



# IB108

## Inline Breakaway

### 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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W: [www.OasisNGV.com](http://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

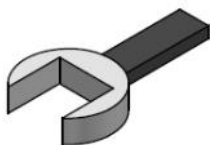


Safety Glasses



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

## Tools Required



Spanner  
(Wrenches)



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



Cleaner  
(Warm Soapy  
Water or Similar)

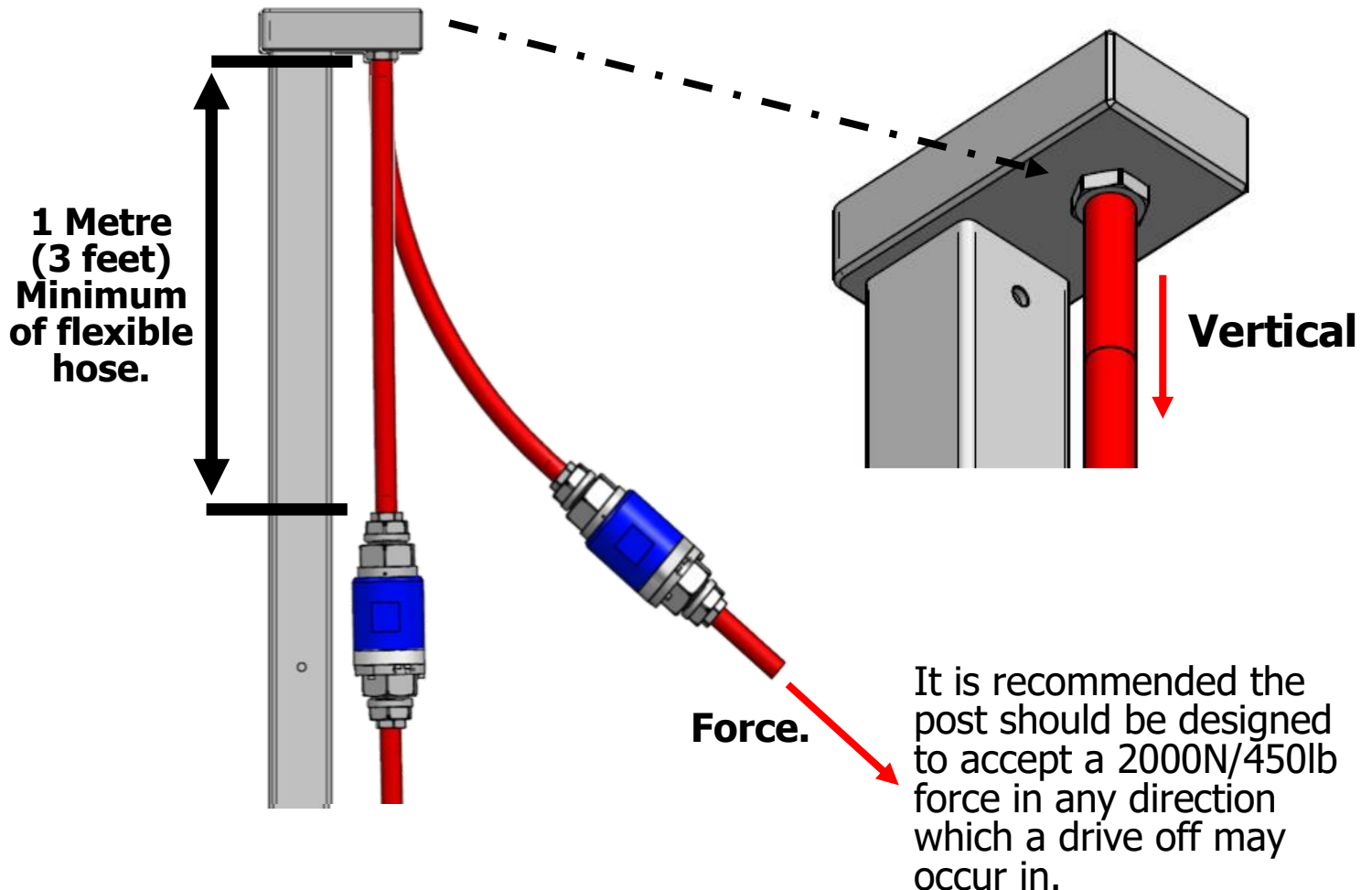


Silicone Grease



Spray bottle  
(Snoop or soapy water)

Recommended installation setup.



## Important:

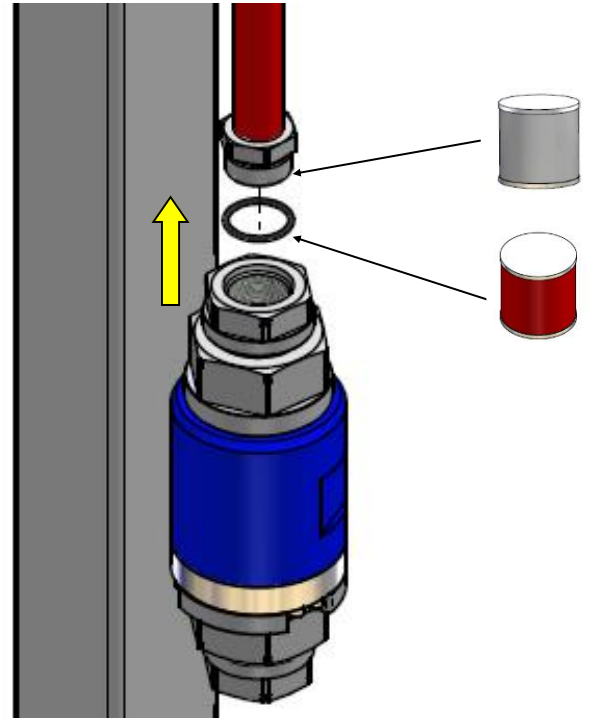
For the breakaway to operate correctly, the gas supply hose and mounting connection must be sufficiently long and flexible to allow the breakaway to align itself in the direction of force in a drive away event. The connection should be designed so that in the worst case scenario the breakaway is free to align itself in the direction of the force with no stress on the gas supply hose.

The installation of this device shall conform with the requirements of the authorities having jurisdiction or, in the absence of requirements, with the Standards NFPA 52, Compressed Natural Gas (CNG) Vehicular Fuel Systems, or CAN/CSA-B108, NGV Fuelling Stations Installation Code, as applicable

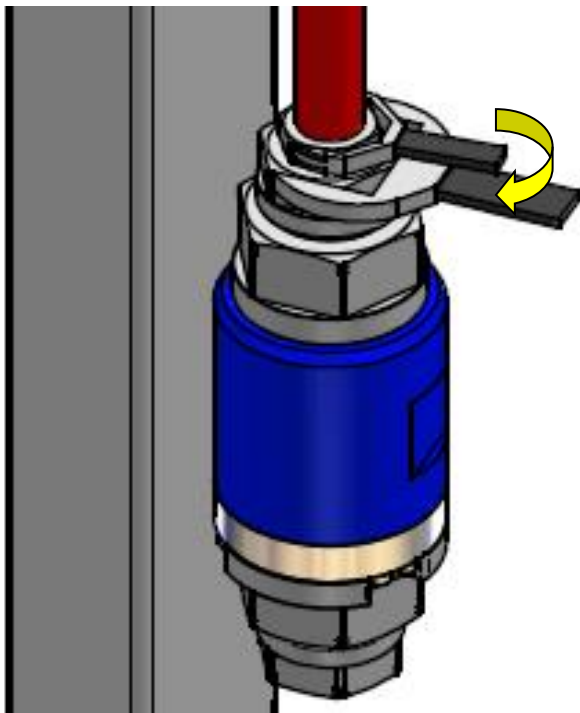
1. Note the flow direction of the breakaway.



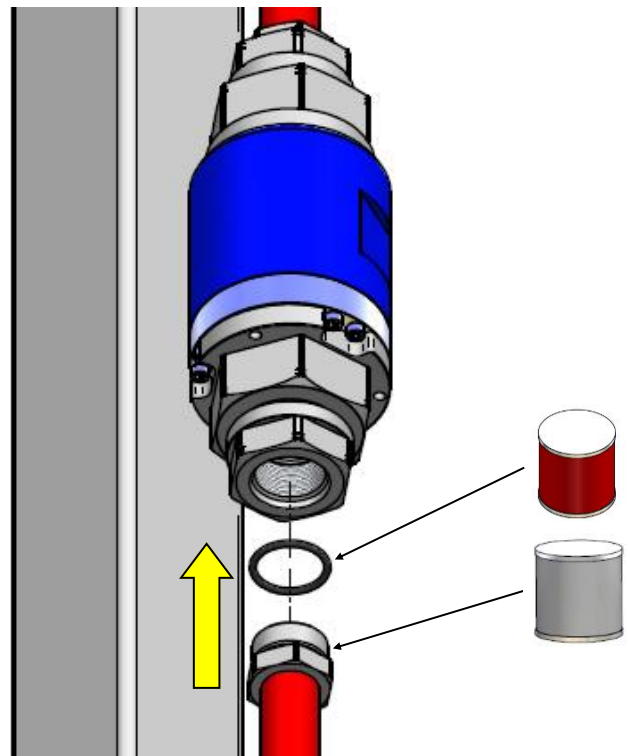
2. Apply anti seize to thread and silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



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

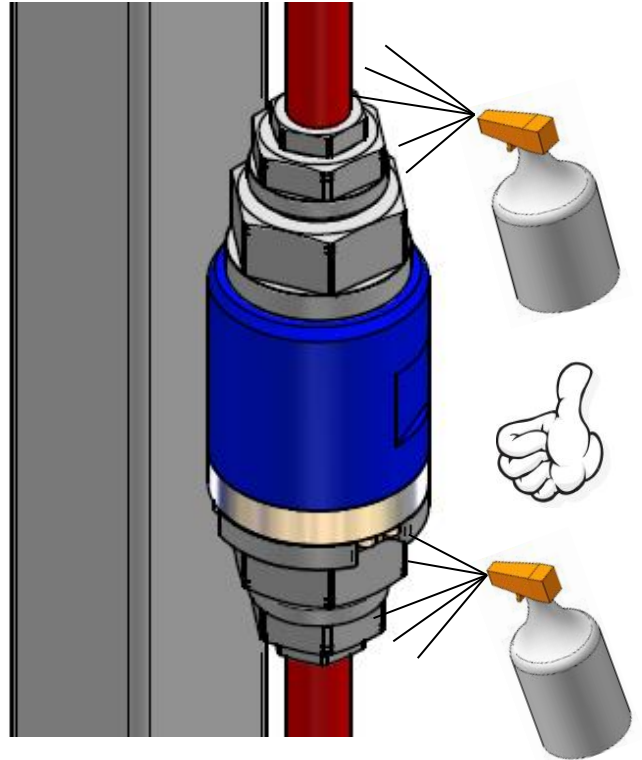
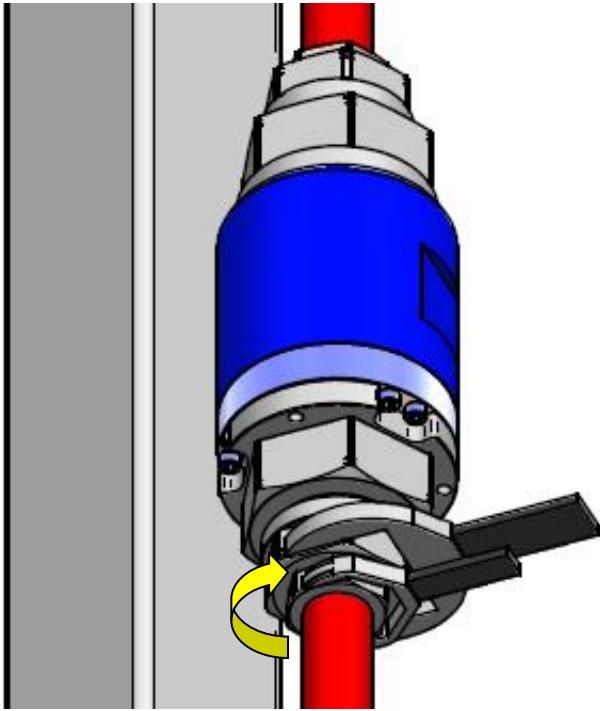


4. Install the second hose using the same method.

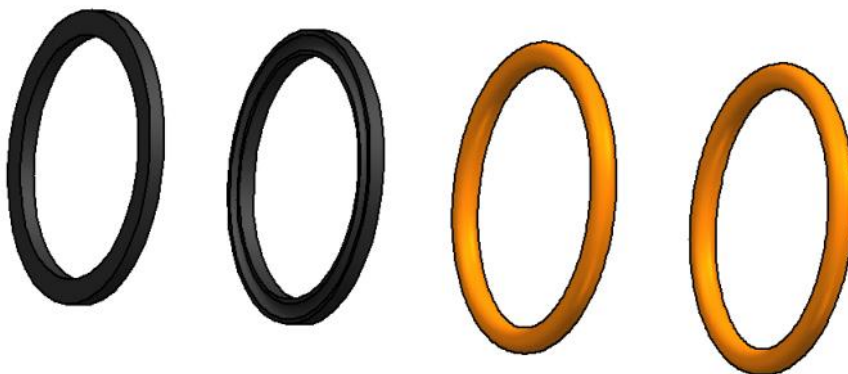


5. Screw the fitting into the body and torque to the fitting suppliers recommended tightening torque.

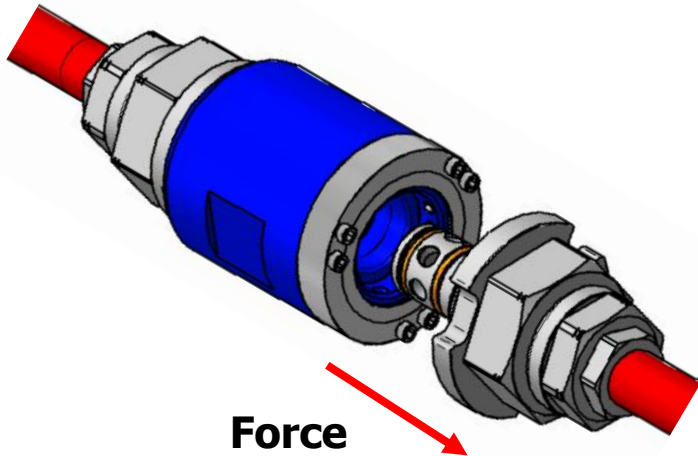
6. Test the device for leaks at the connections, and the installation is complete.



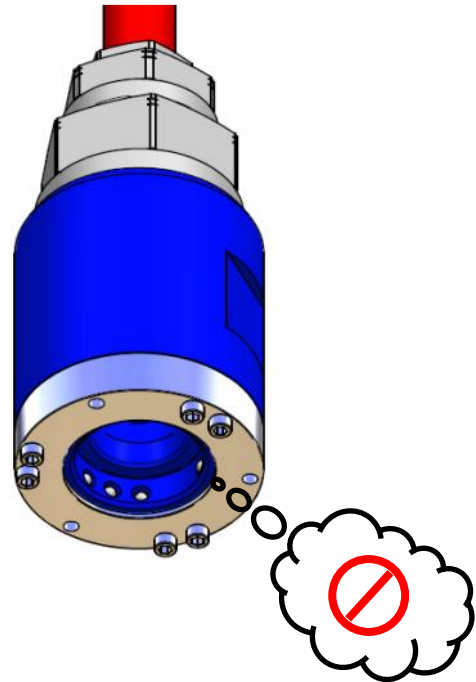
7. Included with the breakaway are spare O-rings and grease. These are needed to re-kit the male end if the breakaway is activated. Follow the operation instructions to replace these.



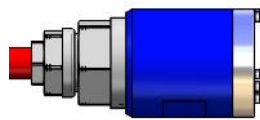
1. Breakaway will activate when a pull force is applied to the hose.



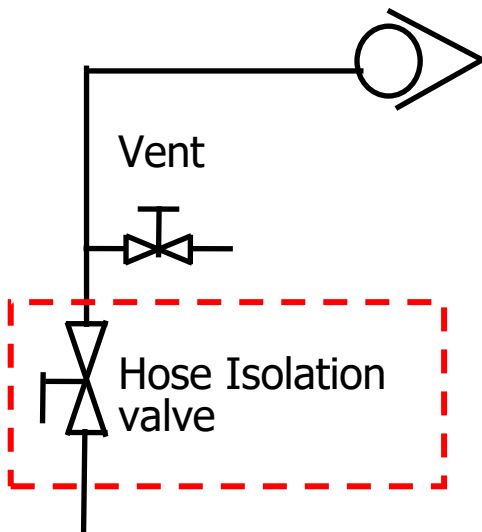
2. The flow of gas will stop.



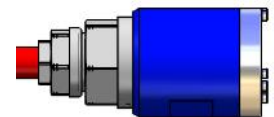
3. Isolate the pressurized hose. (Supply side).



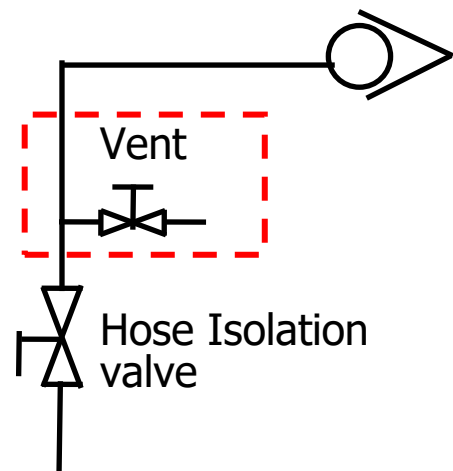
Breakaway



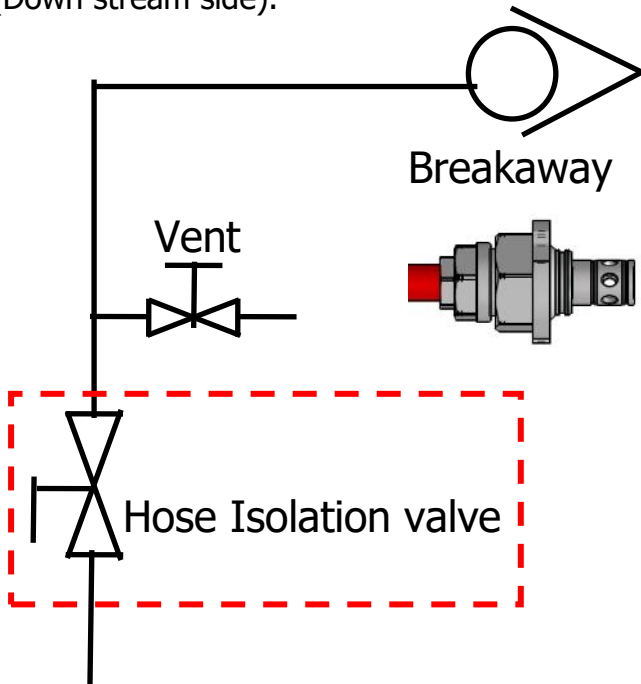
4. Vent the pressurized hose. (Supply side).



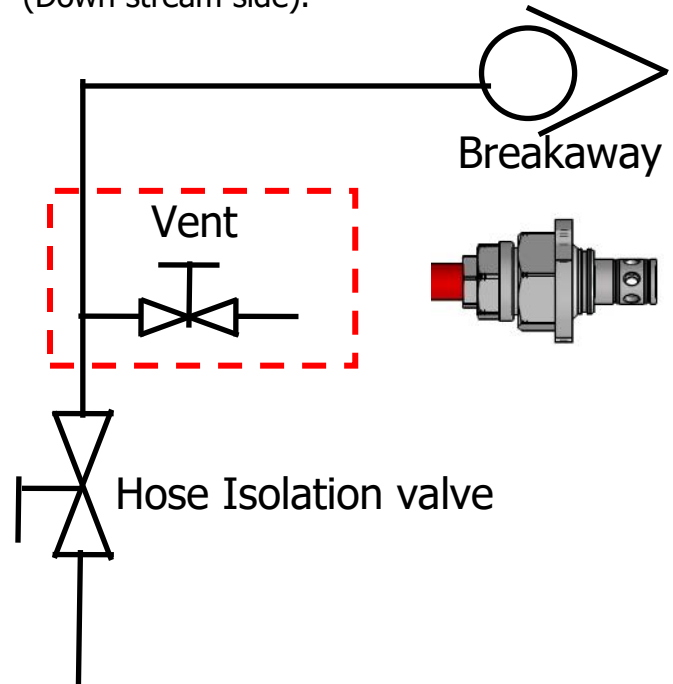
Breakaway



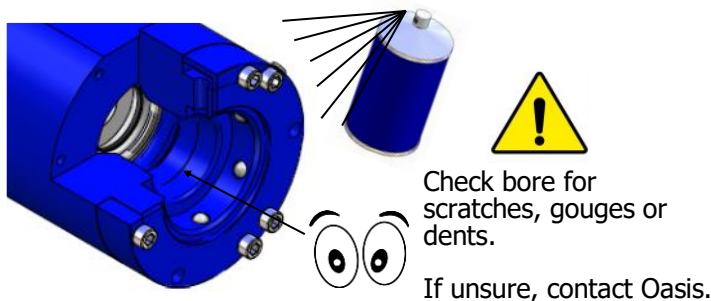
5. Isolate the pressurized hose. (Down stream side).



6. Vent the pressurized hose. (Down stream side).



7. Clean and inspect the breakaway and bore for damage and debris which may affect separation force and product lifetime.

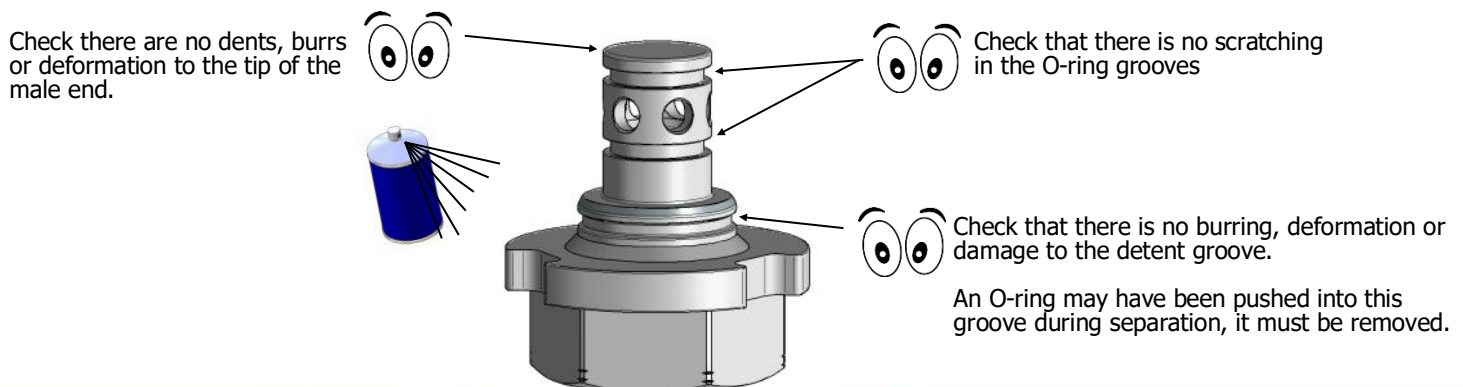


8. Remove and discard all O-rings and back-ups from the male end of the breakaway.

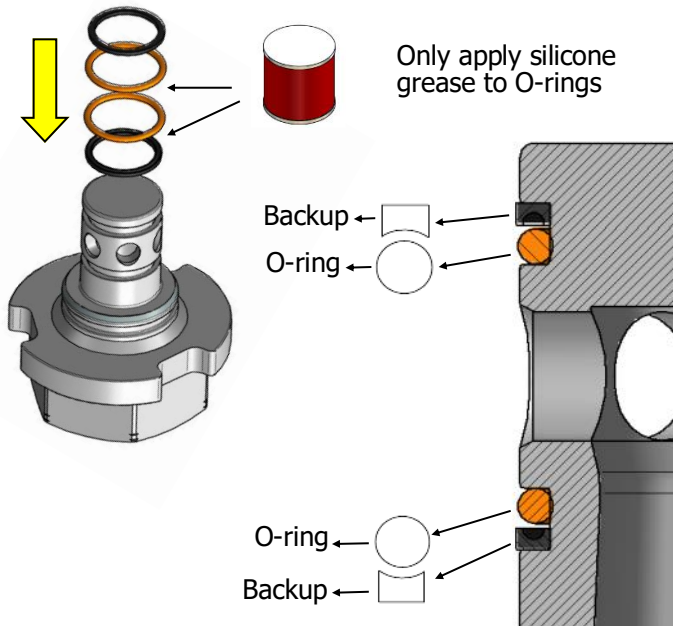


9. Clean and inspect the male end for damage and debris. If damaged, replace male end.

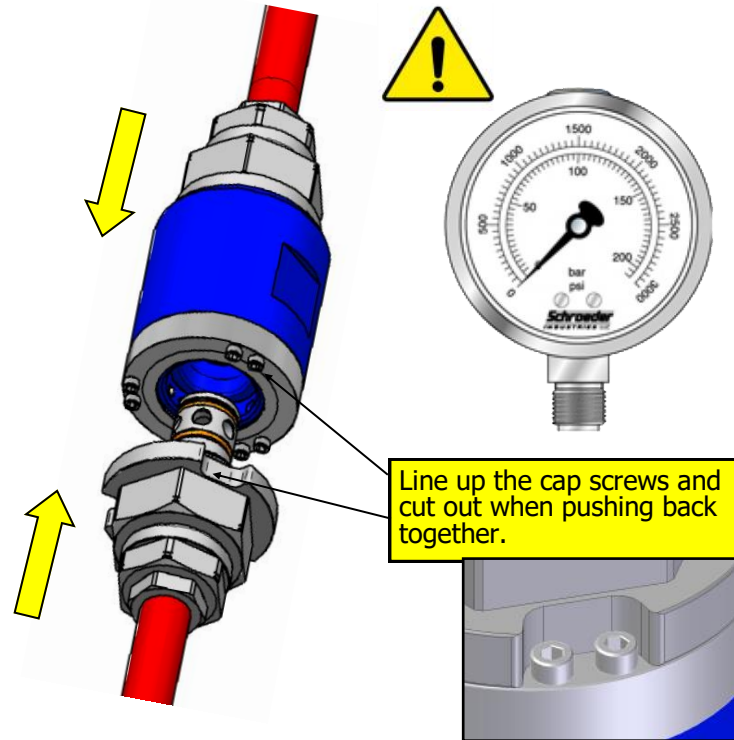
If you are unsure, contact Oasis for advice. Contact details can be found at [www.oasisngv.com](http://www.oasisngv.com)  
Replacement male end is available from Oasis.



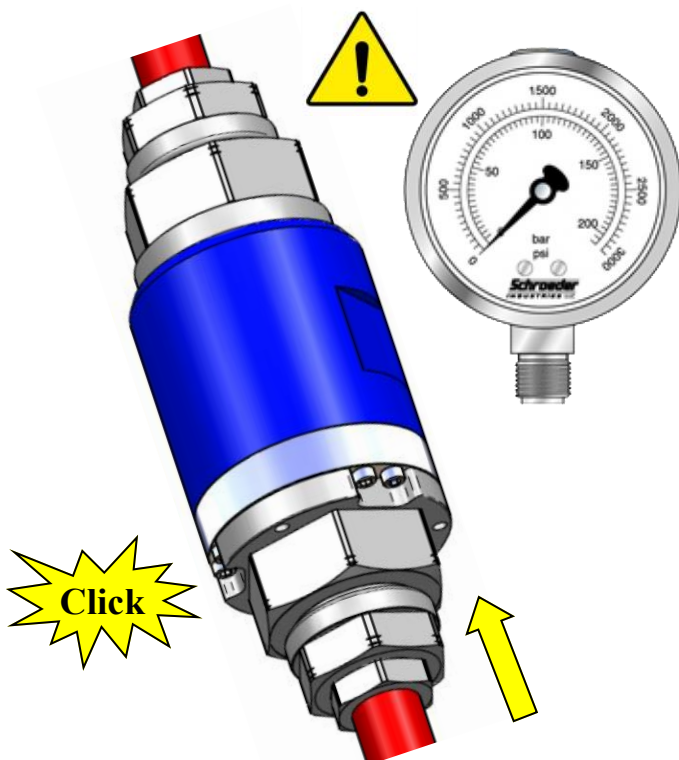
9. Apply silicone grease to the O-rings and reposition or replace (Oasis provides spare O-rings with each new breakaway).



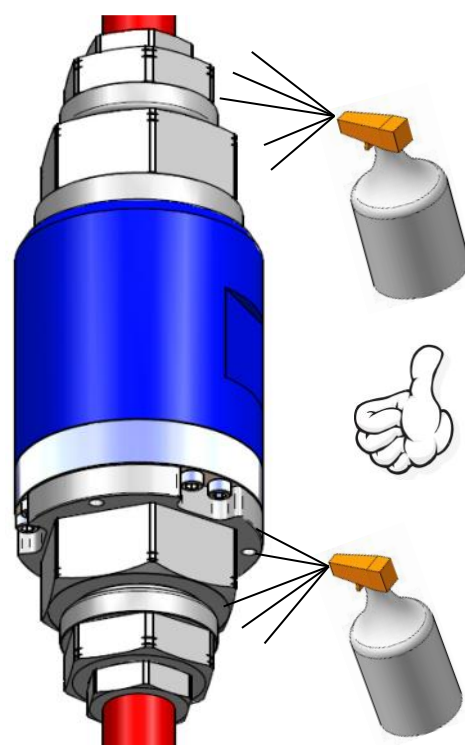
10. Push both halves of breakaway back together while hose is depressurized.



11. Breakaway will click back into place with adequate force.



12. Re-pressurize the hose and test for leaks and the breakaway can be used.





## Service Kit Parts



Main Poppet



End Cap O-ring



O-ring  
End Cap Backup



Vent Poppet



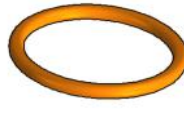
Main Poppet  
Spring



Vent Poppet Spring



5 x Backup O-rings\*



5 x O-rings\*



2x SAE Port O-rings  
(920 Nitrile 90)



Silicone Grease  
(Rocol MX22 or similar  
for all O-Rings)

*\*Two extra O-rings and Backup O-rings are supplied to be used if required after a separation event*

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

## Tools Required



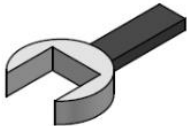
Cleaner  
(Warm Soapy  
Water or Similar)



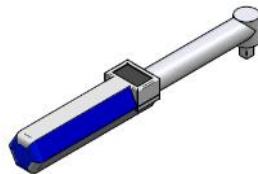
Pick Tool  
TOOL-PICK  
(Sold separately)



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



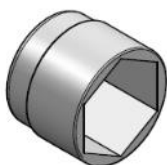
Spanner  
(Wrenches)  
50mm ≅ 2"  
65mm ≅ 2-5/8"  
81mm ≅ 3-1/4"



Torque Wrench



TOOL-IB108/HC208  
Purchased Separately



19mm  
Socket



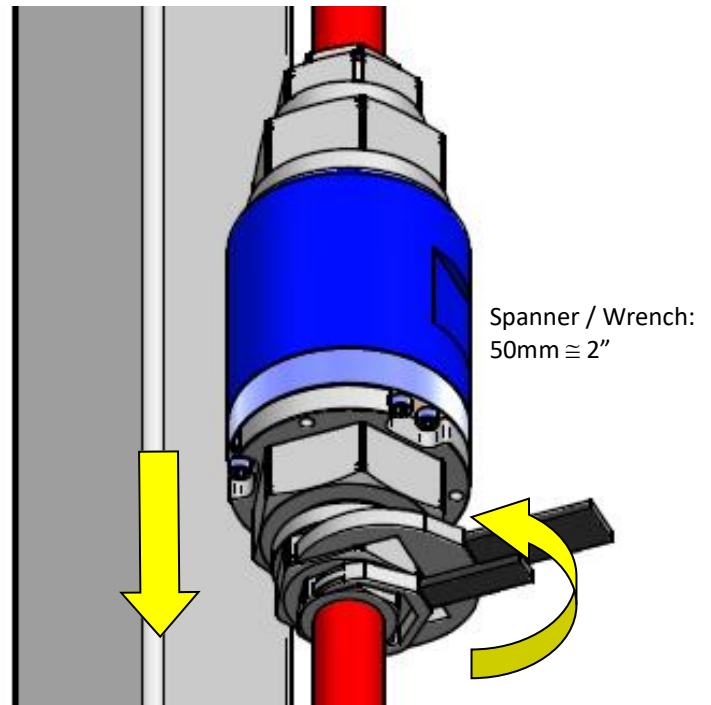
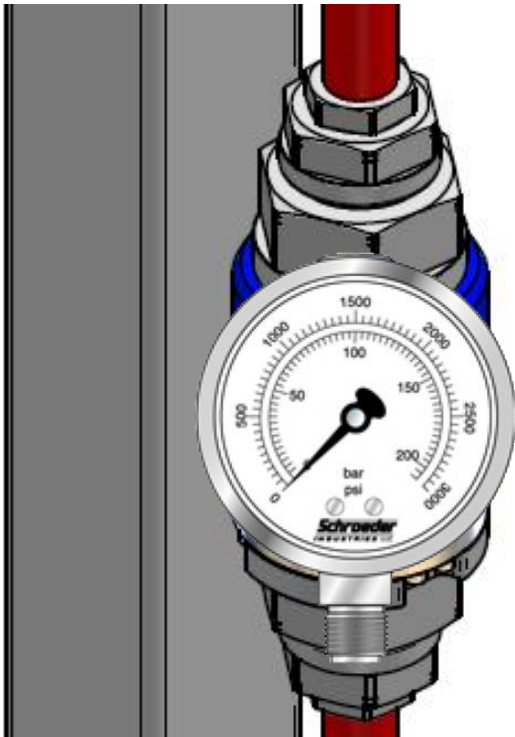
Spray Bottle  
(Snoop or soapy  
water)



Thread Locking Sealant  
- Loctite 243  
(Blue - medium strength)  
- Or Similar

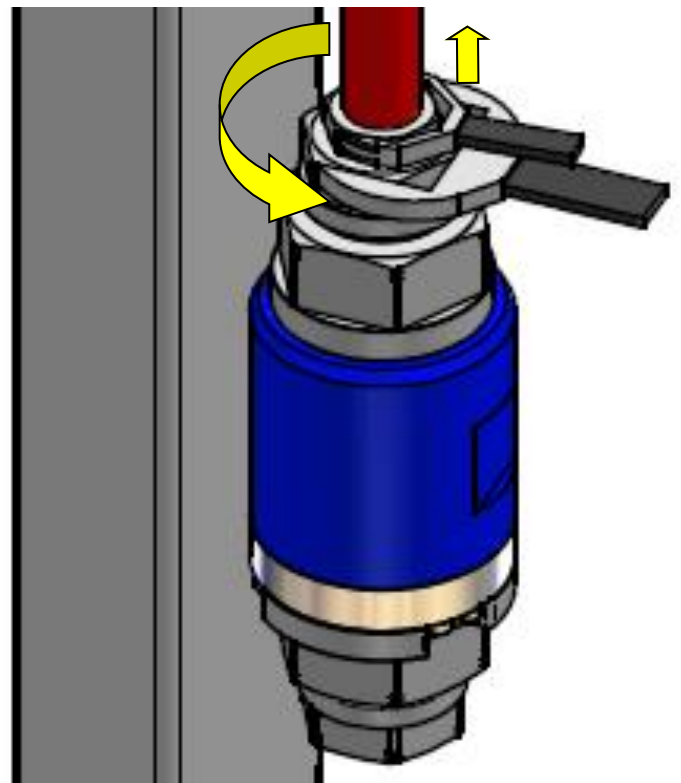
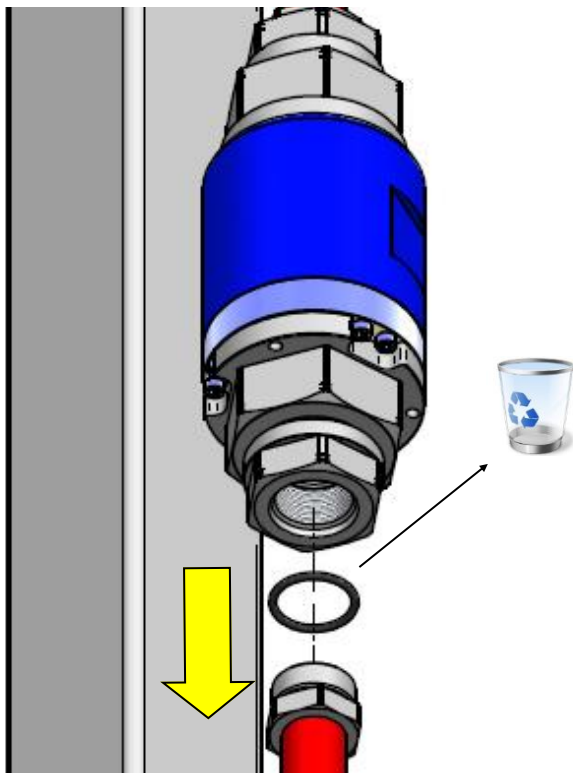
1. Isolate the breakaway and vent all pressure.

2. Remove the first fitting.

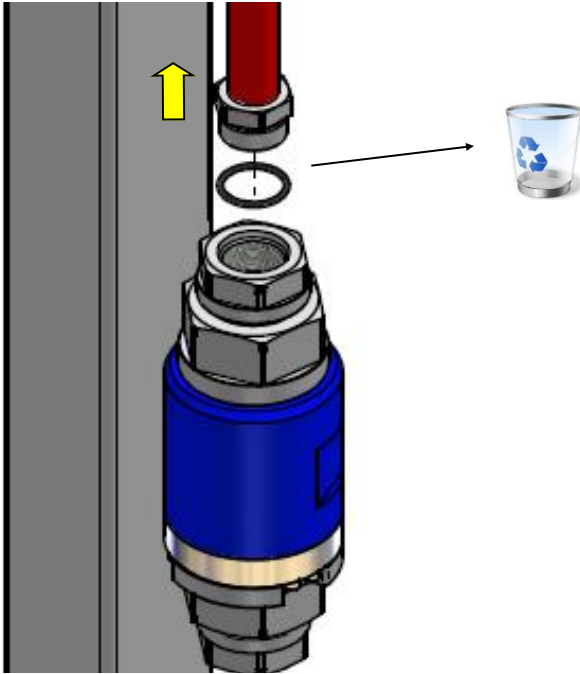


3. Remove first connection and discard O-ring if required.

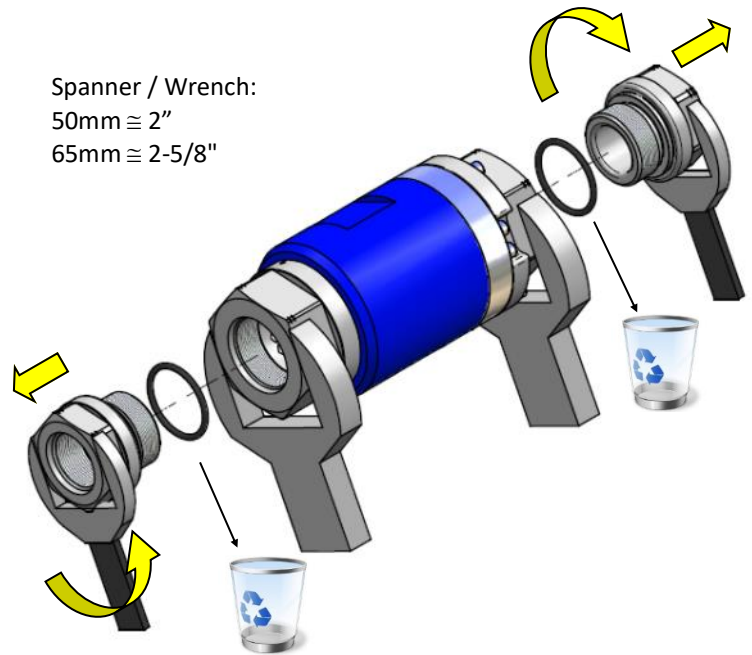
4. Remove the second fitting.



5. Remove the second connection and discard O-ring if required.

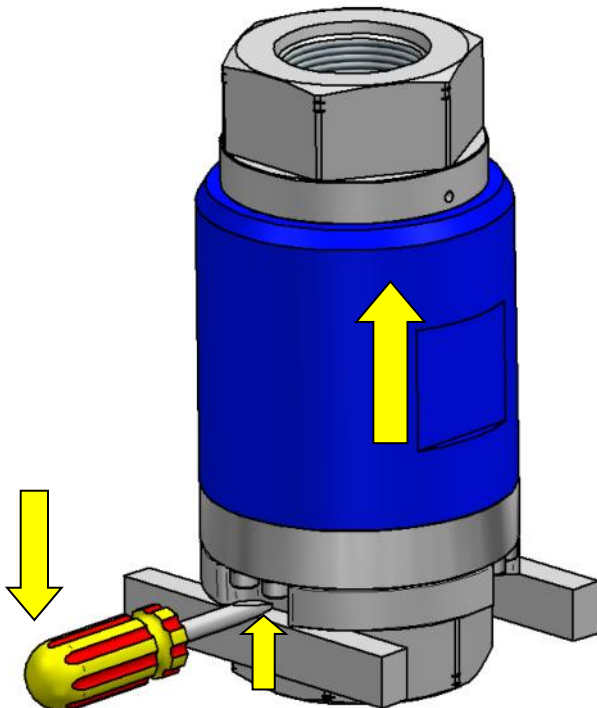


6. Remove adaptors and discard O-rings if required.

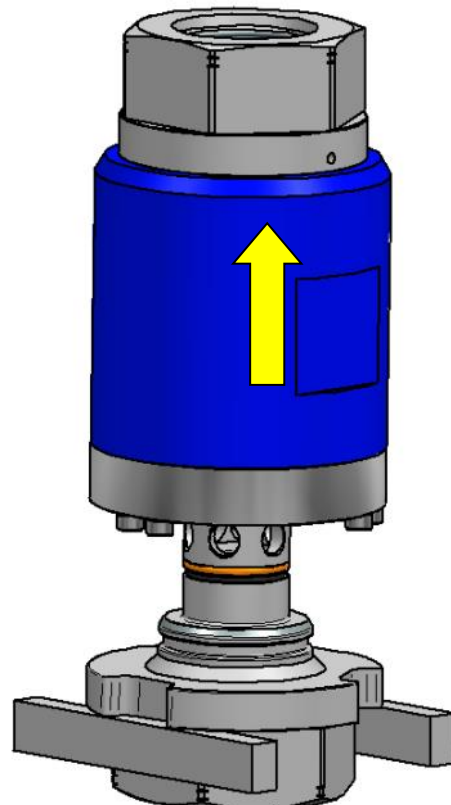


7. Separate the breakaway.

Hold the male end in a vice by the flats and use a large, flat screwdriver as a lever to apply upward pressure onto the cap bolts in the female body, as shown below.

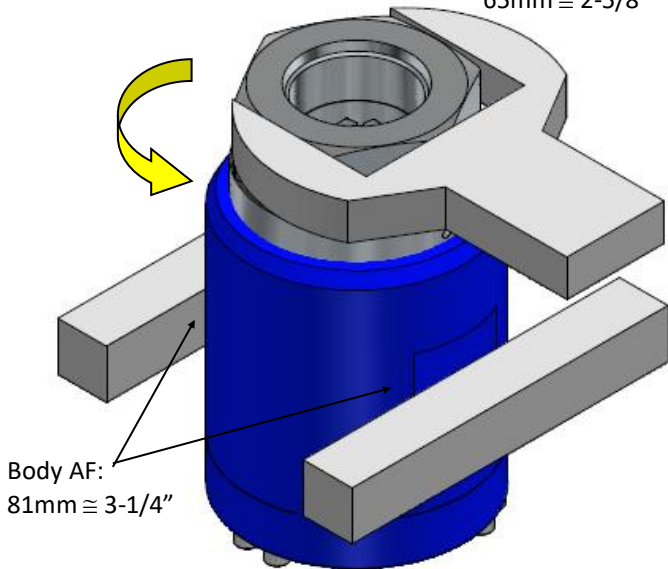


8. Lift the breakaway body away from the male end.

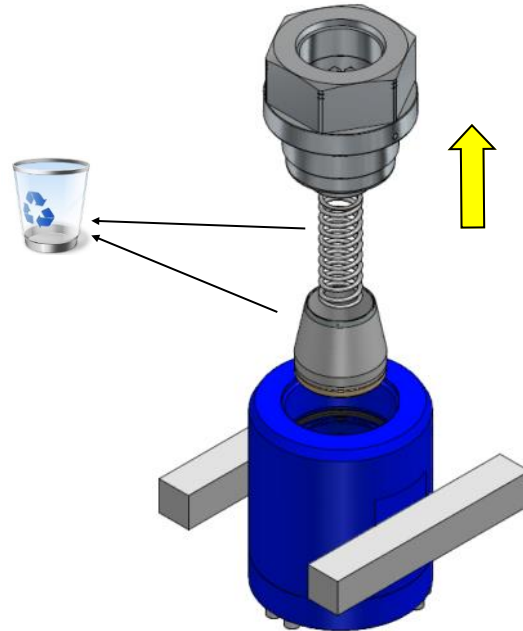


9. Hold the breakaway body in a vice using the flats and remove the end cap.

Spanner / Wrench:  
65mm  $\cong$  2-5/8"



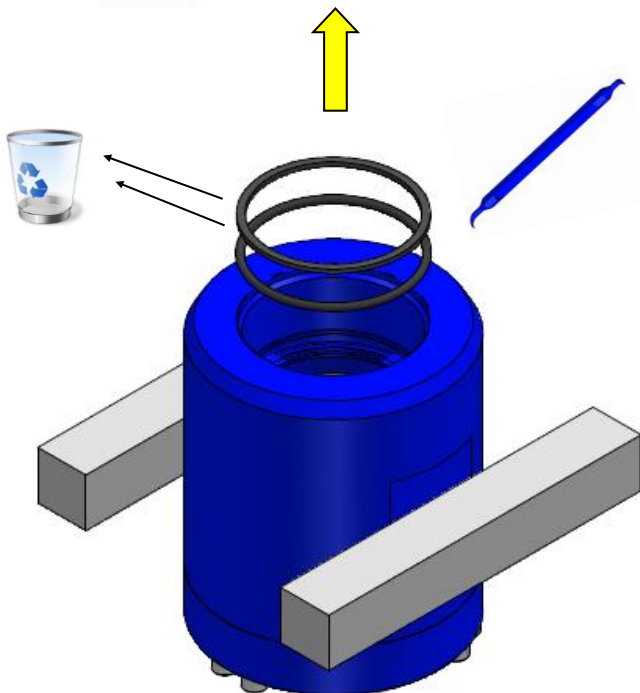
10. Unthread end cap and discard the poppet and poppet spring.



11. Carefully remove the O-ring and backup from the body and discard.



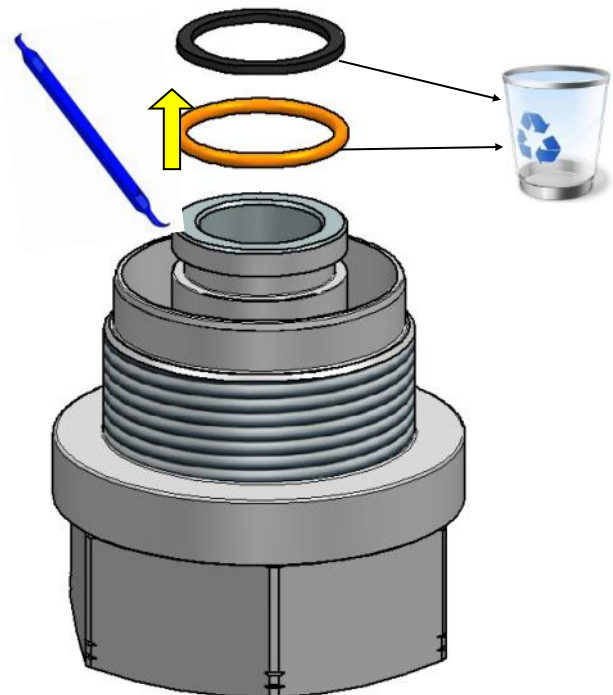
Use Plastic Pick tool only.



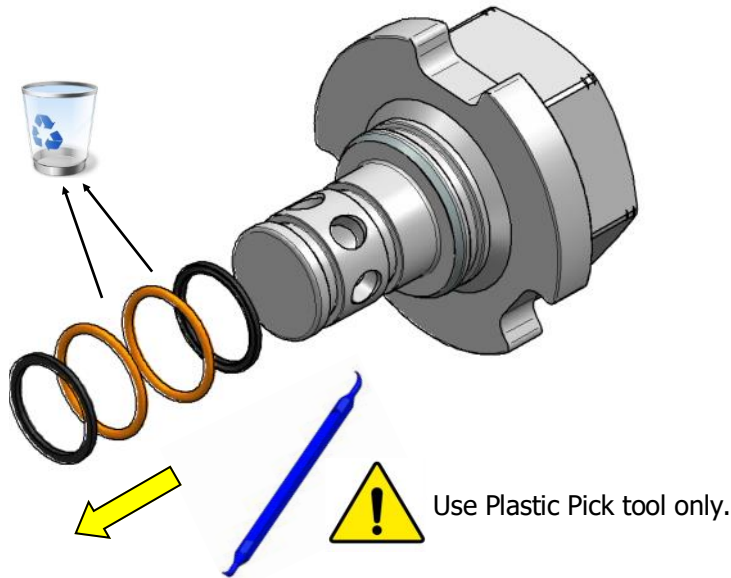
12. Discard the O-ring and backup from the end cap. Be careful not to scratch the O-ring groove.



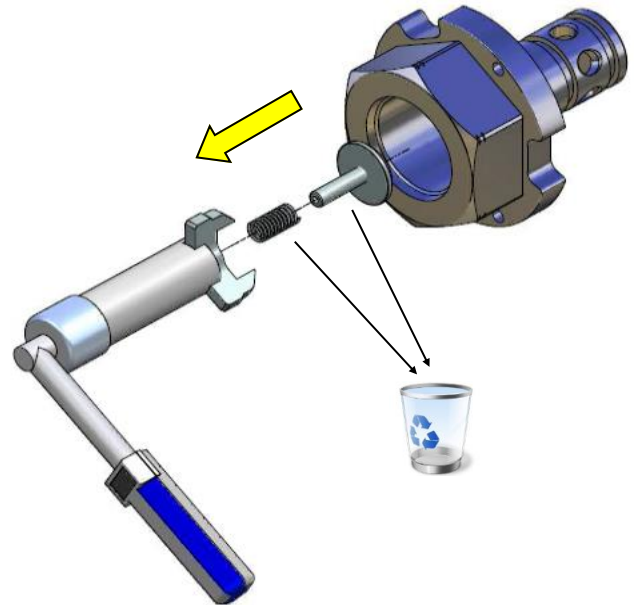
Use Plastic Pick tool only.



13. Remove and discard the O-rings on the breakaway end cap.

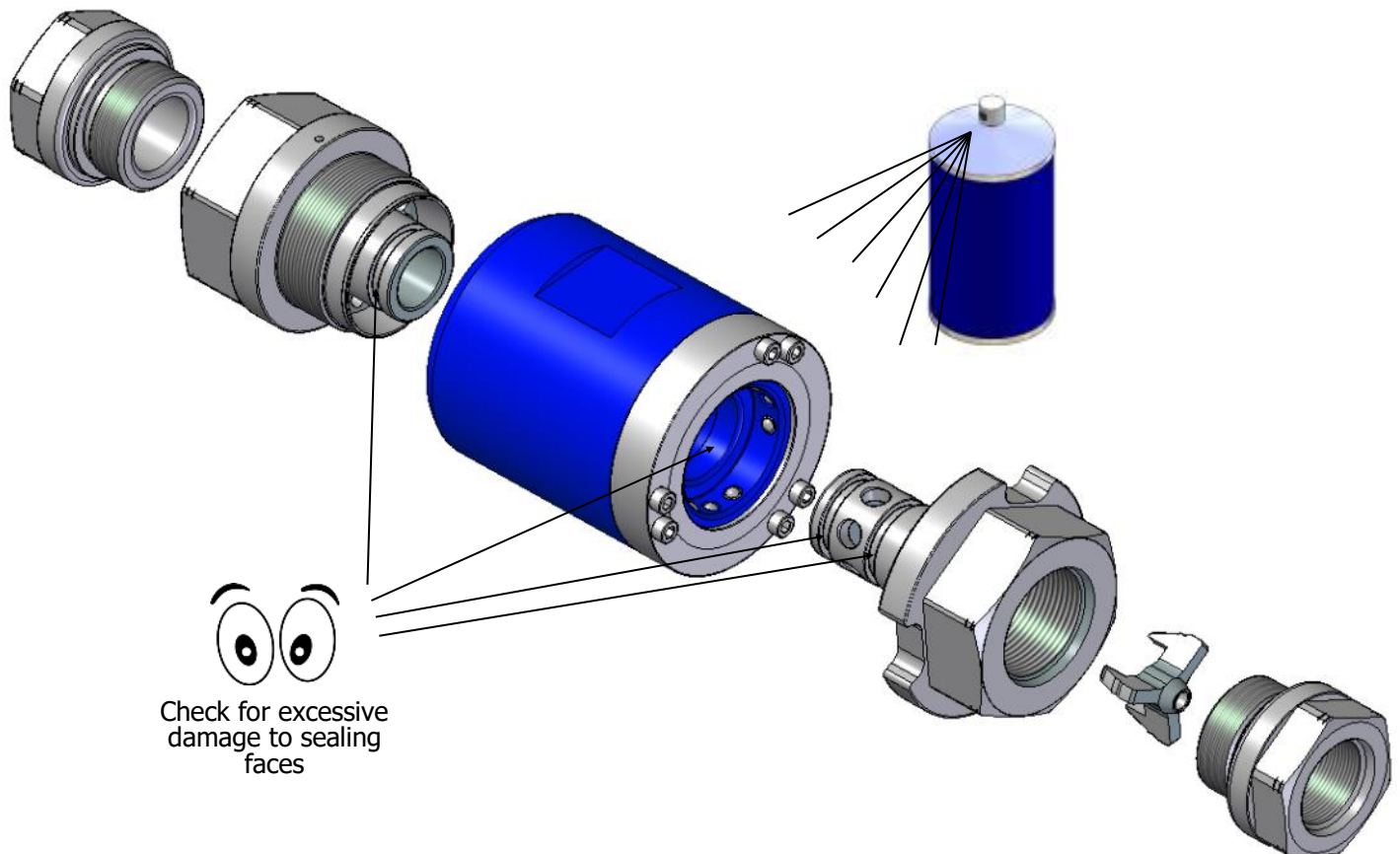


14. Remove the poppet retainer, spring and poppet. Discard the spring and poppet.

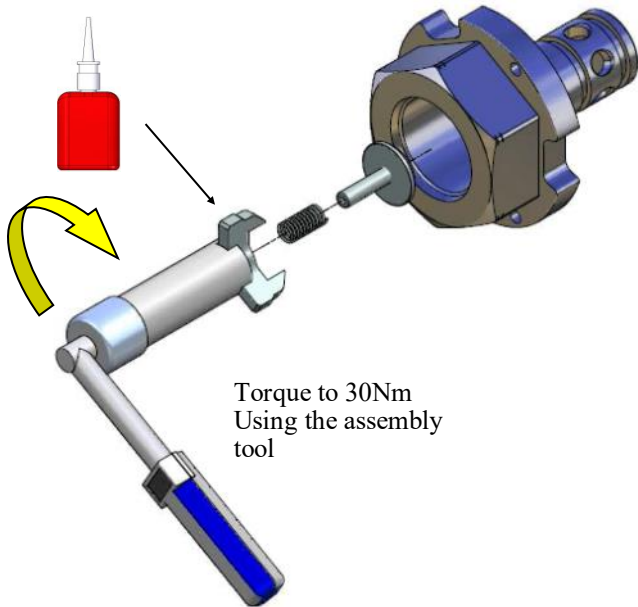


15. Clean all of the components and inspect for damage.

If you are unsure, contact Oasis for advice. Contact details can be found at [www.oasisngv.com](http://www.oasisngv.com)



1. Assemble the back flow poppet and tighten into the breakaway end cap with thread locking sealant.

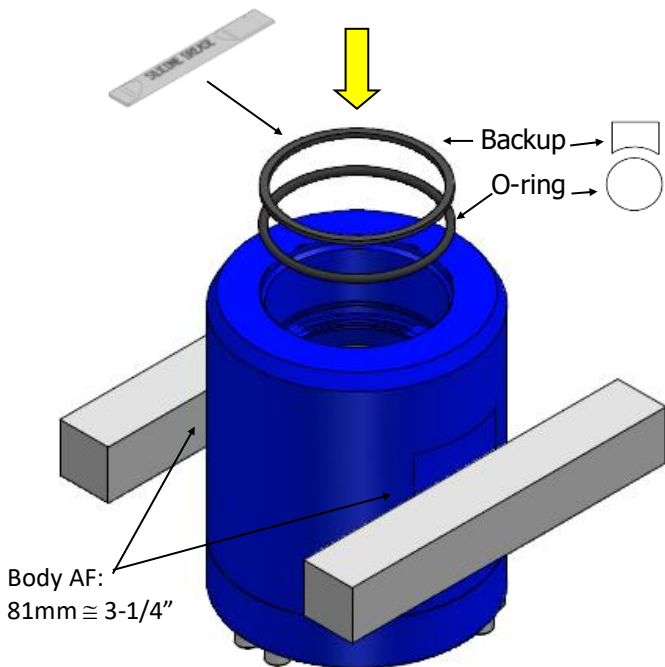


2. Apply silicone grease to O-rings\* and install onto the breakaway cap.

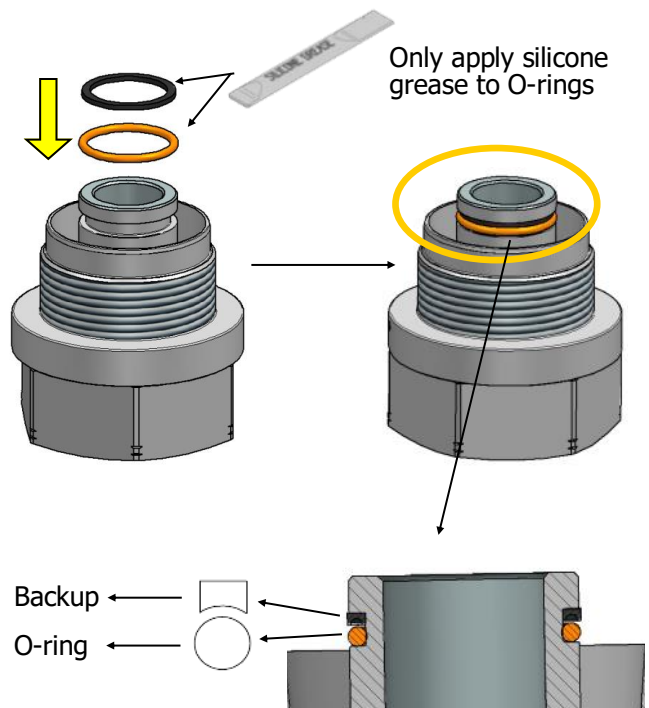


*\* 2 x Extra O-rings and Backup O-rings are supplied as spares in case of being required after a separation event.*

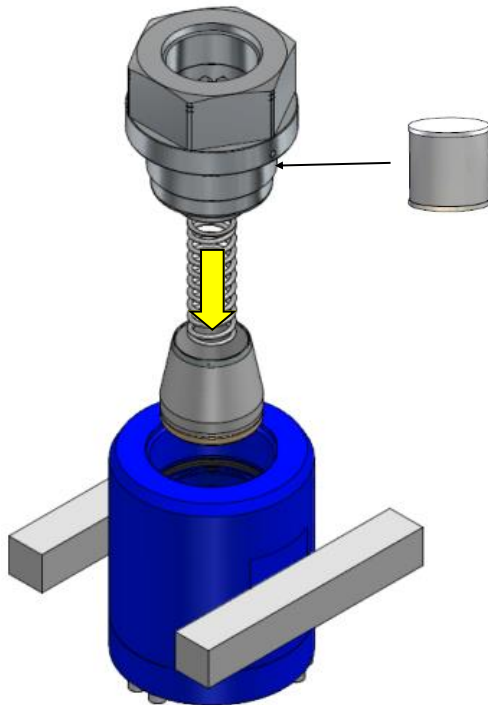
3. Install the O-ring and backup in the body.



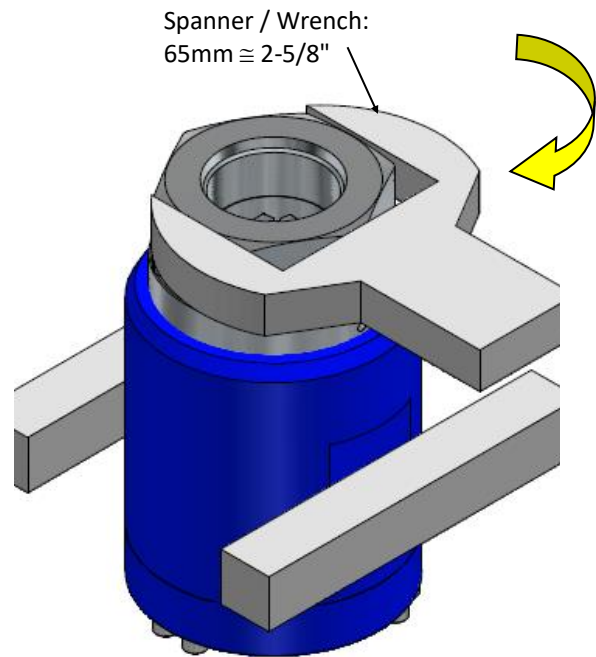
4. Install the O-ring and backup.



5. Insert the poppet, poppet spring and end cap. Apply anti-seize to end cap thread.

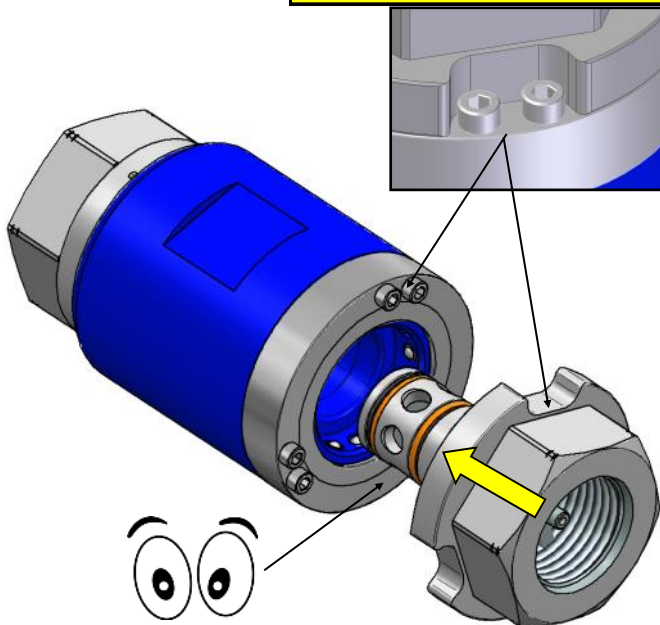


6. Torque the end cap to 120Nm.



7. Reconnect the breakaway.

Line up the cap screws and cut out when inserting male end.



8. Install adaptors with new O-rings if required. Servicing complete, follow installation instructions on page 3 to re-connect the breakaway.

