

# Oasis



## **BV700 Series Actuated Ball Valve SAE 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

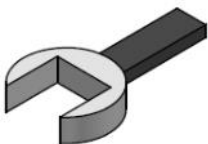


Safety Glasses



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

## Tools Required



Spanner  
(Wrenches)



Thread Tape



Anti Seize Grease  
- Swagelok Silver Goop  
- Omega 99  
- or similar



Spray bottle  
(Snoop or  
soapy water)



Silicone Grease  
(Rocol MX22 or  
similar)  
For all O-rings

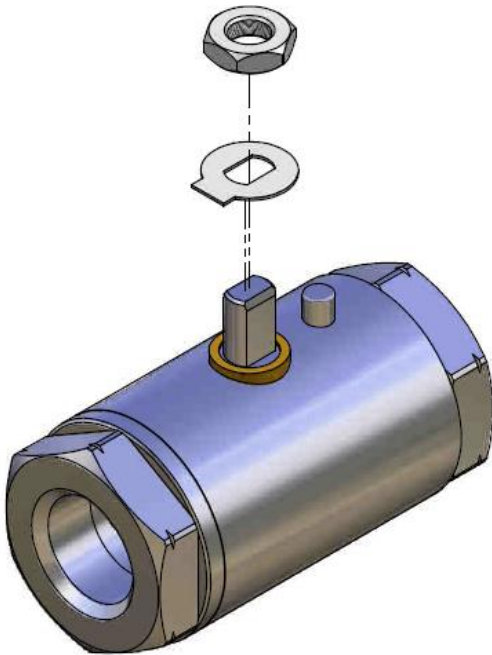


Oasis Plastic Tool  
Part Number:  
TOOL-BVASSY  
(Sold separately )  
or Similar

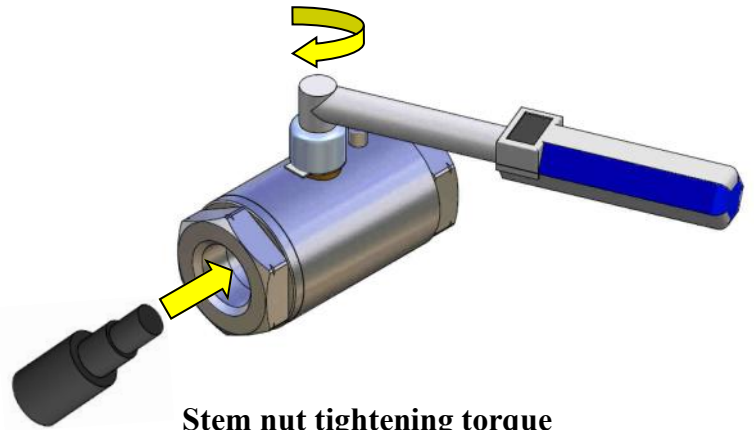
If valve not supplied with actuator or bracket follow these instructions

Setting The Standard

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.



**Stem nut tightening torque**

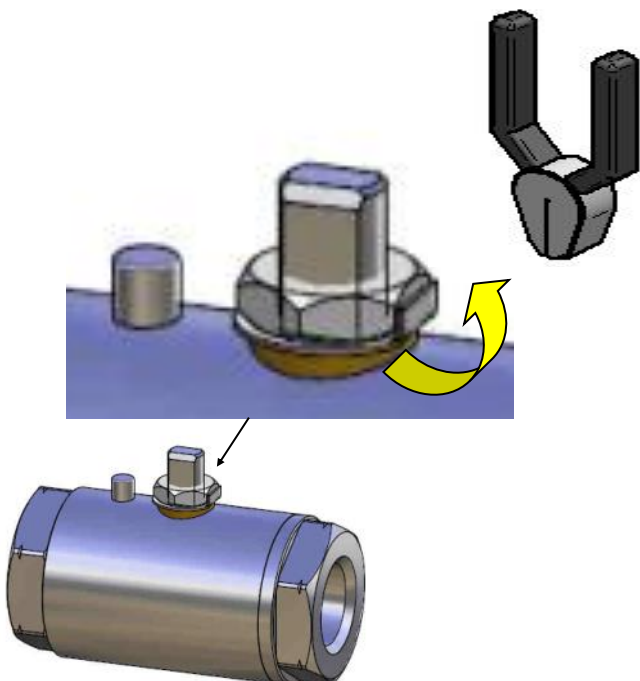
**BV703 = 3Nm**

**BV704 = 3Nm**

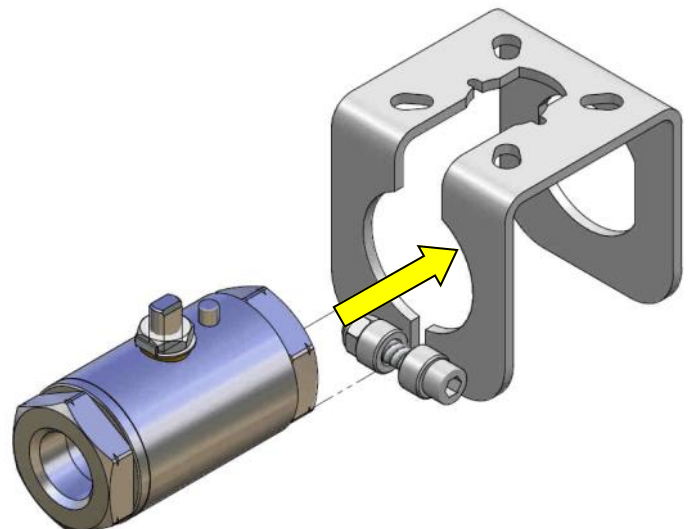
**BV706 = 6Nm**

**BV708 = 6Nm**

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



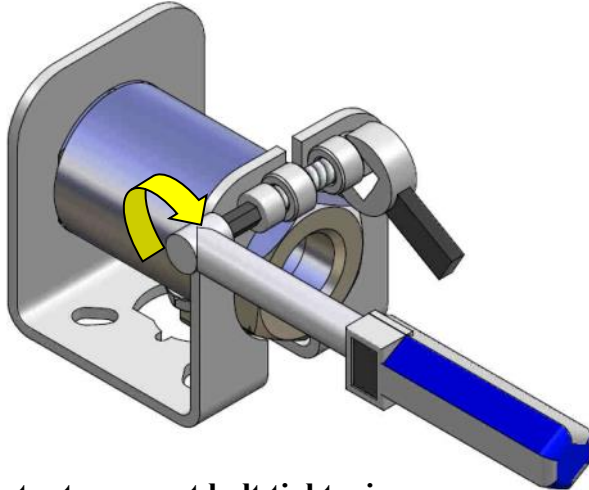
4. Insert the ball valve into the actuator mount so that the stop pin goes in first.



If valve not supplied with actuator or bracket follow these instructions

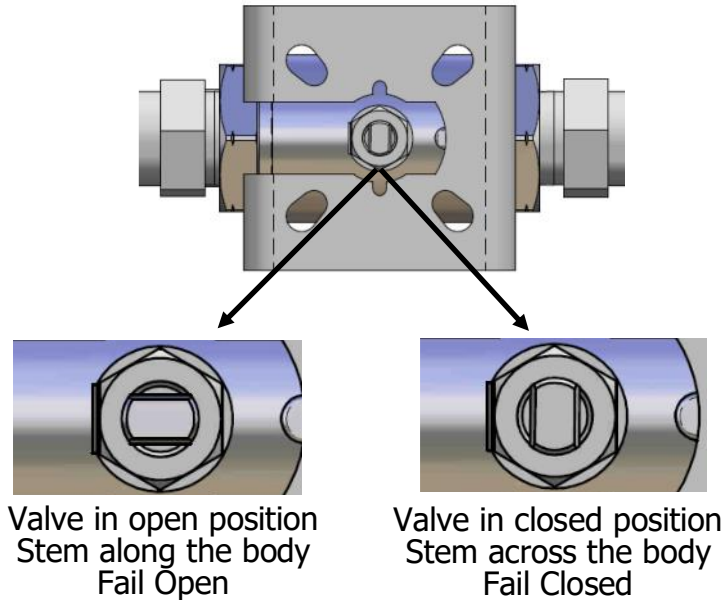
Setting The Standard

5. Tighten the lock bolt to the recommended torque.

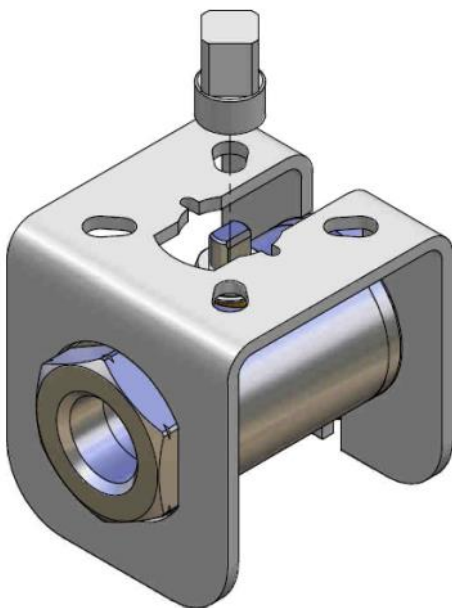


**Actuator mount bolt tightening torque**  
**BV703 = 2Nm**  
**BV704 = 1Nm**  
**BV706 = 5Nm**  
**BV708 = 12Nm**

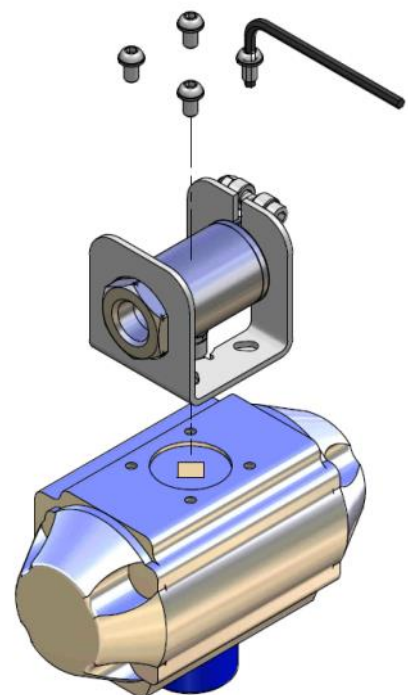
6. Set the valve to the required fail open/fail close position as required.



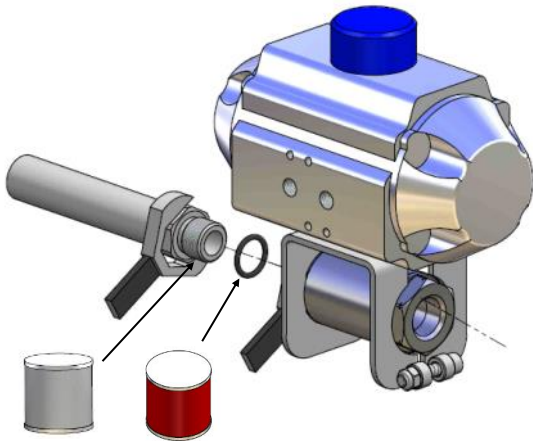
7. Install the drive dog over the stem.



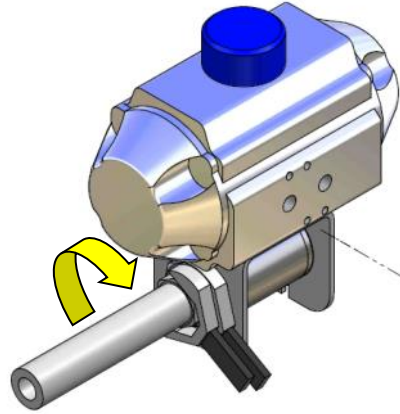
8. Tighten on the actuator ensuring the drive dog is correctly located.



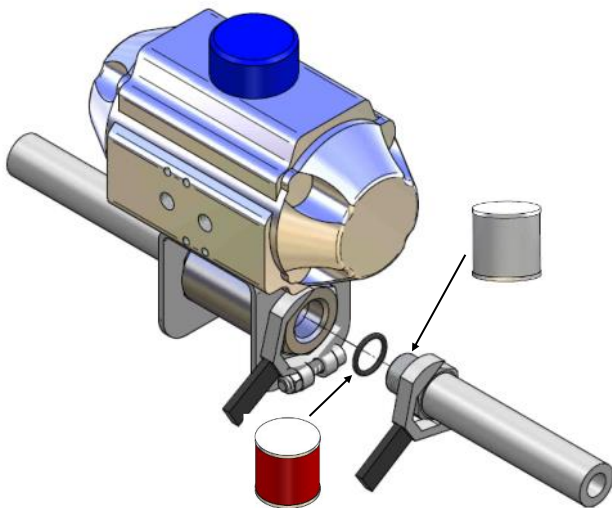
1. Apply anti seize to thread and silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



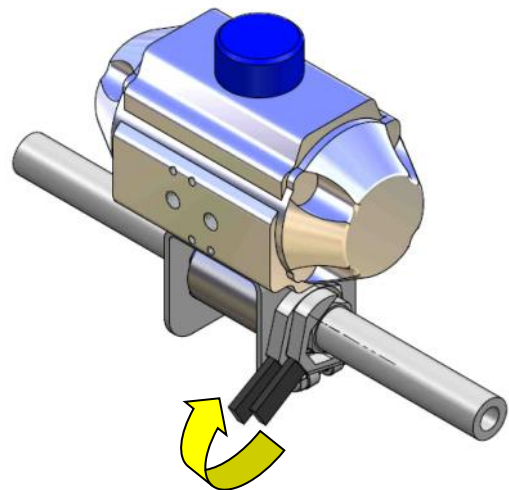
2. Screw the fitting into the body and torque to the fitting suppliers recommended tightening torque.



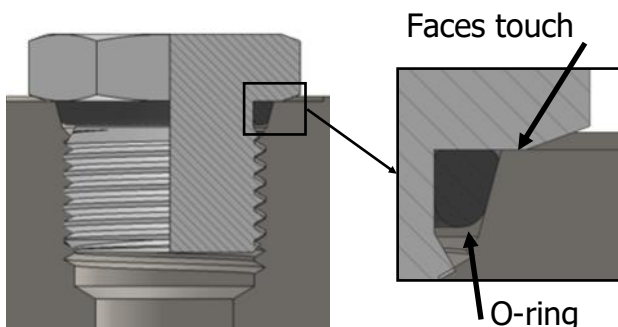
3. Apply anti seize to thread and silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



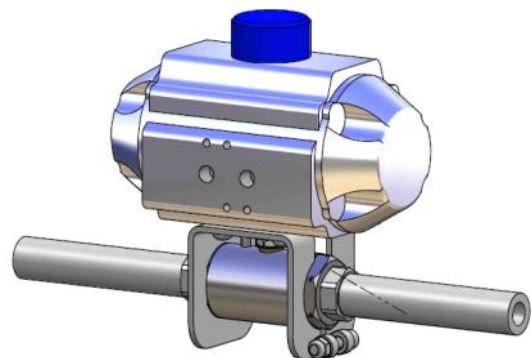
4. Screw the fitting into the body and torque to the fitting suppliers recommended tightening torque.



5. Correctly tightened SAE port fittings should bottom out on the port face and the O-ring should neatly fill the void creating the seal.

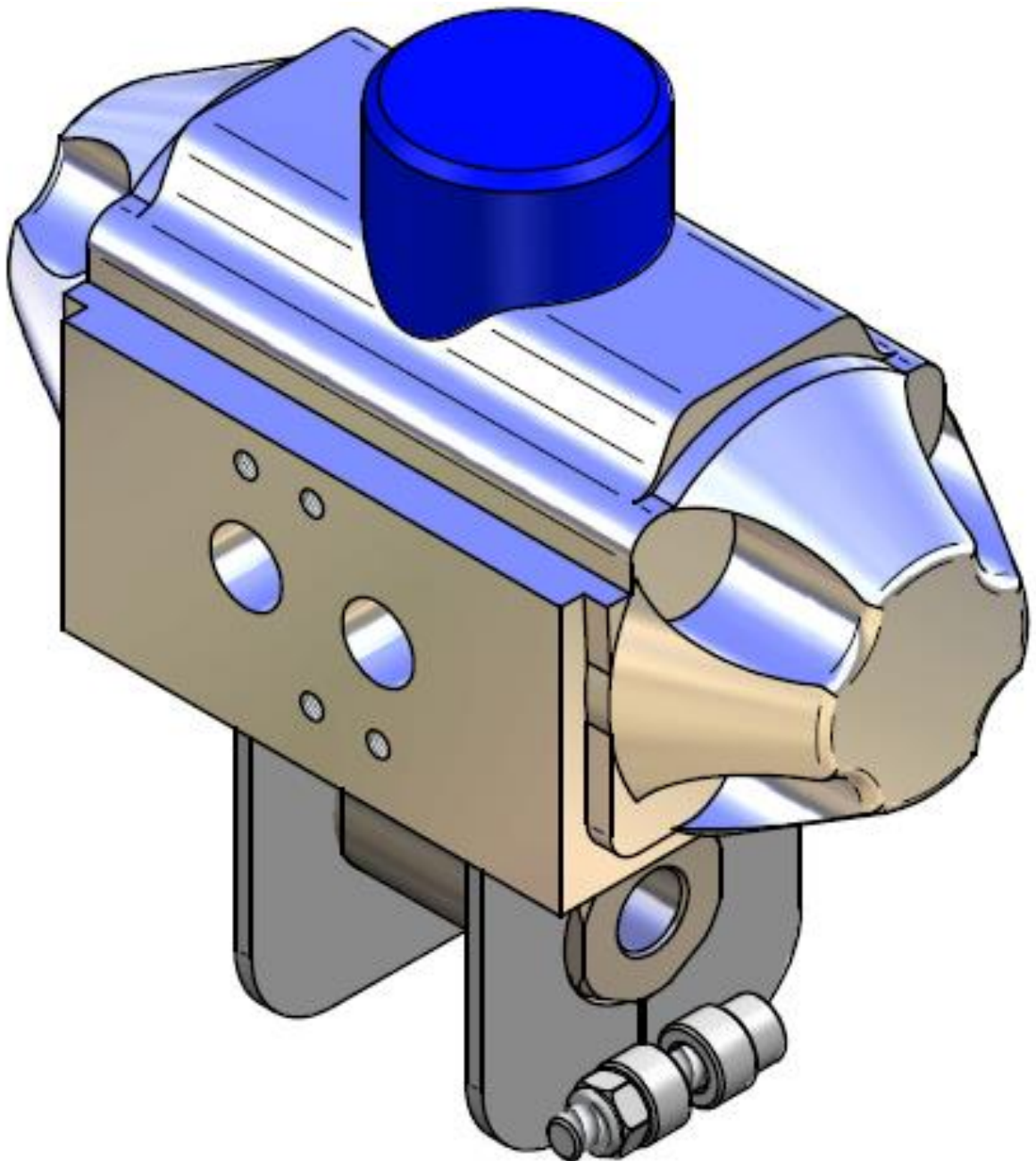


6. Assembly is complete.

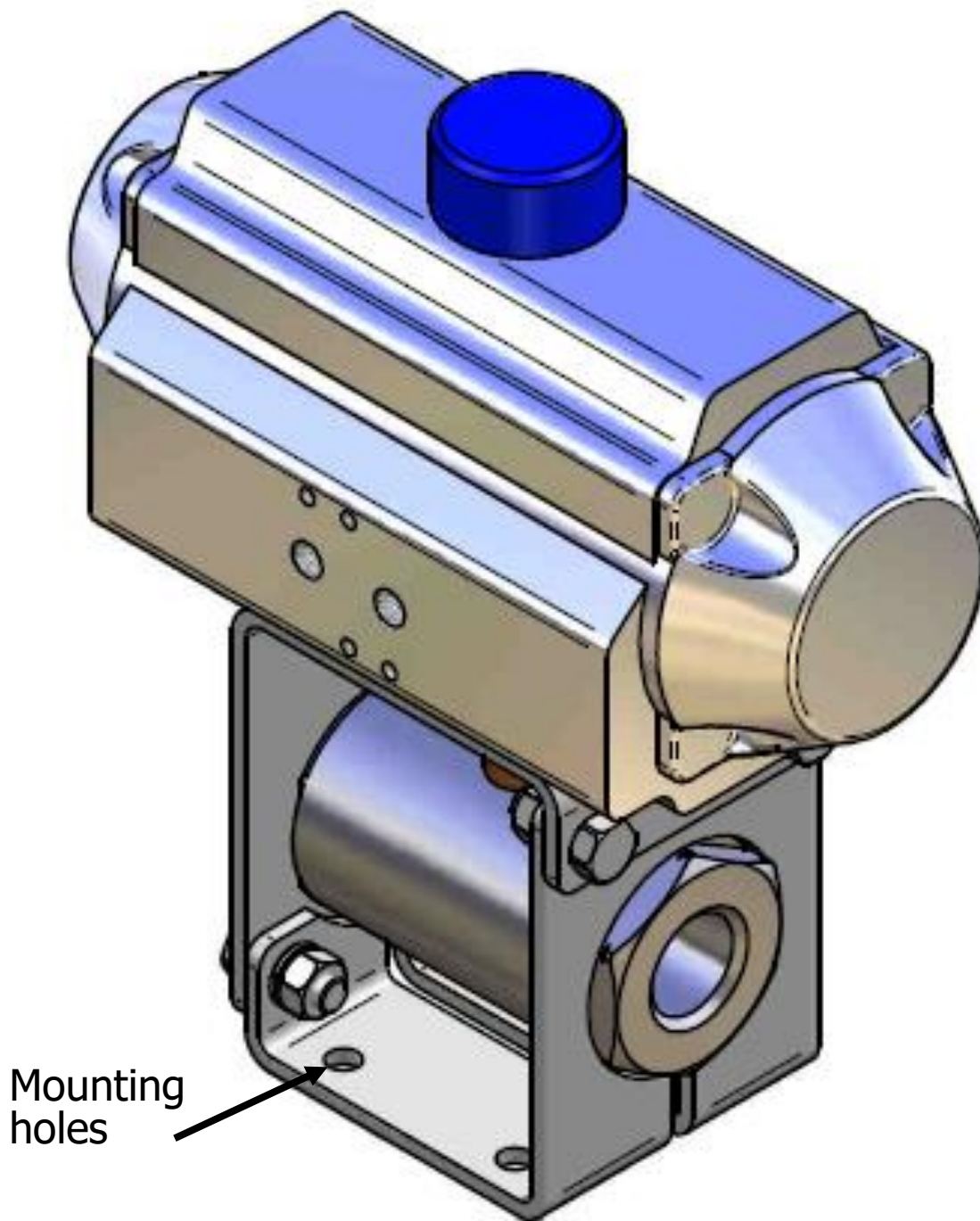


Oasis recommends that for valves bigger than 3/4" the actuator bracket is mounted separately using the mounting holes in the supplied actuator bracket.

## **BV702/703/704 Actuator Bracket Design**



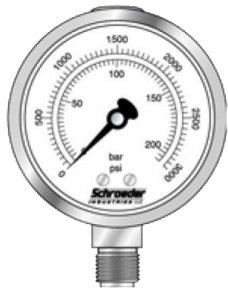
## BV706/708 Actuator Bracket Design



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

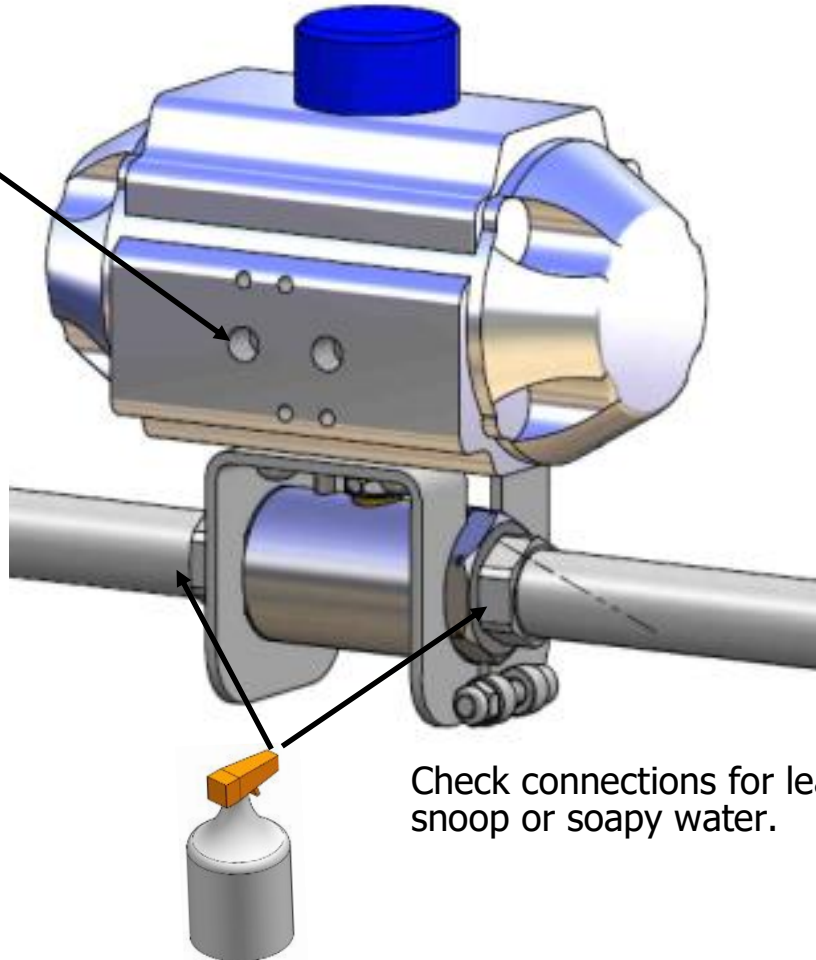
1. Connect air line and check connections for leaks.

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



**MAX 8 Bar**

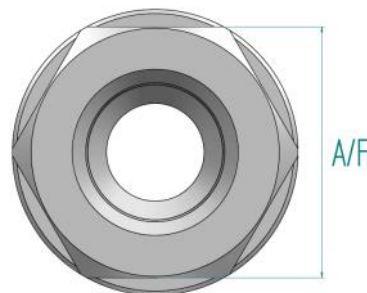
Do not operate the actuator with supply pressure greater than 8 Bar (116 psi). Doing so may damage the actuator and void the warranty.



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\*\*

2 x Seats^



1 x Stem



1 x Ball



1 x Gland



1 x Silicone



1 x Cap O-ring



1 x Locking Tab\*



2 x SAE Fitting O-ring



(908 Nitrile 90)

### BV706\*\* — BV708\*\*

2 x Seats^



1 x Stem



1 x Ball



1 x Gland



1 x Silicone



1 x Cap O-ring



1 x Locking Tab\*



1 x Cap Backup O-ring



2 x SAE Fitting O-rings



(BV706 - 912 Nitrile 90,  
916 Nitrile 90 for Matched  
Bore Valves)

(BV708 - 916 Nitrile 90,  
920 Nitrile 90 for Matched  
Bore Valves)

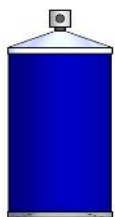
- only used when servicing actuated ball valves.
- \*\* It is normal for the service kit to include a ball with a small hole in the bottom
- ^ For low pressure service kits, the seats will be supplied with an O-ring installed

**The Complete Oasis Seal Kit must be used**

## Tools Required



Small flat  
screw driver



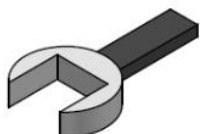
Cleaner (Warm Soapy  
Water or Similar)



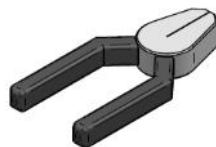
Pick Tool  
Part Number:  
TOOL-PICK  
(Sold separately)



Anti Seize Grease  
(Loctite 771 or Similar)  
For All Threads



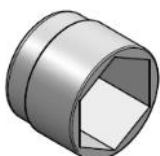
Spanner  
(Wrenches)



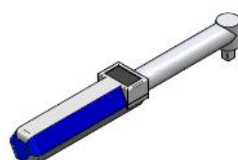
Pliers



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



Sockets

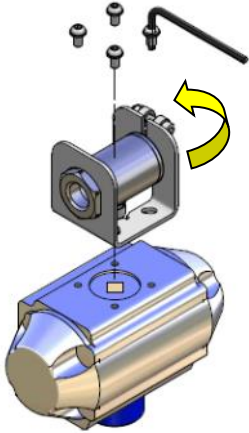


Torque Wrench

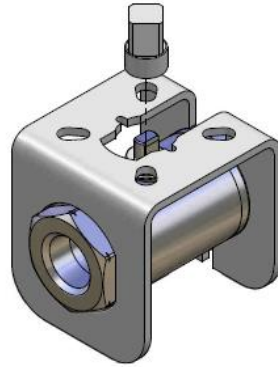


Snoop or  
Soapy Water

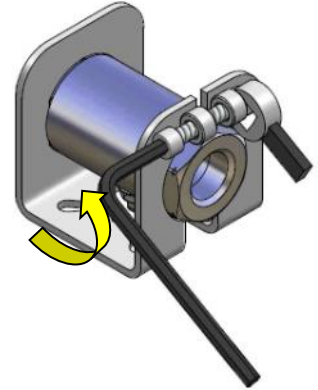
1. Remove actuator from valve.



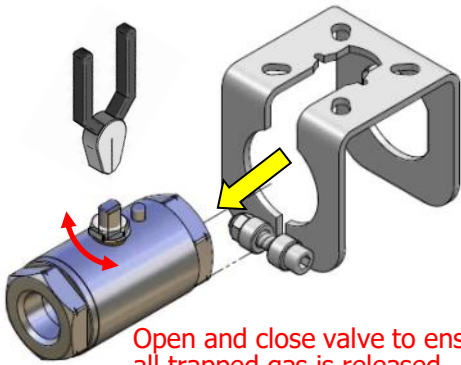
2. Remove drive dog.



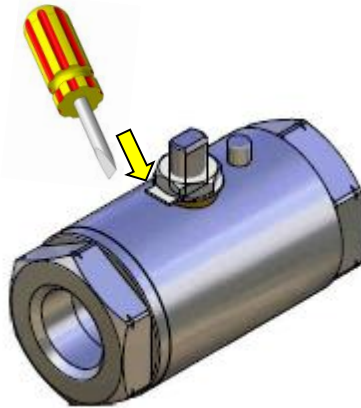
3. Undo clamp.



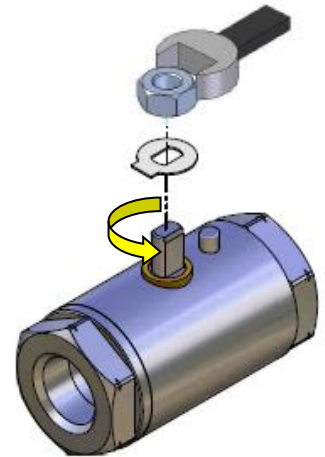
4. Remove valve.



5. Fold down metal tab.



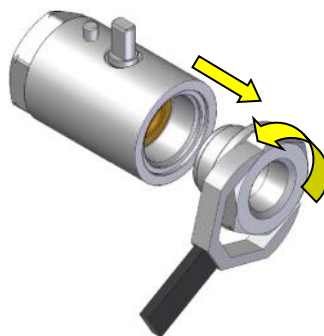
6. Remove nut and tab.



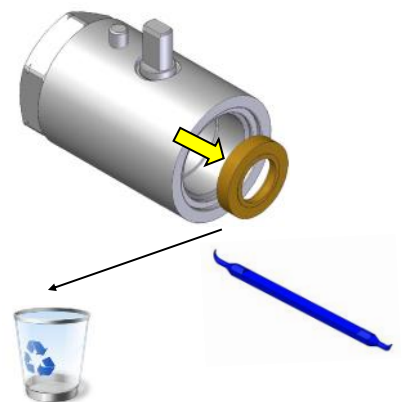
7. Discard gland.



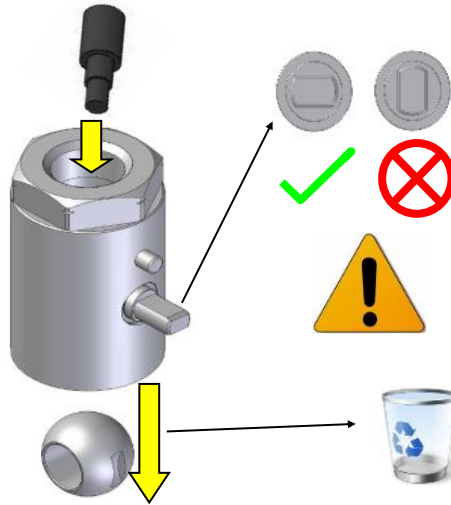
8. Remove end cap.



9. Discard seat.

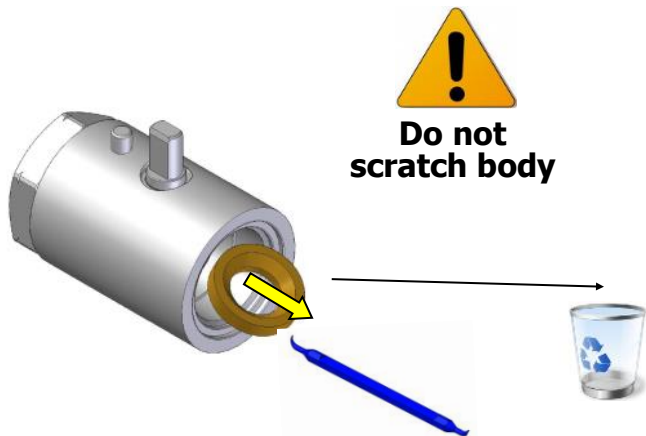


10. Remove ball.

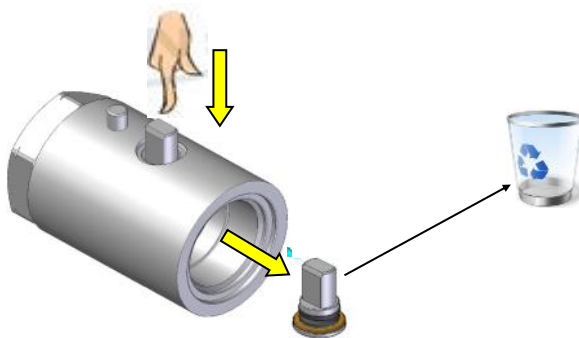


## BV702 — BV703

11. Remove 2nd seat first.

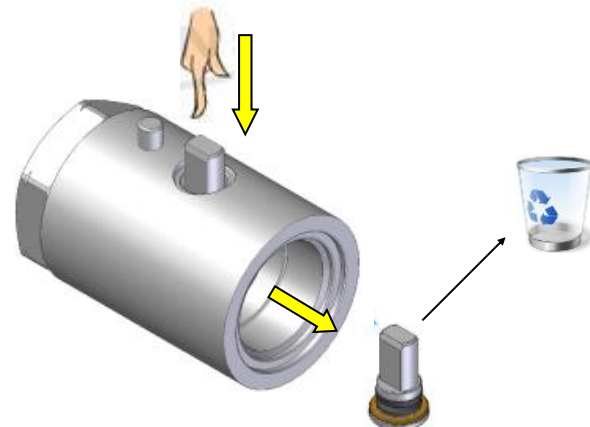


12. Remove and discard stem.

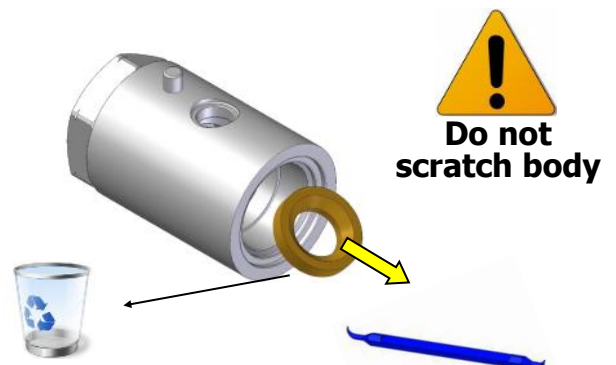


## BV704 - BV706 - BV708

11. Remove stem first.

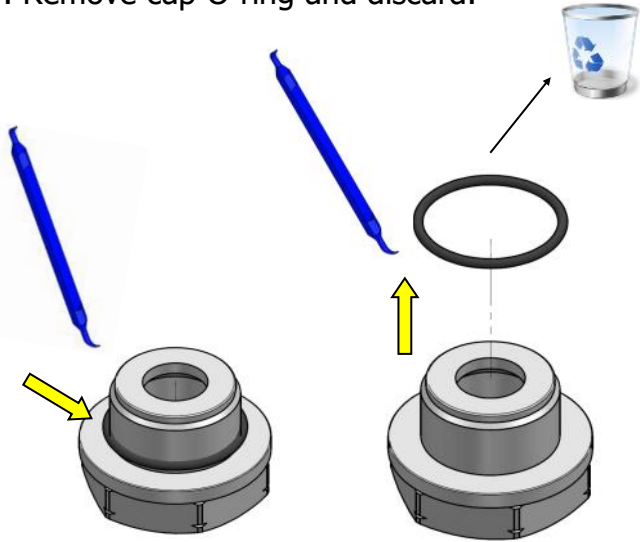


12. Remove and discard 2nd seat.



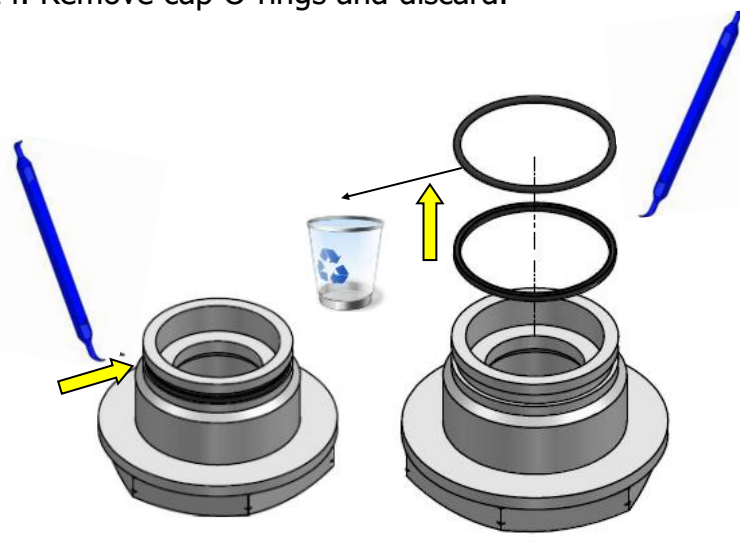
## BV702 - BV703 - BV704

14. Remove cap O-ring and discard.

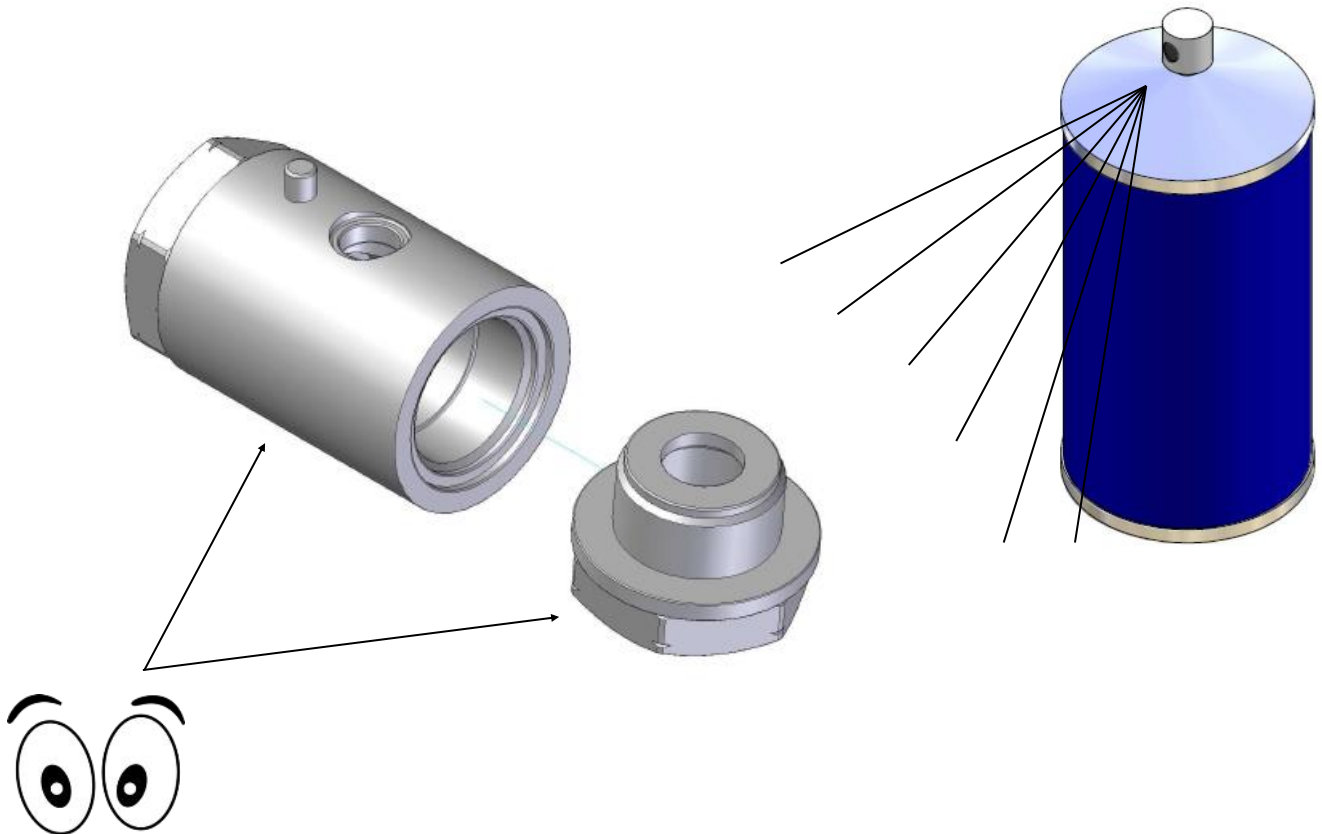


## BV706 - BV708

14. Remove cap O-rings and discard.

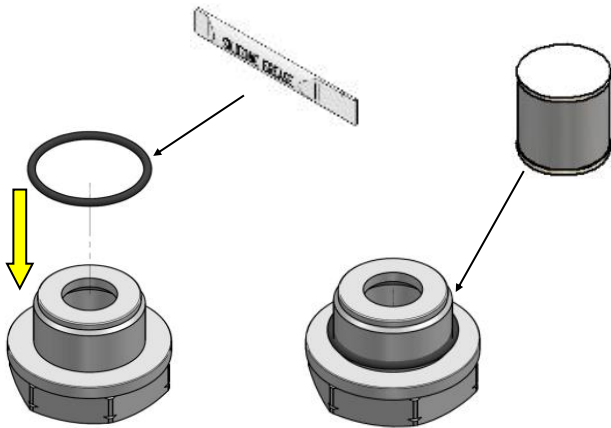


15. Clean body and end cap, visually check parts for damage.



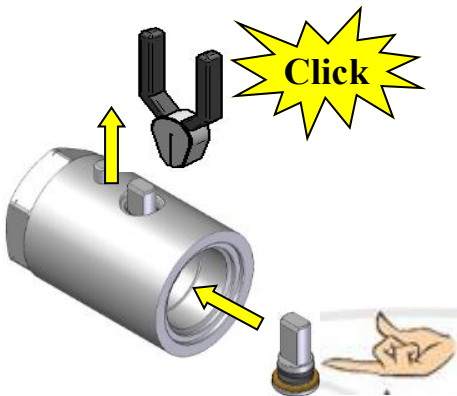
## BV702 — BV703 — BV704

1. Fit O-ring.

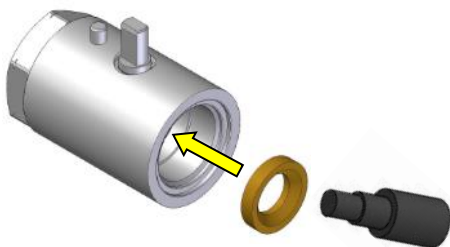


## BV702 — BV703

2. Insert stem assembly first.

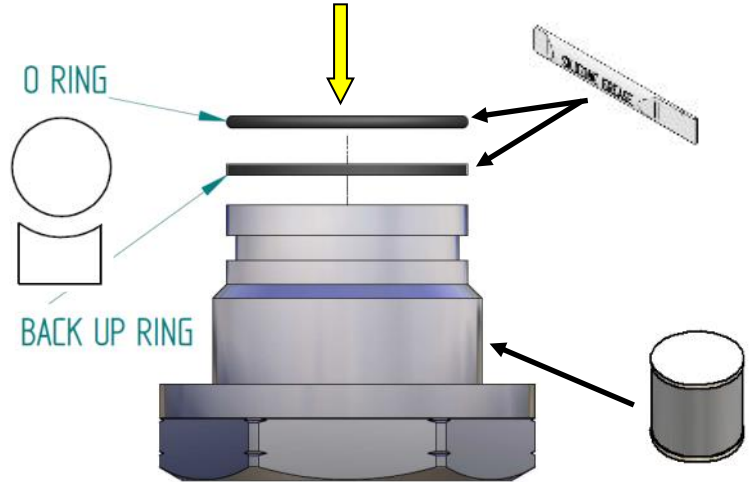


3. Insert first seat.



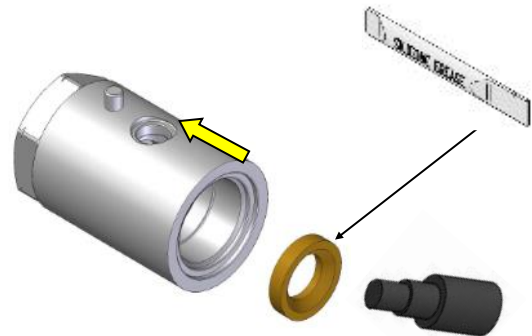
## BV706 — BV708

1. Fit end cap O-rings.

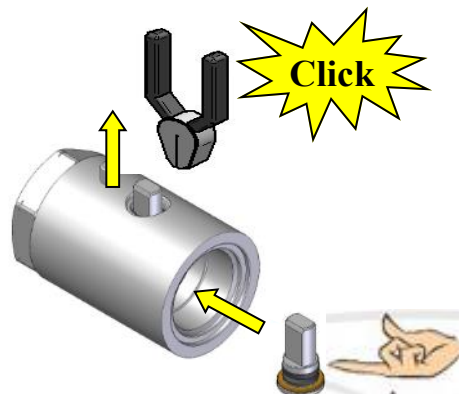


## BV704 - BV706 - BV708

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

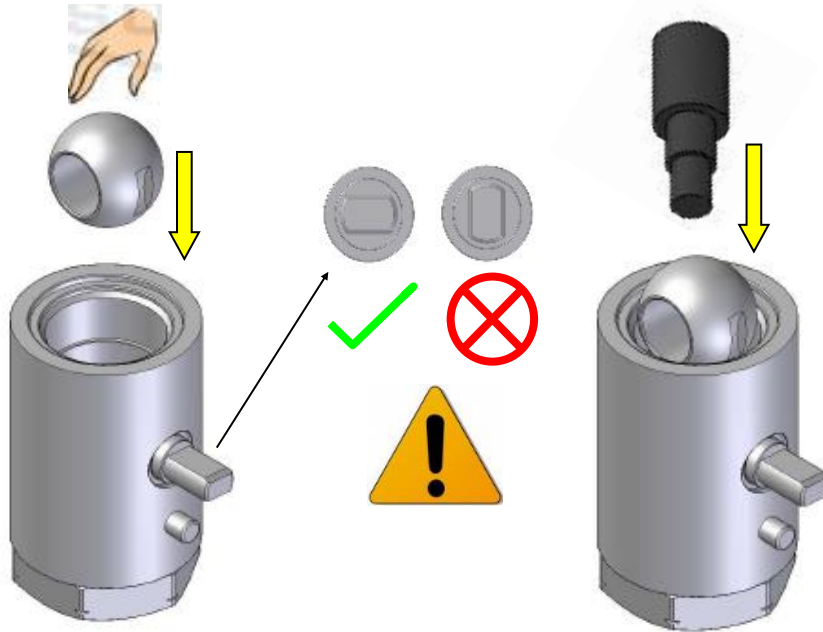


3. Insert stem assembly.



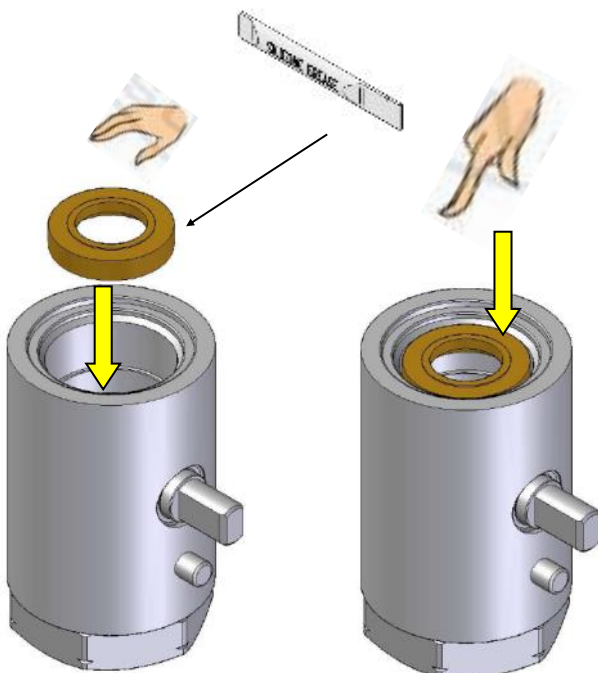
## BV702 - BV703 - BV704 - BV706 - BV708

4. Insert ball.



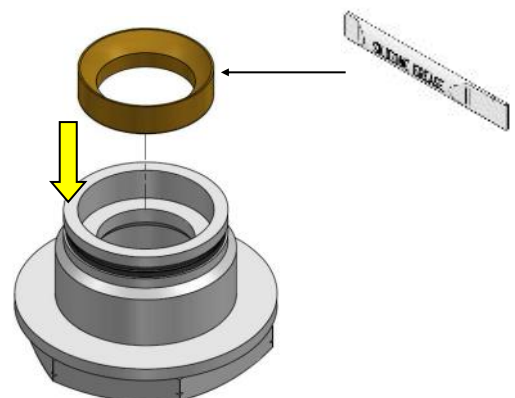
### BV702 — BV703 — BV704

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



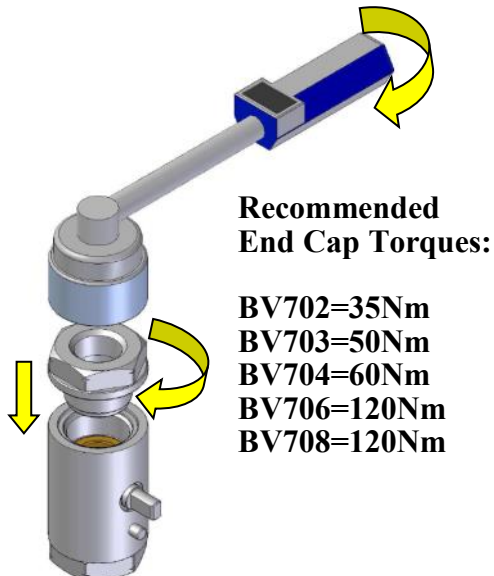
### BV706 — BV708

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

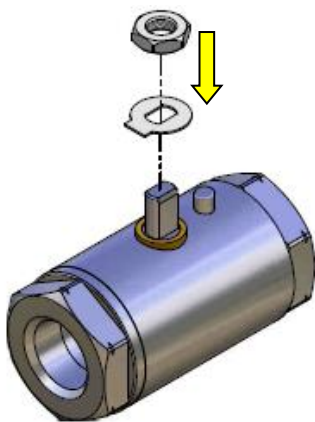
6. Tighten on end cap.



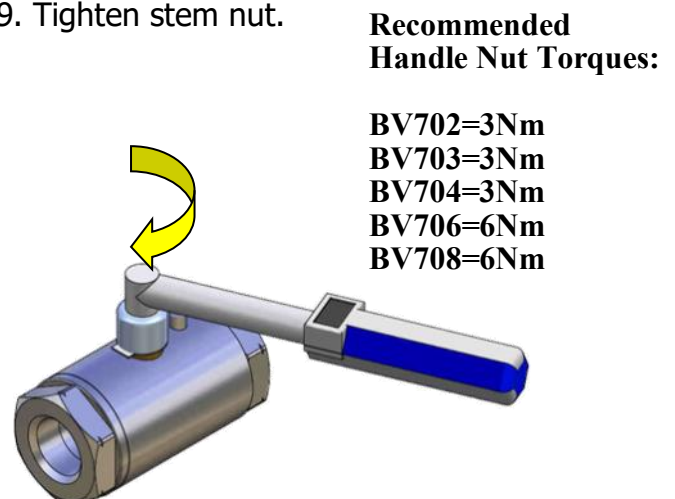
7. Install gland.



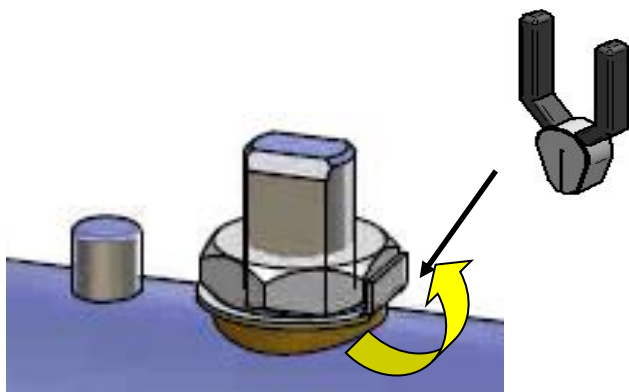
8. Install the lock tab and the nut.



9. Tighten stem nut.



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.