

Jamesbury™ D style valve 3" (DN 80)

Installation, maintenance and
operating instructions

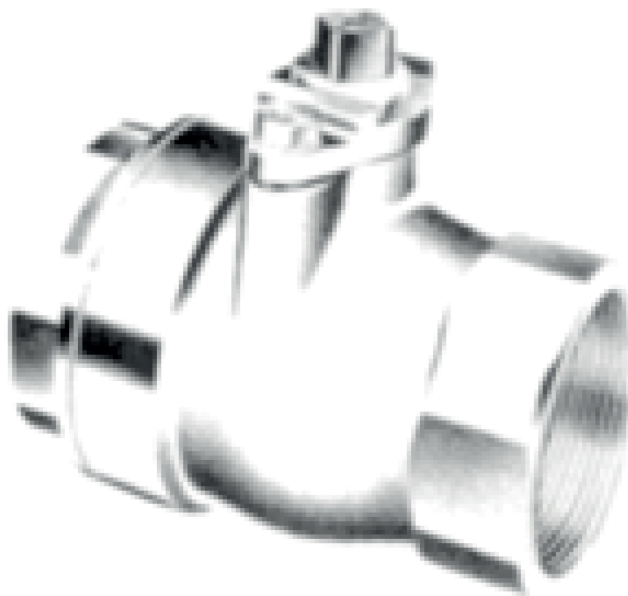


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READ THESE INSTRUCTIONS FIRST!

These instructions provide information about safe handling and operation of the valve.

If you require additional assistance, please contact the manufacturer or manufacturer's representative.

SAVE THESE INSTRUCTIONS!

Addresses and phone numbers are printed on the back cover.

1. GENERAL

This instruction manual contains important information regarding the installation, operation and troubleshooting of Jamesbury's 3" (DN 80) D Style Valve. Please read these instructions carefully and save them for further reference.

1.1 WARNING

FOR YOUR SAFETY, IT IS IMPORTANT THAT THE FOLLOWING PRECAUTIONS BE TAKEN PRIOR TO REMOVAL OF THE VALVE FROM THE LINE OR BEFORE ANY DISASSEMBLY:

1. WEAR ANY PROTECTIVE CLOTHING OR EQUIPMENT NORMALLY REQUIRED WHEN WORKING WITH THE FLUID INVOLVED.
2. DEPRESSURIZE THE LINE AND CYCLE THE VALVE AS FOLLOWS:
 - A. PLACE THE VALVE IN THE OPEN POSITION AND DRAIN THE VALVE.
 - B. CYCLE THE VALVE TO RELIEVE RESIDUAL PRESSURE IN THE BODY CAVITY BEFORE REMOVAL FROM THE LINE.
 - C. AFTER REMOVAL AND BEFORE ANY DISASSEMBLY, CYCLE THE VALVE AGAIN SEVERAL TIMES.
3. WHEN INSTALLING OR REMOVING PIPE FROM THE VALVE, PLACE THE WRENCH BEING USED ON THE VALVE AS SHOWN IN (FIGURE 1) MAKE CERTAIN BODY CAP END OF VALVE DOES NOT TURN OUT OF VALVE BODY. (BODY/BODY CAP JOINT IS A RIGHT HAND THREAD.) **NOTE:** IF FITTING OR PIPE REMOVAL IS TO BE A REGULAR PRACTICE, OUR OPTION OF TACK WELDED BODY/BODY CAP JOINT IS RECOMMENDED. IF THIS IS UNACCEPTABLE BECAUSE OF VALVE REPAIR PRACTICE, JAMESBURY OFFERS AN ALTERNATIVE WITH EITHER ITS STYLE 530S OR 5300 STANDARD PORT OR ITS STYLE 6300 FULL PORT FLANGED VALVES.
4. THE VALVE BODY WORKING PRESSURE RATING DEPENDS ON VALVE SIZE AND MATERIAL. SEAT RATINGS ALSO DEPEND UPON THE MATERIAL CHOSEN. IT IS IMPORTANT TO REFER TO THE TAG FASTENED ON EACH VALVE FOR THE MAXIMUM PRESSURE RATING AND MATERIAL DESCRIPTION. IF THE TAG IS MISSING, REFER TO VALMET FOR MAXIMUM RATINGS.

2. INSTALLATION

If there is weepage past the stem seals upon installation, it means the valve may have been subject to wide temperature variations in a shipment. Leaktight performance will be restored by a simple packing adjustment described in the **MAINTENANCE** Section.

Flow through a Jamesbury valve can be in either direction. It is recommended, however, that a screwed end valve be installed with the body cap facing upstream. Use standard piping practices when installing valves with threaded parts. When tightening the valve to the pipe, apply the wrench to the end nearest the pipe being worked.

2.1 DISASSEMBLY

Read the **WARNING** Section before performing any work.

1. Carefully cycle the valve several times to relieve any pressure trapped in cavity.
2. Remove the cap screw (H2) and washer (H3) holding the pipe handle (H5) to the stem.
3. Remove the pipe handle and the handle adapter (H4).
4. Loosen the set screw (21) and remove the indicator stop (12). Loosen and remove the hex nuts (10) and washers (19). Remove the bonnet plate (9), compression ring (18), stem seal (7), stem (4). On Fire-Tite® "DZ" valves, also remove the secondary stem seal (13) and second stem seal (7).

NOTE: When removing the stem seals, be careful not to scratch any sealing surfaces in the body.

5. Remove the body cap (2) by wrenching in a counter-clockwise direction. Pry the seat (5) out of the body cap (2). Do not scratch the sealing surfaces.
6. Remove the ball (3) and pry the seat (5) out of the body (1). Do not damage the sealing surfaces.
7. Remove the body seal (6) taking the same precautions not to damage sealing surfaces.

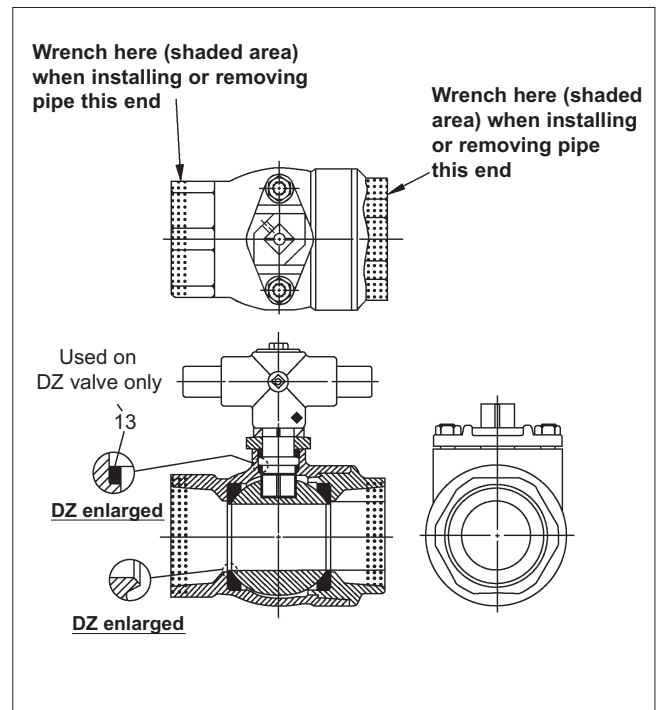


Figure 1.

2.2 ASSEMBLY

1. Standing the body (1) carefully on end, drop in one seat (5) with the flat surface on the bottom (see **Figure 2**).
2. Place the ball (3) into the body (1) in the closed position with the square stem hole facing the stem opening in the body. Insert the stem (4) as a temporary means of holding the ball.
3. Install the body seal (6) in the body (1) with the inside diameter chamfer of the seal facing away from the ball (3).
4. Install the second seat (5) into the body cap (2) with the flat surface of the seat contacting the body cap (see **Figure 2**).
5. Install the body cap (2) into the valve by turning it clockwise until the body cap is tight against the body (1).
6. Place a wrench on the valve stem (4) and rotate the ball slowly with a gentle back and forth motion, building gradually to a full quarter turn. A fast turning motion at this point may cut the seat before it has a chance to form the proper seal.
7. Remove the stem, and insert the bottom stem seal (7) with the chamfer in the inside diameter facing toward the ball (3). If the valve is *FIRE-TITE* Type "DZ", place the emergency stem seal (13) on top of this stem seal (7). Insert the stem (slotted side up with the slot parallel to the valve waterway) and tap gently in place to avoid cutting the stem seal.
8. Slide the second stem seal (7) and the compression ring (18) on to the stem (4). The chamfer on the stem seal should also be facing toward the ball.
9. Fit the bonnet plate (9) over the stem (4) and the studs (11) with the slot in the plate facing away from the ball.
10. Assemble a shakeproof washer (19) and a hex nut (10) on each stud (11) and alternately tighten until the stem seals are seated. Turn each nut another 3/4 of a turn to ensure proper seal compression.
11. Insert the set screw (21) into the indicator stop (12). Then place the indicator stop on the stem (4) and push down until the stop is inside the bonnet plate slot. Rotate the stem to the 1/2 open position and tighten the set screw (21).

NOTE: The valve should open by turning the stem in counterclockwise direction. If this is not possible, loosen the set screw (21) and reassemble the indicator stop upside down.

12. Place the handle adapter (H4) over the stem (4) with the pipe handle opening parallel with the slot on the top of the stem (4). Install the pipe handle (H5) through the adapter until the desired hole in the handle lines up with the threaded stem hole. Secure the handle adapter by placing the stem screw (H2) through the washer (H3) and the adapter (H4), and tighten into the stem (4).
13. Rewire the I.D. tag and caution tag to the studs (11).

3. MAINTENANCE

Good operating procedure requires periodic observation to insure that the valve is functioning well. The frequency of observation will depend on the application. Routine maintenance consists of tightening the bonnet plate nuts periodically to compensate for stem seal wear. The nuts, however, should not be tightened down too severely or unevenly since this will destroy the seals.

Overhaul maintenance consists of replacing the seals and seats. A standard service kit consisting of Items 5, 6, and 7 shown in (**Figure 2**) may be obtained from your Valmet distributor.

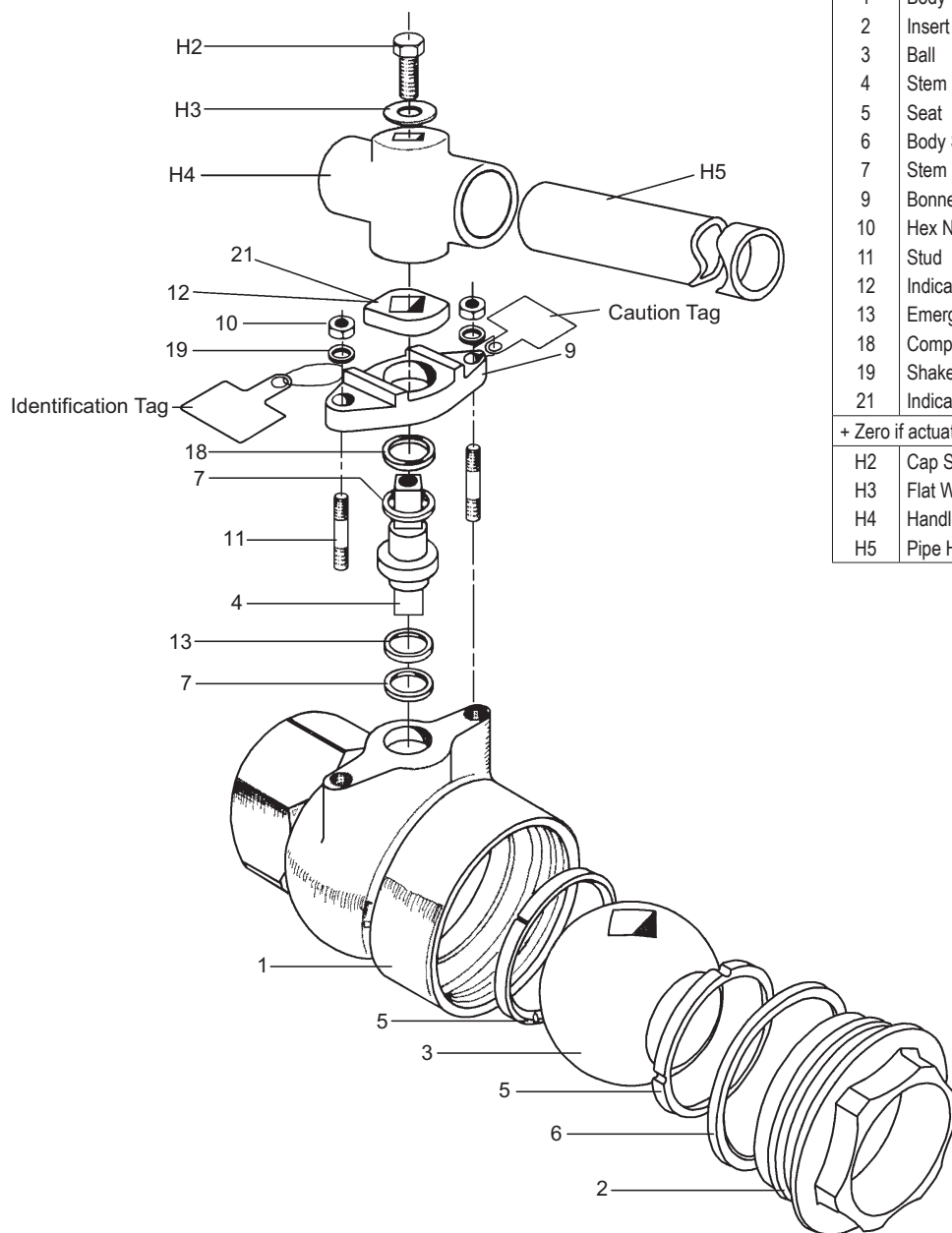
Order repair kits as indicated in (**Table 1**).

TABLE 1		
Type	Seats	
	TFE	Filled TFE
D	RKF5TT	RKF8MT
DZ	RKF45TT	RKF48MT

4. REPAIR KITS/SPARE PARTS

For further information on spare parts and service or assistance visit our web-site at www.neles.com.

EXPLODED VIEW



PARTS LIST		
ITEM	PART NAME	QTY
1	Body	1
2	Insert	1
3	Ball	1
4	Stem	1
5	Seat	2
6	Body Seal	1
7	Stem Seal	2
9	Bonnet Plate	1+
10	Hex Nut	2+
11	Stud	2+
12	Indicator Stop	1+
13	Emergency Stem Seal	1
18	Compression Ring	1+
19	Shakeproof Washer	2+
21	Indicator Stop Set Screw	1+
+ Zero if actuator is used		
H2	Cap Screw	1
H3	Flat Washer	1
H4	Handle Adaptor	1
H5	Pipe Handle	1

Figure 2.

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www.valmet.com/flowcontrol

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