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

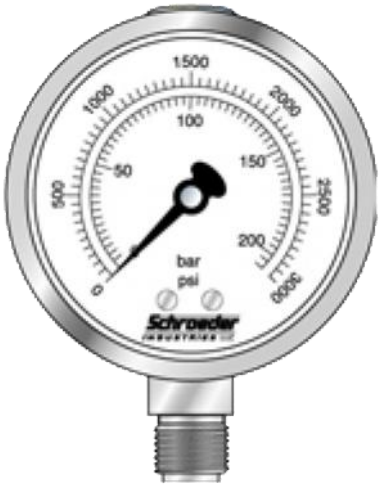
Oasis Engineering Ltd
129 Birch Avenue, Tauranga, New Zealand.
T: +64 7 928 3808
E: info@oasisNGV.com
W: www.OasisNGV.com

Webpage

Warning!

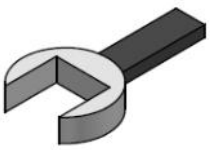
High pressure gas and gas equipment can cause serious harm to both infrastructure and personnel if safety precautions are not followed.

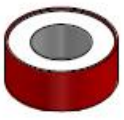
Oasis recommends considering the use of the following PPE when working with high pressure along with any other site specific health and safety requirements:



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

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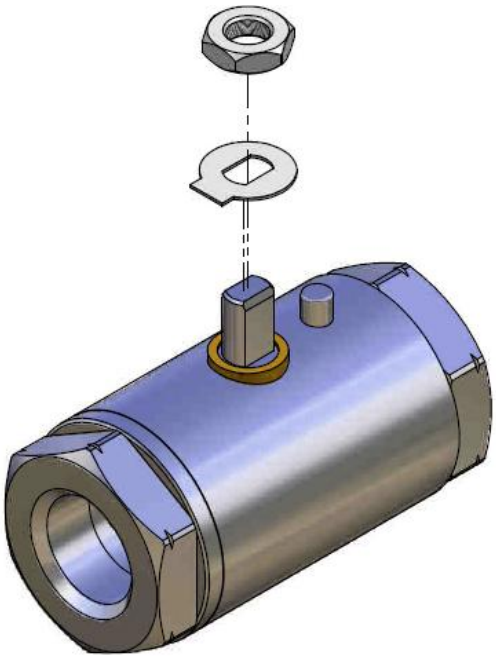
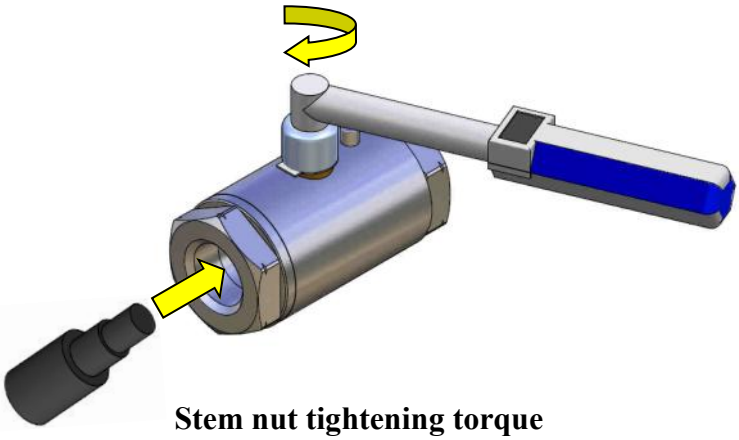
BV700-INS-04 3726 © Oasis Engineering Limited

If valve not supplied with actuator or bracket follow these instructions

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

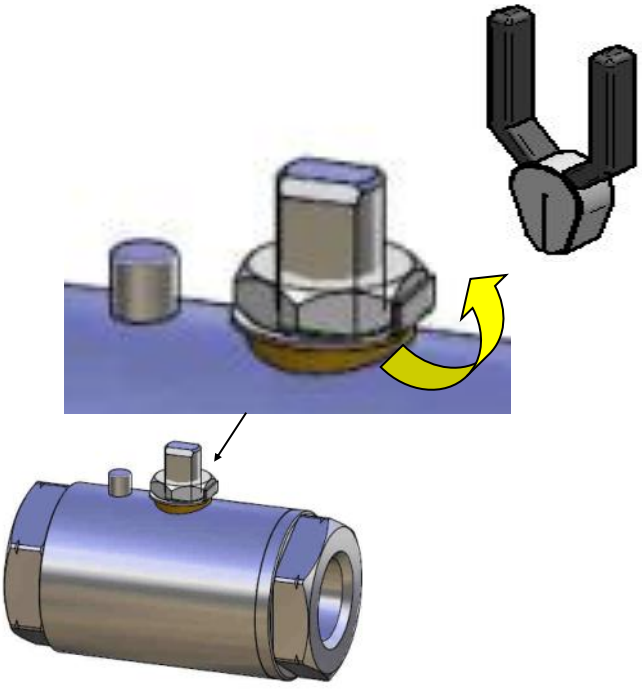


2. Tighten the half nut to the required torque.

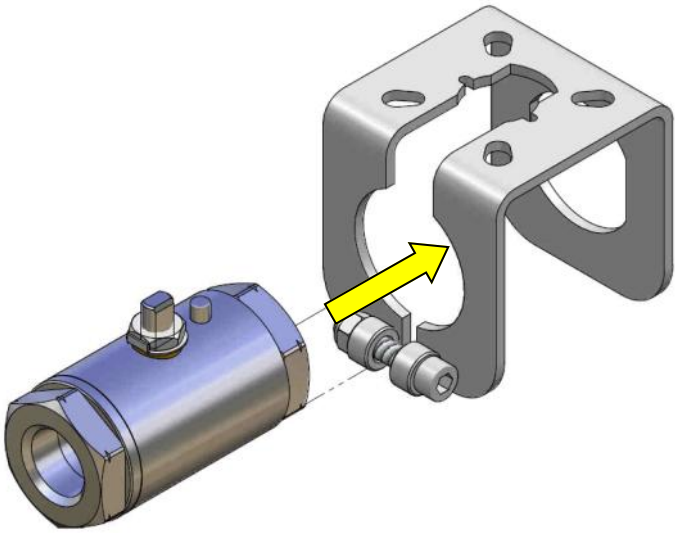


Stem nut tightening torque
BV703 = 3Nm
BV704 = 3Nm
BV706 = 6Nm
BV708 = 6Nm

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.



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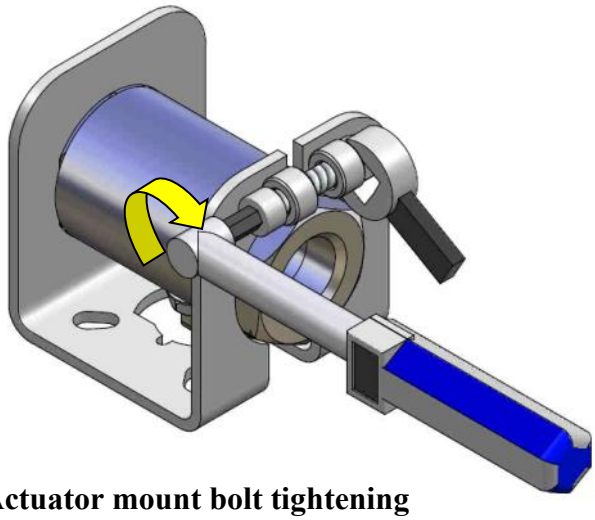
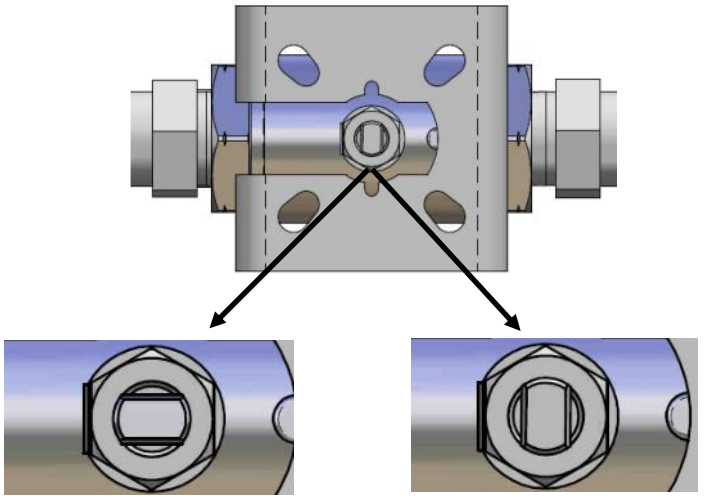
If valve not supplied with actuator or bracket follow these instructions

5. Tighten the lock bolt to the recommended torque.



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

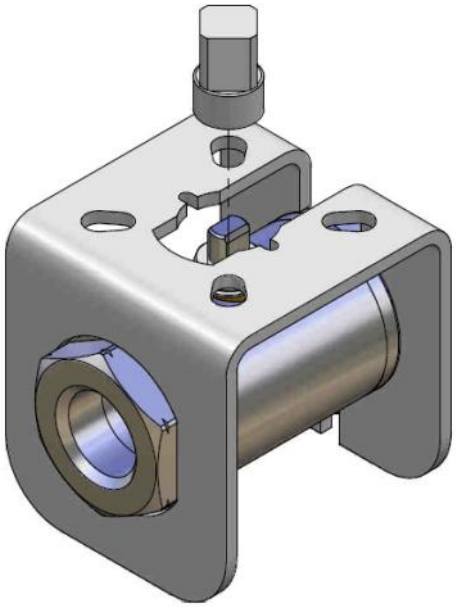
6. Set the valve to the required fail open/fail close position as required.



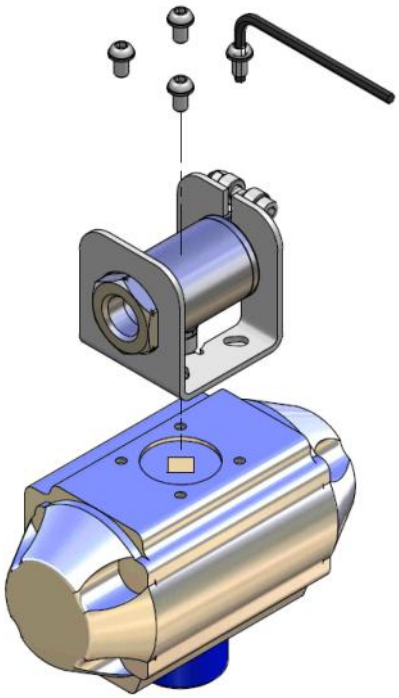
Valve in open position
Stem along the body
Fail Open

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.



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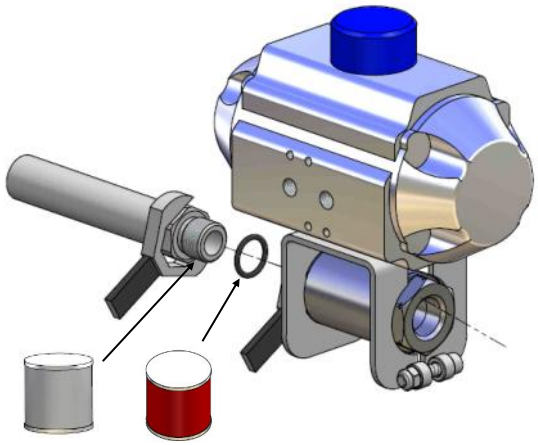
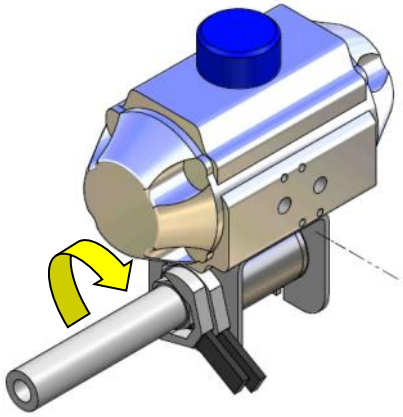
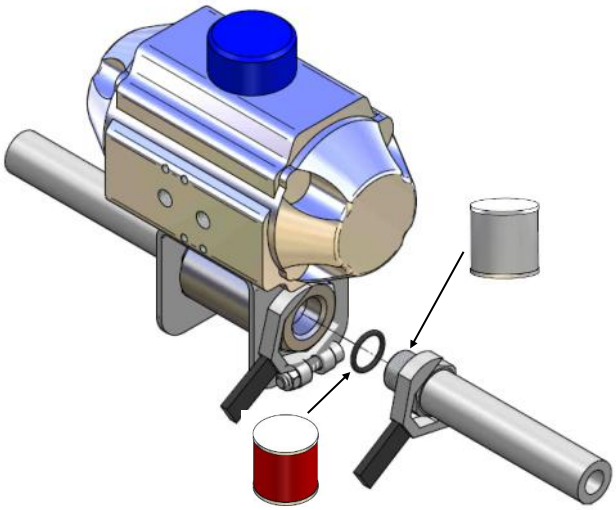
1. Apply anti seize to thread and silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



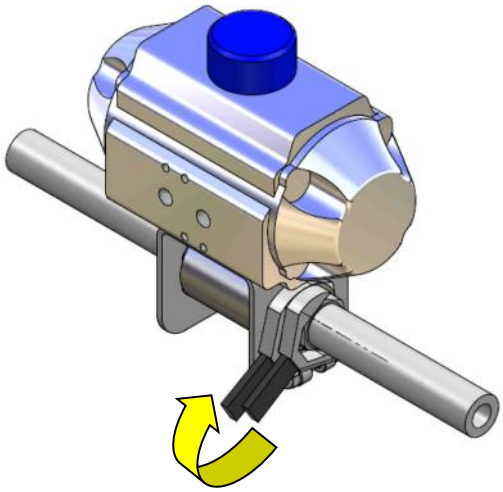
2. Screw the fitting into the body and torque to the fitting suppliers recommended tightening torque.



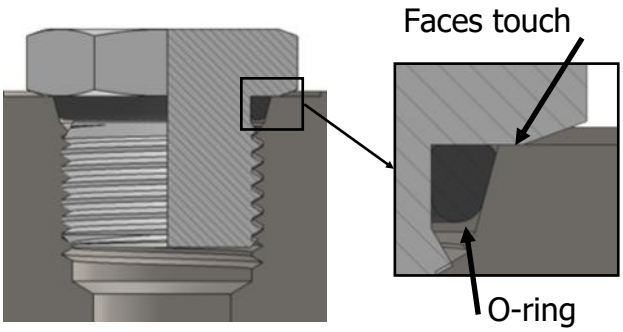
3. Apply anti seize to thread and silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



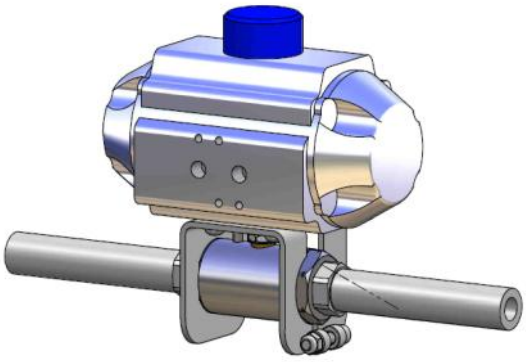
4. Screw the fitting into the body and torque to the fitting suppliers recommended tightening torque.



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.



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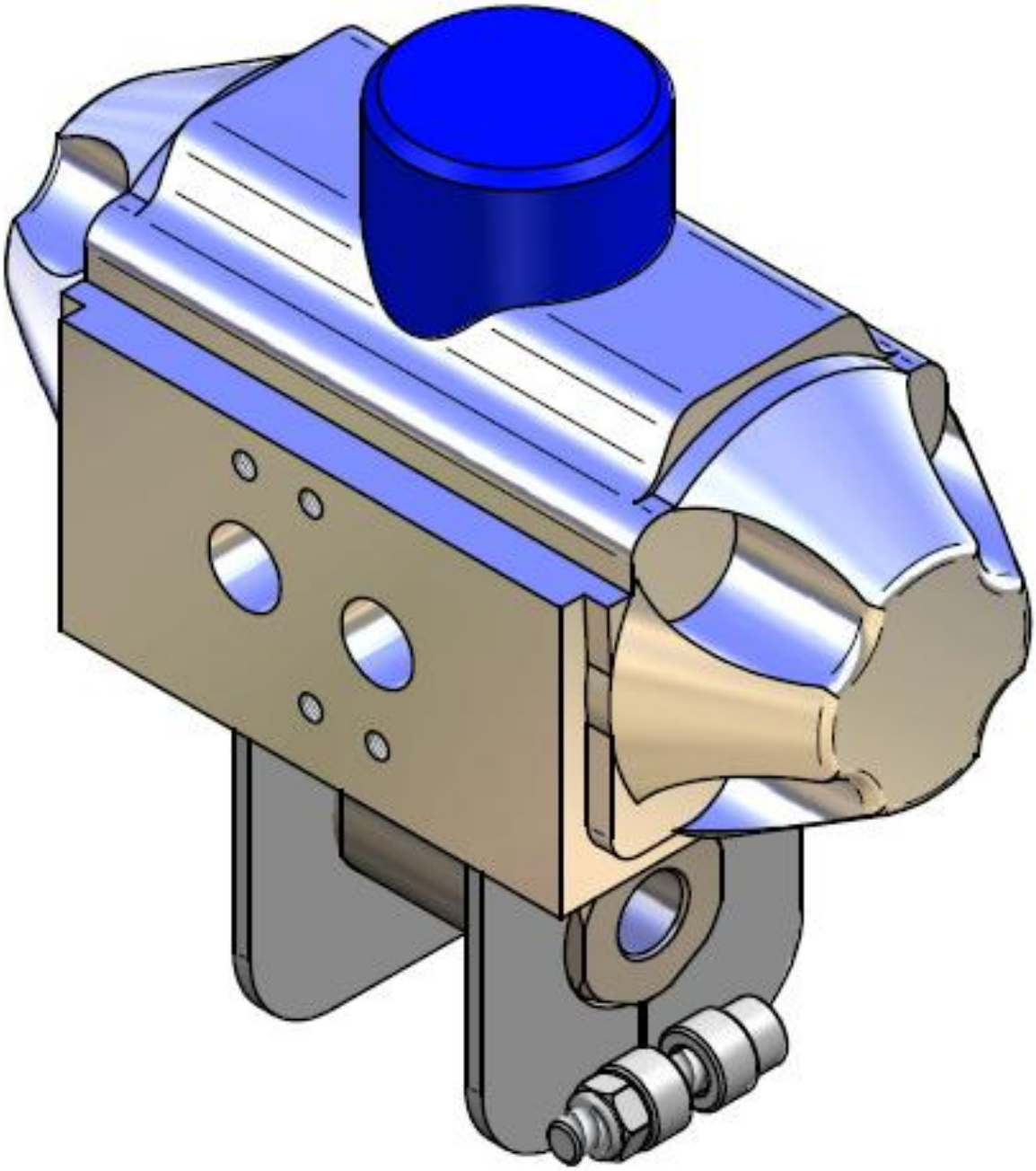
BW700-INS-04 17/24 © Oasis Engineering Limited

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



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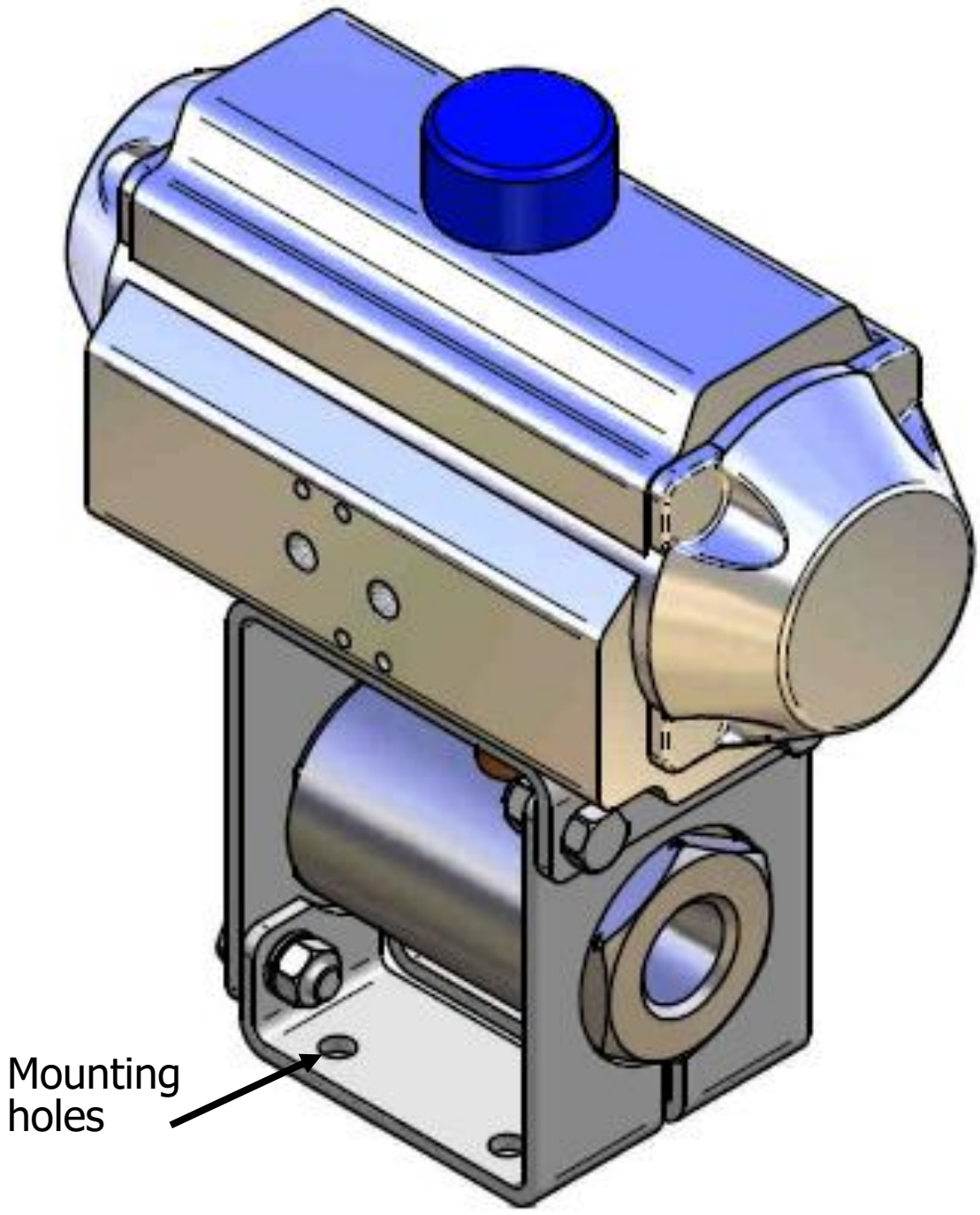
BV706/708 Actuator Bracket Design



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

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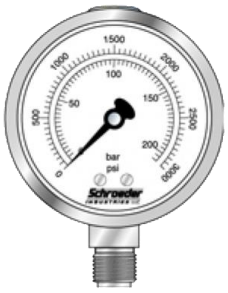
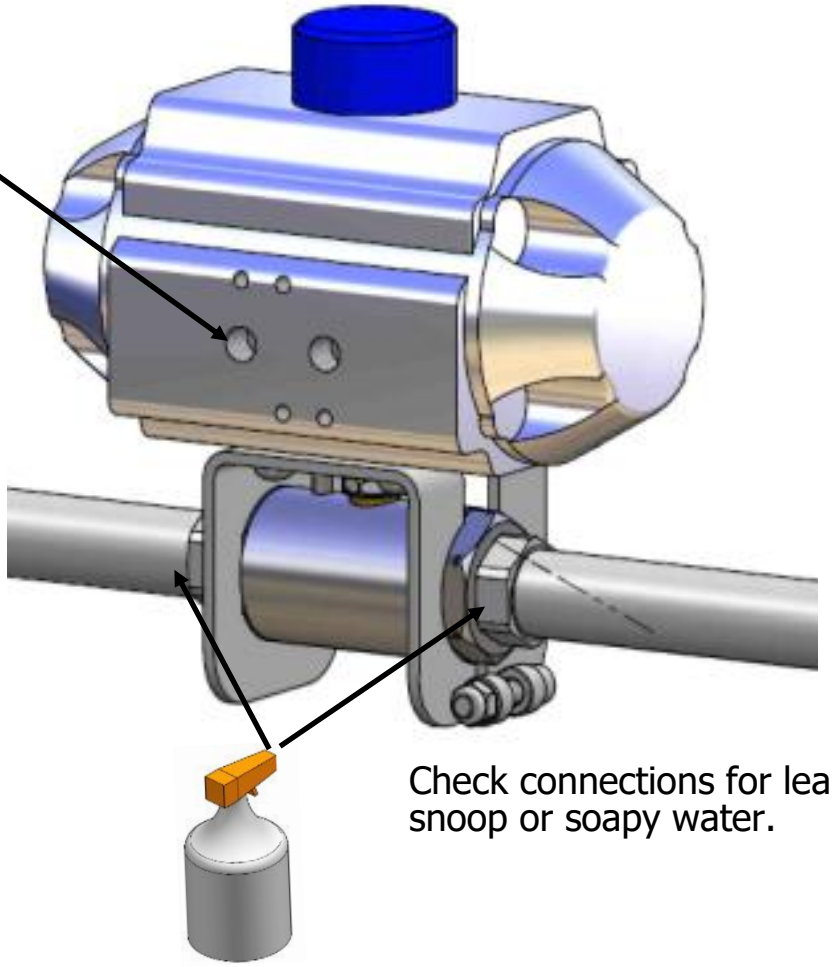
1. Connect air line and check connections for leaks.

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



MAX 8 Bar

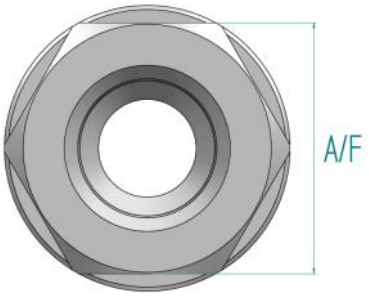


Do not operate the actuator with supply pressure greater than 8 Bar (116 psi). Doing so may damage the actuator and void the warranty.

Check connections for leaks using snoop or soapy water.

Recommended Spanners for End Caps:

BV702 = 25mm
BV703 = 28mm
BV704 = 34mm
BV706 = 48mm
BV708 = 60mm



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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

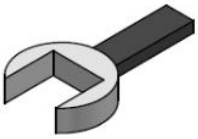
Tools Required

Small flat screw driver

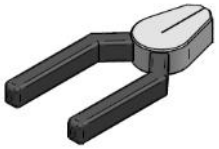
Cleaner (Warm Soapy Water or Similar)

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

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

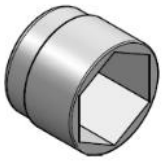


Spanner (Wrenches)

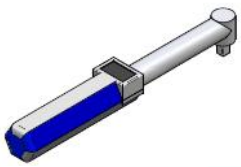


Pliers

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



Sockets



Torque Wrench

Snoop or Soapy Water

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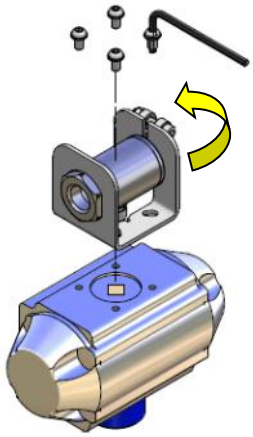
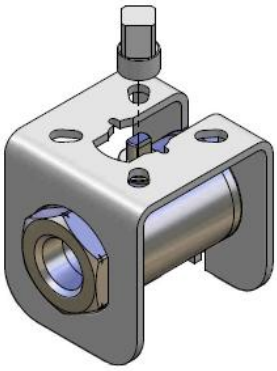
BV702TDS04/12 © Oasis Engineering Limited

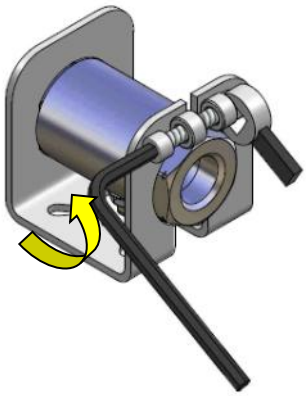
1.Remove actuator from valve.



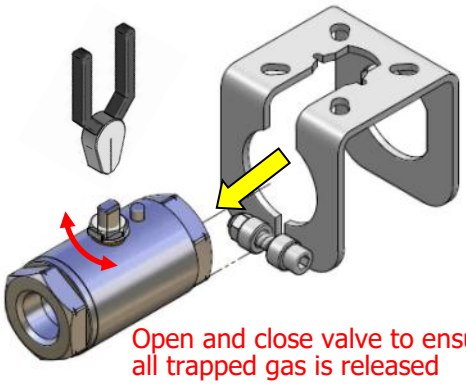
2. Remove drive dog.



3. Undo clamp.



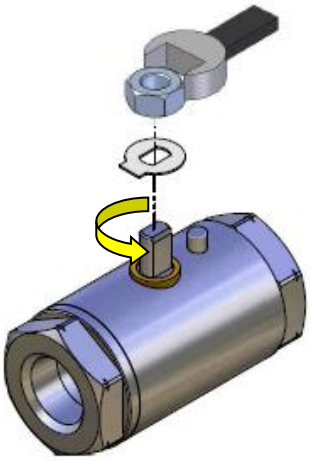
4.Remove valve.



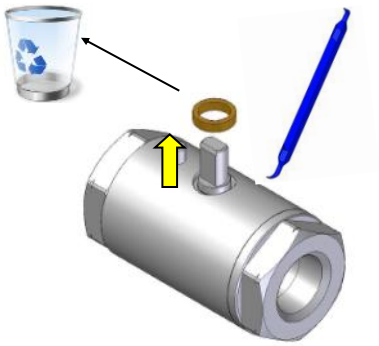
Open and close valve to ensure all trapped gas is released

5.Fold down metal tab.

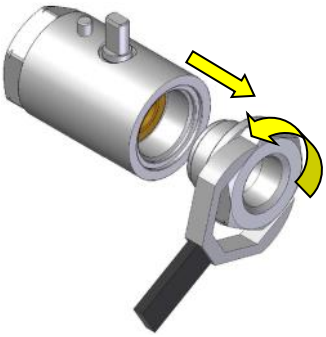
6. Remove nut and tab.



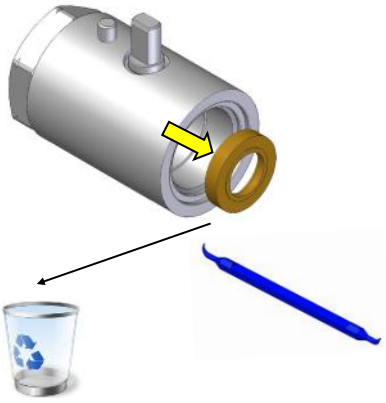
7. Discard gland.



8. Remove end cap.



9.Discard seat.



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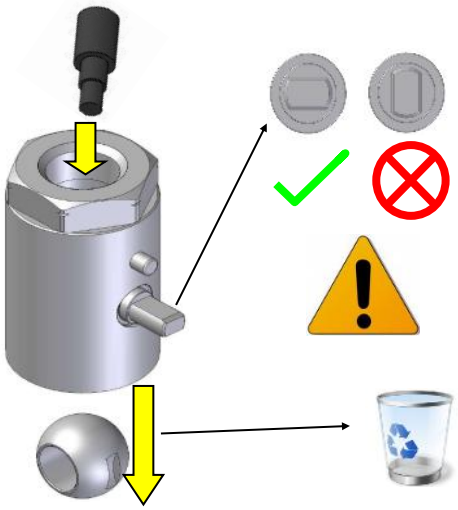
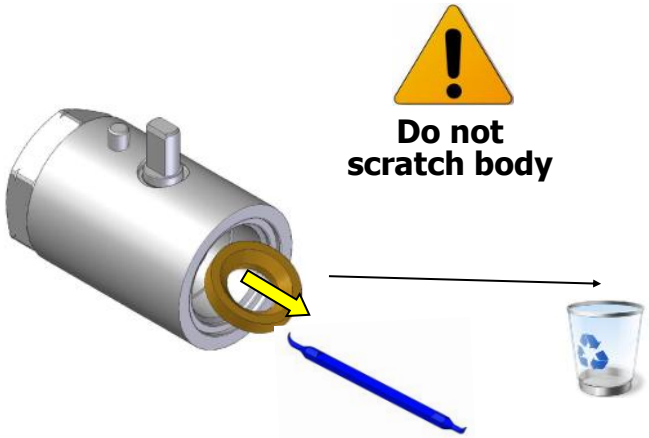
10. Remove ball.

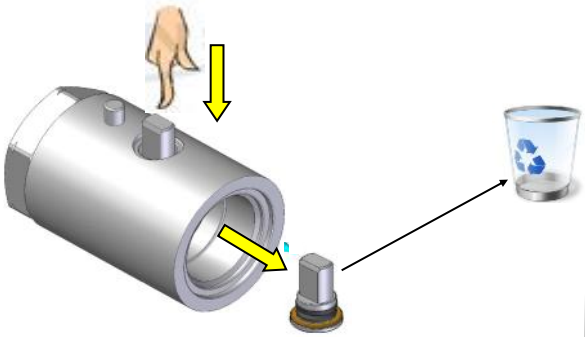


BV702 — BV703

11. Remove 2nd seat first.

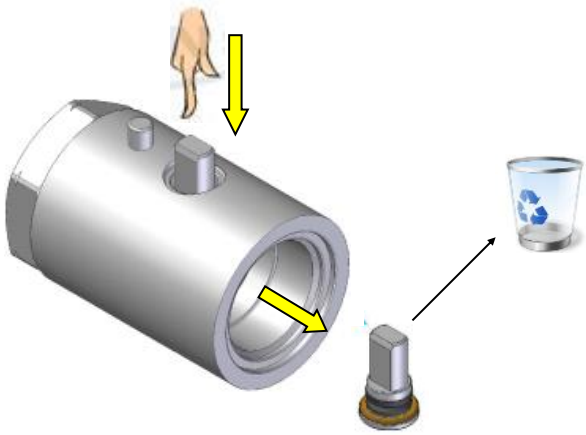


12. Remove and discard stem.

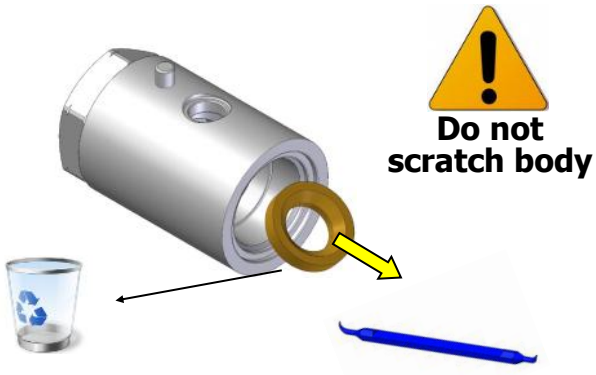


BV704 - BV706 - BV708

11. Remove stem first.



12. Remove and discard 2nd seat.



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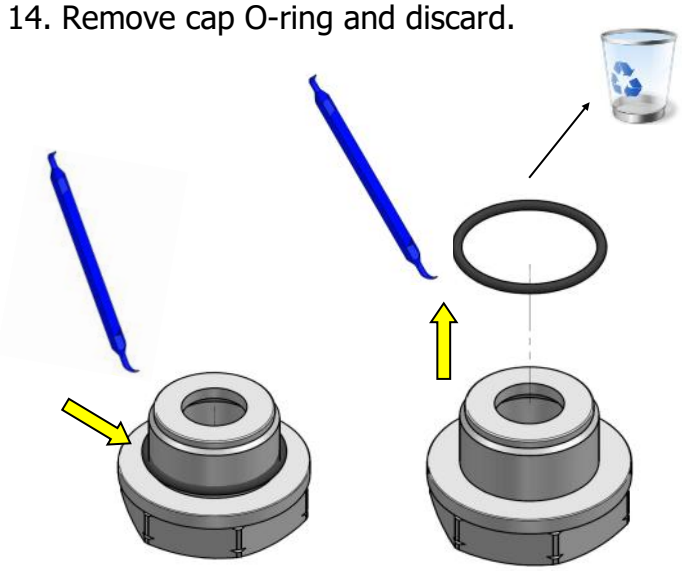
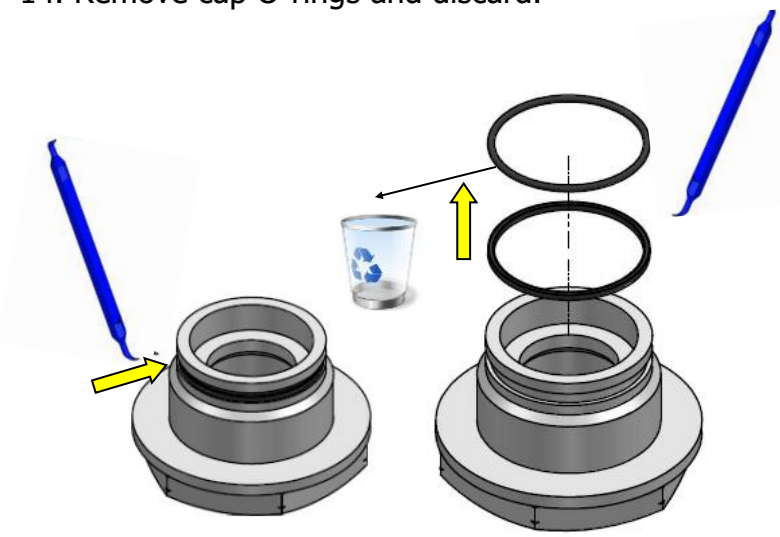
BV702 - BV703 - BV704

14. Remove cap O-ring and discard.

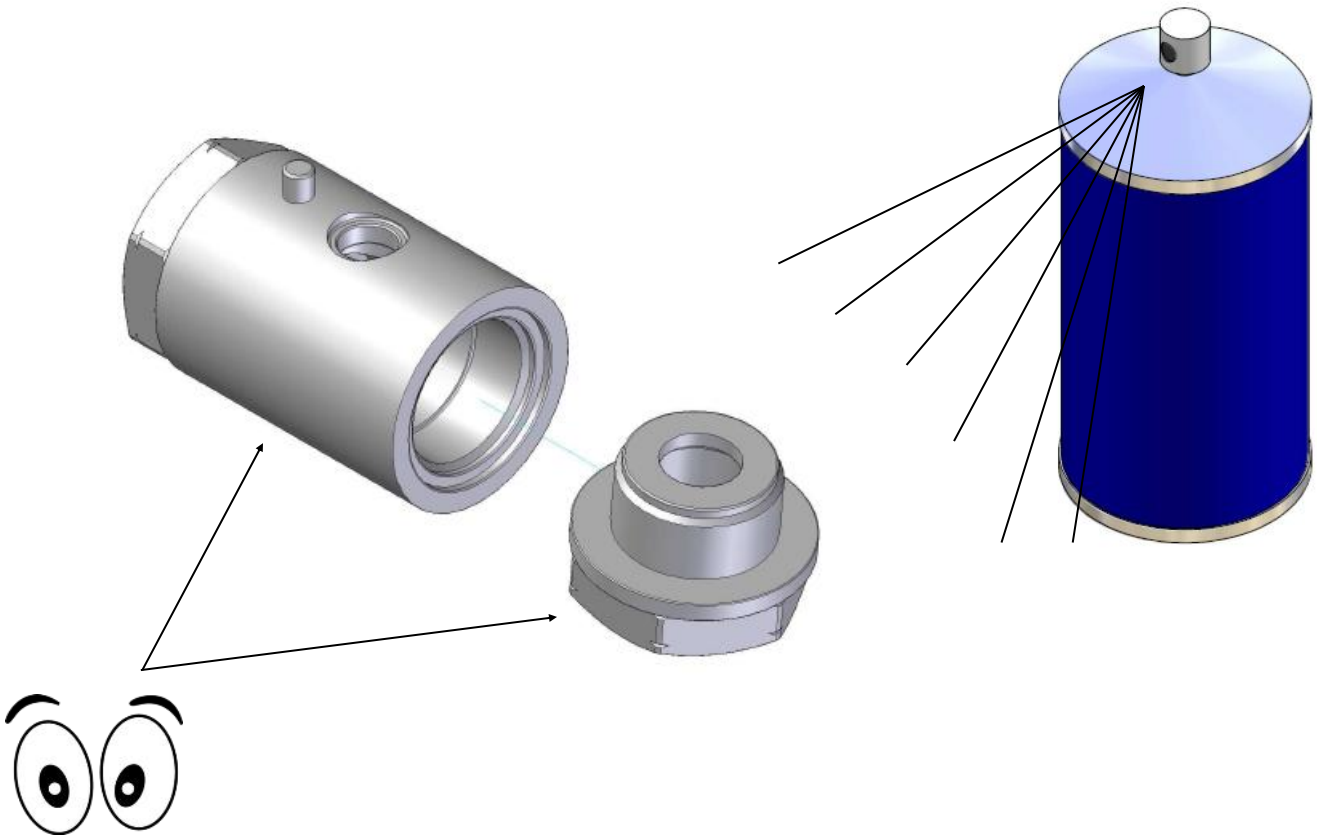


BV706 - BV708

14. Remove cap O-rings and discard.



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



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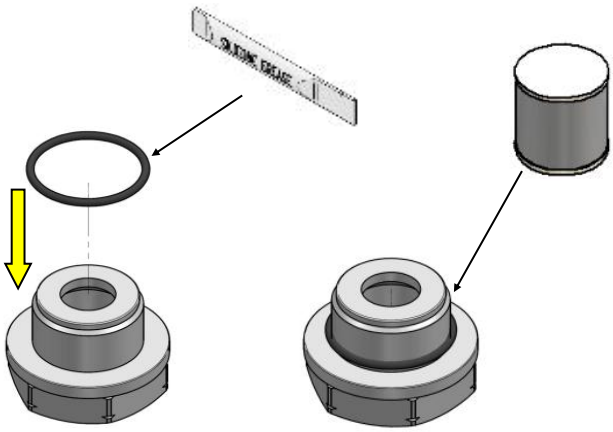
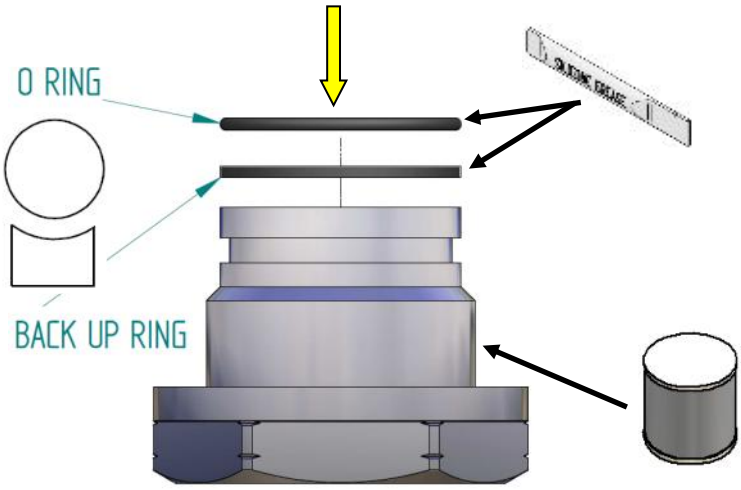
BV702 — BV703 — BV704

1. Fit O-ring.



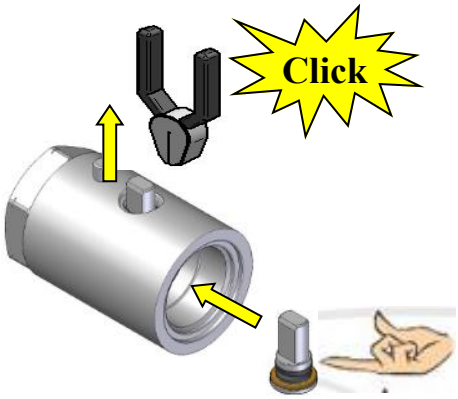
BV706 — BV708

1. Fit end cap O-rings.

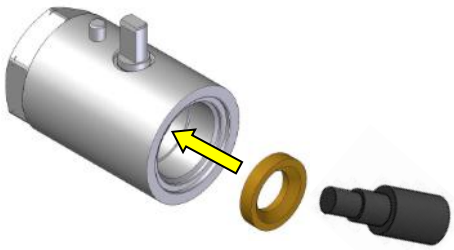


BV702 — BV703

2. Insert stem assembly first.

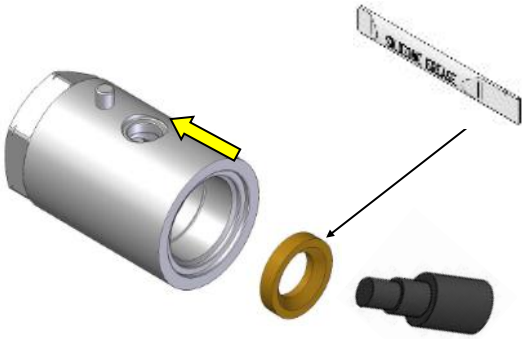


3. Insert first seat.

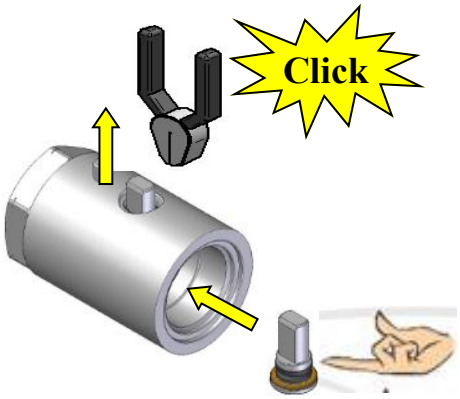


BV704 - BV706 - BV708

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.



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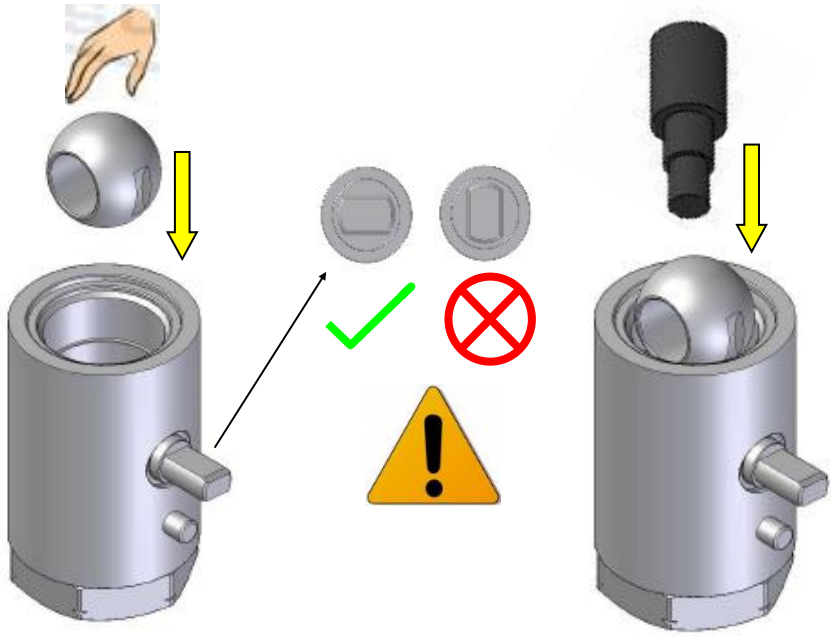
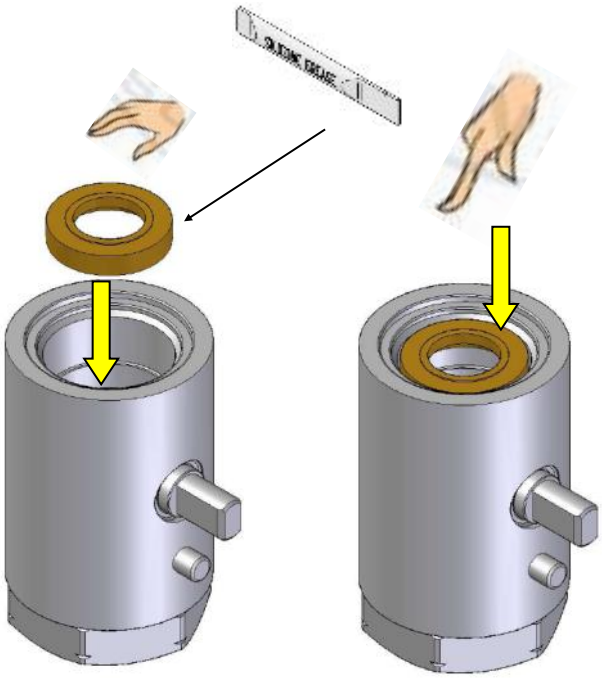
BV702 - BV703 - BV704 - BV706 - BV708

4. Insert ball.



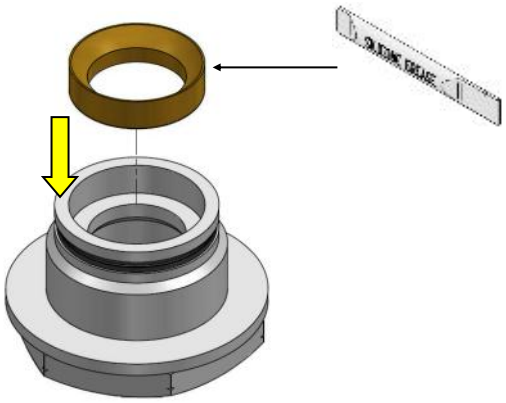
BV702 — BV703 — BV704

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.



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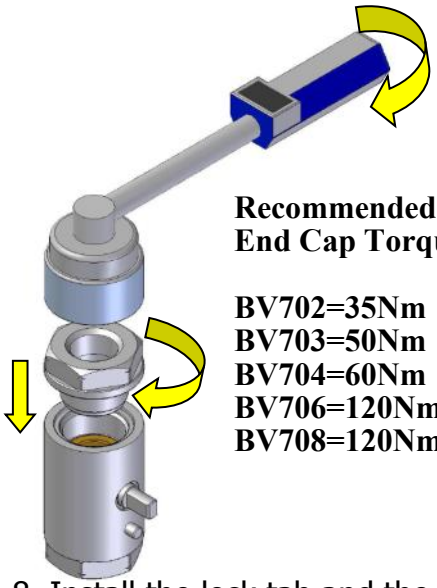
BV702 - BV703 - BV704 - BV706 - BV708

6. Tighten on end cap.

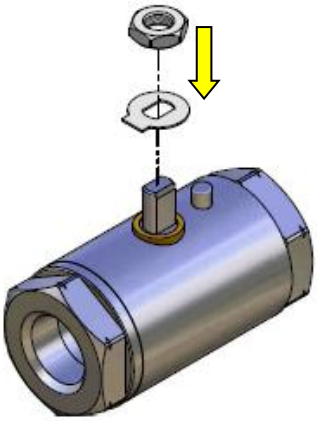


Recommended End Cap Torques:

BV702=35Nm
BV703=50Nm
BV704=60Nm
BV706=120Nm
BV708=120Nm

7. Install gland.

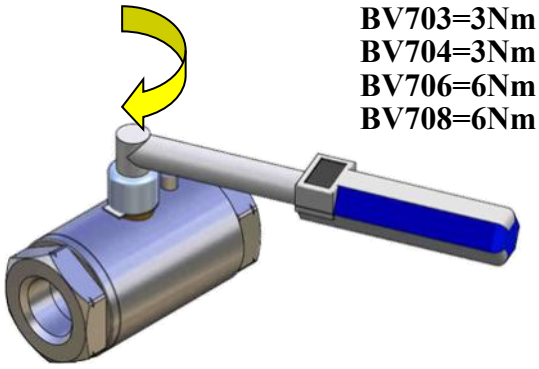
8. Install the lock tab and the nut.



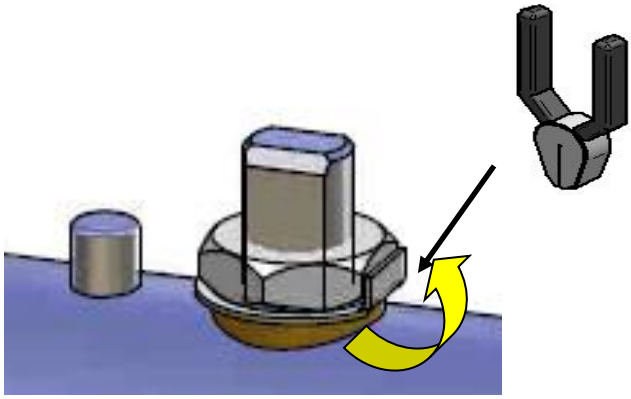
9. Tighten stem nut.

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.

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