



CV300 Series Check 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

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



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

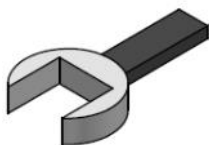


Safety Glasses



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

Tools Required



Spanner
(Wrenches)
1 5/16"–CV304
48mm–CV306
60mm (2 3/8")–CV308



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



Spray bottle
(Snoop or soapy water)

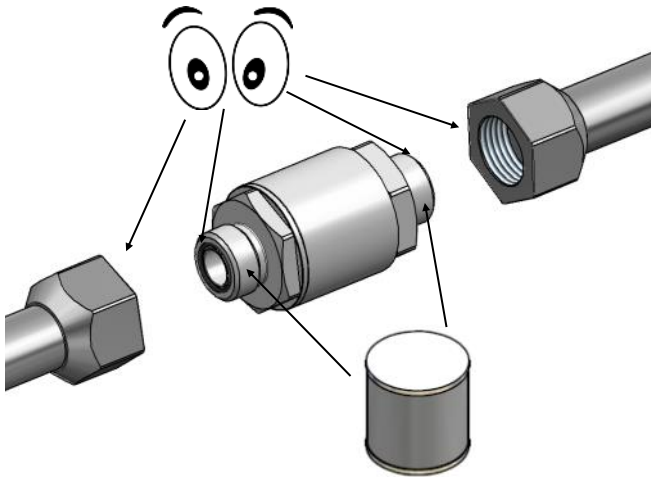
For use in Canada:

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:

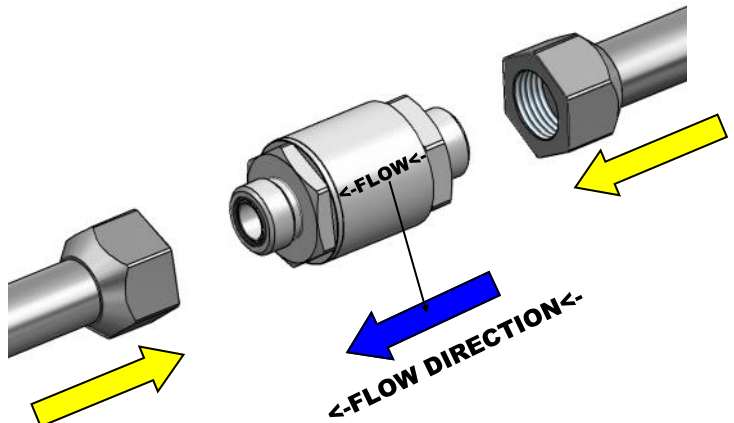
DESIGN PRESSURE: 410 BAR (6000 PSIG)
DESIGN TEMPERATURE: -40 TO +85°C (-40 TO +185°F)
CORROSION ALLOWANCE: 0 mm (0 in)

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.

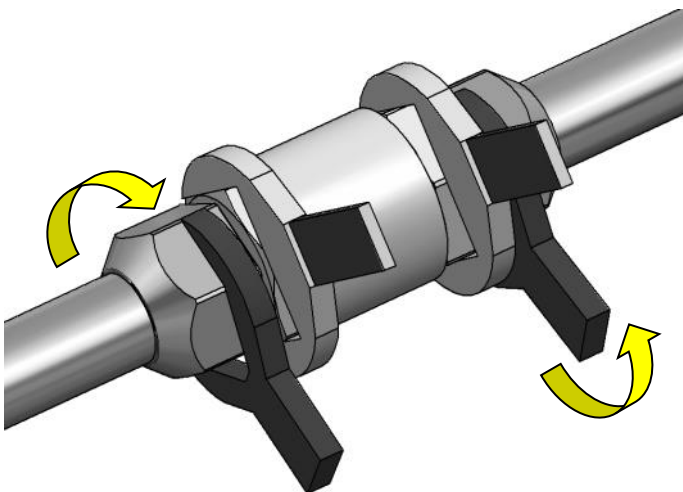
1. Ensure face seal O-rings are in position and sealing faces are free of damage. Apply anti-seize grease to threads.



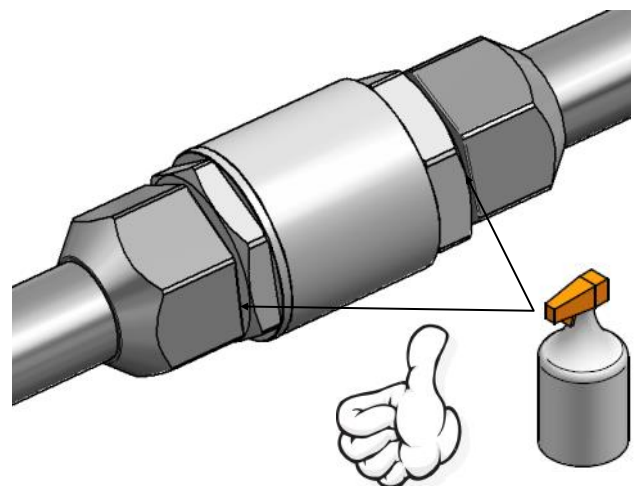
2. Ensure flow arrow on the valve is facing the correct way. Thread fittings onto the ORFS connections.



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



4. Installation complete, check for leaks with snoop or soapy water 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.

Service Kit Parts



1 x Poppet



1 x Poppet Spring



1 x Seat



2 x Face Seal O-rings

CV304 = 014 O-ring
CV306 = 018 O-ring
CV308 = 021 O-ring



1 x End Cap O-ring



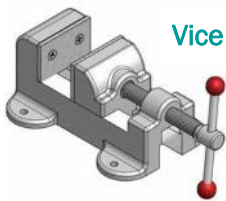
1 x End Cap Backup



1 x Silicone Grease

The Complete Oasis Seal Kit must be used

Tools Required



Vice



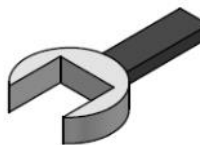
Cleaner (Warm
Soapy Water or
Similar)



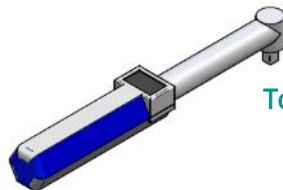
Plastic Pick Tool
TOOL-PICK
(Sold separately)



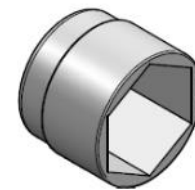
Anti Seize Grease
(Loctite 771 or Similar)
For All Threads



Spanner
(Wrenches)
1 5/16"—CV304
48mm—CV306
60mm (2 3/8")—CV308

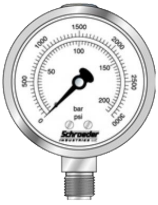


Torque Wrench

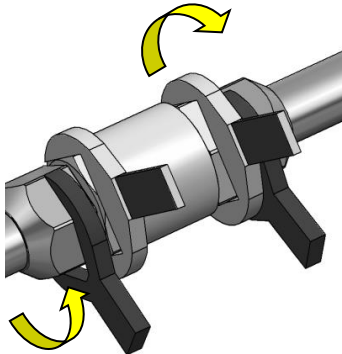


Sockets:
1 5/16"—CV304
48mm—CV306
60mm—CV308

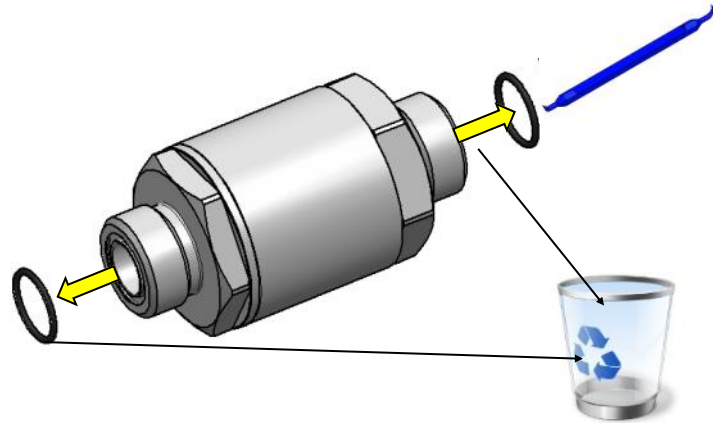
1. Vent system, loosen fittings and remove valve.



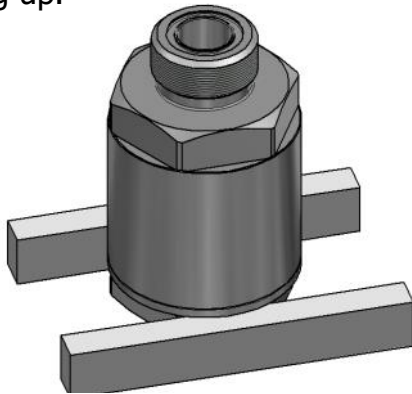
Ensure system is vented of all pressure before removal.



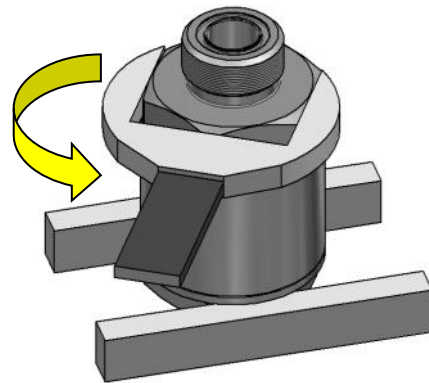
2. Remove face seal O-rings and discard.



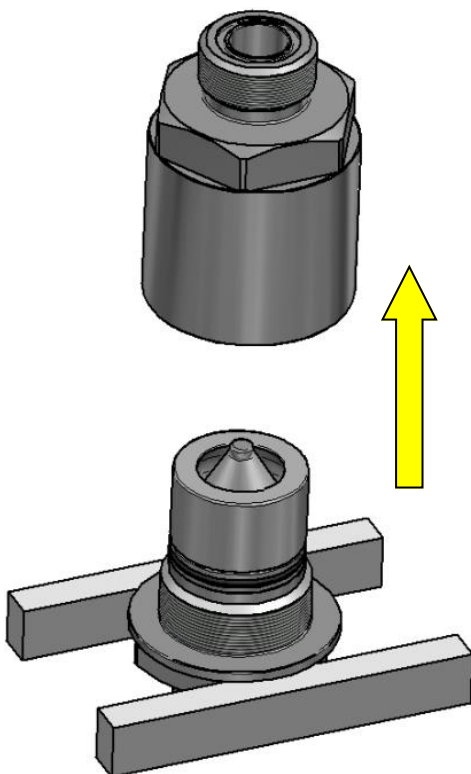
3. Place check valve in vice with body side facing up.



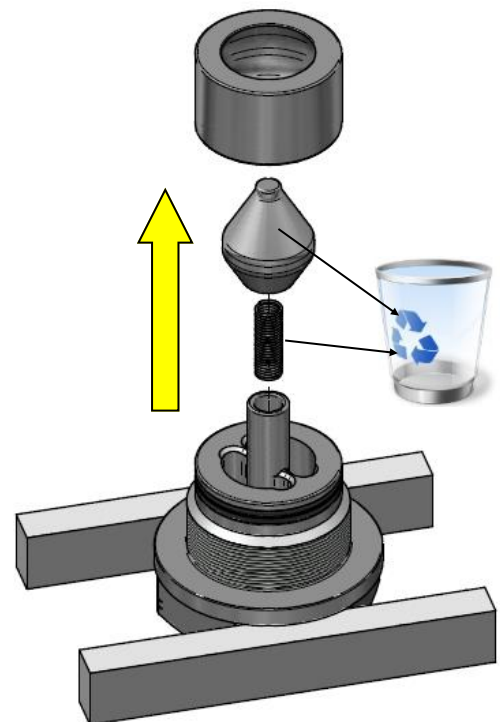
4. Loosen body from end cap.



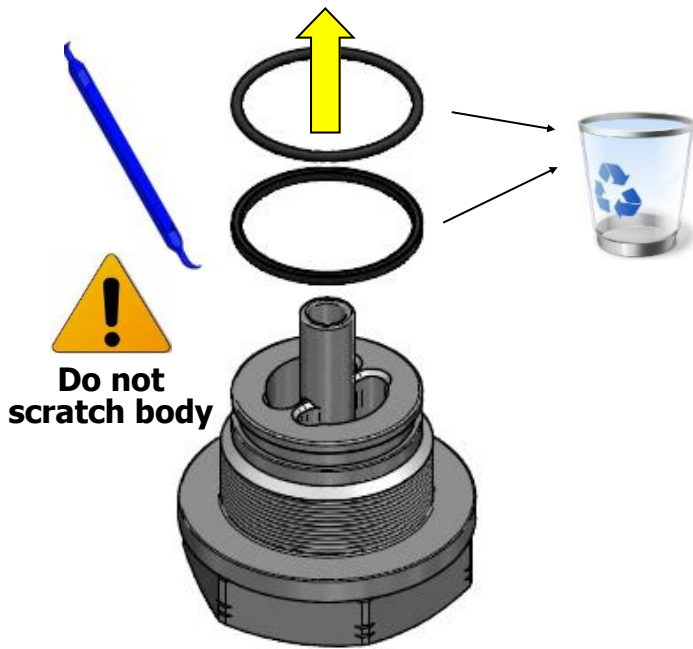
5. Carefully remove body from valve.



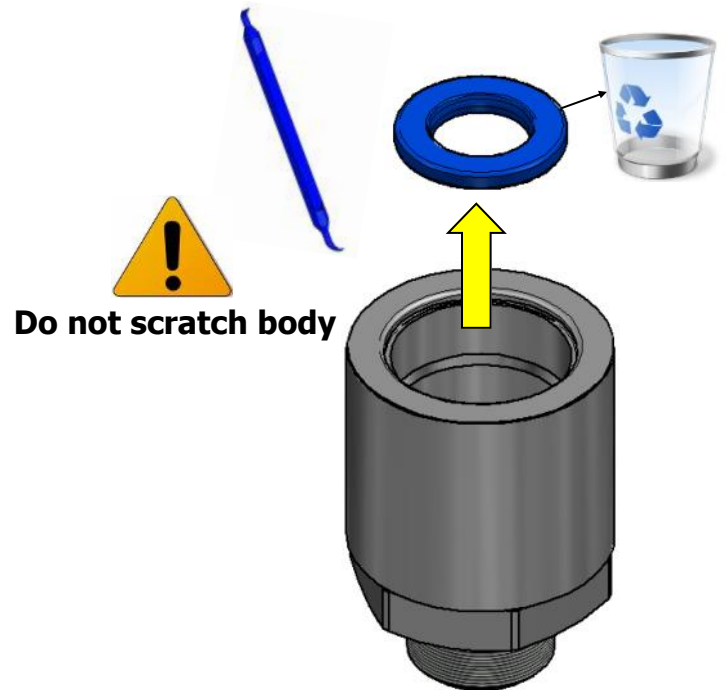
6. Discard check valve poppet and spring. Do not throw away the aluminium insert.



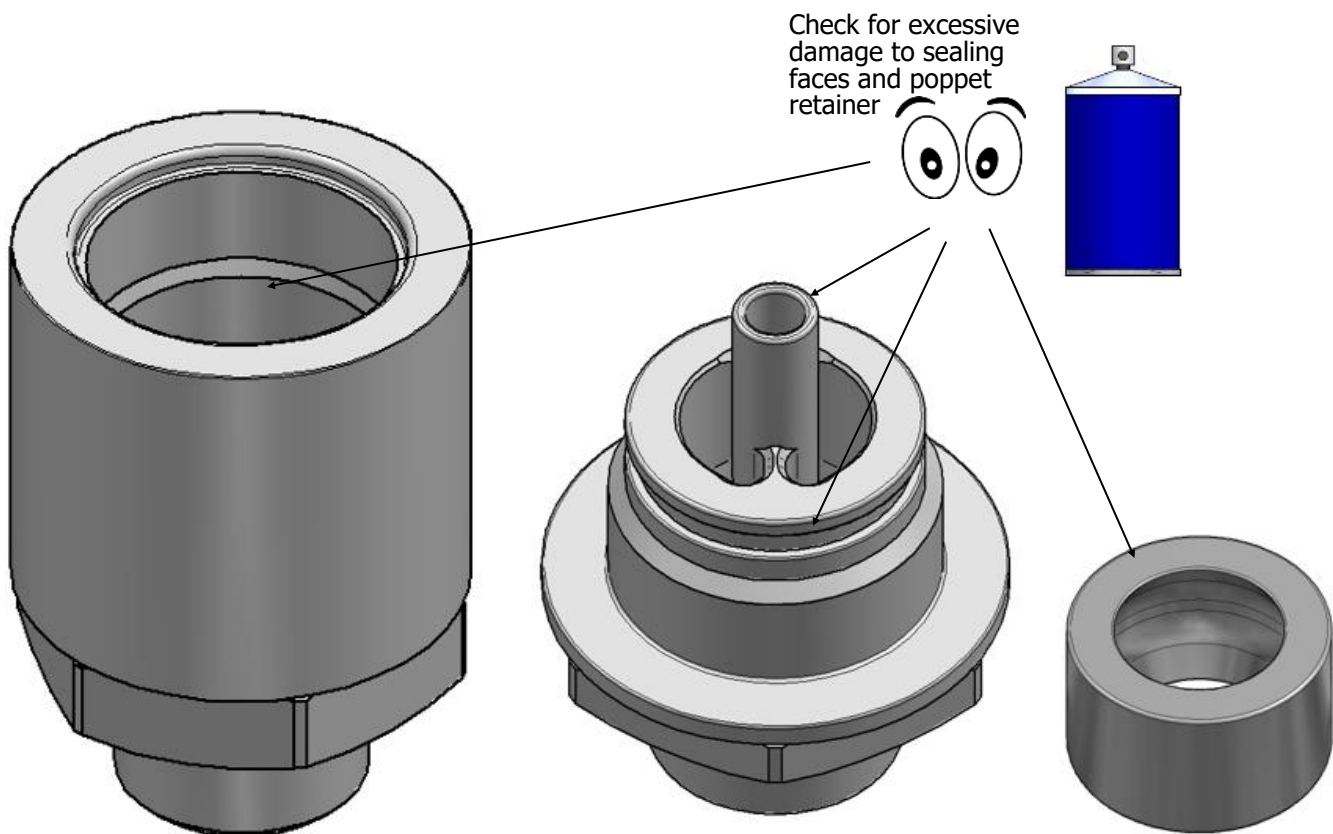
7. Remove end cap from vice and discard O-ring and backup.



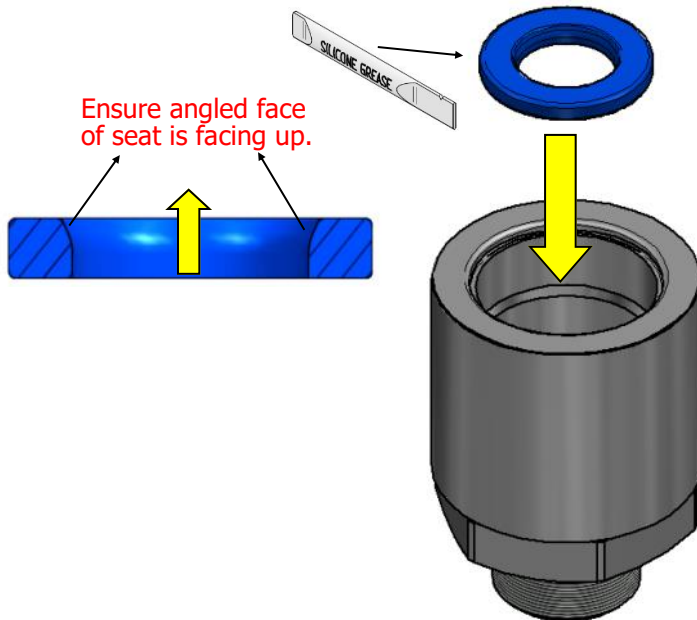
8. Remove poppet seal and discard.



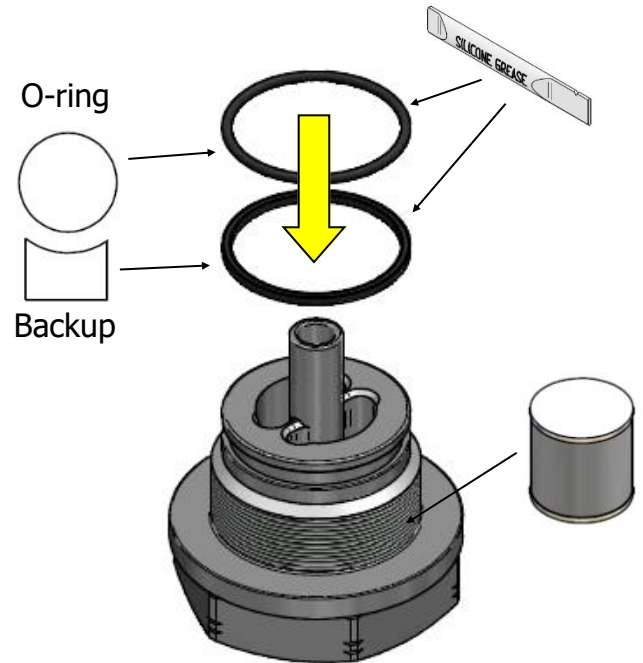
9. Clean components and inspect for damage.



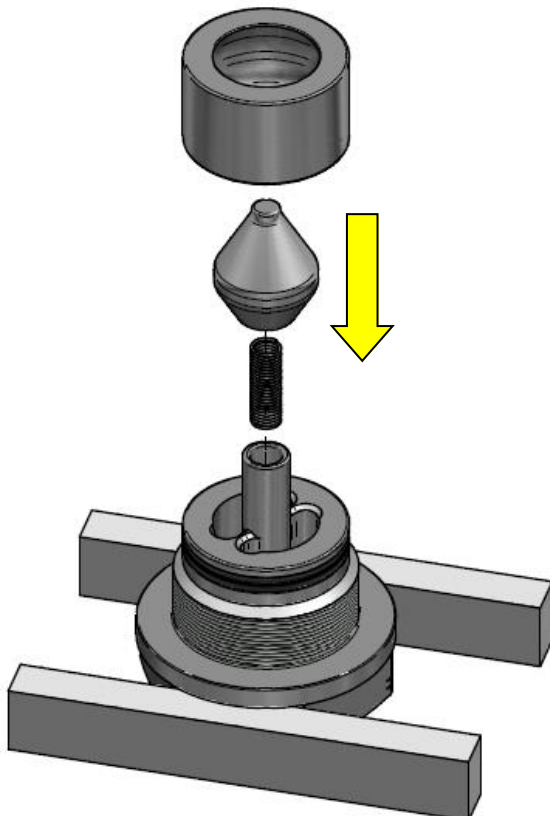
1. Apply silicone grease to edge of seat and insert into valve body. Ensure angled face of seat is facing up.



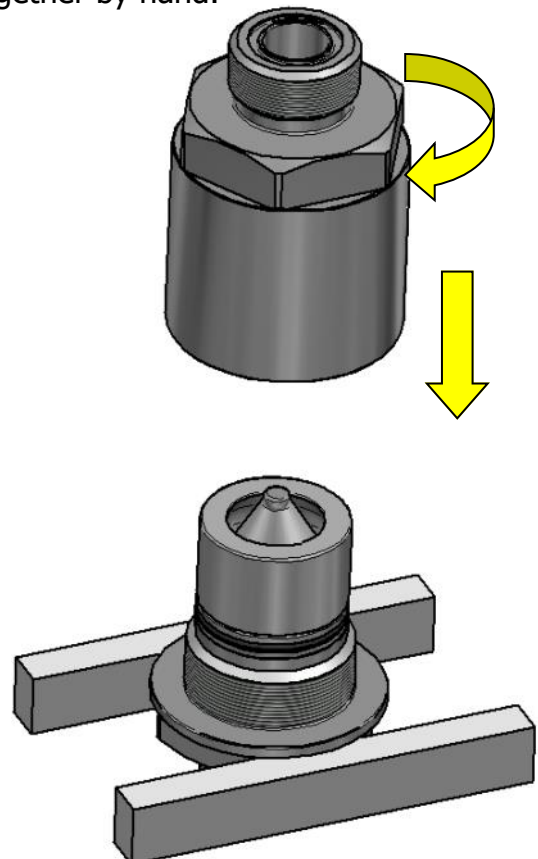
2. Grease O-ring and Backup and place on end cap. Apply anti-seize to end cap thread.



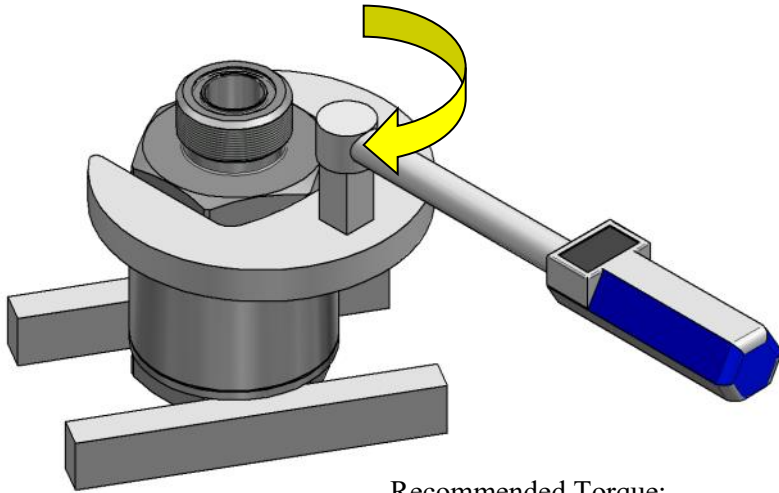
3. Secure end cap in vice and insert spring and poppet, then place insert onto end cap.



4. Carefully place body on end cap and screw together by hand.

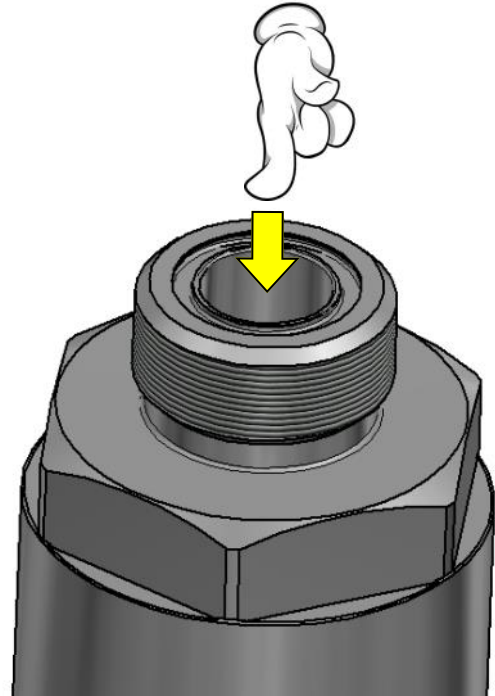


5. Torque body.

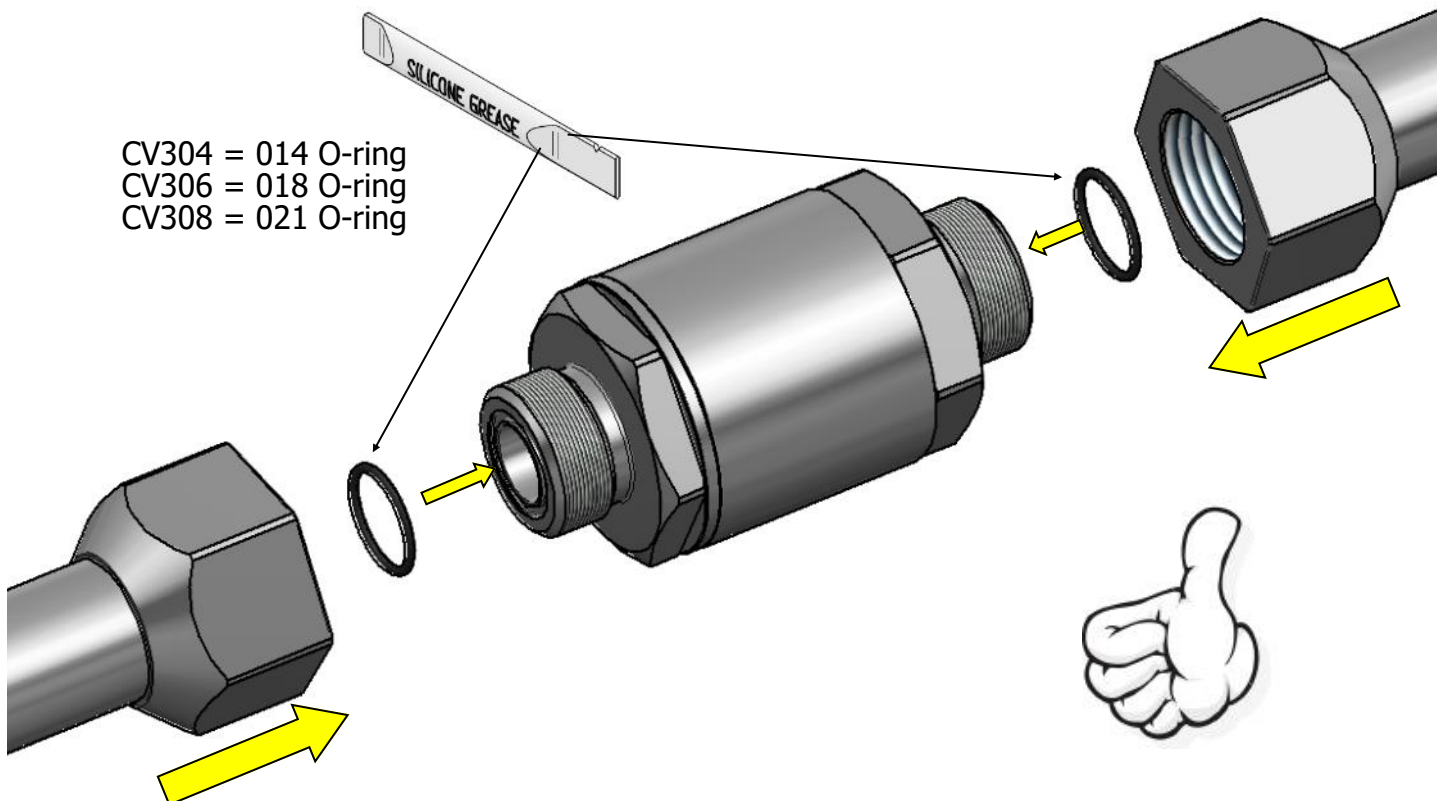


Recommended Torque:
CV304 - 80Nm
CV306 - 120Nm
CV308 - 150Nm

6. Depress poppet to check for smooth operation.



7. Lubricate new face seal O-rings with silicone grease and install into face grooves. Servicing complete, refer to installation instructions on page 3 for re-installation of product.



CV304 = 014 O-ring
CV306 = 018 O-ring
CV308 = 021 O-ring