

Oasis



SV100 Series Actuated Sandwich Valve 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.

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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.

Important for Canadian systems

The design has been confirmed and tested to standards not recognised 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 conditions:

Design pressure:	410 bar (6000 psi)
Design temperature:	-40 to +85°C (-40 to + 185°F)
Corrosion allowance:	0mm (0in)

Important

Oasis recommends the use of class 12.9 plain black socket head cap screws with this product.

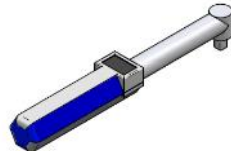
Some surface corrosion is normal on plain black cap screws over time.

The use of zinc plated cap screws is NOT recommended by Oasis due to potential weakening issues related to hydrogen embrittlement during the plating process of zinc plated cap screws.

Tools Required



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



Torque Wrench



Allen Key

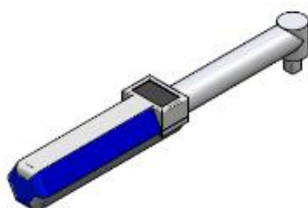


Anti Seize Grease
- Swagelok Silver Goop
- Omega 99
- or similar



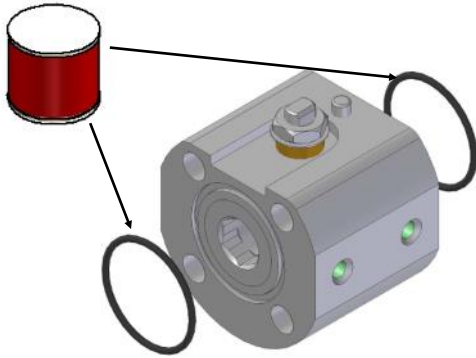
Spray bottle
(Snoop or soapy water)

Torque wrench hex sizes

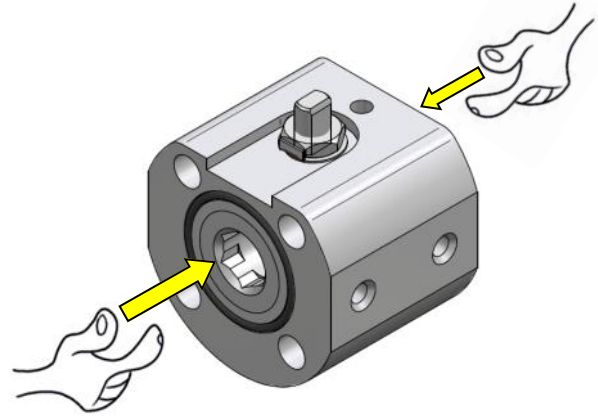


SV103= 6mm
SV104= 6mm
SV106= 10mm
SV108= 12mm

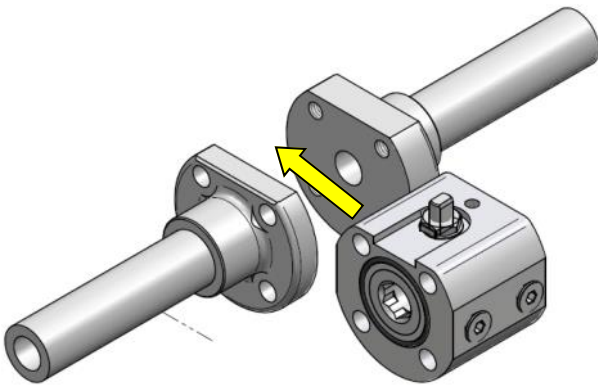
1. Grease O-rings.



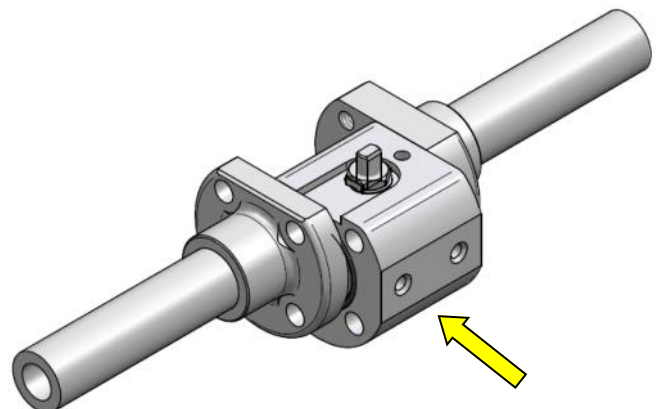
2. Insert O Rings into grooves.



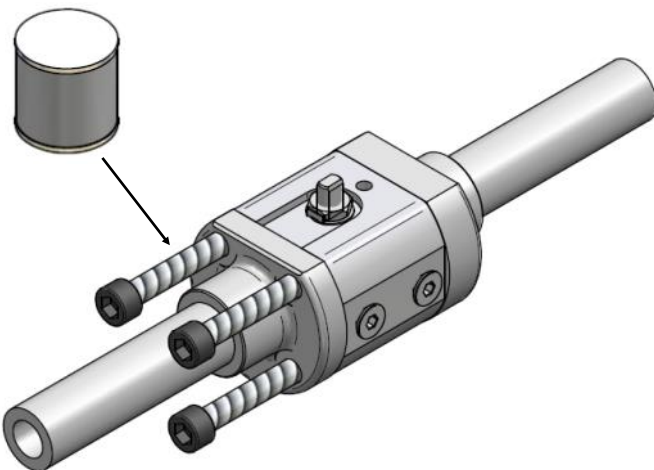
3. Line valve up with end caps.



4. Place valve into position.



5. Insert bolts.

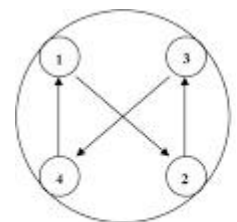


6. Torque bolts.

Torque pattern

**Recommended torque
with anti-seize grease:**

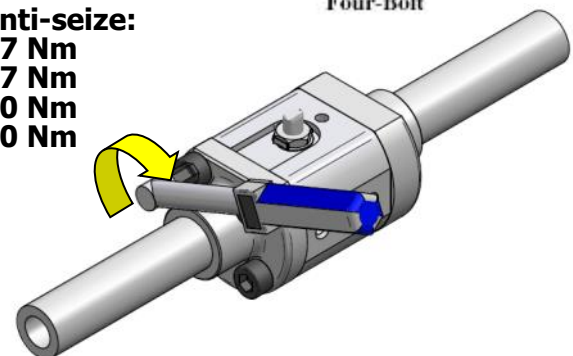
**SV103= 26 Nm
SV104= 26 Nm
SV106= 60 Nm
SV108= 70 Nm**



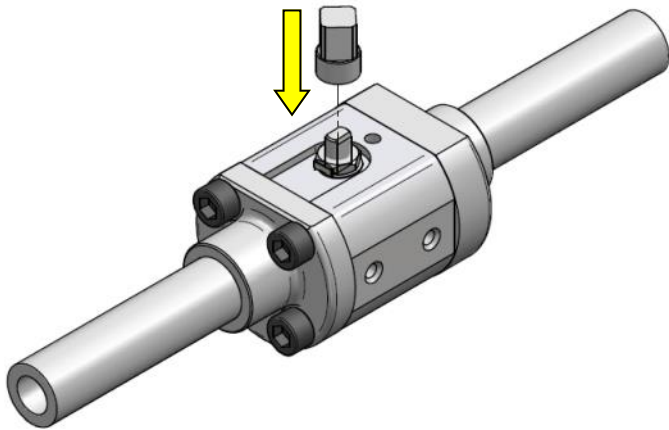
Four-Bolt

Without anti-seize:

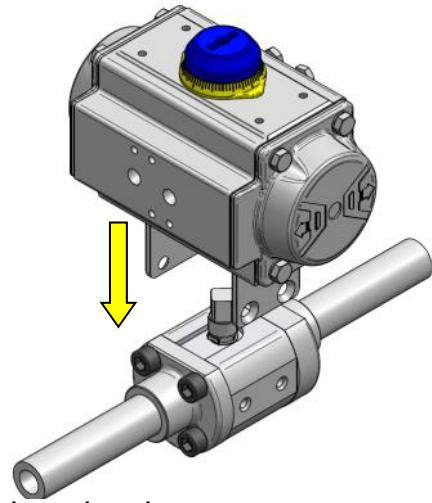
**SV103= 37 Nm
SV104= 37 Nm
SV106= 60 Nm
SV108= 70 Nm**



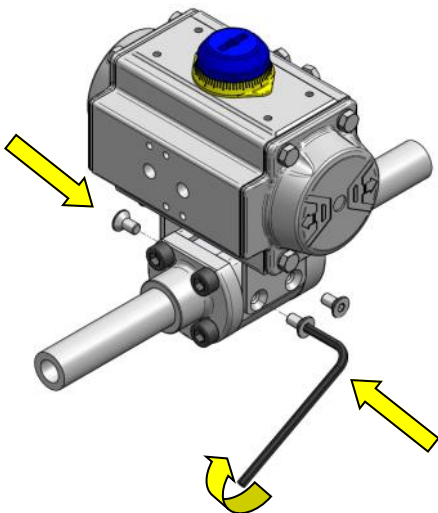
7. Install drive dog.



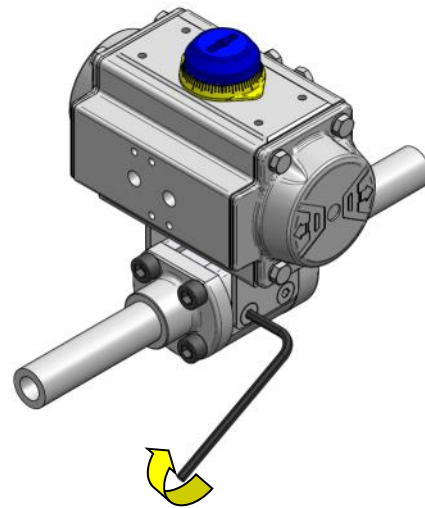
8. Install actuator and bracket.



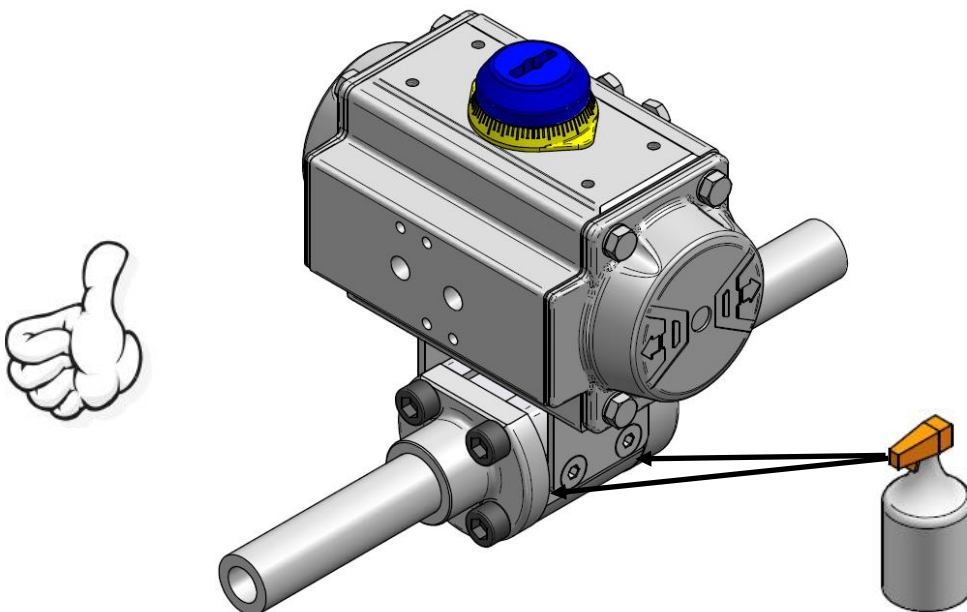
9.



10. Tighten bracket screws.



11. Install complete, check for leaks on first use with snoop or soapy water.



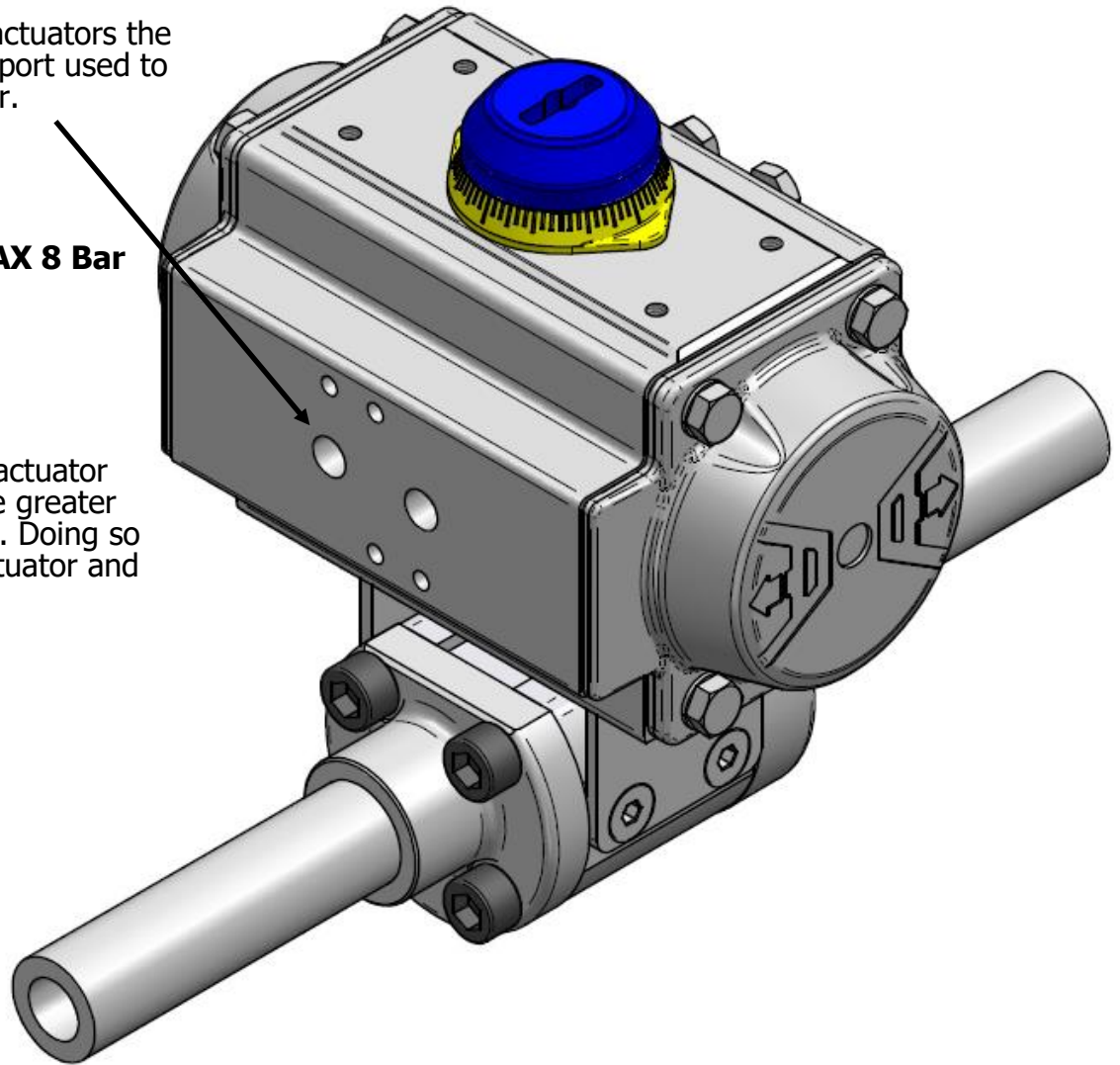
1. Connect air line and check connections for leaks.

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.



Seal Kit

SV103 - SV104**



* 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, seats will be supplied with an O-ring installed.

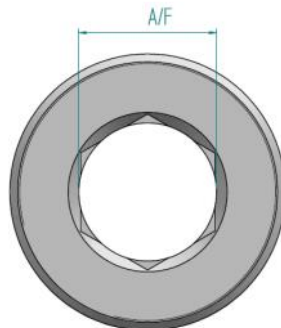
SV106** — SV108**



The Complete Oasis Seal Kit must be used

Hex End Cap Sizes (A/F)

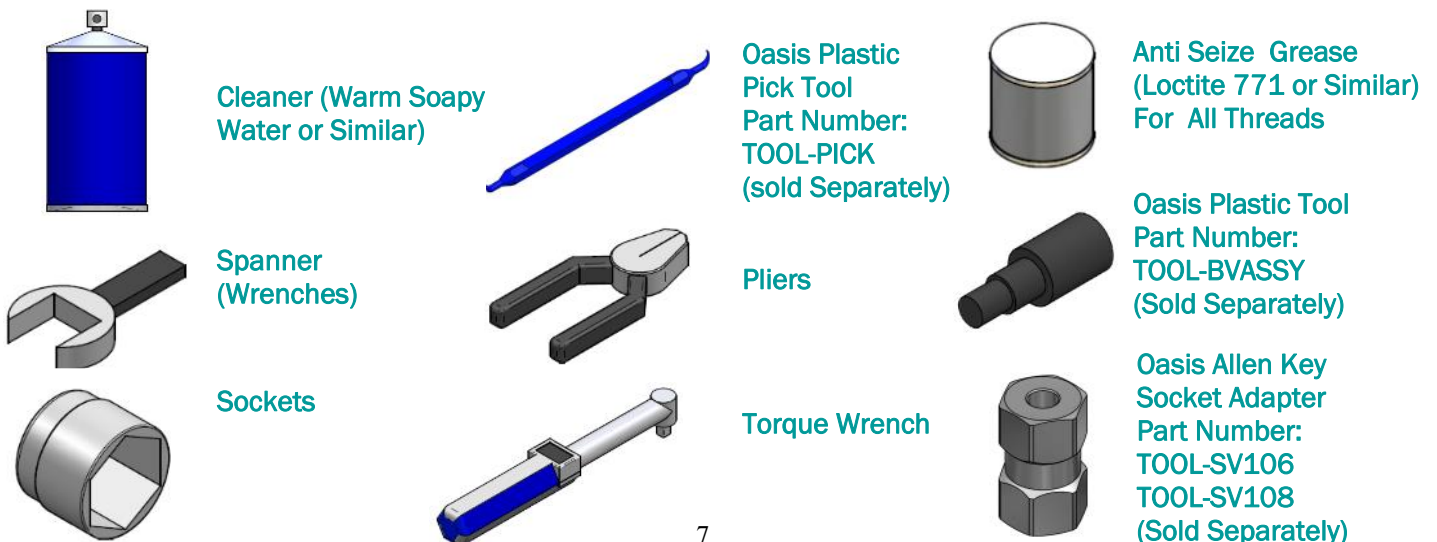
SV103= 10 mm
SV104= 12.7mm
SV106= 20 mm
SV108= 26 mm



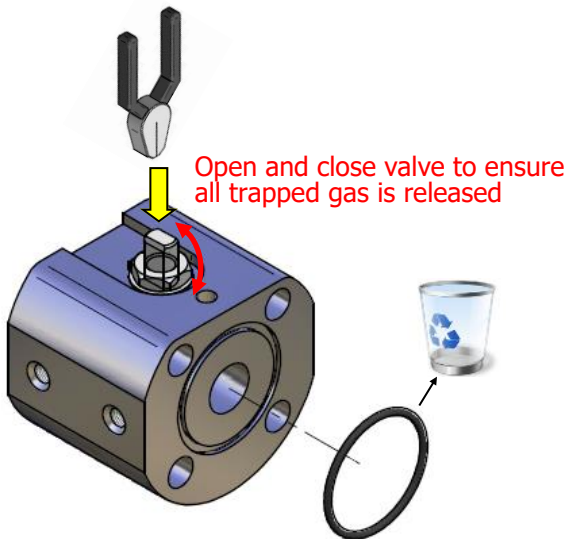
Stem Nuts Sizes (A/F)

SV103=13mm
SV104=13mm
SV106=19mm
SV108=19mm

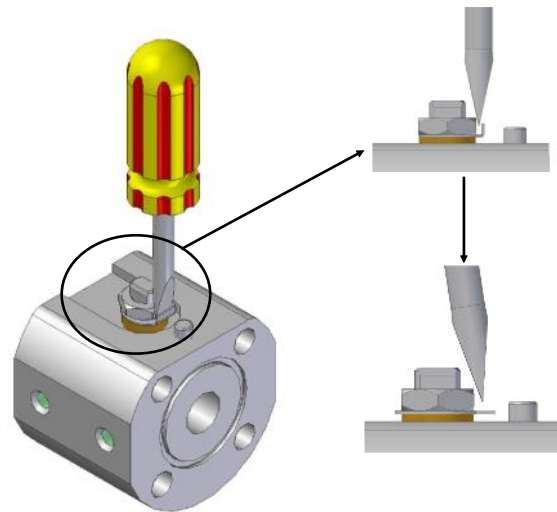
Tools



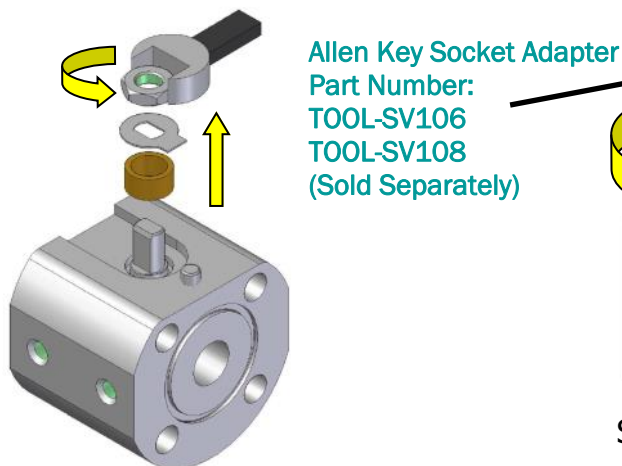
1. Remove the sandwich valve and remove sealing face O-rings.



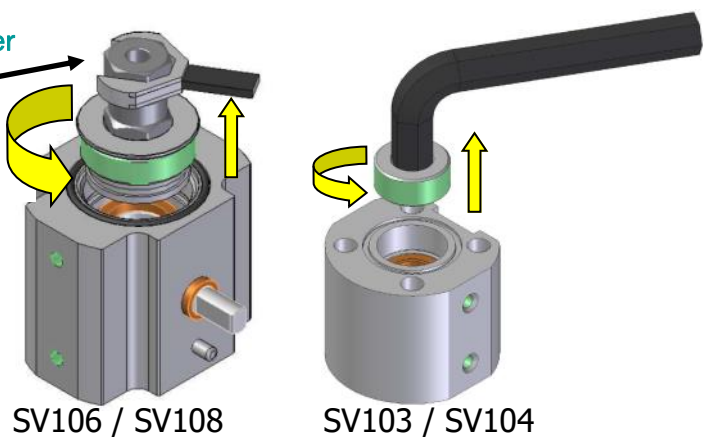
2. Release the nut locking tab.



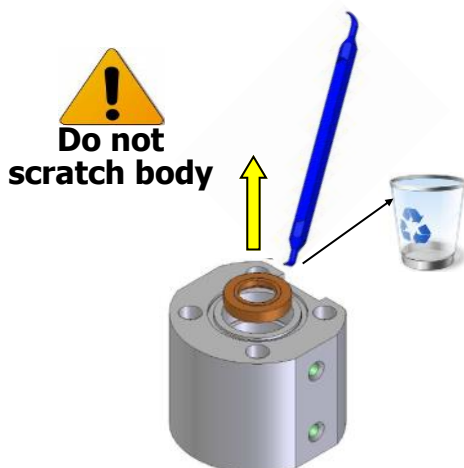
3. Remove nut, locking tab and gland.



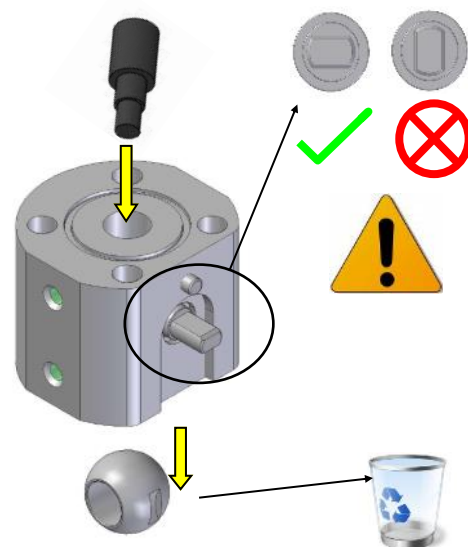
4. Unscrew and remove end cap.



5. Discard the seat.

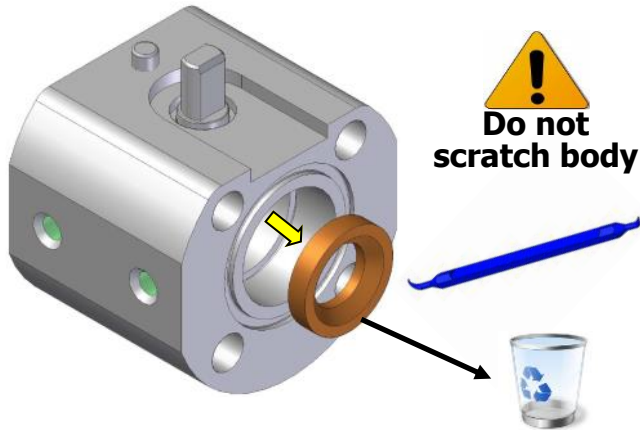


6. Discard the ball.

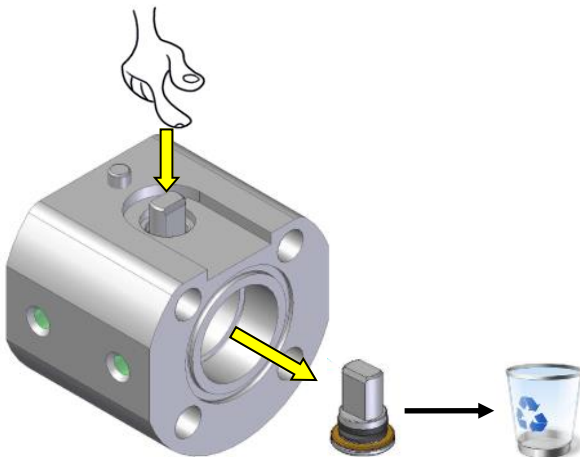


SV103

7. Remove 2nd seat and discard.

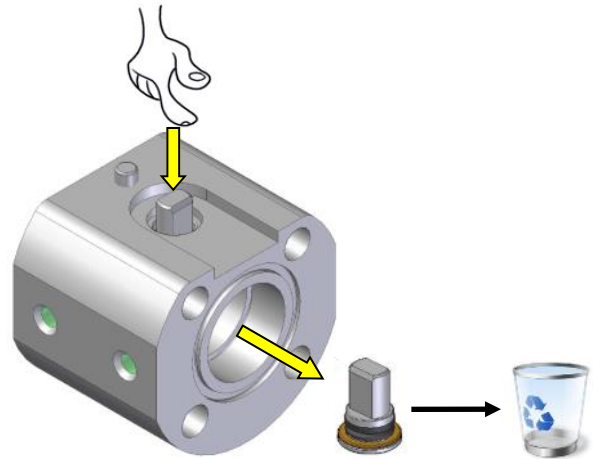


8. Remove stem and discard.

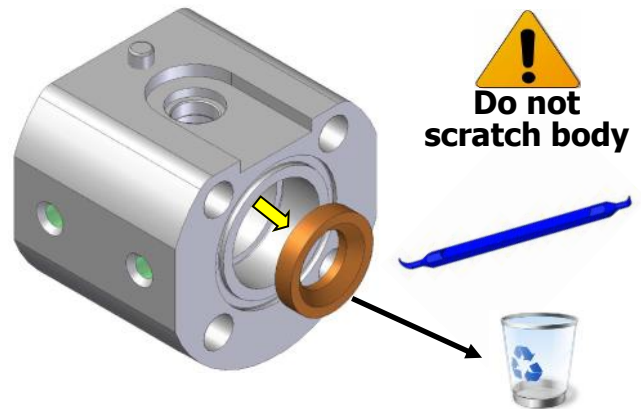


SV104 - SV106 - SV108

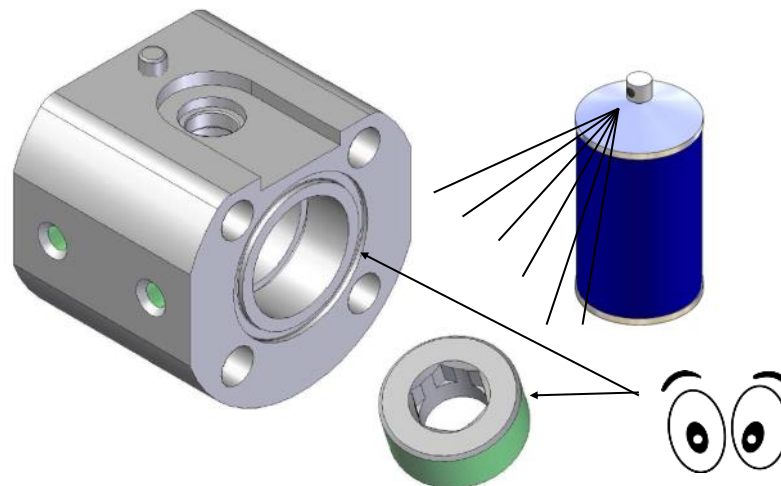
7. Remove stem.



8. Remove 2nd seat and discard.

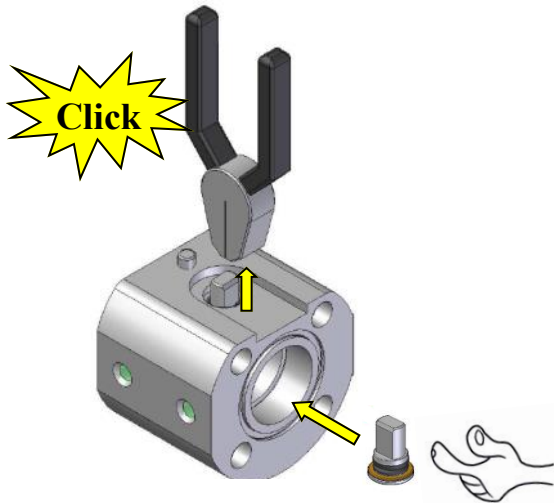


9. Clean components and inspect for damage.

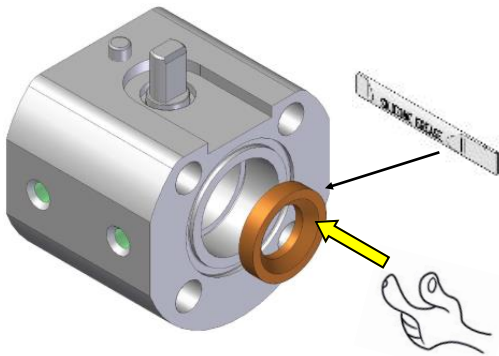


SV103

1. Insert stem assembly first.

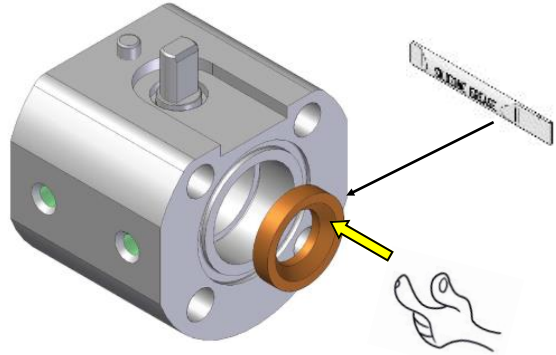


2. Apply silicone grease to new seat and install. Take care not to pinch O-ring when installing low pressure seat.

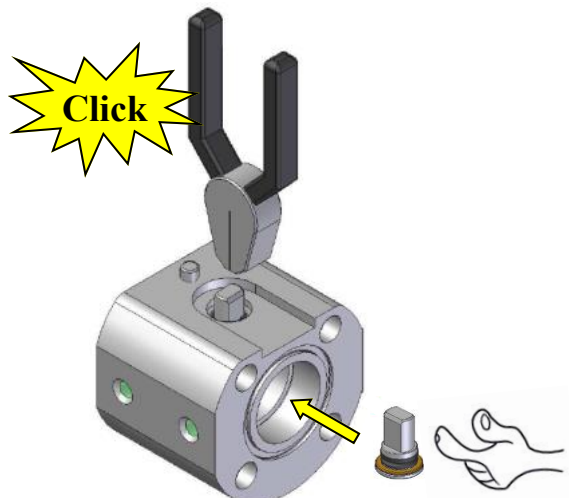


SV104 - SV106 - SV108

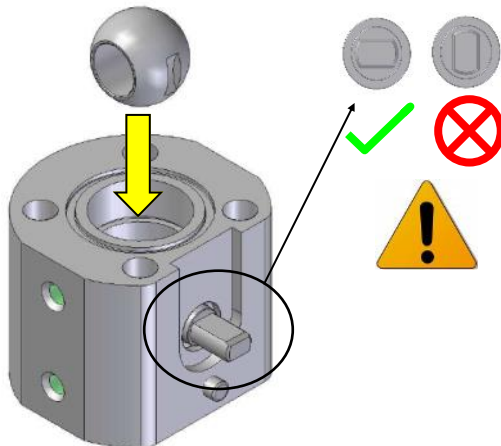
1. Apply silicone grease to new seat and install. Take care not to pinch O-ring when installing low pressure seat.



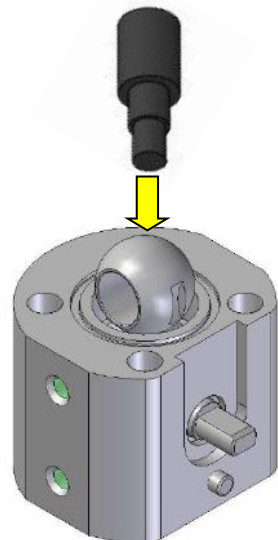
2. Insert stem assembly.



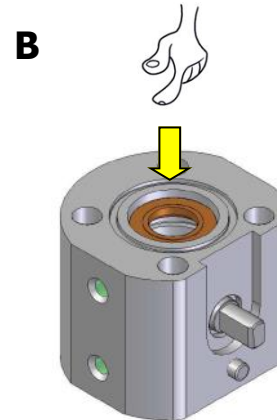
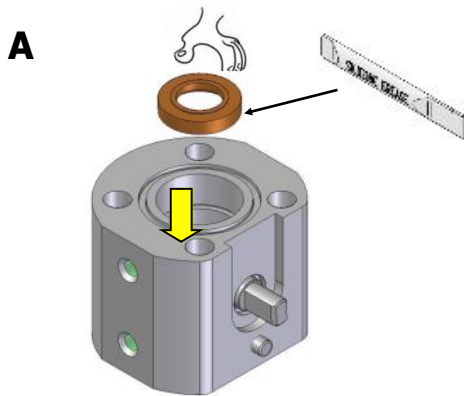
3. Insert ball.



B

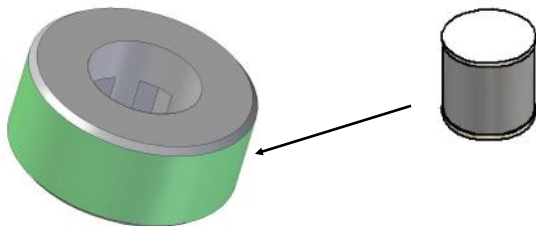


4. Apply silicone grease to new seat and install. Take care not to pinch O-ring when installing low pressure seat.



SV103 - SV104

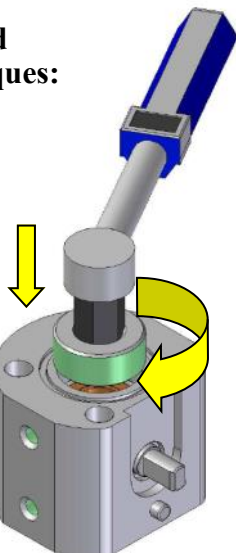
5. Apply anti seize to cap.



6. Tighten end cap.

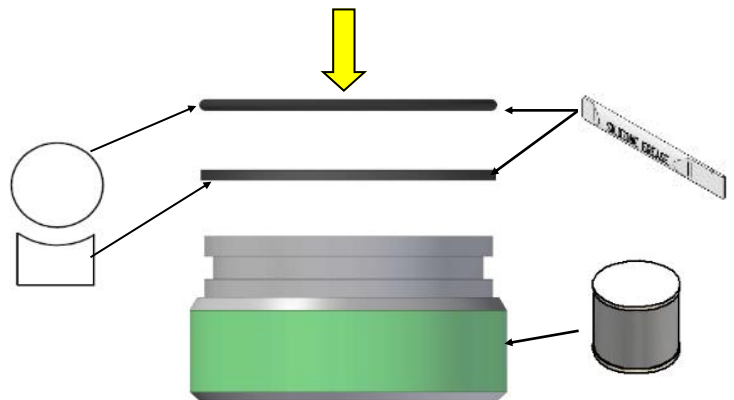
**Recommended
End Cap Torques:**

SV103=35Nm
SV104=60Nm



SV106 - SV108

5. Fit new O-rings and back-up to end cap.

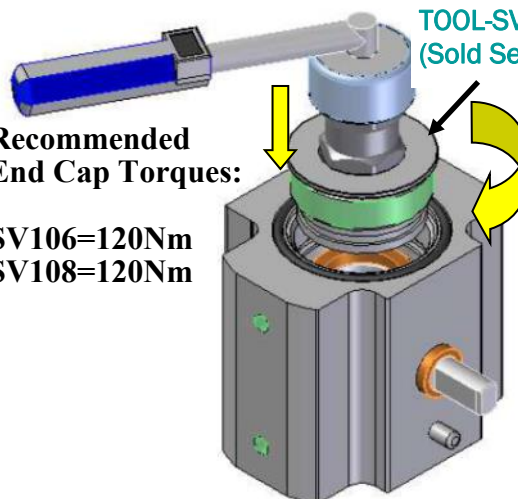


6. Tighten end cap.

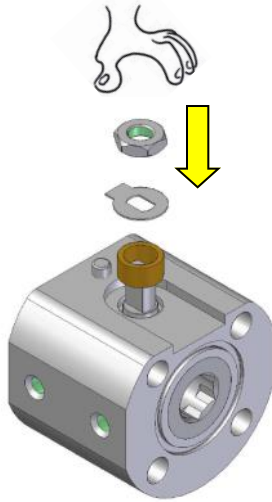
Allen Key Socket Adapter
Part Number:
TOOL-SV106
TOOL-SV108
(Sold Separately)

**Recommended
End Cap Torques:**

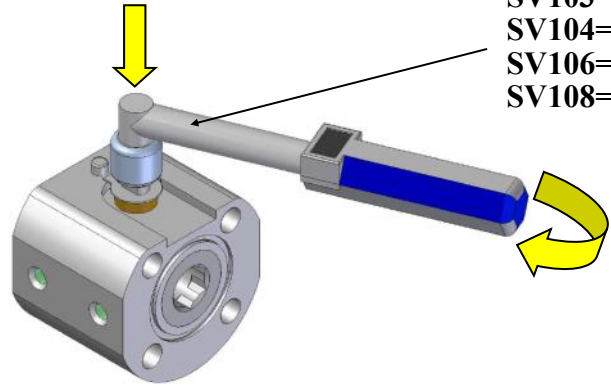
SV106=120Nm
SV108=120Nm



7. Assemble gland, locking tab and nut.



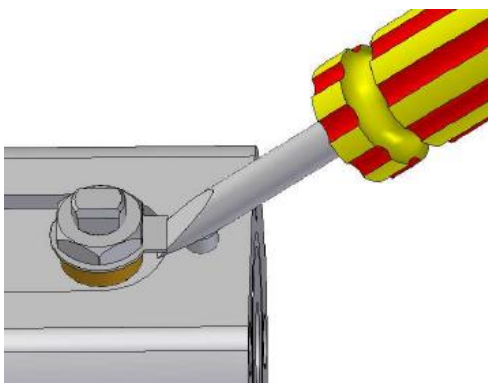
8. Torque stem nut.



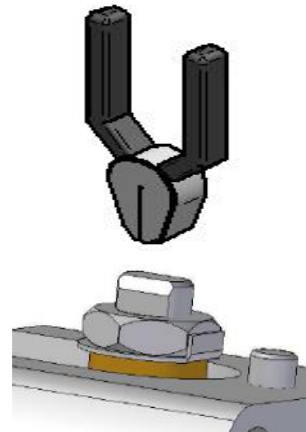
Recommended Nut Torques:

SV103=3Nm
SV104=3Nm
SV106=6Nm
SV108=6Nm

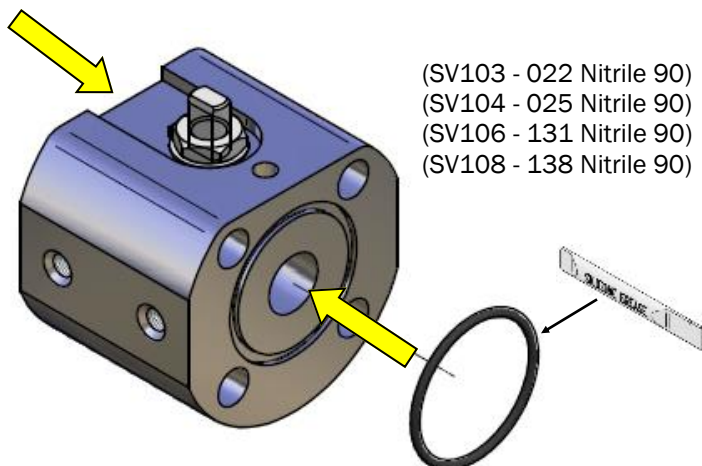
9. Bend locking tab & lock the nut.



10. Make Tab flush by crimping with Pliers.



11. Install seal face O-rings.



12. Done! Follow installation instructions on page 3 to refit sandwich valve.

