



JDV CONTROL VALVES CO., LTD.

Technology For The Professionals.

JDV CONTROL VALVES CO.,LTD.

**Installation, Operation and Maintenance
3PC Trunnion Ball Valve
JBT SERIES**

VERSION: V 1.0
ISSUING DATE: 2018/02/26



NO. 7, QINGNIAN ROAD, YANGMEI DISTRICT, 326 TAOYUAN COUNTY, TAIWAN

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**3-PC Trunnion Ball Valve
JBT-F / JBT-M-EXTENDED**

Instructions for Installation, Operation and Maintenance

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Overview

JBT SERIES : 3-PC Trunnion ball valve

Features of the product comprise:

1. **Anti-static device:** Static is generated by obturator (ball) due to friction with fluid flow, and the static cannot be conducted to exterior of the body. With the design of anti-static device, static may be conducted to the exterior of the valve rapidly without explosion or fire event due to spark generated by static.
2. **Blow-out proof stem design:** The stem would fly out due to the pressure from the valve and result in industrial accident. The JBT series stem blow-out design has the stem penetrates from the interior of the valve without blow-out due to blocking of the valve.
3. **SRS(SELF RELEASE SEAT):** INCONEL X-750 spring used for valve seat for the valve seat support to achieve automatic sealing. In high temperature conditions, the INCONEL X-750 spring maintains the normal function of the valve seat to achieve the function of sealing and cavity pressure relief.
4. **Balanced pressure relief hole:** The obturator (ball) is designed with pressure relief hole to balance the pressure in the valve cavity, and prolong the life of seat.
5. **Fire safe test:** API 6FA (soft seat) Fire test approved.
ISO 10497 (metal seat) Fire test approved.
6. **Variety of operation:** lever 、 worm gear 、 actuator 、 Scotch Yoke....



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Notes prior to Use:

1. Read the instructions for installation, operation, maintenance carefully before operating the product.
2. Identify the warning banners and descriptions mentioned in this document.
3. Please put the instructions for installation, operation, maintenance in an easy access site in order for query in use.

Notes prior to Use

1. Read the instructions for installation, operation, maintenance carefully before operating the product.
2. Identify the warning banners and descriptions mentioned in this document.
3. Please put the instructions for installation, operation, maintenance in an easy access site in order for query in use.

Warning Banners

Banner	Description
	This indicates a dangerous situation. Slight or moderate injury might be resulted if it is not averted.
	Death or severe injury might be resulted if such potential dangerous situation is not averted.



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Safety Notification:

Design engineers or product users identify basic product specifications and check the compliance of valve and installation equipment in order to guarantee safe use.

Prior to installation of valve, the compliance of operating conditions (temperature, pressure, fluid characteristics, ambient conditions, installation gauges etc.) with the service conditions set for valve has to be checked and identified.

	Warning Do not get beyond the limitation indicated by valve specification or technical parameters, or otherwise, death or severe injury might be resulted.
	Caution Valve may be used indoors or outdoors. If it is exposed to atmospheric environment, erosion of valve has to be cared, or otherwise, slight or moderate injury might be resulted.



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Product Transportation/Storage/Maintenance

	Warning 1. In moving or transportation, suitable tools have to be selected for correct equipment and accessories (sling, fastener, hook and so forth) in terms of size with consideration of individual weights of details in the package and the complete total weight. 2. Ball valve lifting and handling should be operated by qualified operators. Inappropriate lifting would result in deformation or dropping of valve to damage the valve. 3. Do not lift the valve using the suspending point or bracket arranged on cylinder to prevent from danger. 4. Do not use the lever of the manual valve to take or lift ball valve. In such a way, the lever of the manual valve would fractured or depart from the valve, such that damage or human injury might be resulted.
---	---

* The product has to be packed well to avoid unnecessary damage when transportation to and storage in warehouse. Particularly, the following precautionary measures have to be cared:

Transportation

1. The openings on two sides of the ball valve have to be protected well using appropriate sealing cover in order to guarantee clean interior of the valve and prevent foreign objects from entry.
2. The packaging has to guarantee safe transportation to storage site. As arrival to the storage site, please identify that the covering material or packing paper or wooden case keeps in a complete status.



Storage & Maintenance

Preserving of Packed Ball Valve

1. Protect the pack adequately to prevent the pack from damage.
2. There should be warning banners for packs to guarantee that the moving of product would not result in unnecessary damage, such as suspending center of gravity
3. Flange surface and channel opening have to be protected on the surfaces of two sides of the ball valve using adequate sealing patch or cover to guarantee clean interior in the valve and prevent foreign objects from entry.
4. If the used material of the valve is prone to rust, the flange surface and the channel opening have to be coated with antirust oil in order for preventing rust spots from appearing.
5. The storage site has to keep clean and dry.
6. Do not let the product to be exposed to wind/rain or to be sunned.
7. Please check preserving status regularly if the product is to be stored for a period of time.

Preserving of non-packed/unpacked ball valve

1. Please guarantee appropriate protection of the product in order to prevent it from damage.
2. In treating large valve, the product has to be fixed safely and stably. Suitable tools (bracket, hook, fastener, cable) should be used in transportation. In moving, balance has to be kept in order to prevent product from damage due to dropping or shaking in transportation process.



Notes for Preparation of Installation

Please follow the following instruction guidelines to guarantee and prolong product life.

1. Please disassemble the pack (wooden case or pallet) carefully in order to prevent the product and cylinder and other components from damage.
2. Before installation, remove the seal from flange opening for the air pipeline containing air filter to clean the interior of the ball valve. Make sure the clearance of foreign object inside.
3. Make sure that the mark on the nameplate is compliant with service condition.
4. Make sure that the flow direction on the body meets the direction of equipment pressure.
5. Make sure that all screws and nuts are secured.
6. In valve installation, please use wrench and follow diagonal sequence (Figure 1) to lock screws in order to prevent flange from deformation.

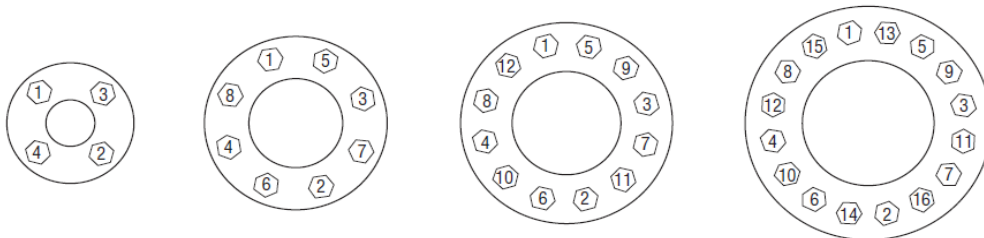


Figure 1



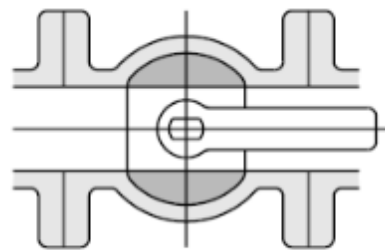
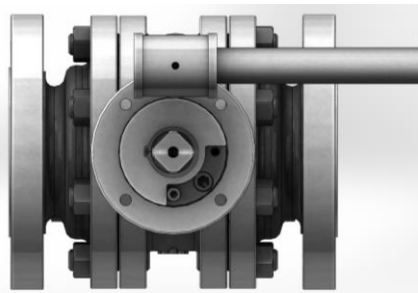
Notes prior to Operation

Manual Valve:

1. In manual operation, over or inadequate operation would damage handle or components, or result in indirect leakage.

2. Please identify that the opened or closed position of the ball valve is consistent with the notch direction on top of the stem, handle and channel.

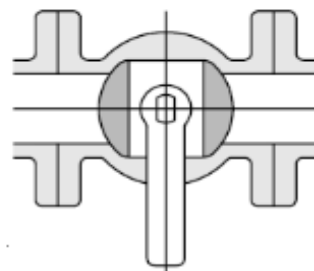
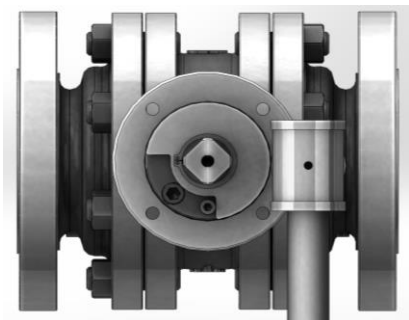
* Open position of ball valve – please identify that the notch direction on top of stem is consistent with handle and channel, and the ball valve is in open status.



Open position

(Figure 2)

Closed position of ball valve – please identify that the notch direction on top of stem on the ball valve is vertical to handle and channel, and the ball valve is in closed status.



Closed position

(Figure 3)

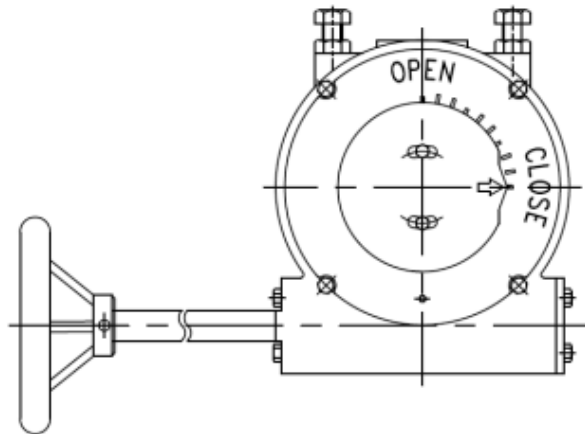


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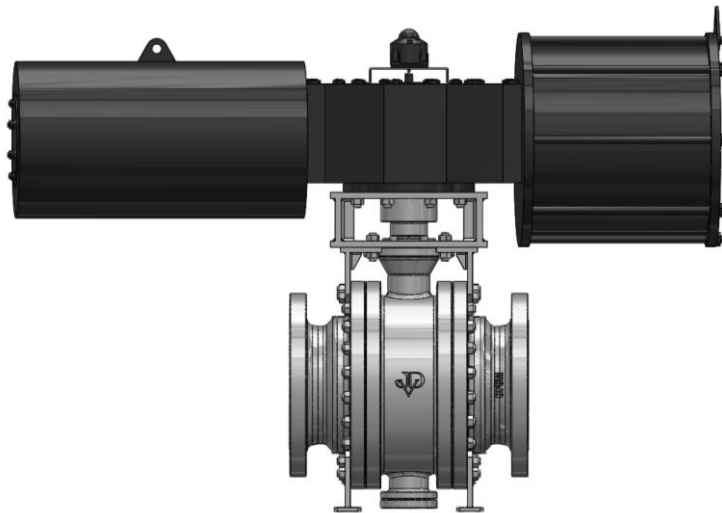
MANUAL VALVE (GEAR BOX):

1. Please identify that the arrow on the gear box indicates the open position, the ball valve is in open status, the arrow points to closed position, and the ball valve is in closed status.
2. In manual operation, over and inadequate operation would cause damage to components of ball valve or result in leakage.



Control Ball Valve:

1. Please operate according to the instructions in the user manual of the pneumatically manufacturer for the action valve to be opened or closed pneumatically.





Maintenance and Troubleshooting

Routine Maintenance

* Maintain routine maintenance and check to guarantee good operability.

Maintenance of gland

As the upper seal (stem) appears leakage, please fasten gland bolts uniformly until leakage stops.

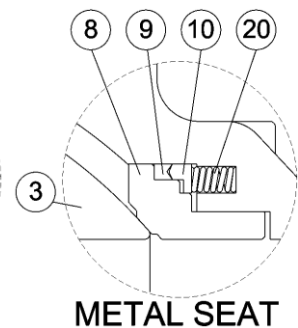
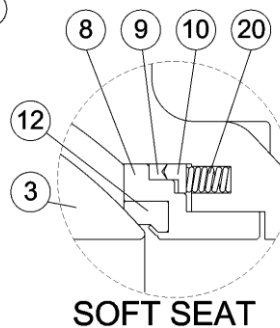
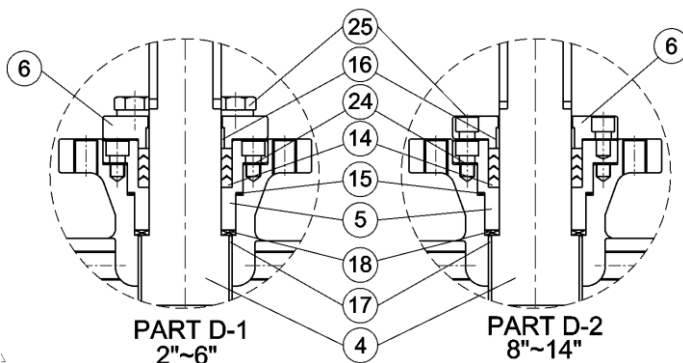
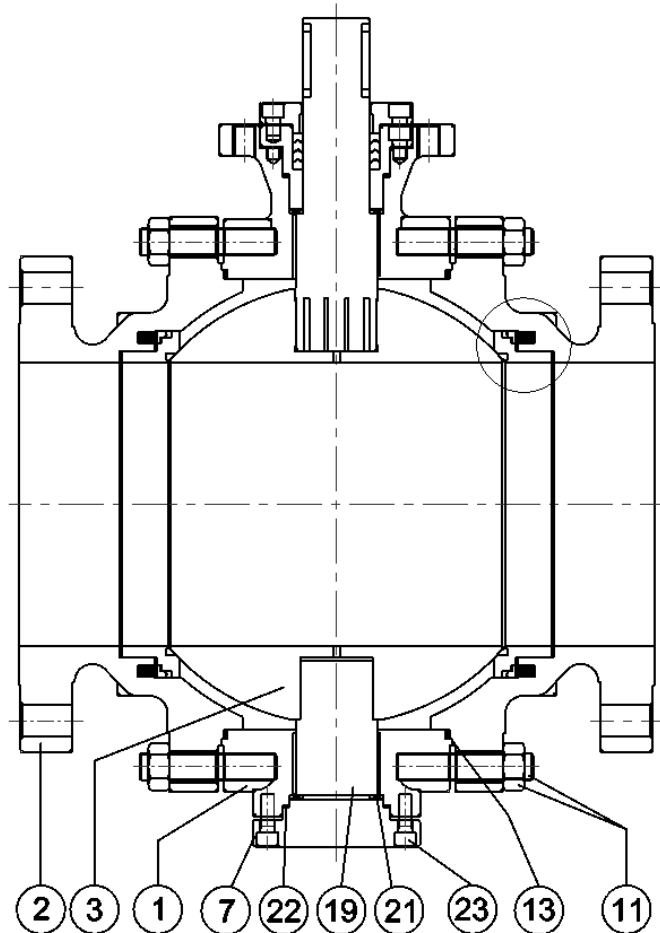
Troubleshooting

Area	Problem Description	Solutions
Internal Leaks	Leak at the surface of the ball	1. Please check whether the surface of ball and valve seat (12)/ (8) has scratches or any damage. 2. Replace the seat ring seal (9) when the surface of ball and valve seat has not scratches or any damage. 3. Replace the ball (3) or valve seat seat(12)/ (8) when the surface of ball and valve seat have scratches or any damage. 4. Disassemble it each time, need to replace the body gasket(13).
External Leaks	Leak at the mouth of the stem	1. Fastening the gland bolts. 2. Replace the stem packing if leakage cannot stanch. 3. Disassemble it each time, need to replace the body gasket. (13)
	Leak at the joint face on the valve body	1. Fastening the bolts & nuts. 2. Replace the body gasket (13) when leakage cannot stanch.
Note: Please refer to the description of numerals of parts in structure diagram and Procedure of Disassembling and Assemblage		



JBT-F/JBT-M Structure Diagram DN20~DN350 (2"~14")

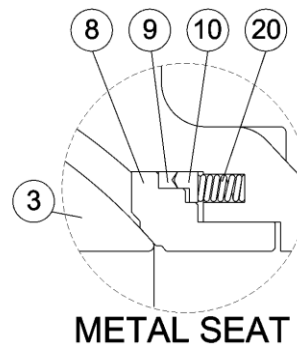
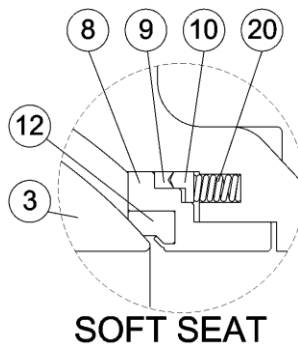
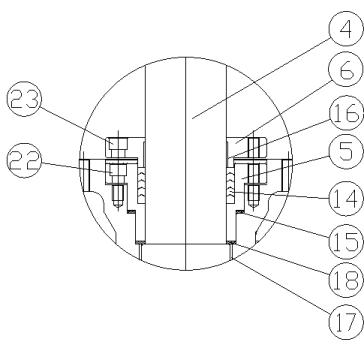
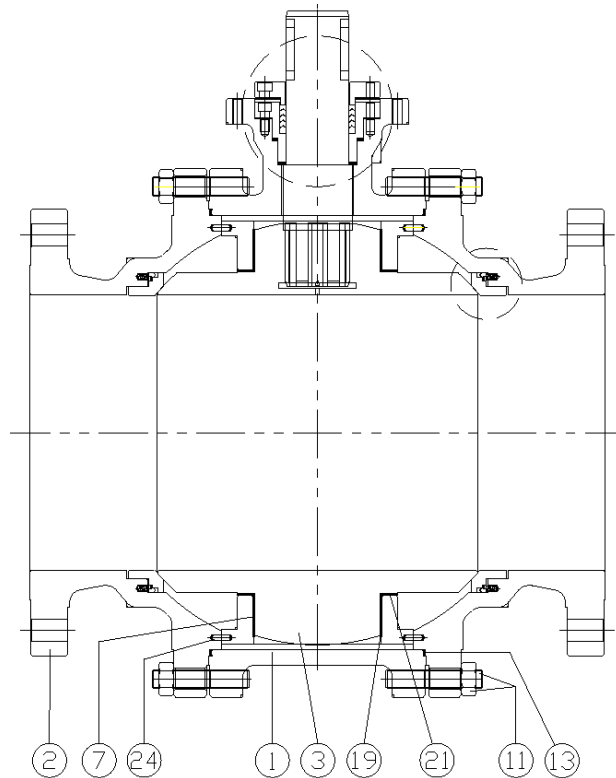
NO	PART
1	BODY
2	CAP
3	BALL
4	STEM
5	BODY GLAND
6	GLAND
7	BEARING RETAINER
8	SEAT RING
9	SEAT RING SEAL
10	SEAT RING RETAINER
11	BOLT & NUT
12	SEAT(SOFT SEAT)
13	BODY GASKET
14	GLAND PACKING
15	GLAND THRUST WASHER
16	GLAND BEARING
17	STEM BEARING
18	STEM THRUST WASHER
19	TRUNNION STEM
20	SPRING
21	TRUNNION STEM WASHER
22	TRUNNION STEM GASKET
23	RETAINER BOLT
24	BODY GLAND BOLT
25	GLAND BOLT





JBT-F/JBT-M Structure Diagram DN400~DN600 (16"~24")

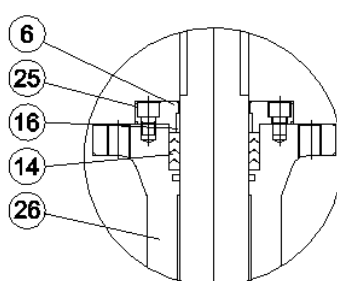
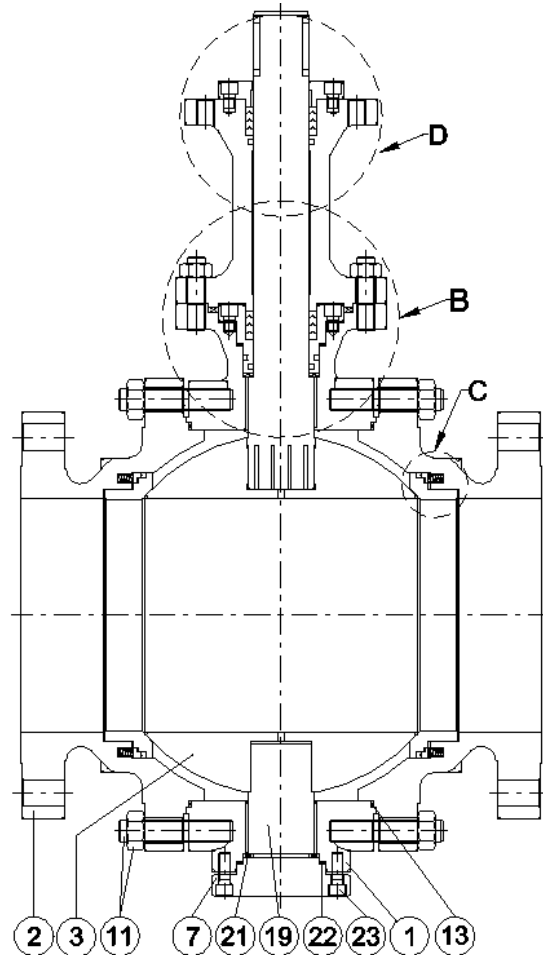
NO	PART
1	BODY
2	CAP
3	BALL
4	STEM
5	BODY GLAND
6	GLAND
7	BEARING RETAINER
8	SEAT RING
9	SEAT RING SEAL
10	SEAT RING RETAINER
11	BOLT & NUT
12	SEAT
13	BODY GASKET
14	GLAND PACKING
15	GLAND THRUST WASHER
16	GLAND BEARING
17	STEM BEARING
18	STEM THRUST WASHER
19	TRUNNION BEARING
20	SPRING
21	TRUNNION STEM WASHER
22	BODY GLAND BOLT
23	GLAND BOLT
24	PIN



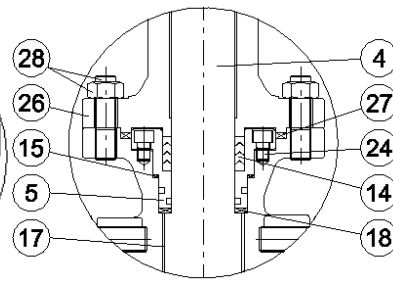


JBT-F/JBT-M-EXTENDED Structure Diagram DN50~DN350 (2"~14")

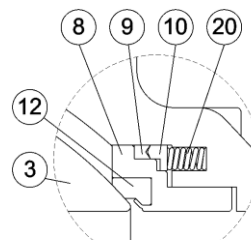
NO	PART
1	BODY
2	CAP
3	BALL
4	STEM
5	BODY GLAND
6	GLAND
7	BEARING RETAINER
8	SEAT RING
9	SEAT RING SEAL
10	SEAT RING RETAINER
11	BOLT & NUT
12	SEAT
13	BODY GASKET
14	GLAND PACKING
15	GLAND THRUST WASHER
16	GLAND BEARING
17	STEM BEARING
18	STEM THRUST WASHER
19	TRUNNION STEM
20	SPRING
21	TRUNNION STEM WASHER
22	TRUNNION STEM GASKET
23	RETAINER BOLT
24	BODY GLAND BOLT
25	GLAND BOLT
26	BONNET
27	BONNET GASKET
28	BONNET BOLT



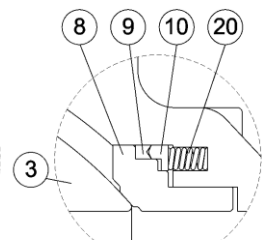
PART D



PART B



SOFT SEAT



METAL SEAT



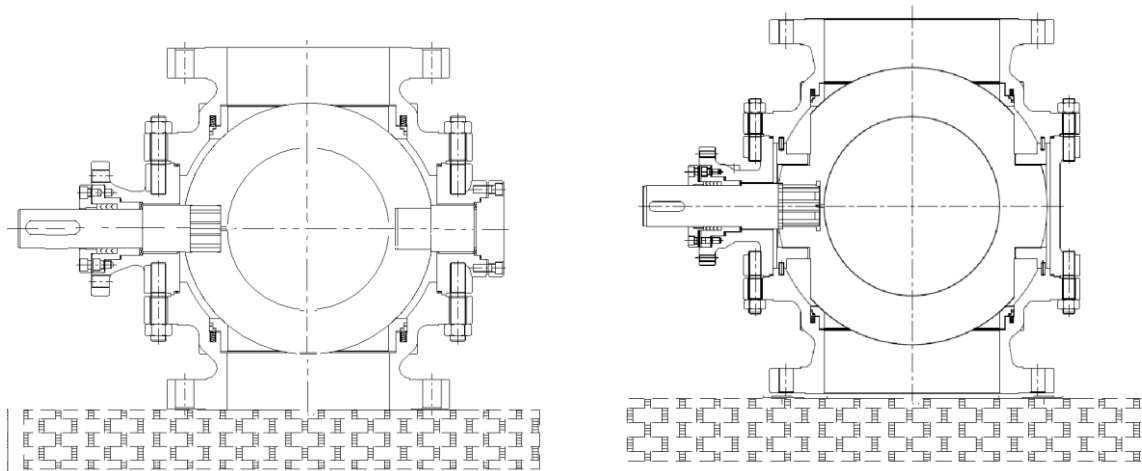
Procedure of Disassembling and Assemblage

	Warning: 1. Prior to disassembling, the valve has to be at open position to guarantee full relief of pressure in ball chamber. 2. All harmful substances have to be guaranteed to be cleaned completely.
	Caution: 1. Disassembling product has to be operated by qualified operators. 2. Contact with JDV is recommended for maintaining and disassembling the product in order to avoid danger due to incorrect disassembling and assemblage.



JBT-F/JBT-M Disassembling Procedure

1. Turn the ball to closed position.
2. Put the valve on clean platform by either side of flanged ends. (See Figure 4)

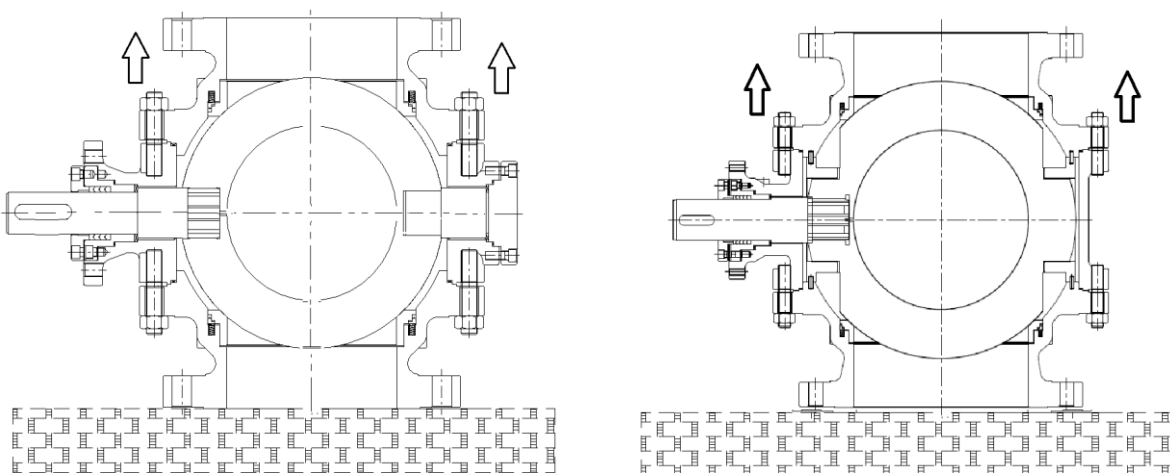


DN50~DN350 (2"~14")

DN400~DN600 (16"~24")

(Figure 4)

3. Loose cap bolts and nuts (11) . (Figure 5)



DN50~DN350 (2"~14")

DN400~DN600 (16"~24")

(Figure 5)



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4. Remove the cap (2) and body gasket (13). Take out the seat (8)/ (12), seat ring seal (9), seat ring retainer (10), spring (20). Be careful above parts may drop out when taking out from the cap.

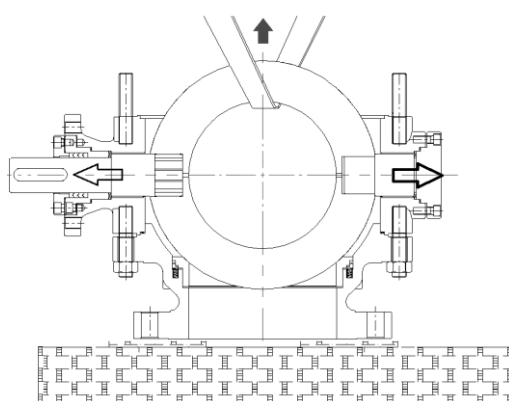
5. Disassembling STEM 、TRUNNION STEM PARTS

SIZE: DN50~DN350 (2"~14") (Figure 6)

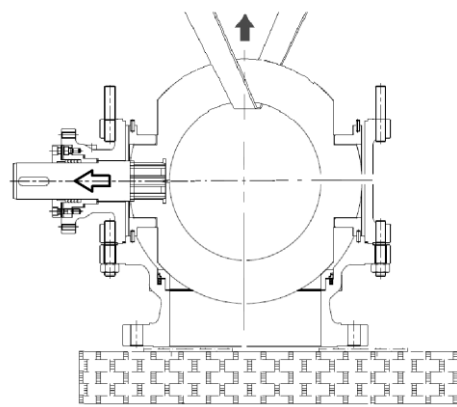
- Loose gland bolts (25), take out gland (6) and gland bearing (16).
- Loose body gland bolts (24), take out body gland (5), gland packing (14), gland thrust washer (15), and stem thrust washer (18) from stem (4).
- Take out the stem (4).
- Loose the retainer bolt (23), take out bearing retainer (7), trunnion stem gasket (22), and trunnion stem washer (21).
- Take out Trunnion Stem (19).
- put a rope through the ball to lift slightly by the crane, so that the parts can be taken out easier. (Figure 6)
- Take out ball (3) and stem bearing (17).

SIZE: DN400~DN600 (16"~24") (Figure 6)

- Loose gland bolts (23), take out gland (6) and gland bearing (16).
- Loose body gland bolts (22), take out body gland (5), gland packing (14), gland thrust washer (15), and stem thrust washer (18) from stem (4).
- Take out the stem (4).
- put a rope through the ball to lift slightly by the crane, so that the parts can be taken out easier. (Figure 6)
- the ball shaft pin (24), trunnion Bearing (19), trunnion stem washer (21) and Bearing retainer (7).



DN50~DN350 (2"~14")

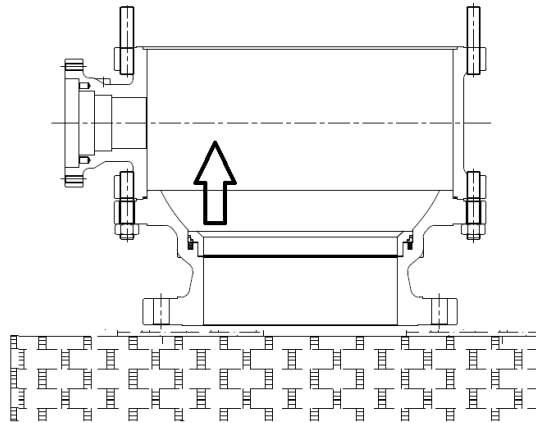


DN400~DN600 (16"~24")

(Figure 6)

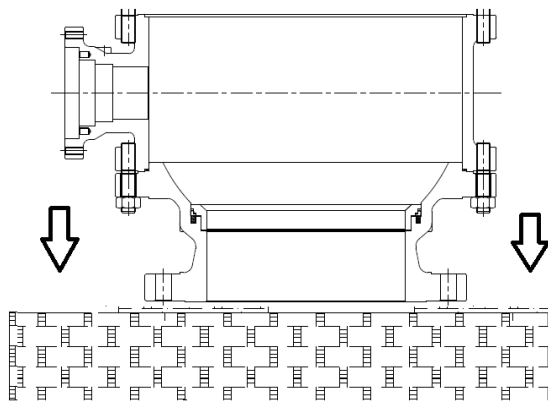


6. Take out seat (8) (12)、seat ring seal(9)、seat ring seal (9)、seat ring retainer (10)、spring (20) .(Figure 7)



(Figure 7)

7. Loose cap bolts and nuts (11) , Remove the BODY(1) , use lift equipment lift the valve body ° (Figure 8)



(Figure 8)



JBT-F/JBT-M Assemblage Procedure

● Assemblage DN50~DN350 (2"~14"):

1. Put the ball (3) into body (1) and insert stem bearing (17) into body(1).
2. Insert stem (4) and trunnion stem. (19)
3. Slip stem thrust washer (18), gland thrust washer (15) in both side of body.
4. Slip the stem thrust washer (18) 、 body gland(5) into top side of body.
5. Put the trunnion stem washer(21) 、 trunnion stem gasket(22) into the bottom side of body.
6. Tighten body gland bolts (24).
7. Set the gland packing(14) into body gland(5)
8. Slip gland (6) on stem (4) and gland bearing (16) and tighten gland bolts (25).
9. Put the bearing retainer (7) on valve body (1) and tighten the retainer bolt(23).
10. Prepare the cap assembly work.
11. Put spring (20), seat ring retainer (10), seat ring seal (9) and seat (8) /(12), into each cap (2).
12. Put body gaskets (13) on the joint between body (1) and caps (2).
13. Put caps (2) on body (1) joint. Tighten bolts & nuts (11).
* Be careful not to drop out the seals and seats from caps.

● Assemblage DN400~DN600 (16"~24"):

1. Shaft mounted on ball pin(24), trunnion Bearing(19), into the Bearing retainer(7)
2. Slip the trunnion stem washer(21) on both side of ball(3)
3. Put the bearing retainer set (7)(24)(19)(21) into the both side shaft of the ball(3).
4. Put the ball (3) into body (1)
5. Prepare the body parts assembly work , put the stem bearing (17) into body(1)
Insert the stem(4) into the ball(3).
6. Slip stem thrust washer (18), on the stem (4).
7. Set the gland thrust washer (15) 、 body gland(5).
8. Tighten body gland bolts (22).
9. Set the gland packing(14) into body gland(5).
10. Slip gland (6) on stem (4) and gland bearing (16) and tighten gland bolts (23).
11. Prepare the cap assembly work.
12. Put spring (20), seat ring retainer (10), seat ring seal (9) and seat (8) /(12), into each cap (2).
13. Put body gaskets (13) on the joint between body (1) and caps (2).
14. Put caps (2) on body (1) joint. Tighten bolts & nuts (11).
* Be careful not to drop out the seals and seats from caps.



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JBT-F/JBT-M-EXTENDED Disassembling Procedure

1. Loose bonnet bolts (28), take out bonnet (26) and bonnet gasket (27)
2. Reference JBT-F/JBT-M Valve disassembly step to dismantle parts.

JBT-F/JBT-M-EXTENDED assembling Procedure

1. Slip bonnet (26) and bonnet gasket (27) on stem (4). Tighten bonnet bolts (28).
2. Reference JBT-F/JBT-M Valve assembly step.



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三片固心式金屬硬密封/軟密封球閥 安裝、操作和維護手冊

版本:V 1.1
發行日期:2018/02/26



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三片固心式金屬硬密封/軟密封球閥 安裝操作維修手冊

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概述

JBT SERIES 為進典公司-三片固心式軟密封/金屬硬密封球閥，
產品特點包含：

1. **防靜電裝置**：閥球因流體流動摩擦產生靜電，無法將靜電傳導至體外部。經由防靜電裝置之設計，可迅速將靜電傳導至閥體外部，避免因靜電產生火花，而導致爆炸火災事件發生。
2. **閥桿防飛出裝置**：當閥體內部有壓力，又因螺絲異常鬆脫時，閥桿會因閥體內部壓力而飛出，導致工安事件發生，JBT SERIES 穩固的閥桿填料壓蓋鎖附於閥體，設計鎖附力高於閥體內部壓力可避免閥桿飛出。
3. **SRS(SELF RELEASE 閥座)**：自洩閥座使用 INCONEL X-750 彈片可使閥座於低壓工況達到自緊密封與球腔洩壓功能，而在高溫工況下，彈片保持彈性係數，使閥座作動正常達到自緊密封與球腔洩壓功能。
4. **洩壓平衡孔**：球頂端採用洩壓孔設計，平衡閥體內腔壓力，延長球墊壽命。
5. **防火認證**：取得 ISO 10497 金屬密封防火認證。
API 6FA 軟密封防火認證。
6. **多樣的驅動裝置**：電動/氣動驅動器、齒輪/手把開啟。





使用前須知:

1. 操作產品前請仔細閱讀安裝操作維修手冊。
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。

請確認此份文件所提及之警告標誌及說明

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。
	如果不避免，潛在的危險情況，可能導致死亡或嚴重傷害。

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（溫度、壓力、流體特性、環境條件、安裝儀錶等）是否符合閥門設定的使用工況。



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產品運送/保存/維護須知

	注意: 閥門可用於室內或室外。如在暴露大氣環境中使用,因注意閥門之腐蝕及如果不能避免,可能導致輕微或中度損傷。
	警告: 請不要超出閥門規格或技術參數表所示的之限值。如果不避免,可能導致死亡或嚴重傷害。

	警告: 1. 移動或搬運時,正確的設備和配件(吊索、緊固物、掛鉤等等)必須按尺寸選擇合適的工具,要考慮包裝明細的個別重量和全部的總重量。 2. 吊升和處理球閥,必須由符合操作資格的人操作。不適當的吊升會造成閥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,以免發生危險。 4. 請勿將手動閥之把手做為拿取或吊升球閥用,會使手動閥之把手折斷或與閥斷開分離,可能導致毀壞或人員傷害。
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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:



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運送

1. 球閥兩側端面口必須使用適當的密封蓋保護好,以確保閥門內部清潔及防止異物進入。
2. 包裝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包覆材料或包裝紙或木箱保持完整狀態。

保存及維護

保存已包裝之球閥

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,已確保產品移動時造成不必要之損壞.如:吊掛重心。
3. 為避免法蘭凸緣表面受損,必須使用適當的密封貼片或封蓋保護凸緣表面與流道口。
4. 閥體材質若為易鏽件須於法蘭表面與流道口塗上防鏽油,實施防護避免鏽斑產生。
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。

保存未包裝/已拆裝球閥

1. 處理已拆裝球閥,確保產品做適當保護,以避免產品之損壞。
2. 當處理大尺寸閥門時,應把產品安全穩固的固定好,使用適當的工具(托架、掛鉤、緊固物、繩索)搬運,移動時要保持平衡以避免搬運的過程中掉落或晃動,造成產品損壞。

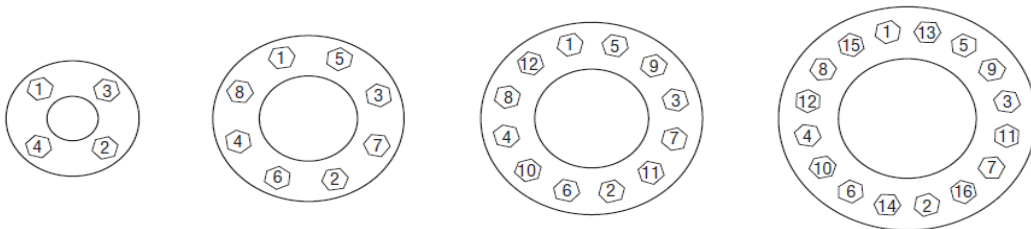


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安裝準備須知

請依照遵守以下的操作指南，以確保及延長產品壽命。

1. 請小心拆卸包裝(木箱或棧板..)，避免造成產品及氣缸或其他零配件的損壞。
2. 安裝前，將法蘭口的密封件移除，使用含有空氣過濾器之空氣管線清理球閥的內部。確保無異物在內。
3. 確認銘板上的標示適用於使用工況。
4. 請確認閥體上的流向符合設備壓力的方向。
5. 確認閥門所有螺絲及螺帽於鎖緊狀態。
6. 安裝閥門，請使用板手並遵循對角順序(圖一)鎖附螺絲，以避免法蘭變形。



(圖一)



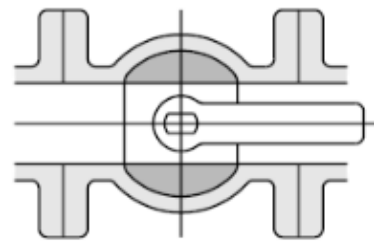
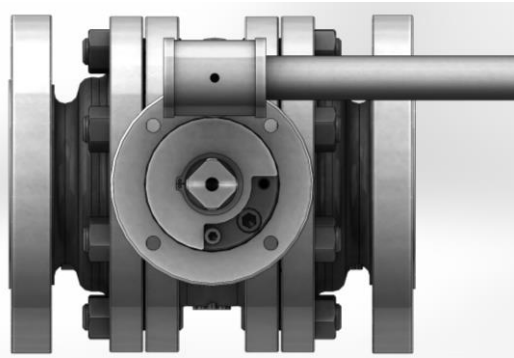
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操作前須知

手動閥門:

1. 當手動操作時，過度及不適當操作會造成把手或零組件損壞或間接造成洩漏發生。
2. 請確認球閥開啟或關閉位置是否與閥桿頂部刻痕方向、把手、管道一致。

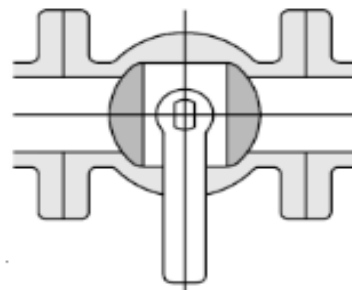
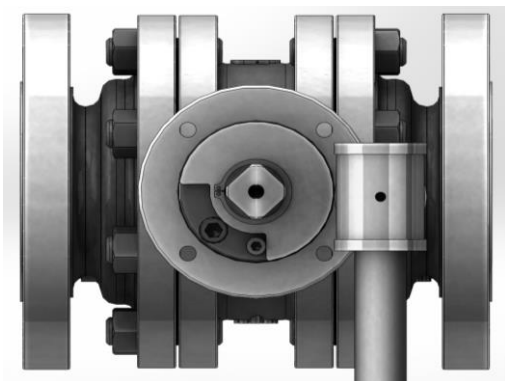
※ 球閥開啟位置-請確認球閥上之閥桿頂部刻痕方向及把手與管道一致,球閥為開的狀態 (圖二)



Open position

(圖二)

※ 球閥關閉位置-請確認球閥上閥桿頂部刻痕方向及把手與管道成垂直球閥為關的狀態。(圖三)



Closed position

(圖三)

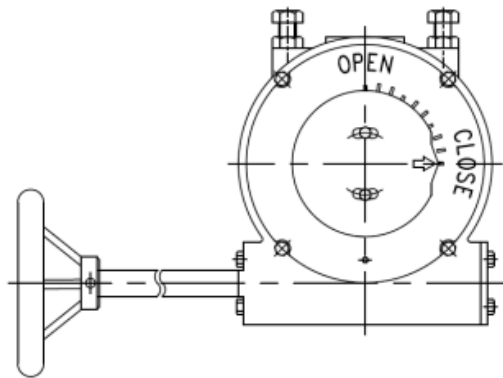


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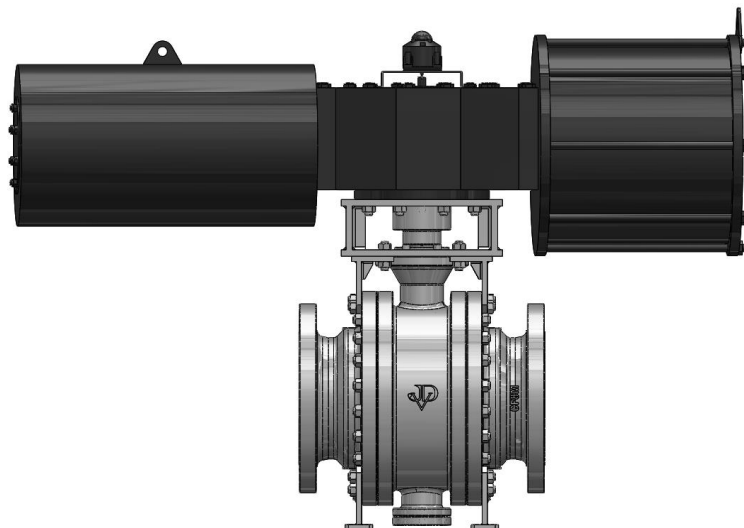
齒輪箱閥門:

1. 請確認齒輪箱上箭頭指示於開位置，球閥須處於開啟狀態，反之，箭頭於關閉位置，球閥須處於關閉狀態。
2. 當手動操作時，過度及不適當操作會造成球閥零組件之損壞或間接造成洩漏發生。



控制閥:

1. 氣動開關動作閥門，請按照氣缸製造商說明書指示操作。





維護與問題排除

日常維護

※ 維持例行性維護及檢查，以確保良好操作性。

壓蓋填料維護

上密封(閥桿)有洩漏的現象,請均勻地鎖緊壓蓋螺絲直至止洩為止。

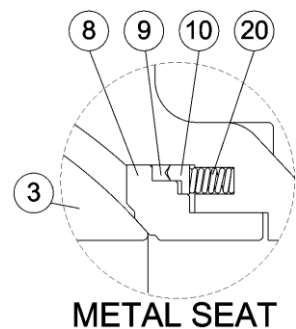
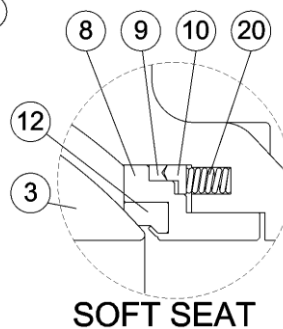
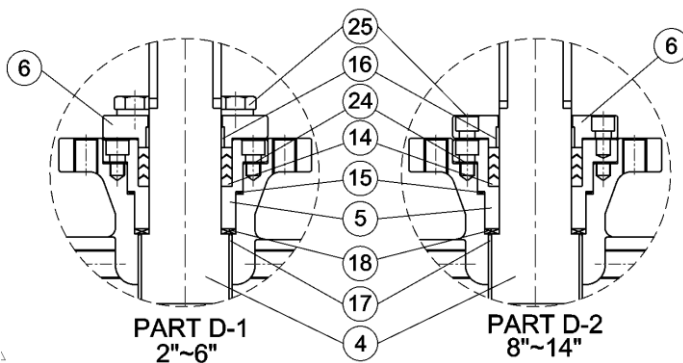
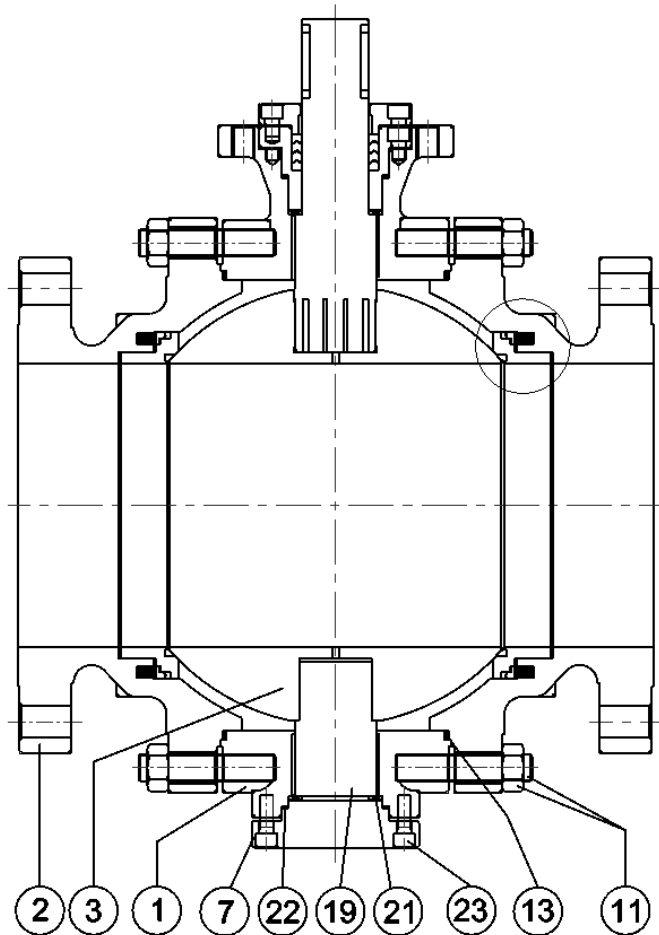
故障排除

區域	問題描述	解決方案
內漏	球面洩漏發生	1. 請確認球面(3)及閥座面(12) (8)是否有損傷或刮痕 2. 如無損傷，請更換閥座密封件(9)。 3. 如閥球(3)或閥座(12)/(8)受損，更換受損閥球(3)或閥座 (12) (8)。 4. 每次拆卸時，有必要更換閥體密封墊片(13)。
外漏	心軸中口發生洩漏	1. 鎖緊壓蓋螺絲(25)，並遵循對角順序(圖一)鎖附螺絲 2. 如無法止漏，請更換閥桿填料(14)。 3. 每次拆卸時，有必要更換閥體密封墊片(13)。
	洩漏發生於結合面處	1. 鎖緊結合面螺絲(11)，並遵循對角順序(圖一)鎖附螺絲 2. 如無法止漏，請更換結合面之閥體密封墊片(13)
註:請參照結構圖零件編號說明及拆卸與組裝程序		



JBT-F/JBT-M DN50~DN350 (2"~14") 結構圖

編號	配件
1	閥體
2	閥蓋
3	閥球
4	閥桿
5	閥桿壓蓋
6	填料壓蓋
7	底部封蓋
8	閥座
9	閥座密封件
10	閥座密封件壓環
11	牙桿/螺帽
12	軟密封球墊
13	閥體密封墊片
14	閥桿填料密封
15	閥桿壓蓋密封墊片
16	填料壓蓋軸襯
17	軸襯
18	閥桿潤滑垫片
19	支撐軸
20	彈簧
21	支撐軸垫片
22	支撐軸密封垫片
23	底部封蓋螺絲
24	閥桿壓蓋螺絲
25	填料壓蓋螺絲

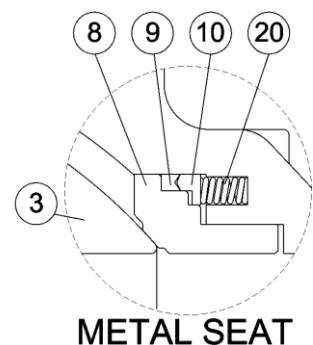
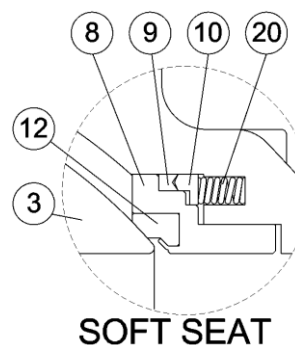
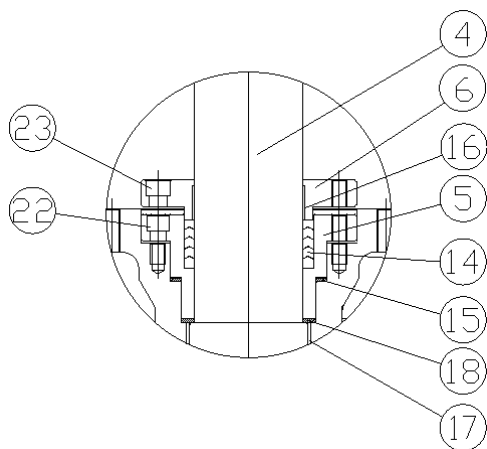
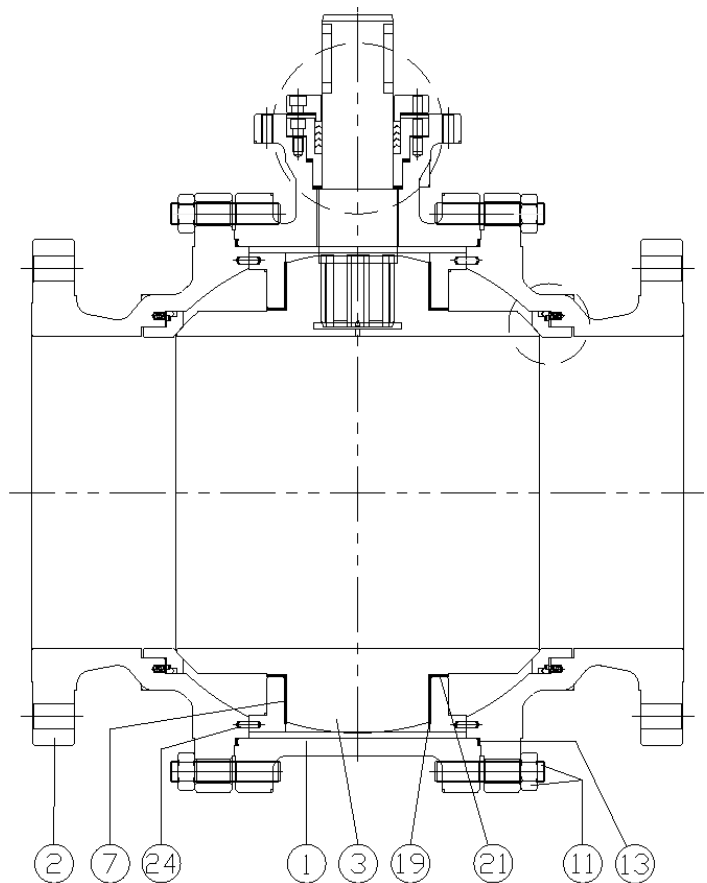




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JBT-F/JBT-M DN400~DN600 (16"~24") 結構圖

編號	配件
1	閥體
2	閥蓋
3	閥球
4	閥桿
5	閥桿壓蓋
6	填料壓蓋
7	閥球固定座
8	閥座
9	閥座密封件
10	閥座密封件壓環
11	牙桿/螺帽
12	軟密封球墊
13	閥體密封墊片
14	閥桿填料密封
15	閥桿壓蓋密封墊片
16	填料壓蓋軸襯
17	軸襯
18	閥桿潤滑垫片
19	閥球襯套
20	彈簧
21	閥球軸垫片
22	閥桿壓蓋螺絲
23	填料壓蓋螺絲
24	插銷

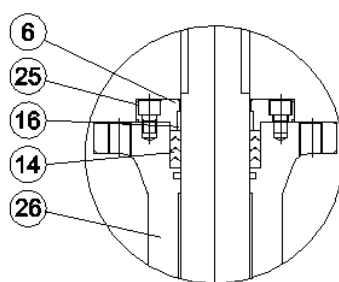
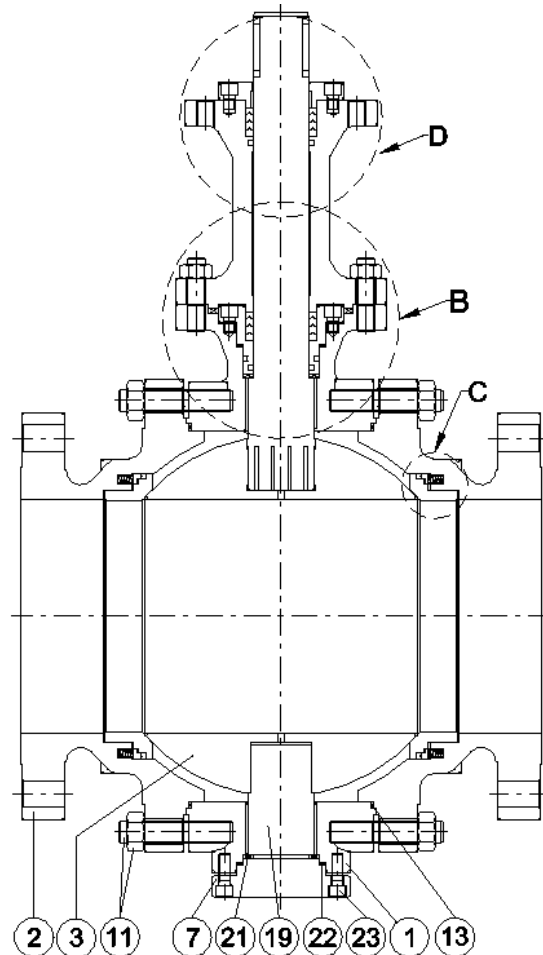




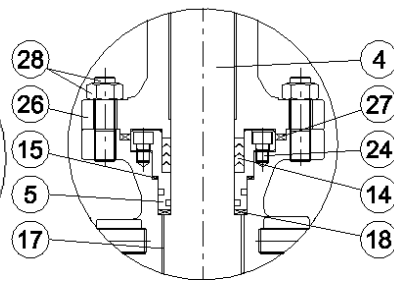
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JBT-F/JBT-M-EXTENDED DN50~DN350 (2"~14") 結構圖

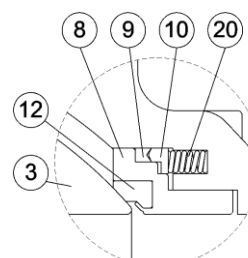
編號	配件
1	閥體
2	閥蓋
3	閥球
4	閥桿
5	閥桿壓蓋
6	填料壓蓋
7	底部封蓋
8	閥座
9	閥座密封件
10	閥座密封件壓環
11	牙桿/螺帽
12	軟密封球墊
13	閥體密封墊片
14	閥桿填料密封
15	閥桿壓蓋密封墊片
16	填料壓蓋軸襯
17	軸襯
18	閥桿潤滑墊片
19	支撐軸
20	彈簧
21	支撐軸墊片
22	支撐軸密封墊片
23	底部封蓋螺絲
24	閥桿壓蓋螺絲
25	填料壓蓋螺絲
26	加長閥桿軸套
27	加長閥桿軸套墊片
28	加長閥桿軸套螺絲



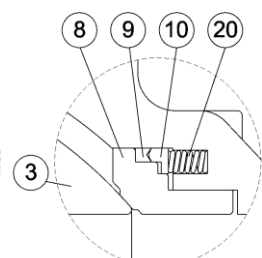
PART D



PART B



SOFT SEAT



METAL SEAT



拆卸與組裝程序須知



警告:

1. 拆卸前，閥必須在開的位置，以確保球腔壓力已完全釋放。
2. 必須確保任何有害的物質已清除乾淨



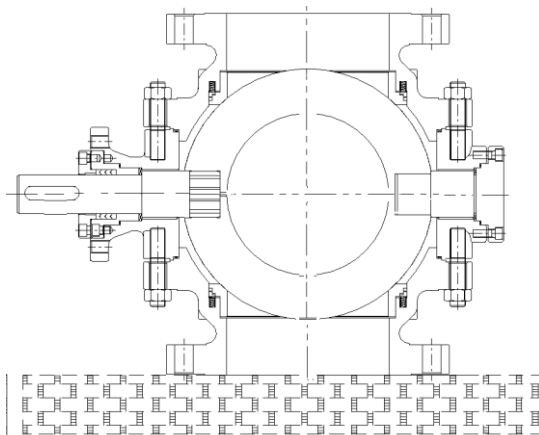
注意:

1. 拆裝產品，須由符合操作資格的人員拆裝。
2. 維修拆裝產品，建議與 JDV 聯絡，以免不正確拆裝及組裝，發生危險。

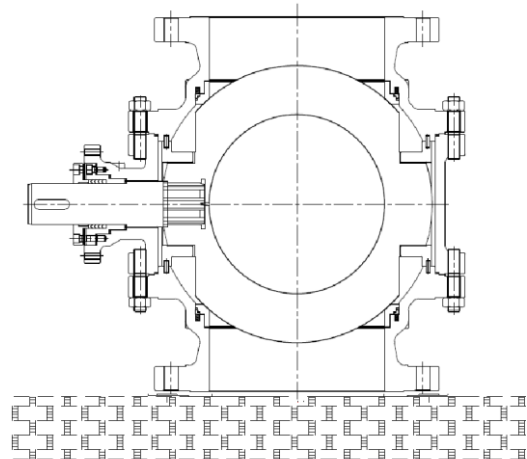
JBT-F / JBT-M 拆卸程序

● 拆卸 DN50~DN350 (2"~14"):

1. 將閥門任一法蘭端放置在清潔的平台。(圖四)
2. 開關球閥後，確認閥腔內無殘留壓力，旋轉球至關的位置(圖四)。



DN50~DN350 (2"~14")

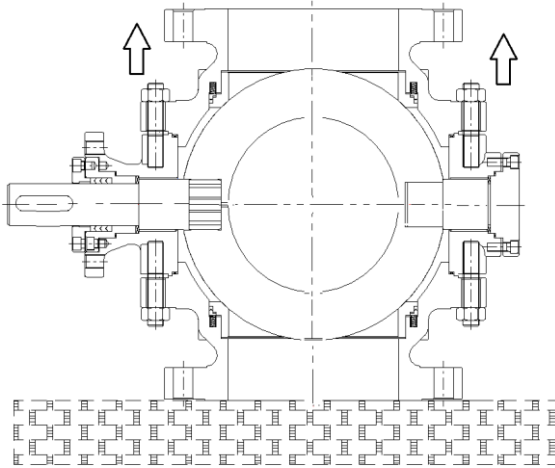


DN400~DN600 (16"~24")

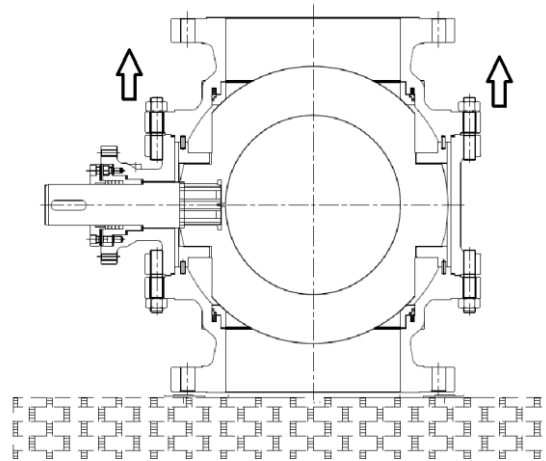
(圖四)



3. 將閥蓋的牙桿&螺帽(11)鬆開。(圖五)



DN50~DN350 (2\"~14\")



DN400~DN600 (16\"~24\")

(圖五)

4. 拆開閥蓋(2)和閥體密封墊片(13)。取出閥座(8)/軟密封球墊組(8)(12)，閥座密封件(9)、閥座密封件壓環(10)、彈簧(20)。取出閥蓋(2)的時候請注意，以上部件可能會掉落。

5. 拆卸閥桿、支撐軸部件

拆卸 DN50~DN350 (2\"~14\")閥門。(圖六)

- 依序鬆開填料壓蓋螺絲(25)，取出填料壓蓋(6)及填料壓蓋軸襯(16)。
- 鬆開閥桿壓蓋螺絲(24)，從閥桿(4)端取出閥桿填料壓蓋(5)、閥桿填料密封(14)、閥桿壓蓋密封墊片(15)和閥桿潤滑墊片(18)。
- 取出閥桿(4)。
- 鬆開底部封蓋螺絲(23)，拆卸底部封蓋(7)，取出支撐軸墊片(21) & 支撐軸密封墊片(22)。
- 取出支撐軸(19)。
- 使用吊掛器具，將閥球(3)吊掛離閥體(1)，放置於適當位置。
- 取出上下端閥體內軸襯(17)。

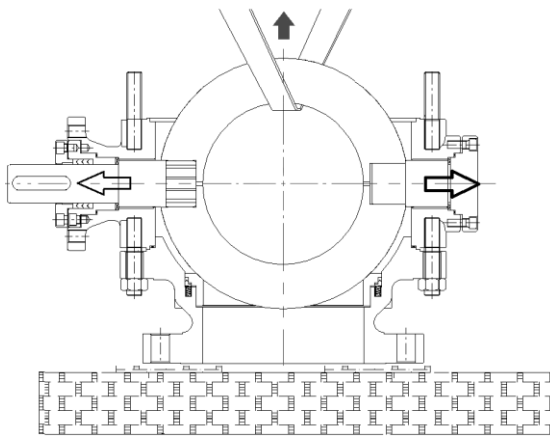


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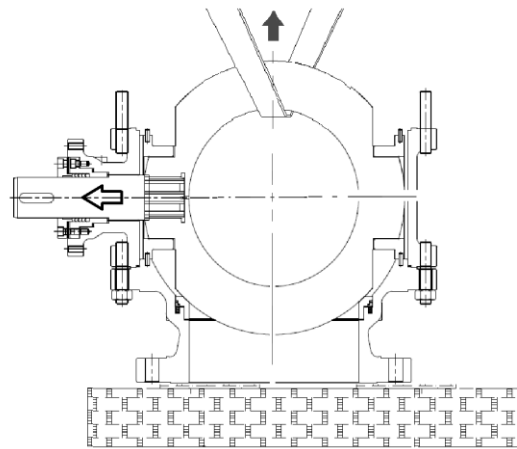
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拆卸 DN400~DN600 (16"~24"): (圖六)

- 依序鬆開填料壓蓋螺絲(23)，取出填料壓蓋(6)及填料壓蓋軸襯(16)。
 - 鬆開閥桿壓蓋螺絲(22)，從閥桿(4)端取出閥桿壓蓋(5)、閥桿填料密封(14)、閥桿壓蓋密封墊片(15)和閥桿潤滑墊片(18)。
 - 取出閥桿(4)。
 - 使用吊掛器具，將閥球(3)吊掛離閥體(1)，放置於適當位置。
- 分離閥球(3)及閥球固定座(7)，取出閥球固定座(7)上插銷(24)、閥球襯套(19)、閥球軸墊片(21)。



DN50~DN350 (2"~14")

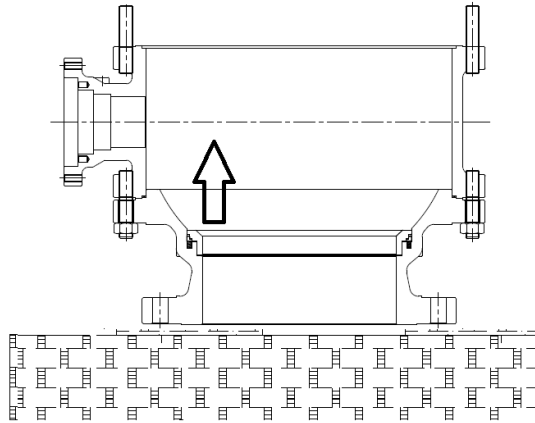


DN400~DN600 (16"~24")

(圖六)



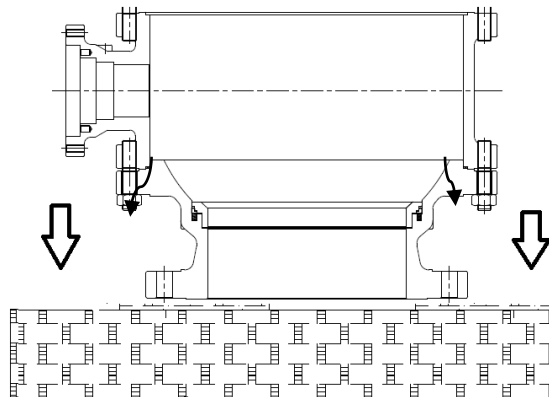
6. 取出另一側取出閥座(8)/軟密封球墊組(8)(12)，閥座密封件(9)、閥座密封件壓環(10)、彈簧(20)。(圖七)



(圖七)

將內部球墊及其他相關零組件取出

7. 鬆開牙桿&螺帽 (11)，拆卸閥體(1)，使用吊繩吊掛閥蓋。使閥體(1)與閥蓋(2)分離。(圖八)



(圖八)

拆卸螺母，將閥體與閥蓋分開



JBT-F / JBT-M 組裝程序

● 組裝球閥 DN50~DN350 (2"~14"):

1. 將閥球(3)放置閥體(1)置中位置。
2. 準備閥體組裝工作，先將軸襯(17)裝入閥體上下端(1)，上下閥桿對準閥球中心將閥桿(4)、支撐軸(19)插入閥球中(3)。
3. 將閥桿潤滑墊片(18)裝到閥體(1)上下端。
4. 組裝閥桿壓蓋密封墊片(15)、填料壓蓋(6)放置於閥體上端。
5. 支撐軸墊片(21)、支撐軸密封墊片(22) 放置於閥體下端。
6. 鎖緊閥桿壓蓋螺絲(24)。
7. 將閥桿填料密封(14)放置於填料壓蓋(5)內
8. 將填料壓蓋軸襯(16) 放置於填料壓蓋(6)內、穿過閥桿(4)，並鎖緊填料壓蓋螺絲(25)。
9. 底部封蓋(7)裝到閥體(1)上，並鎖緊底部封蓋螺絲(23)。
10. 準備兩側閥蓋端組裝工作。
11. 將彈簧(20)、閥座密封件壓環(10)、閥座密封件(9)和閥座(8)/軟密封閥座組(8)(12)放到閥蓋(2)裡。
12. 將閥體密封墊片(13)放到閥體(1)和閥蓋(2)的銜接處。
13. 將閥蓋(2)放到與閥體(1)連接處，鎖緊牙桿&螺帽(11)。

* 注意：不要掉落密封件和閥座。

● 組裝球閥 DN400~DN600 (16"~24"):

1. 在閥球固定座(7)上安裝插銷(24)、閥球襯套(19)。
2. 閥球軸墊片(21)組裝放入閥球兩端。
3. 將閥球固定座組，放置於閥球上下端。
4. 將閥球組(含閥球固定座)放置閥體置中位置。
5. 準備閥體組裝工作，先將上端閥體軸襯(17)裝入閥體(1)，閥桿對準閥球中心將閥桿(4)插入閥球中(3)。
6. 將閥桿潤滑墊片(18)裝到閥桿(4)上。
7. 組裝閥桿填料壓蓋密封墊片(15)、閥桿壓蓋(5)放置於閥體上端。
8. 鎖緊閥桿壓蓋螺絲(22)。
9. 將閥桿填料密封(14)，放置於閥桿壓蓋(5)內
10. 將填料壓蓋軸襯(16) 放置於填料壓蓋 (6)內、穿過閥桿(4)，並鎖緊填料壓蓋螺絲(23)。



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11. 準備兩側閥蓋端組裝工作
 12. 將彈簧(20)、閥座密封件壓環(10)、閥座密封件(9)和閥座(8)、(12)放到閥蓋(2)裡。
 13. 將閥體密封墊片(13)放到閥體(1)和閥蓋(2)的銜接處。
 14. 將閥蓋(2)放到與閥體(1)連接處，鎖緊牙桿&螺帽(11)。
- *注意：不要掉落密封件和閥座。

JBT-F/JBT-M - EXTENDED 拆卸程序

1. 鬆開加長閥桿軸套螺絲(28),取出加長閥桿軸套(26)及加長閥桿軸套墊片(27)。
2. 參照 **JBT-F/JBT-M** 拆卸程序步驟，拆卸其相應部件。

JBT-F/JBT-M - EXTENDED 組裝程序

1. 將加長閥桿軸套(26), 加長閥桿軸套墊片(27)及加長閥桿軸套螺絲(28)安裝至閥桿(4)上。
2. 參照 **JBT-F/JBT-M** 組裝程序，組裝及其相應部件。