

BV700 Series Actuated Ball Valve ORFS Instruction Manual

▲ WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in gas leakage, fire or explosion causing property damage and personal injury or death.

Oasis products must be installed, operated and maintained by trained and competent personnel in accordance with all applicable local codes, rules and regulations in addition to the Oasis Instructions.

Oasis Engineering Ltd. will not be held liable in such circumstances where installation, operation and maintenance procedures were performed by incompetent personnel resulting in improper assembly, unsafe operation, equipment damage or personal injury.

Oasis recommends that all service technicians should watch the Product Servicing Video before attempting to service this part.



Servicing Video

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Instruction Manual

Warning!

High pressure gas and gas equipment can cause serious harm to both infrastructure and personnel if safety precautions are not followed.

Oasis recommends considering the use of the following PPE when working with high pressure along with any other site specific health and safety requirements:



Foot Protection



Hearing Protection



Safety Helmets



Hand Protection

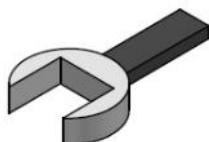


Safety Glasses



Ensure the system is clean of debris, vented and isolated before any installation or servicing work is carried out.

Tools Required



Spanner
(Wrenches)



Spray bottle
(Snoop or soapy water)

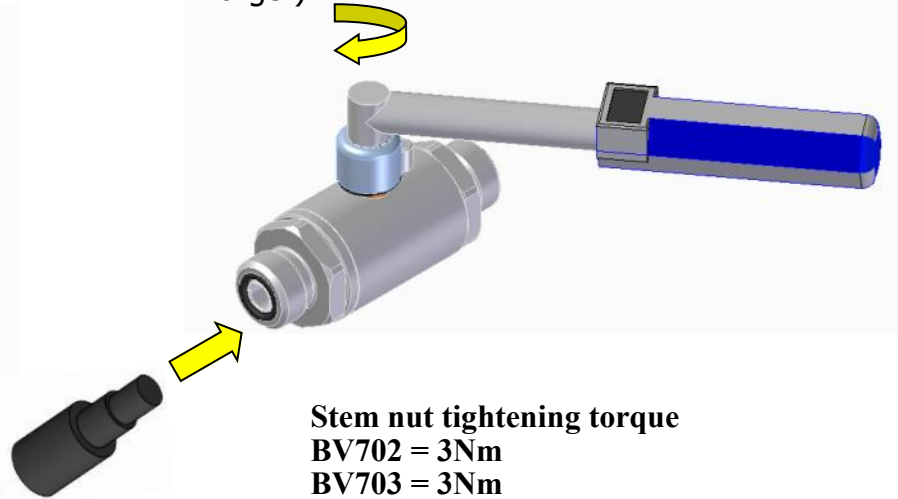


Oasis Plastic Tool
Part Number:
TOOL-BVASSY
(Sold separately)
or Similar

1. If fitting an existing valve with an actuator remove existing handle and install the lock tab and half nut.



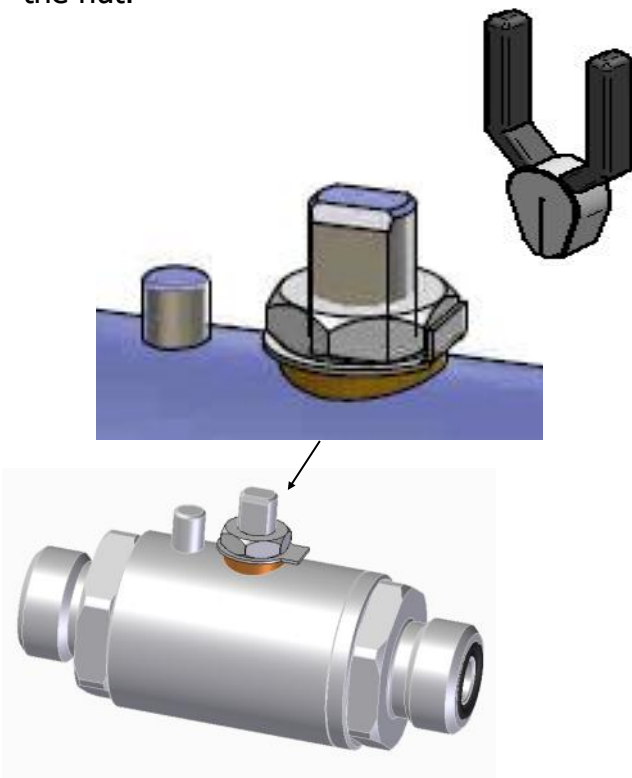
2. Tighten the half nut to the required torque. Insert TOOL-BVASSY to hold ball in place while tightening. (For BV703 and larger).



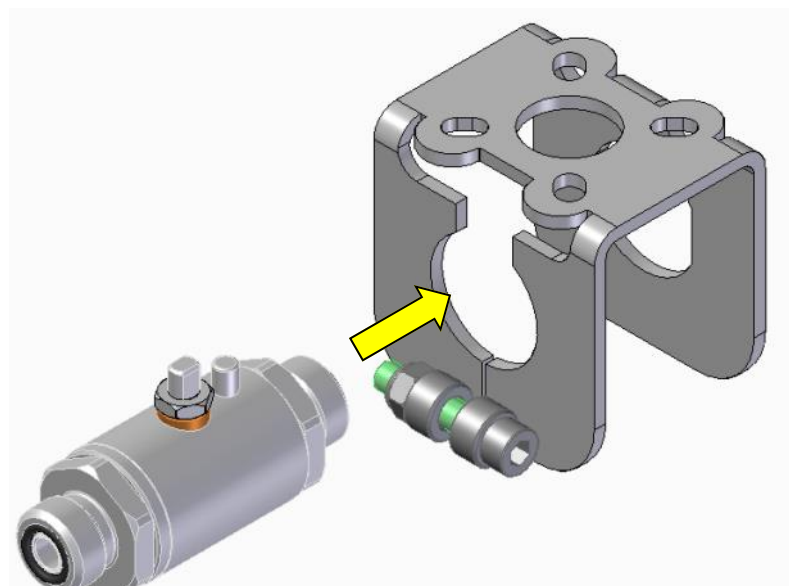
Stem nut tightening torque

- BV702 = 3Nm
- BV703 = 3Nm
- BV704 = 3Nm
- BV706 = 6Nm
- BV708 = 6Nm

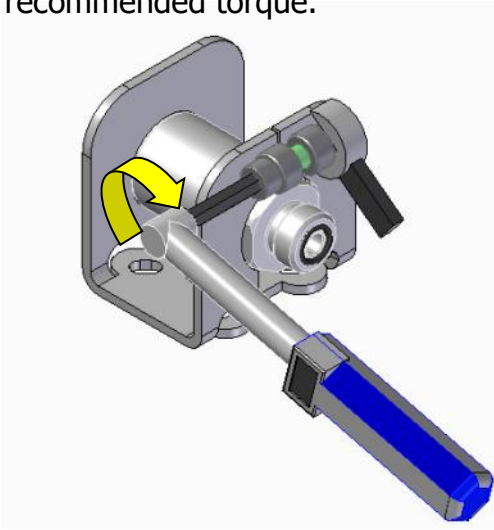
3. Use pliers and crush the lock tab onto the nut.



4. Insert the ball valve into the actuator mount so that the stop pin goes in first.



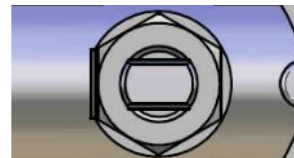
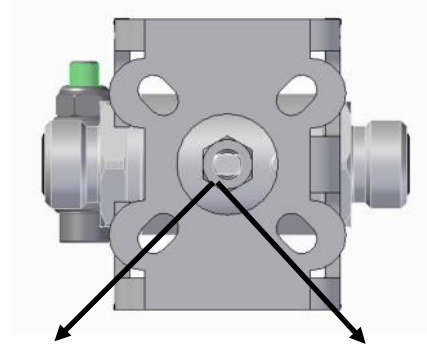
5. Tighten the lock bolt to the recommended torque.



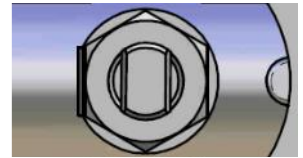
Actuator mount bolt tightening torque

- BV702 = 4Nm**
- BV703 = 2Nm**
- BV704 = 1Nm**
- BV706 = 5Nm**
- BV708 = 12Nm**

6. Set the valve to the required fail open/fail close position as required.

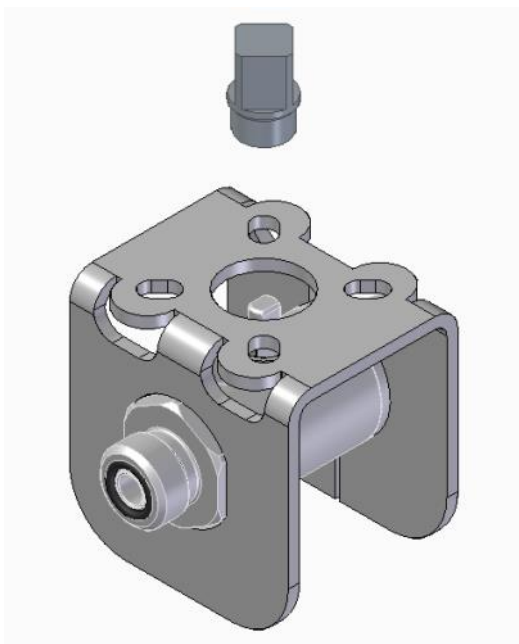


Valve in open position
Stem along the body
Fail Open

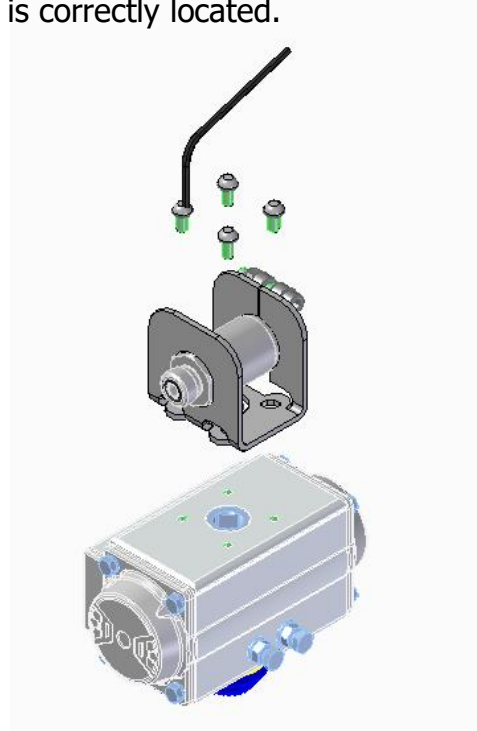


Valve in closed position
Stem across the body
Fail Closed

7. Install the drive dog over the stem.



8. Tighten on the actuator ensuring the drive dog is correctly located.



For use in Canada:

This design has been confirmed and tested to standards not recognized by Canadian authorities. For the purposes of installation of this design in ASME B31.3 piping systems, the piping system designer should confirm suitability and consider the following design conditions:

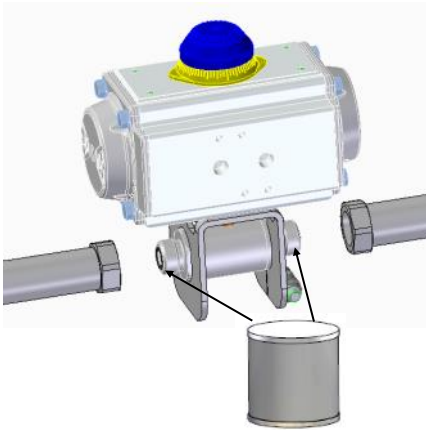
DESIGN PRESSURE: 410 BAR (6000 PSIG)

DESIGN TEMPERATURE: -40 TO +85°C (-40 TO +185°F)

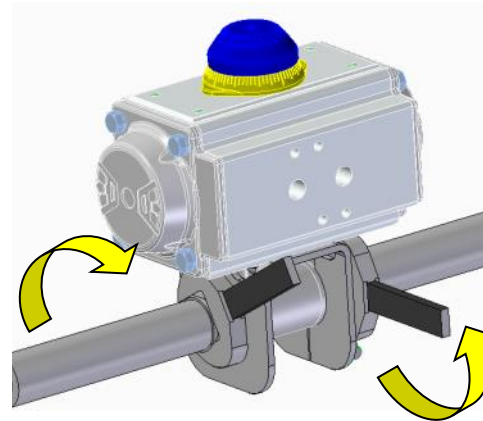
CORROSION ALLOWANCE: 0 mm (0 in)

For installation in ASME B31.3 piping systems, the designer of the piping system should ensure that required leak testing is performed on the piping system prior to operation.

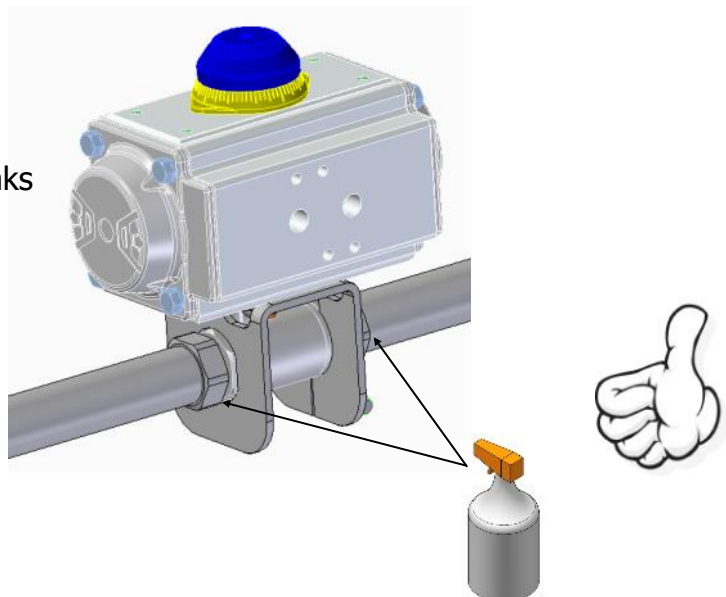
1. Ensure face seal O-rings are in position and sealing faces are free of damage. Apply anti-seize grease to threads.



2. Torque to the tube or hose fitting supplier's recommendations.



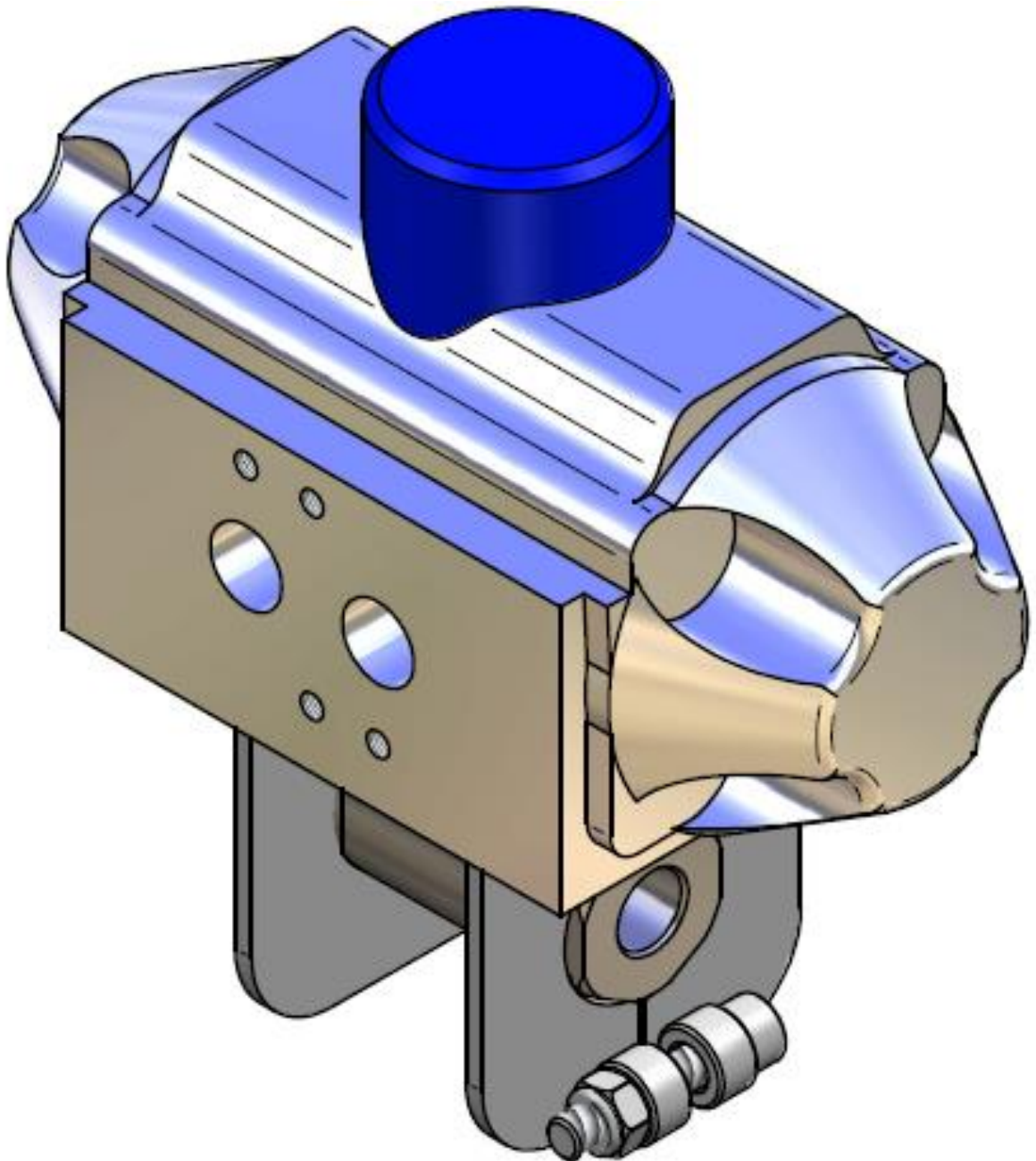
3. . Installation complete, check for leaks with snop or similar on first use.



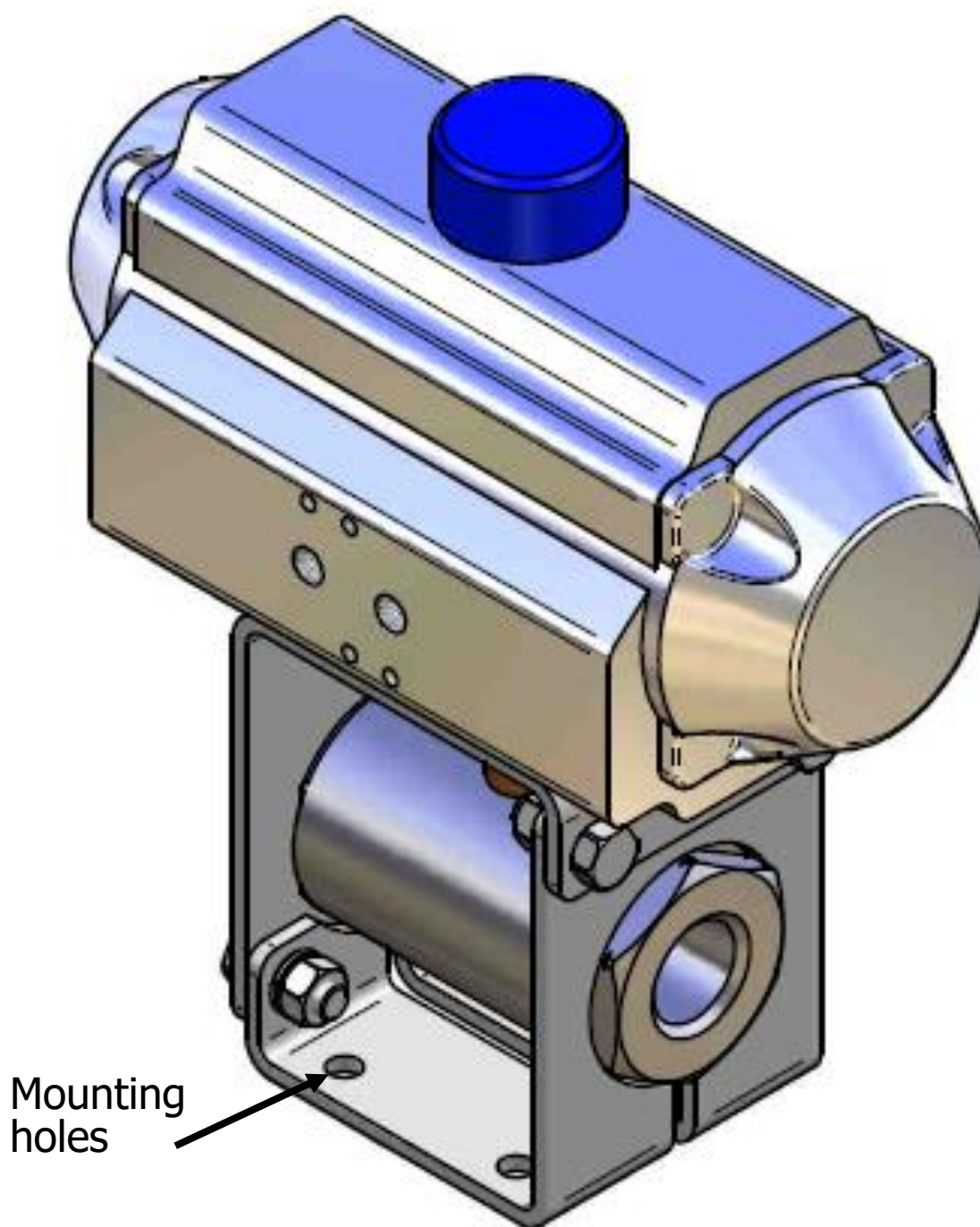
Note: Oasis recommends routine back pressure leakage testing as part of a good preventative maintenance schedule and servicing the valves as required. This will ensure safe and reliable operation over their life time.

Oasis recommends that for BV706/708 valves the actuator bracket is mounted separately using the mounting holes in the supplied actuator bracket.

BV702/703/704 Actuator Bracket Design



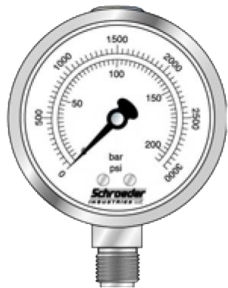
BV706/708 Actuator Bracket Design



For mounting holes pattern please refer to Actuated Ball Valves Specification sheet.

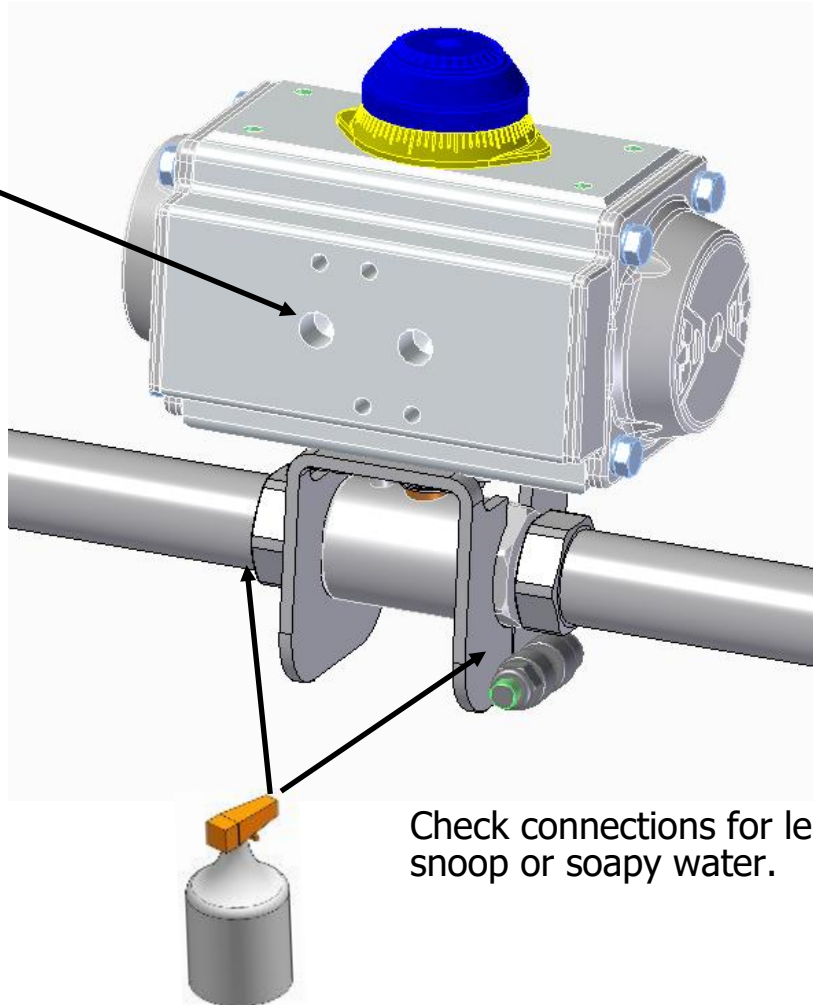
1. Connect air line and check connections for leaks.

For oasis standard actuators the left port is the inlet port used to activate the actuator.



MAX 8 Bar

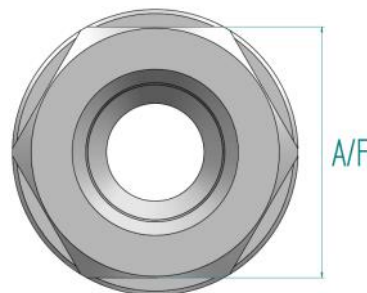
Do not operate the actuator with supply pressure greater than 8 Bar (116 psi). Doing so may damage the actuator and void the warranty.



Check connections for leaks using snoop or soapy water.

Recommended Spanners for End Caps:

- BV702 = 25mm**
- BV703 = 28mm**
- BV704 = 34mm**
- BV706 = 50mm**
- BV708 = 60mm**



Service Kit Parts

BV702 — BV703 — BV704**



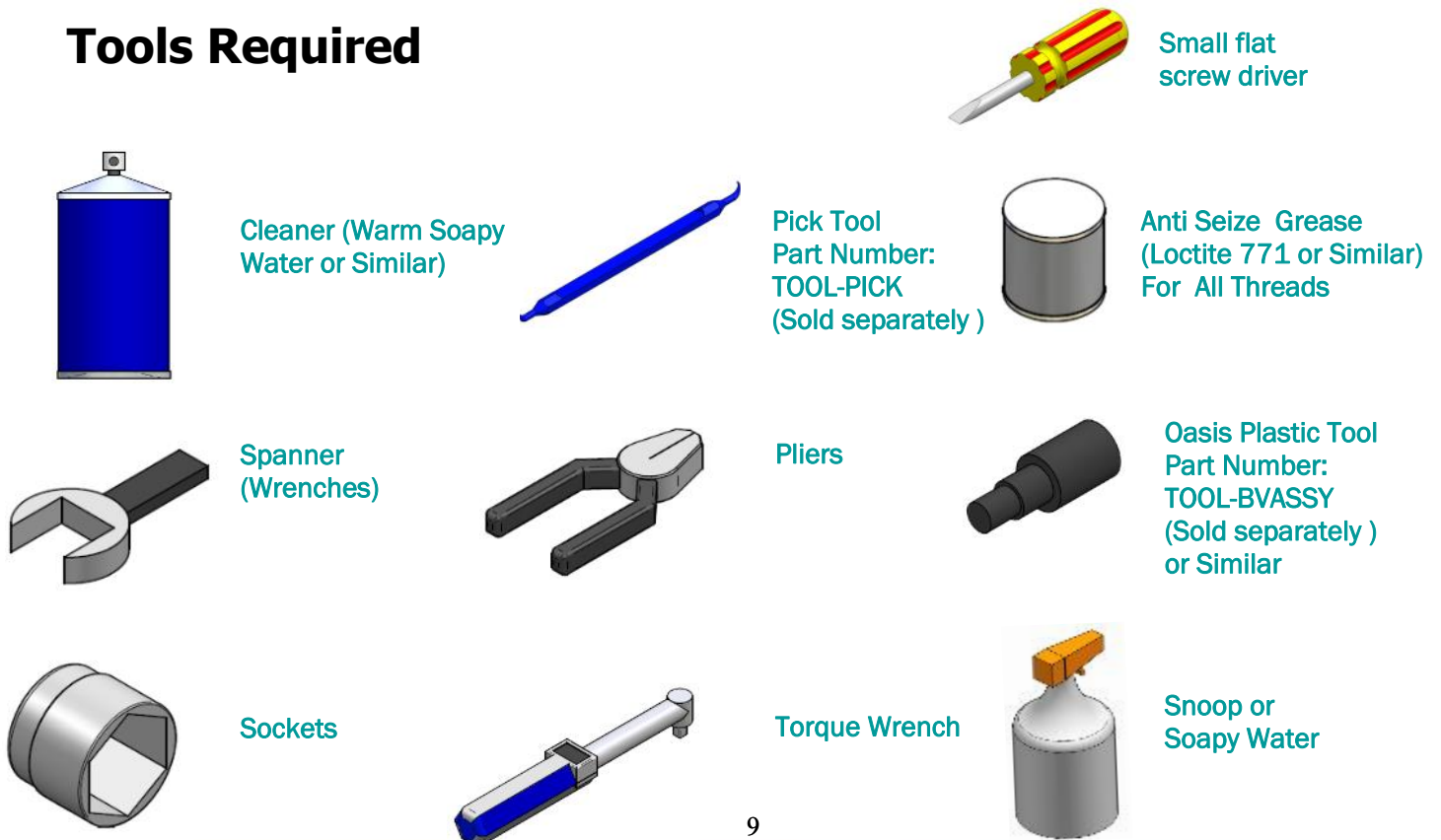
BV706** — BV708**



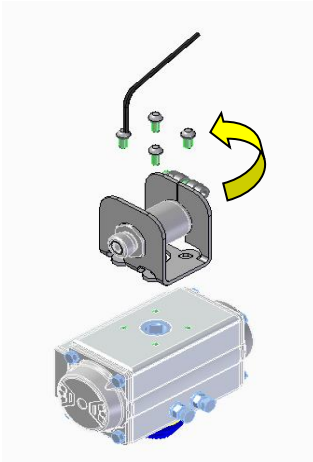
- only used when servicing actuated ball valves.
- **It is normal for the service kit to include a ball with a small hole in the bottom
- ^For low pressure service kits, the seats will be supplied with an O-ring installed

The Complete Oasis Seal Kit must be used

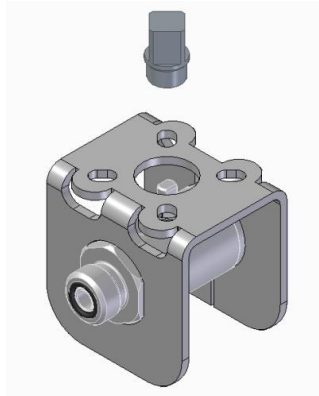
Tools Required



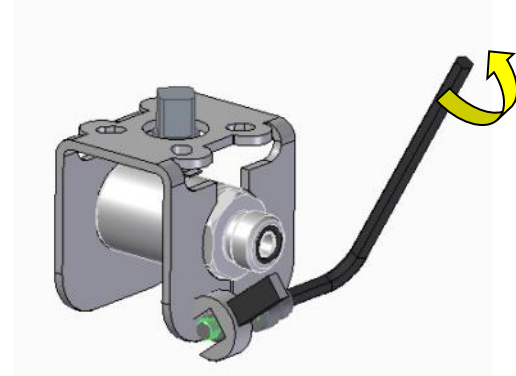
1. Remove actuator from valve.



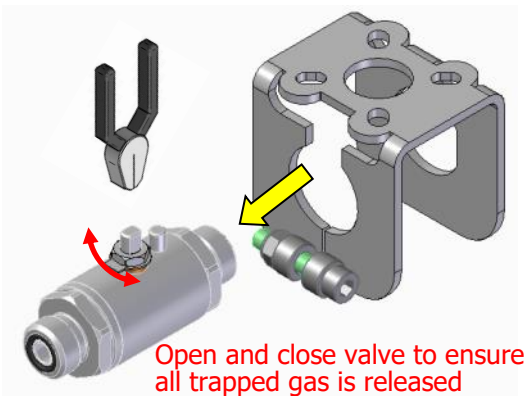
2. Remove drive dog.



3. Undo clamp.



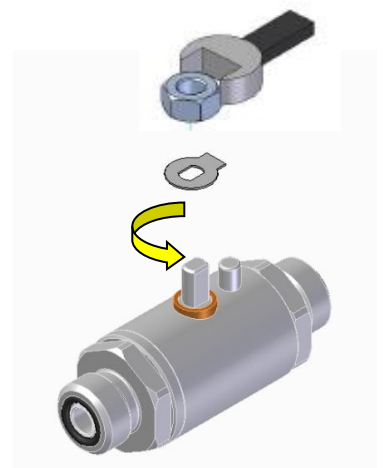
5. remove valve.



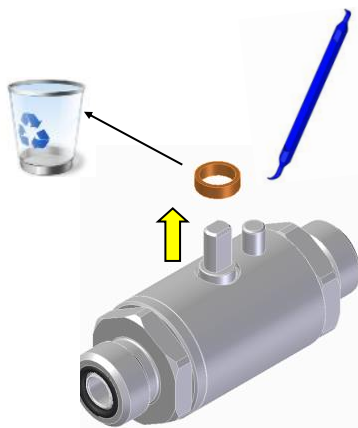
5. Fold down metal tab.



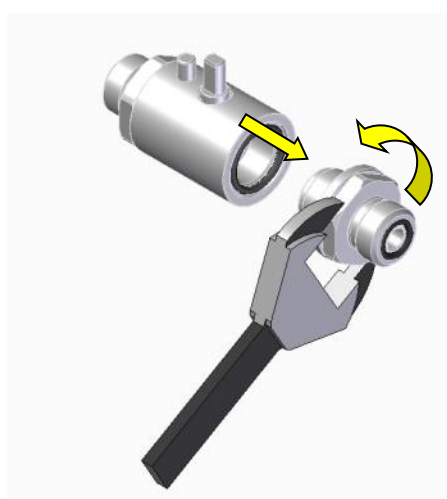
6. Remove nut and tab.



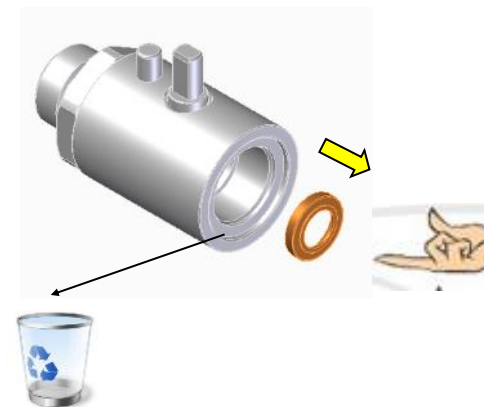
7. Discard gland.



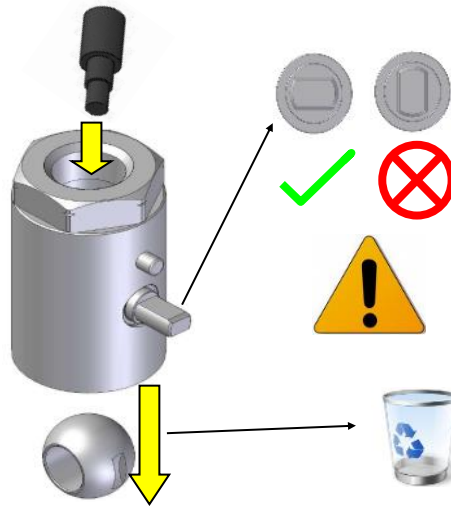
8. Remove end cap.



9. Discard seat.

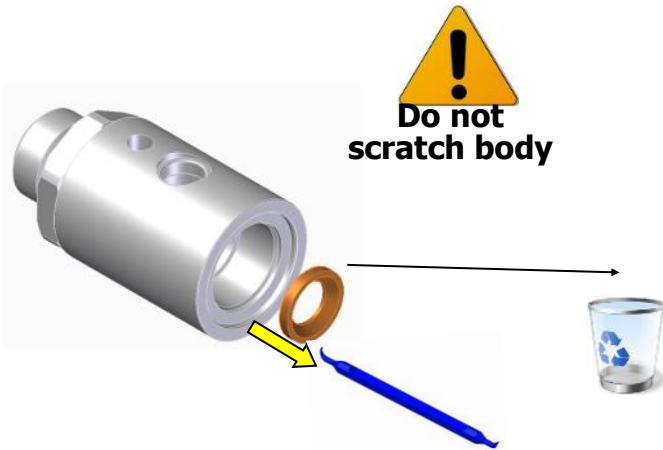


10. Remove ball.

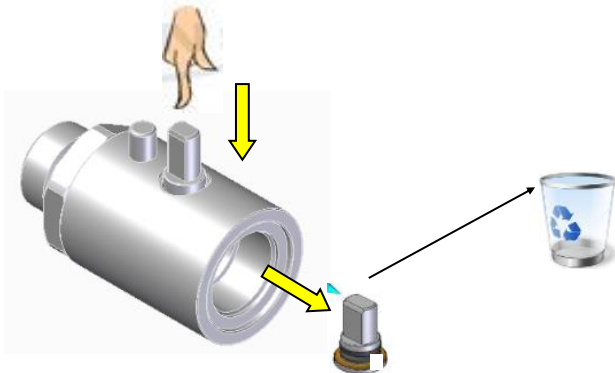


BV702 — BV703

11. Remove 2nd seat first

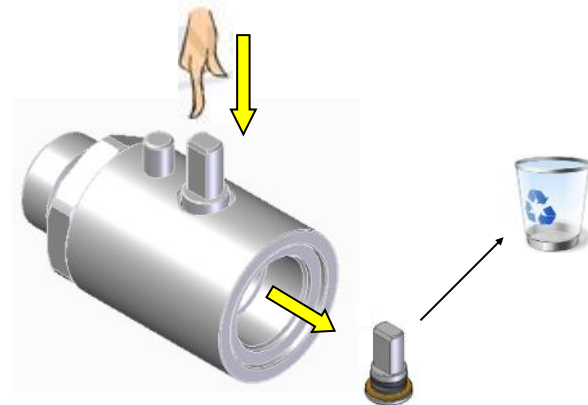


12. Remove and discard stem .

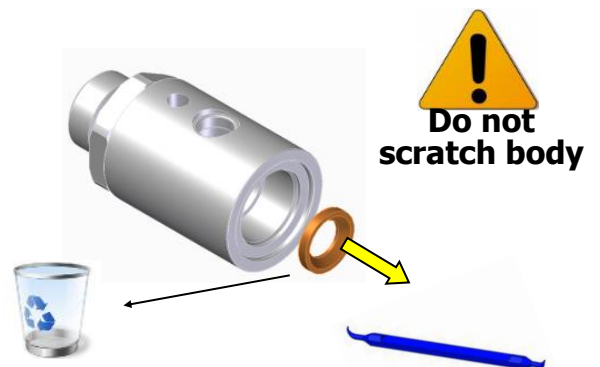


BV704 - BV706 - BV708

11. Remove stem first

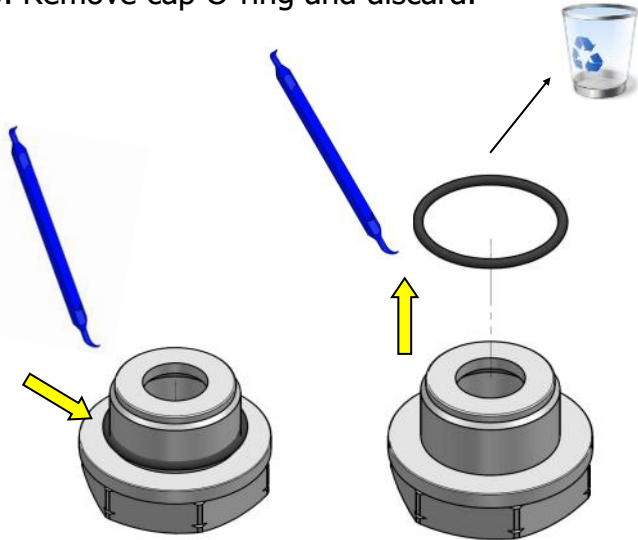


12. Remove and discard 2nd seat



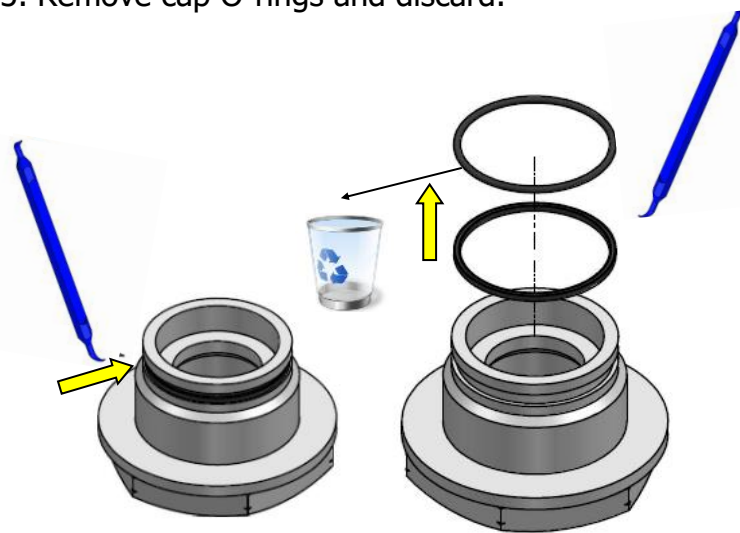
BV702 - BV703 - BV704

13. Remove cap O-ring and discard.

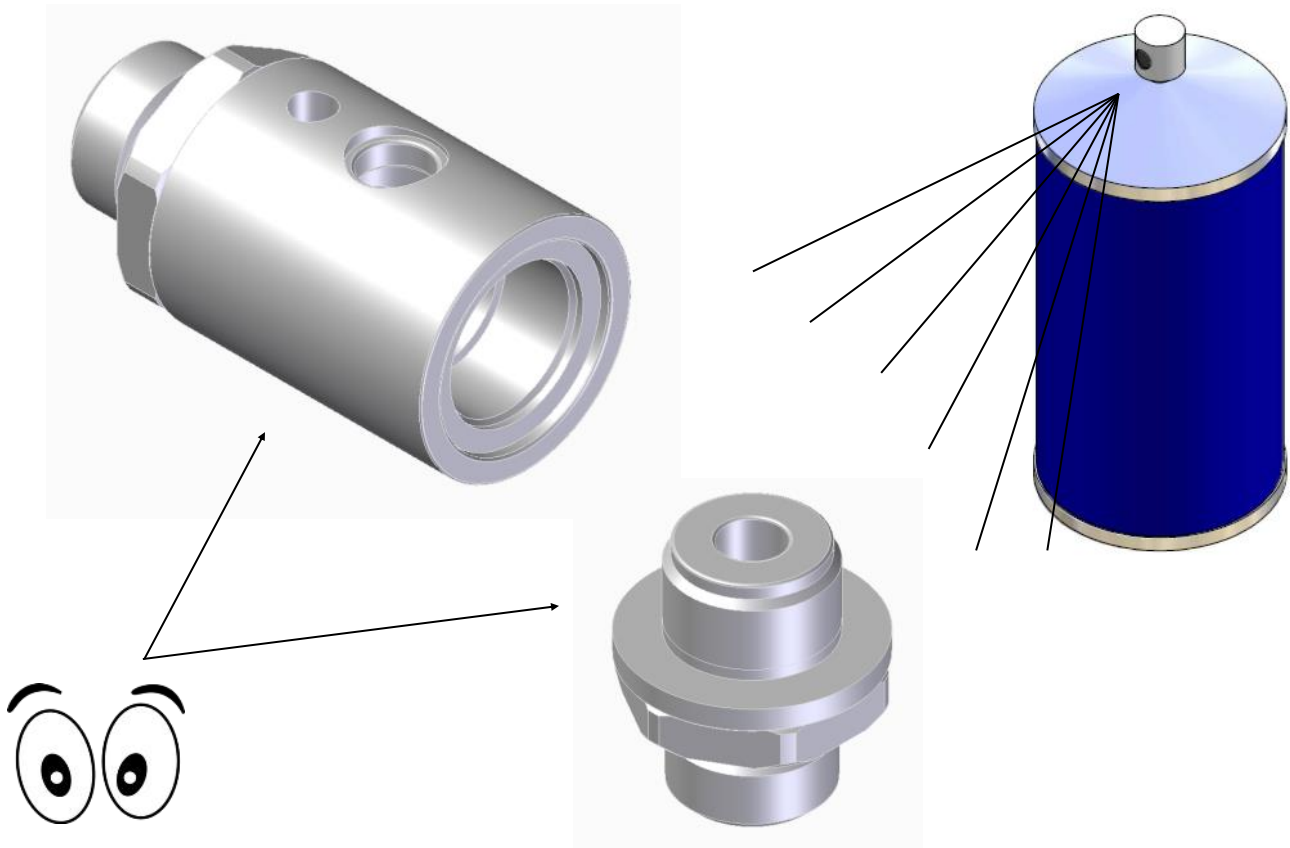


BV706 - BV708

13. Remove cap O-rings and discard.

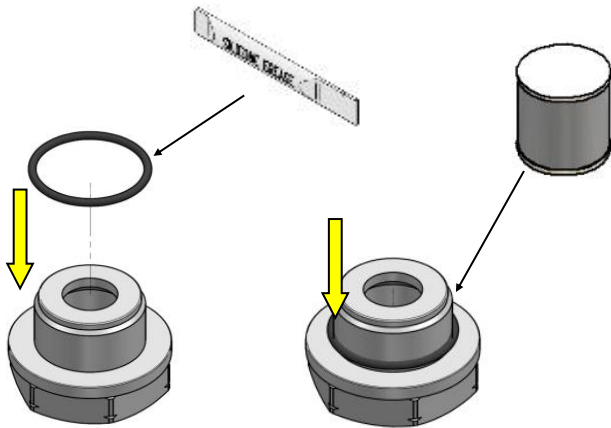


14. Clean body and end cap, visually check parts for damage



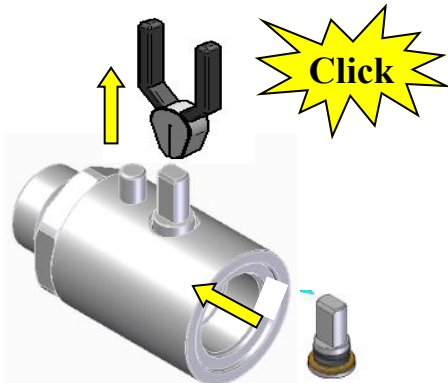
BV702 — BV703 — BV704

1. Fit O-ring.

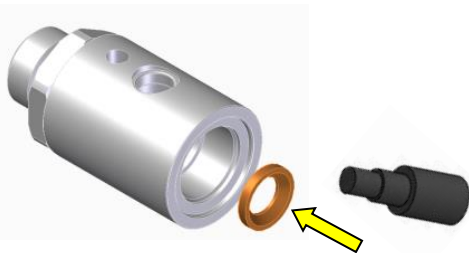


BV702 — BV703

2. Insert stem assembly first.

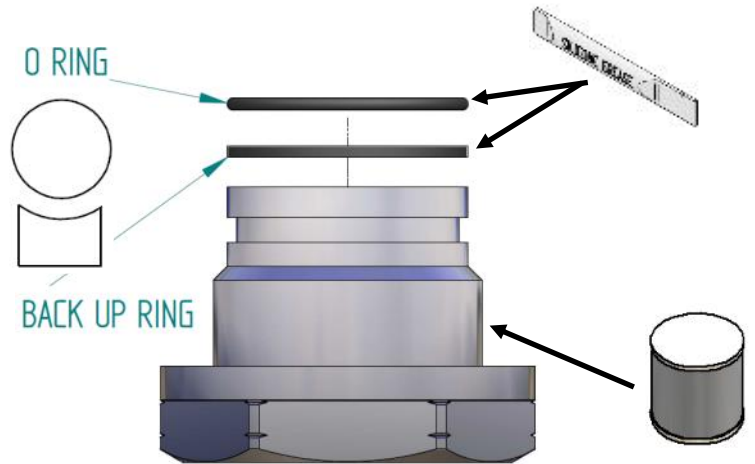


3. Insert first seat.



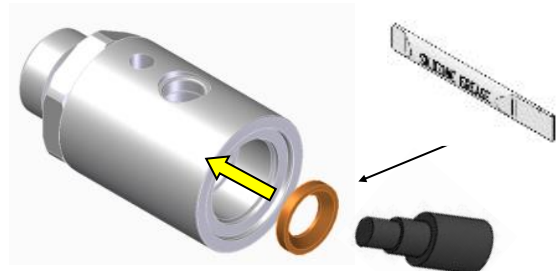
BV706 — BV708

1. Fit end cap O-rings.

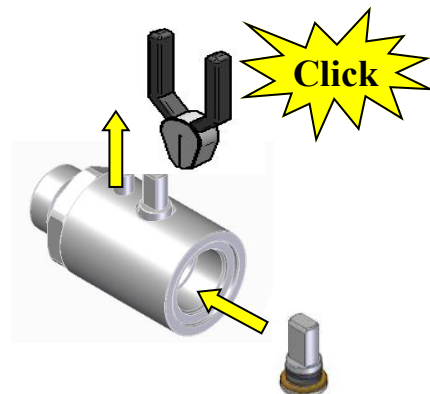


BV704 - BV706 - BV708

2. Apply silicone grease to new seat and install. Take care not to pinch O-ring when installing low pressure seat.

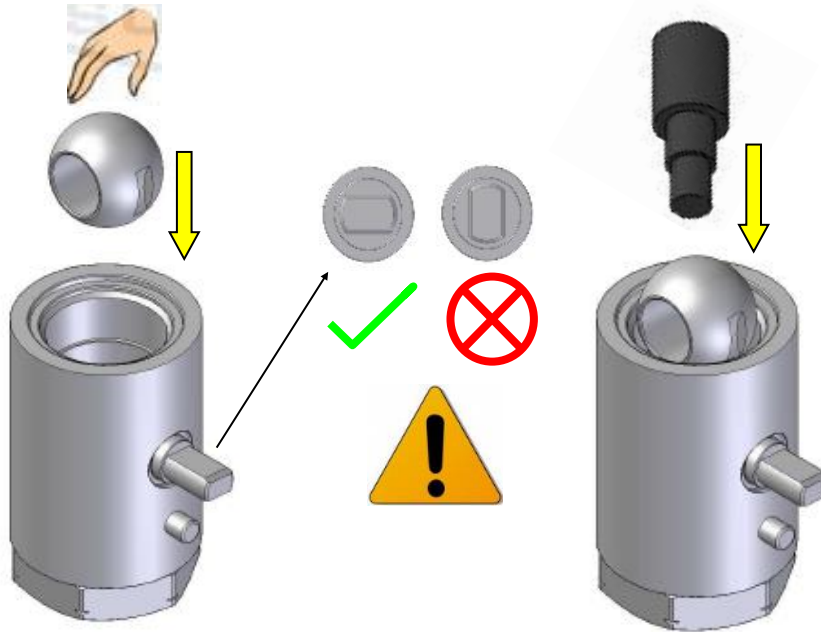


3. Insert stem assembly.



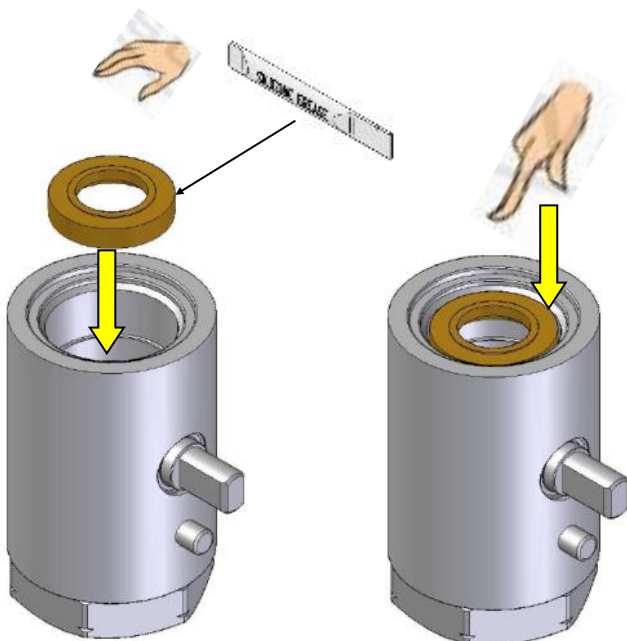
BV702 - BV703 - BV704 - BV706 - BV708

4. Insert ball.



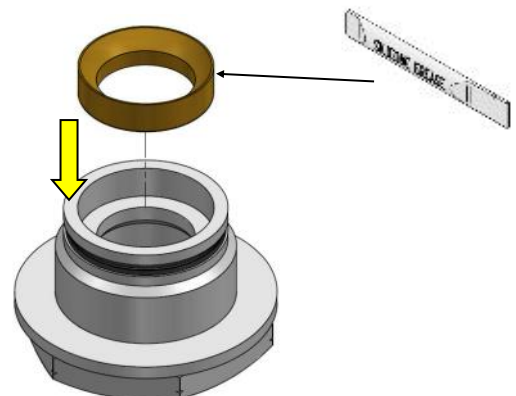
BV702 — BV703 — BV704

5. Apply silicone grease to new seat and install. Take care not to pinch O-ring when installing low pressure seat.



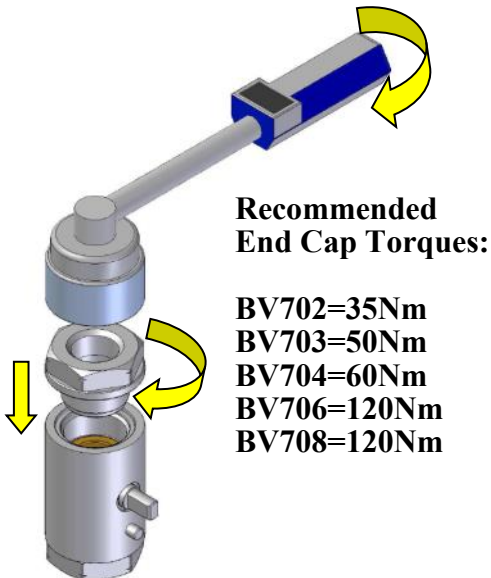
BV706 — BV708

5. Apply silicone grease to new seat and install in cap. Take care not to pinch O-ring when installing low pressure seat.



BV702 - BV703 - BV704 - BV706 - BV708

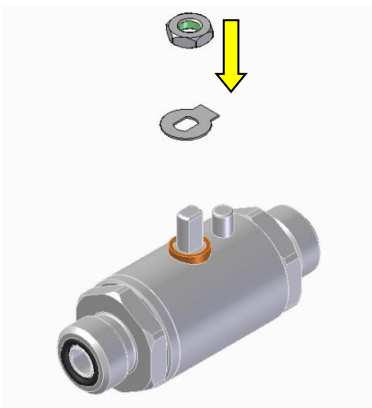
6. Tighten on end cap



7. Install gland.



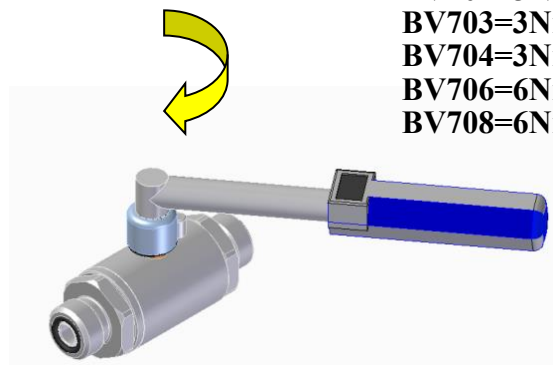
8. Install the lock tab and the nut.



9. Tighten stem nut.

**Recommended
Handle Nut Torques:**

BV702=3Nm
BV703=3Nm
BV704=3Nm
BV706=6Nm
BV708=6Nm



10. Using pliers bend the lock tab upwards so that it is tight against the nut.



11. Servicing complete, follow installation instructions from step 4 on page 3 for re-installation of product.



Important: Actuate valve 4 times before use to ensure initial sealing.