

# APOLLO<sup>®</sup>

## INSTALLATION, OPERATION AND MAINTENANCE GUIDE

### For Actuator Ready Ball Valves:

71-ARX-64

76-ARX-64

77-ARX-64

89-A4X-64



 **CONBRACO**  
Ball Valve Division

# **INSTALLATION, OPERATION AND MAINTENANCE OF APOLLO ACTUATOR READY “AR” BALL VALVES**

Valves must be installed in piping systems that comply with the applicable portions of A.N.S.I. B31. Special considerations should be taken with respect to expansions and contractions of the piping system and media flowing through it.

## **INSTALLATION**

1. Piping to be connected to actuator ready ball valves should be accurately threaded, clean and free of dirt and metal shavings. Two full wraps of PTFE thread sealant (Teflon tape) should be applied to the threaded portion of the pipe prior to installation in the valve.
2. Use two wrenches when making the pipe joint. Apply one wrench on the hex pads nearest the joint being tightened to prevent affecting the retainer to body seal.

## **OPERATION**

If the valve uses a lever:

The levers are marked showing proper rotation for “ON” and “OFF” positions. Rotation is clockwise for “OFF” and counterclockwise for “ON”.

If valve uses an actuator:

The valve is “ON” when the red indicator plugs on the actuator are aligned (i.e. parallel) with the piping and actuator body. Conversely, when the red indicator plugs are perpendicular to the piping and actuator body, the valve is “OFF” and a no flow condition is indicated.

## **MAINTENANCE**

Normal stem packing wear can be compensated for by tightening the packing gland screw clockwise. The bent tab on the locking plate must be bent down prior to adjusting the nut. Turning the nut a quarter turn clockwise is usually sufficient. If no leakage is detected upon flowing the valve, a locking plate tab must be turned up on a nut flat. If leakage is observed, continue to tighten the nut in clockwise eighth-turn increments until leakage stops.

## GENERAL REPAIR OF THE VALVE

**CAUTION:** Do not disassemble valve while under pressure! *Special care must be taken if hazardous media is used in the piping system.*

1. Close valve.
2. Remove retainer by turning counterclockwise
3. For 1/4" – 1" valves, pry out the top seat, being careful no to damage the ball. For 1-1/4" – 3" valves, the top seat will come out with the retainer.
4. Push ball out of the body with finger.
5. Bend down tab on locking tab washer and remove nut by turning counterclockwise. Remove locking tab, belleville washers and gland ring from stem and push stem down into the body to remove.
6. Remove all seats and seals. The stem packing may be cut with a knife to facilitate removal, but be careful not to damage packing box.
7. Replace all seats and seals and the locking plate as furnished in the Service Kit. Inspect the ball and stem for excessive wear and replace if necessary. Contact Conbraco for replacement part information.
8. Reverse the above procedure to reassemble using suitable thread sealant (Loctite 609/648/680 or equivalent) on the retainer threads. **NOTE: VALVES IN OXYGEN SERVICE MUST UTILIZE AN OXYGEN COMPATIBLE THREAD SEALANT.**

Estimated Stem Nut Torques Are As Follows:

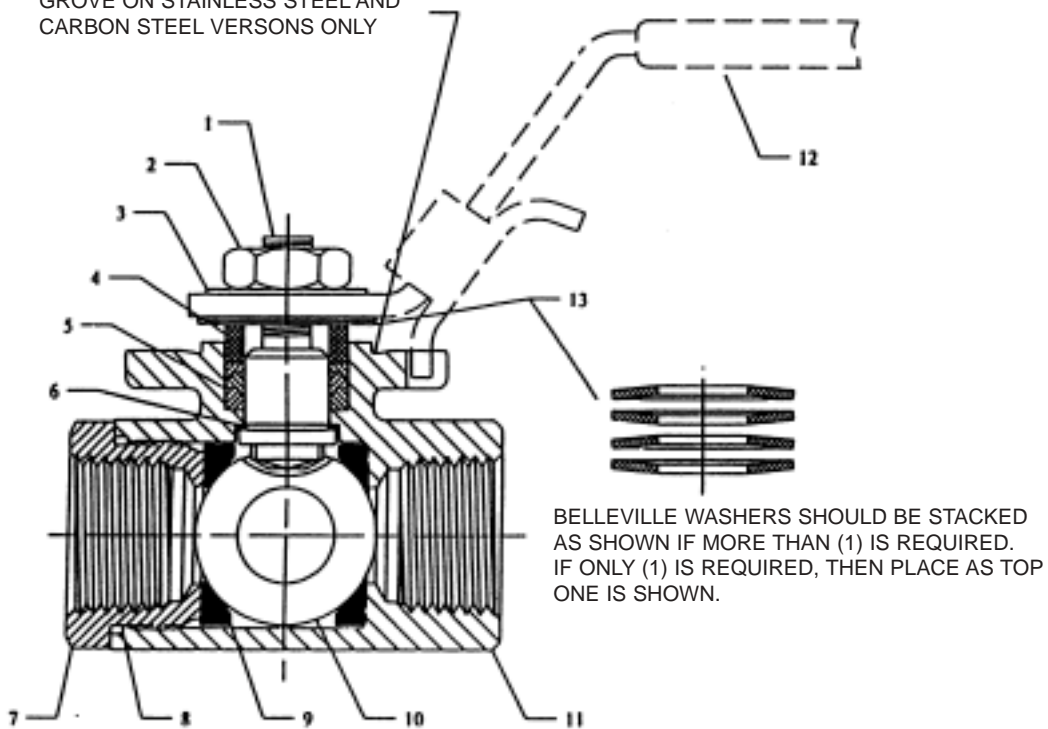
1/4" – 1/2" 50 In/lbs

3/4" – 1" 75 In/lbs

1-1/2" – 3" 150 In/lbs

**ALWAYS TEST VALVE AND SYSTEM BEFORE  
PUTTING THE SYSTEM INTO SERVICE.**

GROVE ON STAINLESS STEEL AND  
CARBON STEEL VERNONS ONLY



- |                                     |  |
|-------------------------------------|--|
| 1. STEM (BLOW-OUT-PROOF)            | 9. SEATS   |
| 2. NUT                              | 10. BALL   |
| 3. LOCK PLATE                       | 11. BODY   |
| 4. GLAND                            | 12. LEVER & GRIP ASSEMBLY<br>(OPTIONAL ONLY)         |
| 5. PACKING SET                      | 13. BELLEVILLE WASHERS<br>(QUANTITIES VARY PER SIZE) |
| 6. THRUST BEARING                   |  |
| 7. RETAINER                         |  |
| 8. BODY SEAL (1-1/2" & LARGER ONLY) |  |