

Installation, Operation, And Maintenance

GUIDE

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Installation

Install valve in piping system using proper size taper thread NPT connections with fluid and pressure compatible thread sealant.

Caution: *Inspect male pipe thread for damage (i.e. nicks, burrs ect.) prior to installation. Also, do not over tighten NPT connection or thread joint damage may occur.*

Threaded-End valves should be installed using two pipe wrenches, one on the flats of the adapter or body and the other on the adjacent pipe. DO NOT apply wrench to the body section or opposite side when making up pipe as this may result in damage to the body or breaking loose the threaded adapter-to-body connection. In addition, all pipe sections should be properly supported to prevent excessive bending loads applied to the valve. WARNING, weighted objects suspended on the downstream end of a threaded connection, create bending loads and may result in failure of the body to adapter connection.

ATTENTION: SOCKETWELD VALVES

For socket welded valves, weld valve in full open position only using 2 weld passes max. 3/32" Root, 1/8" or 3/32" Cap.

1. Prior to welding it is imperative that all welding surfaces be clean from contamination such as dirt, rust and grease which may affect weld performance.

CAUTION: During the welding process use tempil stick or other reliable temperature indicator on outside diameter of valve body (center section) directly adjacent to adapter (end piece) being welded to assure that body metal temperature does not exceed 300° F. This precaution is necessary to assure that non-metallic seat/seals do not suffer heat damage.

2. Tack weld valve into position and check for appropriate alignment.
3. Finish weld following proper weld procedure for material grade and condition, and the above caution.
4. If weld procedure being used requires post weld heat treatment, the following is applicable.
 - A.) Localized post weld heat treatment limited to the weld and the heat affected zone does not require disassembly of the valve, and use of this method does not void the valves pressure test certifications. However, it is imperative that the body temperature be monitored and controlled as described in note 1.
 - B.) Post weld heat treatment of the entire body does require disassembly of the valve in order to prevent damage to the valve internals. Disassembly of the valve voids testing certifications.

Operation

AOP Series B3 and B6 ball valves are recommended for on-off service only. Throttling may cause excessive and non-uniform wear on the seats, preventing tight shut-off. All AOP Ball Valves open by rotating handle in a counter-clockwise direction.

Maintenance

AOP Series B3 and B6 ball valves are permanently lubricated during assembly and normally require no routine maintenance. However, if necessary, stem-packing adjustments may be accomplished by tightening stem-packing screw until leakage stops. (**Do not overtighten**)

CAUTION:

Before removing valve from line, turn valve to half-open position to relieve any body pressure. Return valve to closed position.

Reconditioning

To replace Seats, Ball or Body Seal:

See detail view on page two. Open valve, unscrew adapter (2) from body (1). Remove body seal (6). Turn ball (3) to the closed position and remove. Remove seats (5) with care to prevent damage to surfaces of the seat cavity in body and adapter. Clean seat cavities and body seal (6) seating surfaces and using fine emery. Replace seats (5) and ball (3). Grease new body seal (6) before positioning it inside the body (1). Replace adapter, assuring that it butts metal-to-metal against the body.

To replace Stem, Thrust bearing and Stem Packing:

Remove ball (3) as above. Loosen and remove handle nut (12) and lock washer (13). Lift handle (10) up to remove from stem. Remove packing nut (9). Remove stem (4) and thrust bearing (7) through body bore. Remove packing (8). Clean stem journal in body using fine emery. Place thrust bearing on stem. Replace stem through body port. Replace new packing and packing nut. Tighten packing nut per table. Reaffix handle with lock washer and handle nut and tighten. Reassemble valve as stated above.

The World Standard in Quality Flow Management Products and Service

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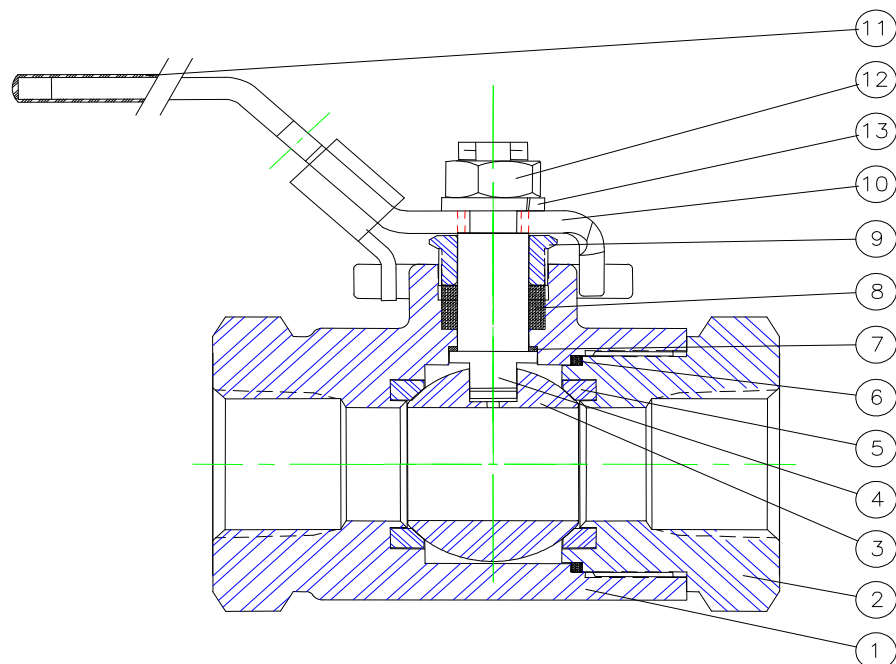


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AOP SERIES B3, B6 Floating Ball Valve

Component Parts,

GUIDE



Parts List

No.	Description	No.	Description	No.	Description	No.	Description
1	Body	5	Seat	9	Packing Nut	13	Lock Washer
2	Adapter	6	Body Seal	10	Handle - Locking		
3	Ball	7	Thrust Bearing	11	Grip - Handle		
4	Stem	8	Packing	12	Handle Nut		

PACKING NUT TORQUE		
Valve Size	3000 PSI Valve	6000 PSI Valve
1/4 FP	23 in lbs	35 in lbs
1/2 FP	23 in lbs	35 in lbs
3/4 FP	52 in lbs	83 in lbs
1 FP	80 in lbs	130 in lbs
1-1/2FP/2RP	115 in lbs	180 in lbs

ADAPTER TORQUE		
Valve Size	3000 & 6000 ft lbs	3000 & 6000 in lbs
1/4 FP	40 to 52 ft. lbs	480 to 624 in lbs
1/2 FP	40 to 52 ft. lbs	480 to 624 in lbs
3/4 FP	110 to 145 ft. lbs	132 to 1740 in lbs
1 FP	210 to 280 ft. lbs	2520 to 3360 in lbs
1-1/2FP/2RP	585 to 715 ft. lbs	7020 to 8580 in lbs

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