

Trouble-free operation.

Assured Automation Series 36 Ball valves have proven themselves with long-term, trouble-free service in a wide variety of applications

Read carefully.

The following procedures and illustrations have been prepared to assist you in the maintenance and repair of your Assured Automation Ball Valves. Please read these instructions carefully.

WARNING

READ AND UNDERSTAND INSTRUCTIONS BEFORE SERVICING VALVE.

Failure to follow instructions could result in death or serious injury. If you have any question, consult our Offices at 732-381-2255.

CAUTION

These instructions have been prepared for valves as they are currently manufactured. If you have an older design valve that needs repair, contact us to make sure that you have the correct repair parts and instructions

Maintenance.

All Assured Automation Ball Valves are factory tested for tight shutoff. Standard valves are live-loaded and normally no further adjustment is necessary.

If leakage should occur along the stem, follow the instructions at the right

Automatic seal wear compensation

Assured Automation Series 36 Ball Valves are designed with Belleville washers for automatic seal wear compensation. If there is sign of leakage from the stem, it is time to replace the stem packing and the stem seal. If there is sign of internal leakage, it is time to replace the ball seats.



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1-800-899-0553

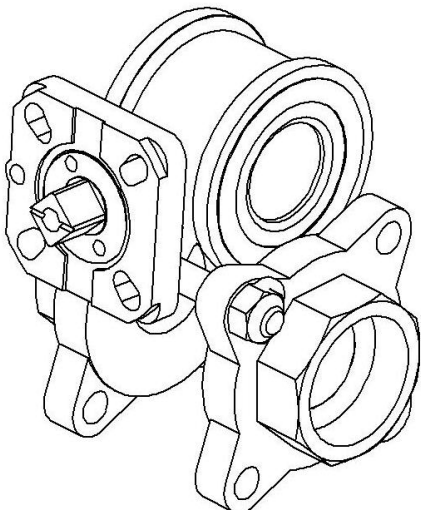
19 Walnut Avenue, Clark, New Jersey 07066
Fax: 732-381-2922

WARNING

The procedures on these pages must be followed carefully. Failure to do so could result in equipment damage, serious injury or death.

Installation of threaded valves.

1. Use conventional sealant, such as hemp Core, Teflon®, etc. on the threads.
2. Apply wrench on the hexagon end of the valve only. Tightening by using the body or handle can seriously damage the valve.
3. For applications where screwed end valves are back-welded on site, these valves must be dismantled according to instructions for weld end valves.



Installation of weld-end valves

1. Tack-weld the valve on the pipe in four points on both end caps, with the ball valve in the open position.

Extended butt-weld end ball valves allow direct welding.

Short butt-weld or socket-weld end valves require the following steps.

2. With the valve in open position (lever to be parallel to the axis of the pipe), loosen all the nuts on the body bolts. remove all the bolts except one. Swing the body outside the pipe.
3. Turn the handle to the half open position to assist in the removal of the seats and body gaskets.
4. Turn the handle to the closed position and remove the ball.
5. Place all removed parts in a clean and secure place.
6. Replace the body and the removed bolts. Tighten all nuts slightly. To prevent any leakage to the body joints after welding, make sure that the body and end caps remain perfectly parallel.
7. Finish welding both end caps onto the pipe.
8. After the pipeline and valve cool, clean end caps then remove the previously replaced bolts (See para 6 above). Swing out the body. Turn the valve to the closed position, then replace the ball. Turn valve to the open position and replace seats and body gaskets.
9. After seats, body gaskets and ball are replaced, swing the body into position, replace the removed bolts and nuts, and tighten the nuts according to the Bolt Tightening Specifications Table.

Repair

Before disassembly.

1. Open the valve to the 45-degree position. This will allow any trapped pressure within the valve to escape.
2. If valve have been used with hazardous fluids, make certain the valves are thoroughly cleaned before disassembly

Disassembly

1. With the valve in open position (lever to be parallel to the axis of the pipe), loosen all the nuts on the body bolts. remove all the bolts except one. Swing the body outside the pipe.
2. Turn the handle to the half open position to assist in the removal of the seats.
3. To assist in loosening of the disc plate, place a rod of diameter smaller than the ball orifice into the ball orifice. Loosen and remove the disc plate with two-prong tool. Remove the set of Belleville washers and the gland. Place all removed parts in a clean and Secure place.
4. Push the stem downward. It should come out through the center body. Remove the stem then remove the pyramidal stem seal

Inspection

Inspect the valve components for wear or damage.

Be sure to carefully inspect the following components for nicks, cracks, breaks or other defects:

1. Valve seats
2. Ball
3. Stem
4. Packing rings
5. Pyramidal stem seal

Reassembly

1. Thoroughly clean the stem. Place new pyramidal stem seal over the stem.
2. Remove the v-ring stem packing from the center body cavity. Thoroughly clean the center body. Replace with a new v-ring stem packing.
3. Replace the stem, the Belleville washer and the gland. Replace the disc plate. To tighten the disc plate, hold the stem in place and tighten the disc plate with two-prong tool. Tighten the disc plate in accordance with the recommended torque values listed in the Stem Disc Plate Torque Chart included on this page.
4. Turn the valve to the closed position (handle crossed with the pipeline). Replace the ball. Turn the valve to the open position (handle in-line with the pipeline). Replace the seats and joint gaskets.
5. Swing the center body back into position. Replace the removed bolts and nuts. Tighten the nuts according to the Bolt Tightening Specification Table.
6. Open and close the valve two (2) or three (3) times to be sure the valve operates properly.
7. Pressure test valve after repairs have been completed to assure that all seals are working properly.

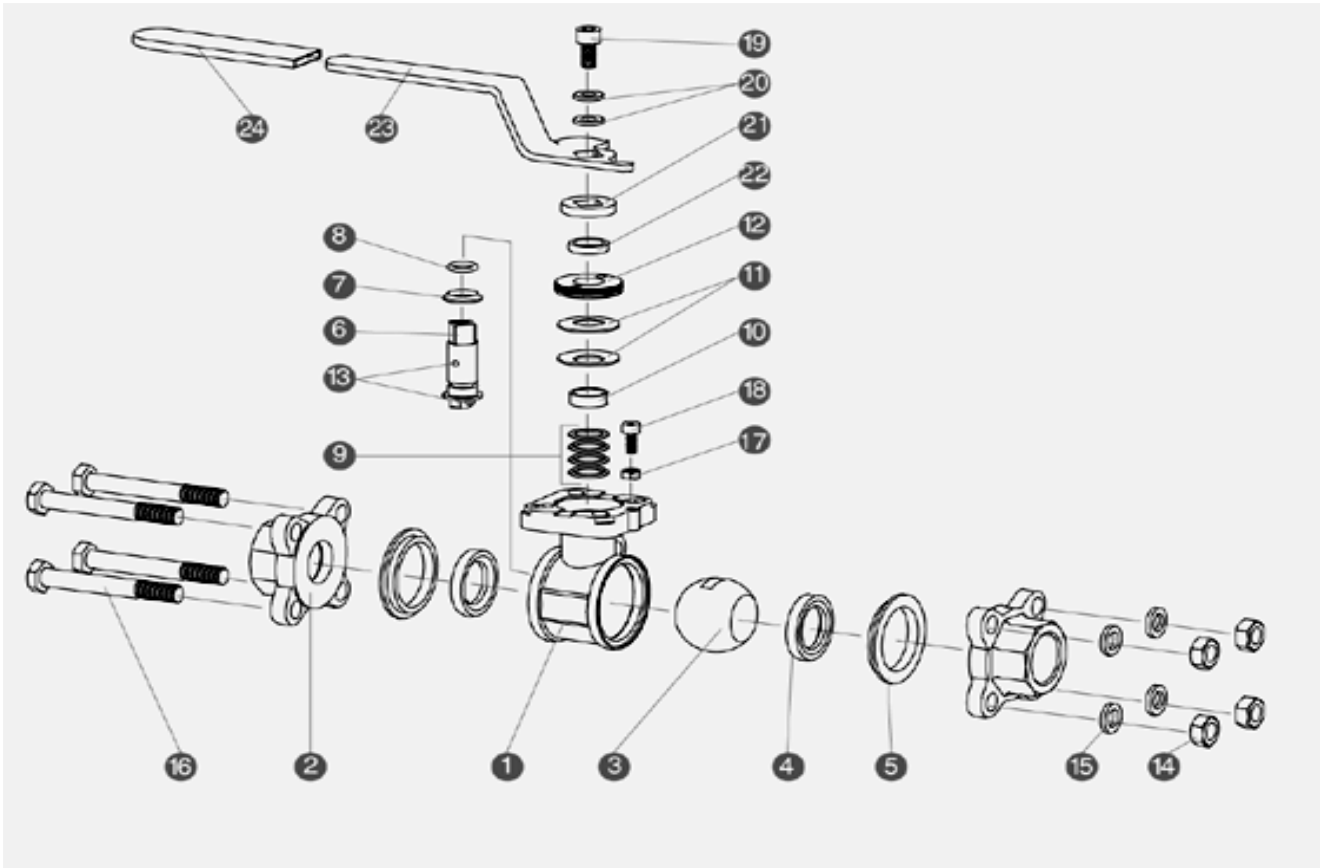
BOLT TIGHTENING SPECIFICATIONS TABLE

VALVE SIZE	BOLT TYPE	TORQUE (IN-LB)
¼" to ½"	M6	70
¾" to 1"	M8	155
1-1/4" to 1-1/2"	M10	300
2"	M12	520
2-1/2" to 4"	M16	1000

STEM DISC PLATE TORQUE CHART

VALVE SIZE	TORQUE (IN-LB)
¼" to ¾"	106
1" to 1-1/4"	150
1-1/2" to 2"	212
2-1/2" to 3"	310
4"	354

ASSEMBLY DIAGRAM



NO.	PART NAME	MATERIALS		NOTES
1	BODY	ASTM A 351 GrCF8M	1	* PARTS WHICH ARE INCLUDED IN STANDARD REPAIR KIT. SPECIFY RPTFE OR PTFE SEATS
2	END CAP	ASTM A 351 GrCF8M	2	
3	BALL	316SS	1	
4	*SEAT	RPTFE or PTFE	2	
5	*BODY GASKET	RPTFE or PTFE	2	** size ¼" to ¾" use 2 pieces of stem packing;
6	STEM	ASTM A479/316	1	Sizes 1" and above use 4 pieces of stem packing
7	*PYRAMIDAL STEM SEAL	PTFE	1	
8	*O-RING	VITON	1	Anti-Static Device for ¼" to ½" is on the side and bottom of the stem. For other sizes, it is located as shown in the drawing. Items 17 to 24 are components for handle kit if a manual valve.
9	*V-RING STEM PACKING	PTFE	**	
10	GLAND	304SS	1	
11	BELLEVILLE WASHER	301SS	2	
12	DISC PLATE	ASTM A479/304	1	
13	ANTI-STATIC DEVICE	316SS	2	
14	BODY NUT	304SS	4	
15	BODY WASHER	304SS	4	
16	BODY BOLT	304SS	4	
17	STOP NUT	304SS	1	
18	STOP BOLT	304SS	1	
19	HANDLE BOLT	304SS	1	
20	HANDLE WASHER	304SS	2	
21	HANDLE DISC	304SS	1	
22	HANDLE SPACER	PTFE	1	
23	HANDLE	304SS	1	
24	HANDLE SLEEVE	VINYL	1	