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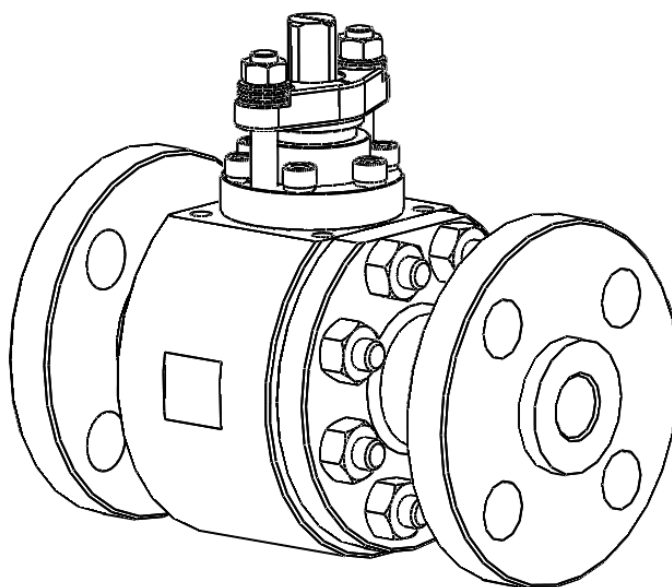
Installation, Operation and Maintenance

JBF-RV

**2-PC Floating Type
Metal Seated Ball Valve**

VERSION: V 1.0

ISSUED DATE: 2023/07



NO.6-1, QINGNIAN ROAD, YANGMEI DISTRICT, TAOYUAN CITY 326 , TAIWAN

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JBF-RV
2-PC Floating Type Metal Seat Ball Valve
Instructions for Installation, Operation and Maintenance

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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.

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.
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* 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.



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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



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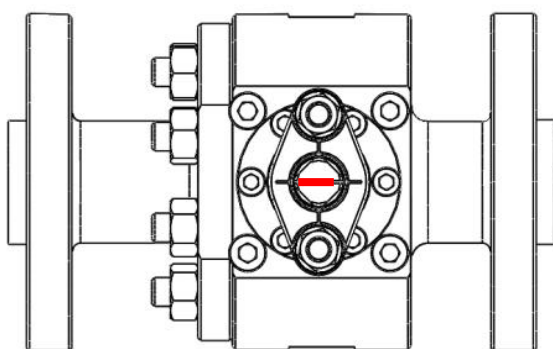
Notes prior to Operation

Manual Valve (Lever Operation)

1. In manual operation, over or inadequate operation would damage the lever or components or result in indirect leakage.
2. Please identify that the open or closed position of the ball valve is consistent with the LEVER direction on top of the stem, lever and pipeline.

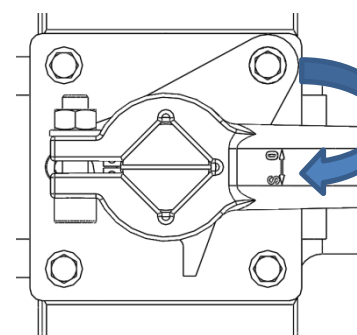
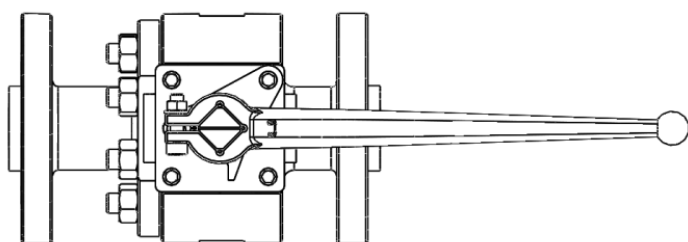
* Open position of ball valve – please identify that the direction on top of stem on the ball valve is parallel to the lever and pipeline, and the ball valve is in open position.

(Figure 2)



Stem slot –direction

To operate the valve, turn in counter-clockwise to open or clockwise to close.



(FIGURE 2)



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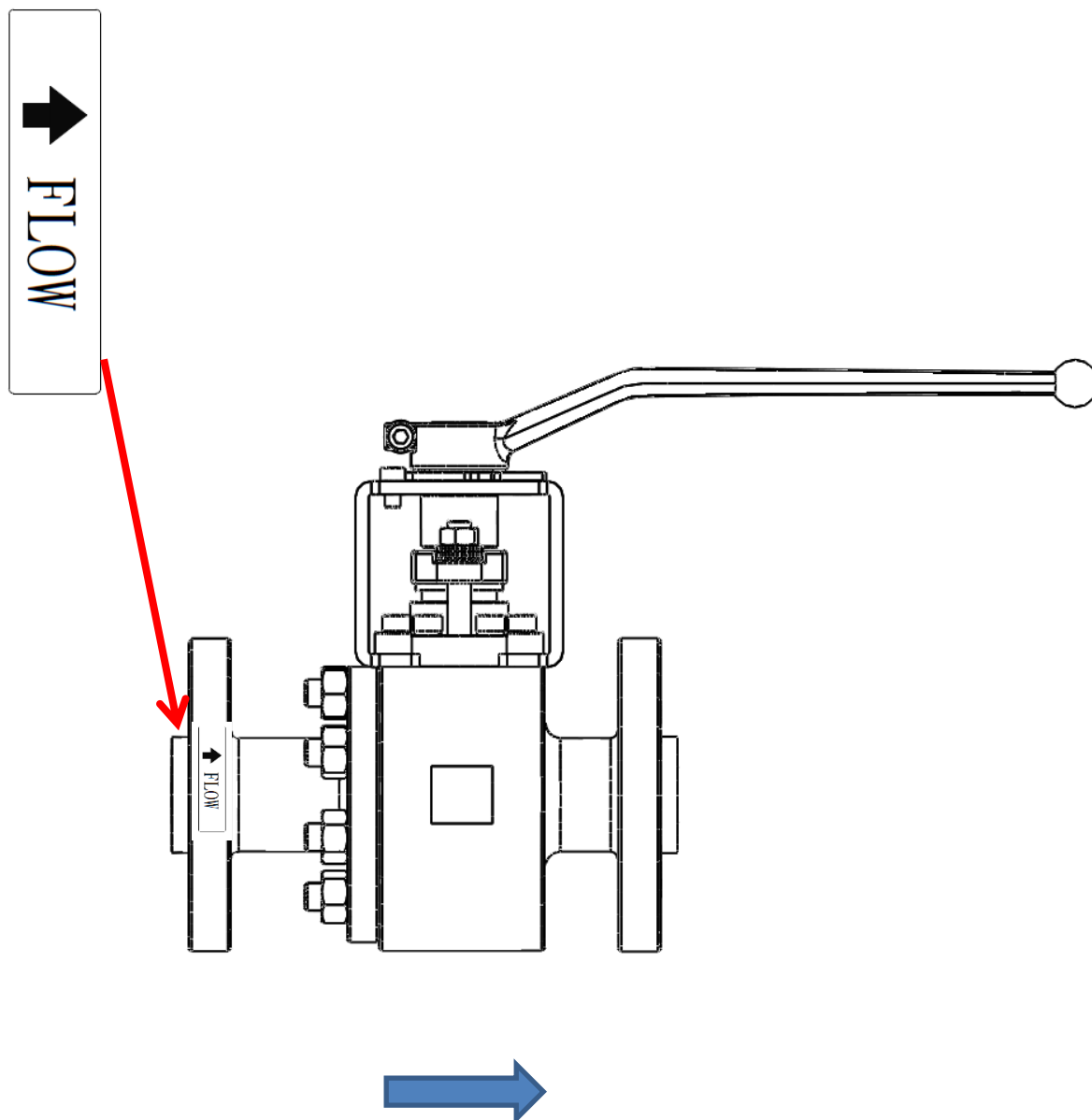


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Sealing direction

Valve has a single direction of sealing indicated by a flow arrow on the flange .



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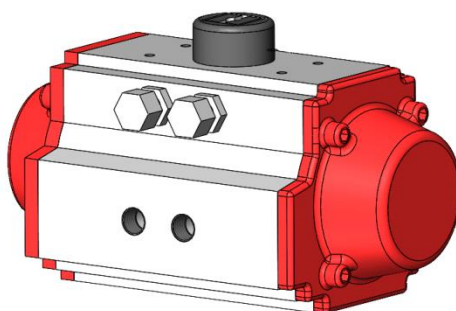


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Pneumatic Ball Valve:

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



	Warning Do not install valve for pressures or temperatures higher than rated pressure.
	Caution In certain conditions, proper operation may require the flow arrow be opposed to the line flow. Make sure that the high pressure end is positioned toward the highest pressure against the valve in the closed position.



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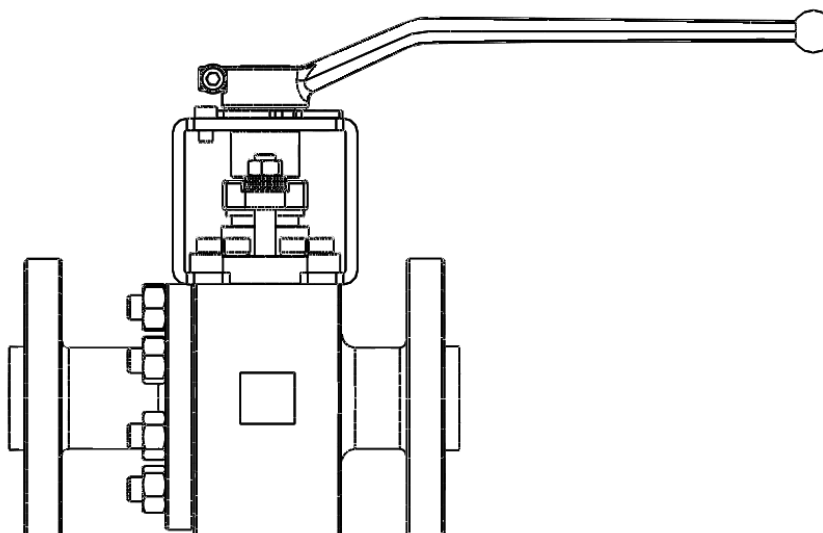
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valve information



VALVE

NAMEPLATE INFORMATION

EX:

1. Brand Name :JDV
2. SIZE: 2" (VALVE SIZE)
3. CLASS : 600 (RATING)
4. MODEL: XXX-XX-XX-XXX (MODELNO.)
5. S/N : XXXXXX(ORDER NO.)
6. BODY:A182-F316 (BODY MATERIAL)
7. SEAT : A182-F316 (SEAT MATERIAL)
8. BALL :A182-F316 (BALL MATERIAL)
9. STEM: A453-A66286(A286)
10. SEAL : GRAPHITE
11. ASME B16.34
12. DATE: 07/14/2023 (MM/DD/YYYY)



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Maintenance and Troubleshooting

OPEN/CLOSE THE VALVE REGULARLY

Valves remain long time in open or close position is recommended to cycle once a while to ensure the valve operation.

TIGHTEN PACKING

Re-tighten the articulating packing gland after its first exposure to elevated pressure and temperature.

(See the Table 1)

CHECK THE PACKING GLAND

Packing gland should be checked periodically and adjusted if necessary.

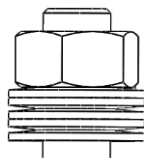
LUBRICATION

JDV metal seated ball valves DO NOT require lubrication.

ROUTINE MAINTENANCE

Keep the routine maintenance to ensure the best sealing function. If the upper seal (stem) appears leakage, please refer the torques in Table 1 to fasten gland bolts uniformly until leakage stops.

Size	Joint Bolt Size B7/B8M CL2	Torque Unit :lbf-in (N-m)	Gland Bolt Size B8M CL2	Torque Unit :lbf-in (N-m)
1/2"	3/8-16 UNC	265(30)	M8	142(16)
3/4"	3/8-16 UNC	265(30)	M8	142(16)
1"	1/2-13 UNC	443(50)	M8	142(16)
1-1/2"	9/16-12 UNC	620(70)	M8	177(20)
2"	5/8-11 UNC	797(90)	M10	301(34)

Size	Body Gland A4-70	Torque Unit :lbf-in (N-m)	LIVE LOADING PATTERN 
1/2"	M6	89(10)	
3/4"	M6	89 (10)	
1"	M8	178(20)	
1-1/2"	M8	178(20)	
2"	M10	354(40)	

Note: Above torques are lubricant.(0.23)

(Table 1)

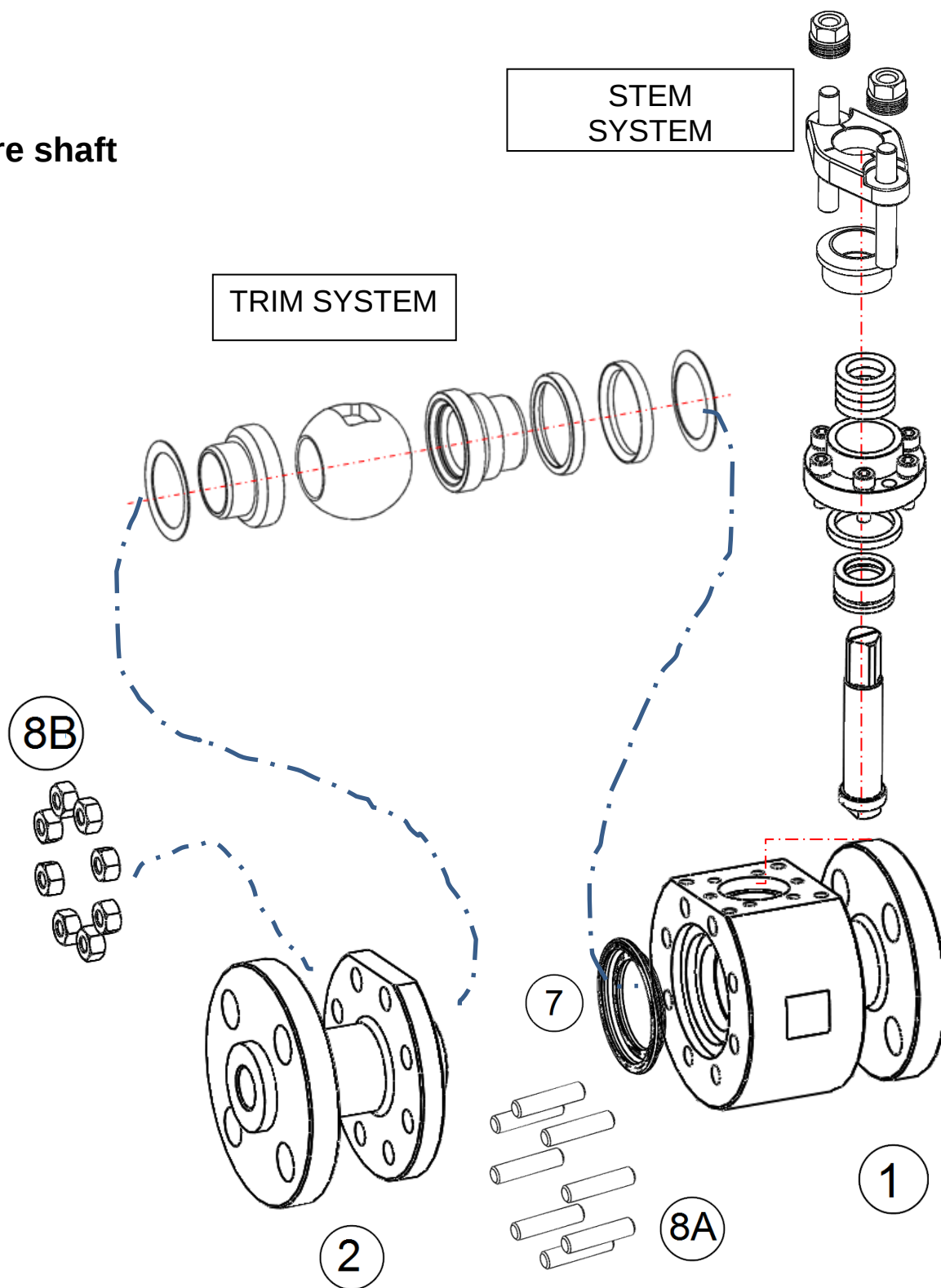




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Bare shaft



TRIM SYSTEM



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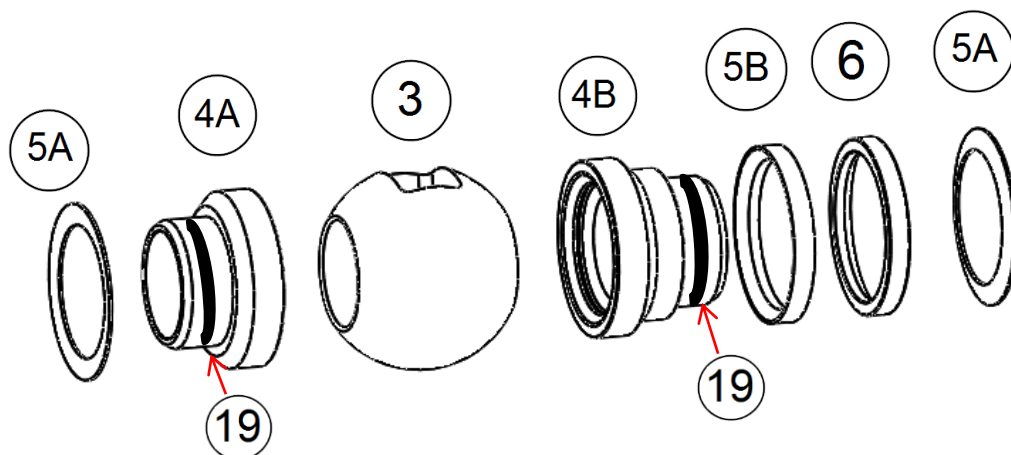
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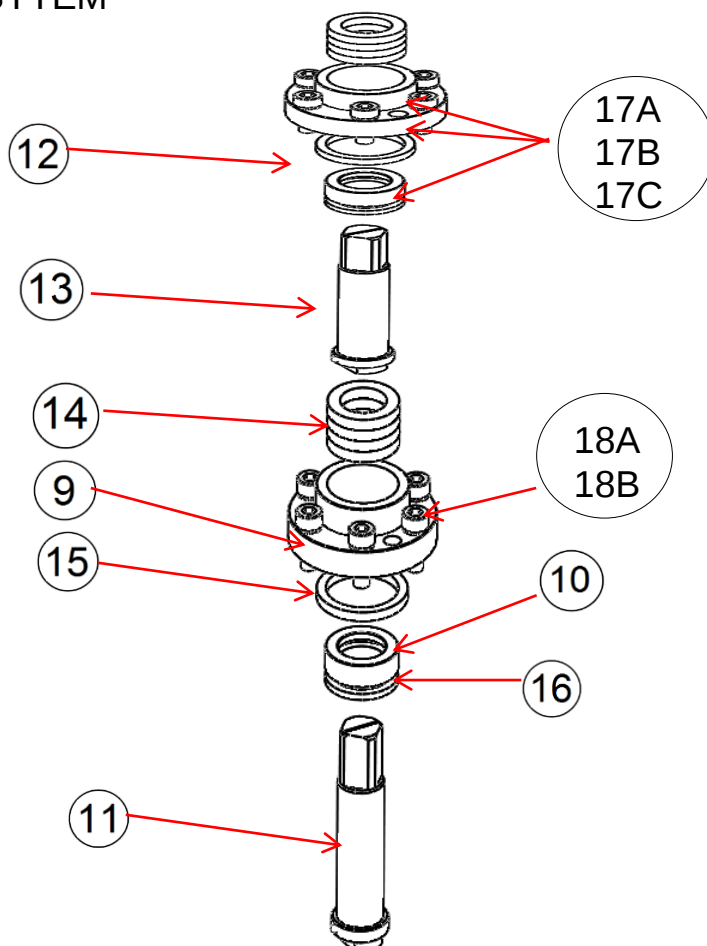


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STEM SYSTEM



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BARE SHAFT BOM

ITEM		PARTS NAME
1		BODY
2		CAP
TRIM SYSTEM	3	BALL
	4A	UPPERSREAM SEAT
	4B	DOWNSTREAM SEAT
	5A	SEAT SPRING
	5B	SEAT GASKET
	6	SEAT RETAINER
7		BODY GASKET
8A /8B		BOLT & NUT
9		BODY GLAND
10		RING
11		STEM
12		GLAND
13		GLAND FOLLOWER
14		GLAND PACKING
15		GLAND GASKET
16		SEAL
17A		GLAND BOLT
17B		LIVE LOADING
17C		GLAND NUT
18A /18B		BODY GLAND SCREW W/ SPRING WASHER
19		ANTI JAM



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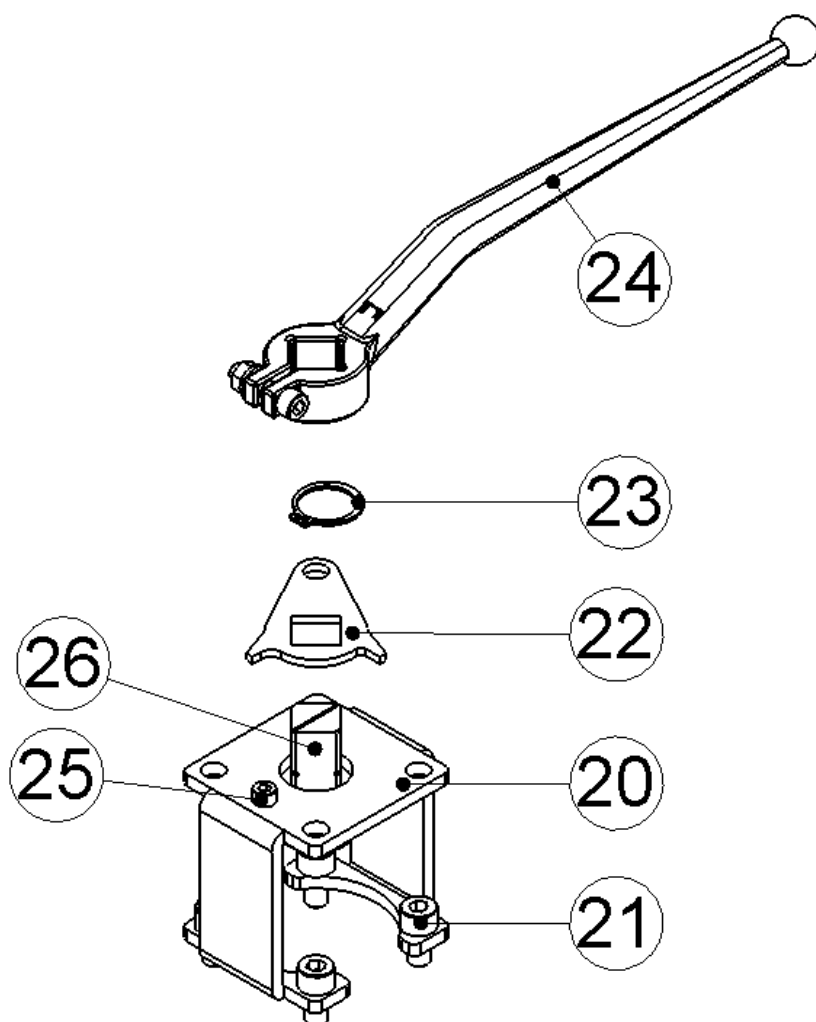


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HANDLE SET BOM

20	BRACKET
21	BRACKET BOLT
22	TRAVEL STOP
23	RETAINGING RING
24	HANDLE
25	PRECITION STOP
26	ADAPTOR



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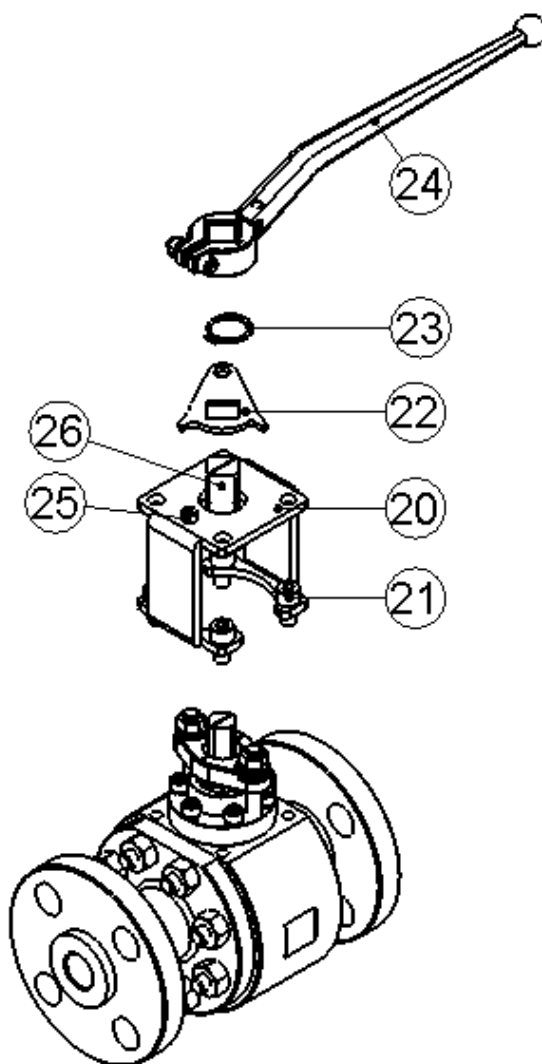


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Installation of Lever Set

1. Install Adapter 26 and BRACKET 20 on valve pad, tight Bracket bolt 21.
 2. Put the TRAVEL STOP 22 ,
 3. Put the RETAINING RING 23
 4. fix the lever set.24
 - 5.
- Locking Device is in option, please note the Locking Device must be installed before the lever set.



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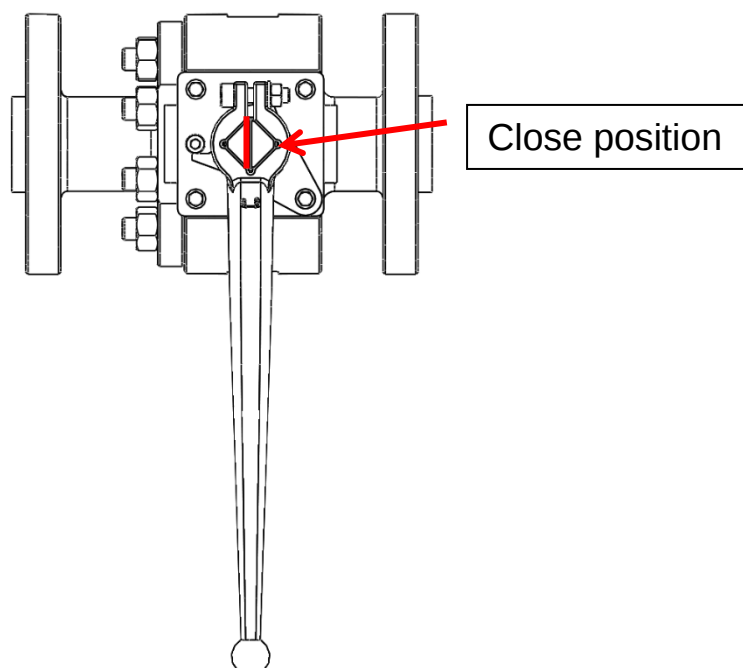
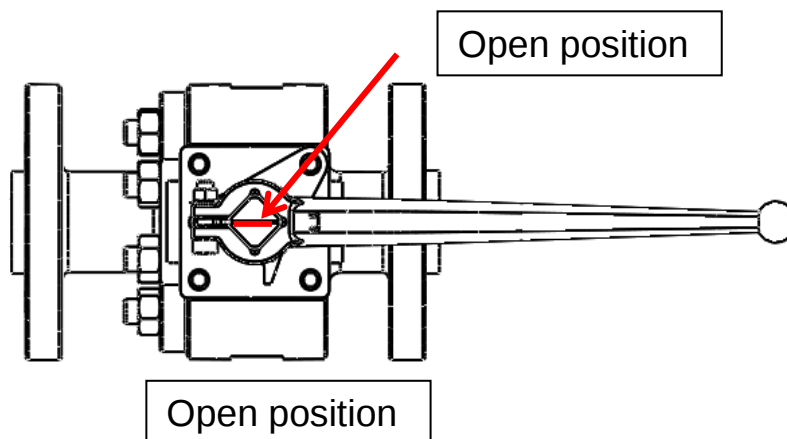


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Position verify

VERIFY OPERATING POSITION



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Misalignment of stops can result in valve under or over stroke causing a potential leak path.

THIS WILL AFFECT THE VALVE WARRANTY.

Verify ball position

While looking in the bore, open and close the valve.

Verify that the ball position matches the lever position or actuator indicator.

For installation, the valve must be in OPEN position, to protect the ball from surface damage.

Valve installation in piping

Install the valve in piping by following the arrow direction of valve body.



Support or lift may be required, use lifting lugs or nylon straps around the valve body.

Do not lift or support by the actuator alone.

JDV valves have a single direction of sealing that is indicated by the flow arrow on the body.

Note: In certain conditions, the valve may be installed in the flow arrow direction against with the line flow direction. Make sure that the “FLOW DIRECTION” is installed toward the higher pressure against the valve in the close position.



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Procedure of Disassembling

	Warning: . 1. Prior to disassembling, the valve has to be at half-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. It is recommended to contact JDV for the product maintenance and disassembling in order to avoid danger caused by the incorrect disassembling and assembling.



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JBF-RV Disassembling/Assembling Procedure

1. Turn the ball to close position.
Identify the ball valve in close position
 - 1.1 For manual valve, removing the Lever set.
 - 1.2 For automation valve, remove the actuator
2. Loosen (8B), remove CAP(2)
3. Remove UPSTREAM SEAT (4A) and SPRING(5A) from CAP(2)
4. Remove BOLT (8A), remove BODY GASKET(7)
5. Disassemble STEM SYSTEM
 - 5.1 Loosen GLAND NUT (17), remove GLAND(12)
 - 5.2 Take out GLAND FOLLOWER(13)
 - 5.3 Loose BODY GLAND SCREW W/ SPRING WASHER (18A/18B), BODY GLAND(9)
 - 5.4 Remove STEM SYSTEM from BODY(1)
 - 5.5 Disassemble STEM(11), RING(10), and BODY GLAND(9)分開, take out GLAND GASKET (15)
 - 5.6 Take out GLAND PACKING (14) 取出
6. Remove BALL(3) and DOWNSTREAM SEAT(4B) from BODY(1)
7. Remove SEAT GASKET(5B), SEAT RETAINER(6), and SPRING(5A) in sequence from BODY(1)

Assembling Procedure

1. Fix BODY(1) on the platform, put SPRING(5A), SEAT RETAINER(6), and SEAT GASKET(5B) into BODY(1).
2. Carefully Install DOWNSTREAM SEAT (4B) into BODY(1).
3. Install BALL(3) into BODY(1), make sure BALL(3) in close position.
4. Assemble STEM SYSTEM
 - 4.1 Assemble RING (10) and SEAL (16) to put into STEM(11), then put above into BODY(1) to assemble with BALL(3).
 - 4.2 Put in GLAND GASKET (15)
 - 4.3 Assemble BODY GLAND(9) with BODY(1), tighten BODY GLAND SCREW W/ SPRING WASHER (18A/18B) according to torques in TABLE 1.
 - 4.4 Assemble GLAND PACKING (14), GLAND FOLLOWER(13), and GLAND(12) on STEM(11) in sequence.
 - 4.5 Insert GLAND BOLT (17A) through the holes of GLAND(12), tighten BODY GLAND(9)
 - 4.6 Assemble LIVE LOADIND (17B), GLAND NUT (17C), and GLAND BOLT (17A) together.
5. Put SPRING(5A) into CAP(2), then put in DOWNSTREAM SEAT(4B)
6. Put BOLT(8A) into BODY(1), then assemble with No. 5, assemble CAP(2) and BODY(1).
7. Tighten NUT(8B) with BOLT(8A) according torques in TABLE 1.



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8. Tighten GLAND NUT (17C) according to torques in TABLE 1.



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