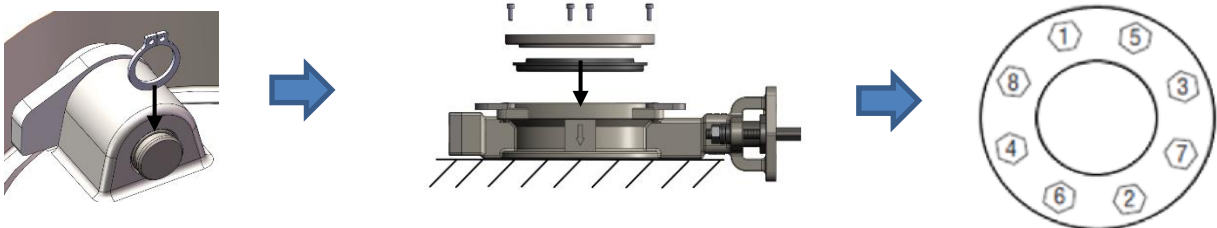
※請避免撞傷蝶板



- (7) 將支撐軸墊片②及下蓋墊片⑥置入閥體下部軸孔，再安裝下蓋⑰後依(表一)扭力鎖緊內六角螺絲⑳。
- (8) 由閥桿上方先置入中口填料⑧ 再安裝壓圈⑨，然後於閥桿上嵌入固定環⑭。※請注意 V 口方向朝下
- (9) 將螺栓⑱鎖滿牙至填料壓蓋⑬，再一併置入閥體後安裝盤形彈簧組④並將螺帽⑲依(表一)扭力鎖緊。



- (10) 使蝶板②在關閉的位置,使用卡鉗將 C 型扣環①安裝於閥桿③溝槽上。
- (11) 反轉閥體①，使閥體流體方向朝下，並使閥體①結合面置於平坦的平台上。
- (12) 於閥體放入擦拭乾淨的閥座⑤，並將嵌件⑪組裝於閥體①。
- (13) 依右圖順序將內六角螺絲⑫使用(表一)扭力鎖緊。



- (14) 開啟/關閉閥門作動,確認作動正常。

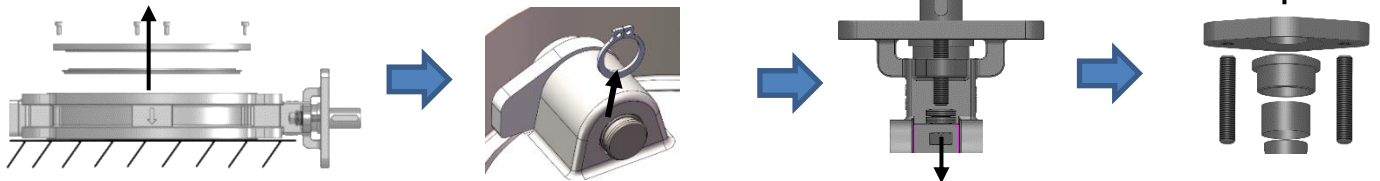
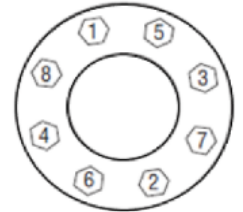


注意:拆除及組裝蝶板時須注意防護，防止密封面撞傷或掉落從而導致潛在的洩漏風險，這將影響閥門保修。



5.4 大型閥門拆卸/維修作業:做法適用(14"~24")

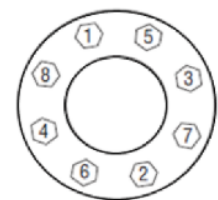
- (1) 作業前請參考 4.3 爆炸視圖-
- (2) 將閥門保持全關，讓嵌件⑪朝上方便拆卸，並使閥門置於平坦的平台上。
- (3) 依右圖順序拆除內六角螺絲⑫後，取出嵌件⑪此時可以取下閥座⑤。
- (4) 反轉閥體①，使蝶板②在關閉的位置，使用拔卸器將 C 型扣環⑫從閥桿③取出。
- (5) 鬆開填料壓蓋的螺帽⑬及螺栓⑭並拆除盤形彈簧組⑮，
- (6) 再取下填料壓蓋⑨，並將壓圈(9-1) 及牛楠襯套⑬一併取出。



- (7) 鬆開底部的內六角螺絲⑮即可拆除下蓋⑮，再依序取出下蓋墊片⑥及支撐軸墊片⑩。
- (8) 為防止蝶板②下墜，蝶板下方需做防護或支撐。**※請避免撞傷蝶板**
- (9) 分別從閥體軸孔中抽出上部閥桿③和下部的支撐軸④，此時蝶板②和擋圈⑦及限位環⑯即可取出。
- (10) 再由閥體上方取出中口填料⑧，並將填料墊⑭及 O-ring⑰同時取出。
- (11) 最後從本體軸孔上/下端向外取出軸套⑩，即完成閥門拆卸。

5.5 大型閥門組裝作業:做法適用(14"~24")

- (1) 作業前請參考 4.3 爆炸視圖
- (2) 將閥體流體指示方向朝上，使閥體結合面置於平坦的平台上。
- (3) 從本體軸孔上/下端放入擦拭乾淨的軸套⑩。
- (4) 將填料墊⑭內/外圈安裝 O-ring⑰後 由閥體上方置入。
- (5) 由閥體流道內置入蝶板③和擋圈⑦及限位環⑯依序擺放，並使閥體軸孔與蝶板軸孔平齊。
- (6) 再分別由閥體軸孔置入上部閥桿③和下部的支撐軸④，閥桿③需穿過限位環⑯和擋圈⑦及蝶板③。
※請避免撞傷蝶板
- (7) 將支撐軸墊片⑩及下蓋墊片⑥置入閥體下部軸孔，再安裝下蓋⑮後依(表一)扭力鎖緊內六角螺絲⑮。
- (8) 由閥桿上方先置入中口填料⑧再一併安裝壓圈(9-1) 及牛楠襯套⑬。**※請注意 V 口方向朝下**
- (9) 將螺栓⑭鎖滿牙至填料壓蓋⑨，再一併置入閥體後安裝盤形彈簧組⑮並將螺帽⑬依(表一)扭力鎖緊。
- (10) 使蝶板②在關閉的位置，使用卡鉗將 C 型扣環⑫安裝於閥桿③溝槽上。
- (11) 反轉閥體①，使閥體流體方向朝下，並使閥體①結合面置於平坦的平台上。
- (12) 於閥體放入擦拭乾淨的閥座⑤，並將嵌件⑪組裝於閥體①。
- (13) 依右圖順序將內六角螺絲⑫使用(表一)扭力鎖緊。
- (14) 開啟/關閉閥門作動，確認作動正常。



6、產品維護:

6.1 定期開啟/關閉閥門：

閥門長時間處於開啟或關閉位置，建議週期性循環一次，以確保閥門運行。

6.2 檢查螺絲及螺帽：

應定期檢查螺絲及螺帽，必要時請依(表1)扭力調整鎖付

尺寸	嵌件 螺絲尺寸	扭力 單位：N-m	中口 螺帽尺寸	扭力 單位：N-m	下蓋 螺絲尺寸	扭力 單位：N-m
2-1/2"	M3*0.5	1	M10*1.5	30	M6*1.0	7
3"	M3*0.5	1	M10*1.5	30	M6*1.0	7
4"	M4*0.7	3	M10*1.5	30	M6*1.0	7
5"	M4*0.7	3	M10*1.5	30	M6*1.0	7
6"	M4*0.7	3	M10*1.5	30	M6*1.0	7
8"	M5*0.8	4	M12*1.75	52	M8*1.25	15
10"	M6*1.0	7	M12*1.75	52	M8*1.25	15
12"	M8*1.25	15	M12*1.75	52	M8*1.25	15
14"	M8*1.25	15	M12*1.75	52	M8*1.25	15
16"	M10*1.5	31	M16*2.0	130	M10*1.5	31
18"	M12*1.75	55	M16*2.0	130	M10*1.5	31
20"	M12*1.75	55	M16*2.0	130	M10*1.5	31
24"	M12*1.75	55	M24*3.0	440	M16*2.0	135

(oil-free) (表1)

6.3 例行維修：保持日常維護以確保最佳密封功能，請參照表 1 中的扭矩緊固螺母，直至洩漏停止。

7、故障排除:

區域	問題描述	解決方案
內漏	閥座密封面 洩漏發生	(1) 請確認蝶板③密封面及密封圈⑤是否有損傷或刮痕。 (2) 確認密封圈⑤有受損，請更換。
外漏	閥桿密封 發生洩漏	(1) 鎖緊填料壓蓋螺帽⑱/⑰，請依使用(表一)扭力鎖緊。 (2) 如無法止漏，請更換中口填料⑧。 (3) 有必要每次拆卸時，更換 O-RING⑮/⑲及軸套⑩。
	下蓋密封發生洩 漏	(1) 鎖緊內六角螺絲⑳/⑱，請使用(表一)扭力鎖緊。 (2) 如無法止漏，請更換下蓋墊片⑥。

註:1. 請參照結構圖零件編號說明。

2. 上述球標⑰/⑱/⑲為大型閥門料件。



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