



## 1/2" Hydrogen Quick Coupler 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.



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**

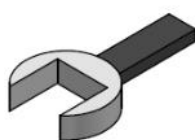


**Ensure the system is clean of debris, vented and isolated before any installation or servicing work is carried out.**

## Tools Required



**Anaerobic Thread Sealant with PTFE (Optional)**  
 - Loctite 567  
 - Swagelok SWAK  
 - Hernon Dripstop 940  
 - Gasoila FasSeal-ATS  
 - Or Similar



**Spanner (Wrenches)**



**Anti Seize Grease (Krytox GPL-205) For All Threads**



**Yellow, Gas Rated, PTFE Thread Tape**  
 - AW TITASEAL  
 - McMaster-Carr High-Density Thread Sealant Tape  
 - Blue-Monster gas-guard  
 - Or Similar



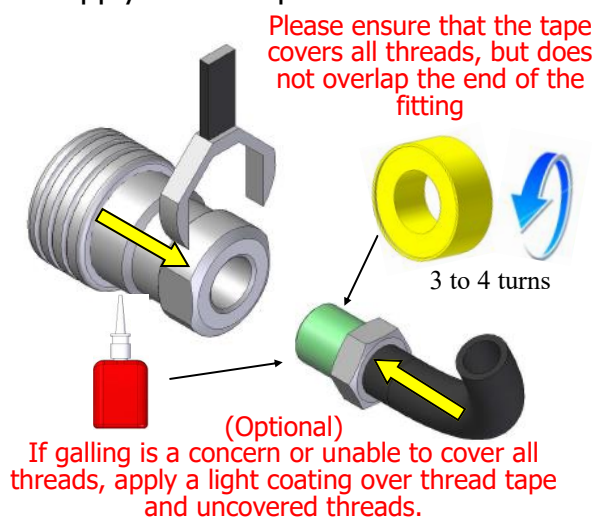
**Spray bottle (Snoop or suitable equivalent)**



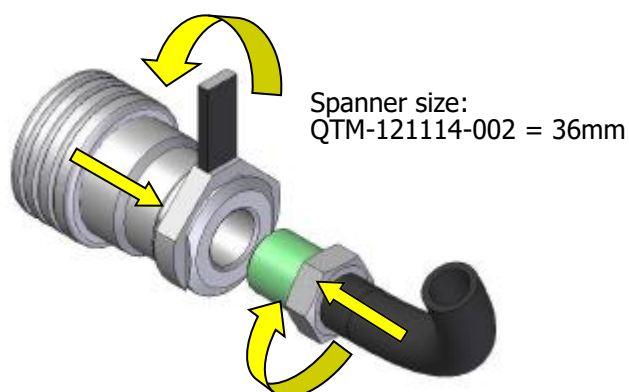
**Krytox lubricant GPL-101 or GPL-103**

## NPT Threads

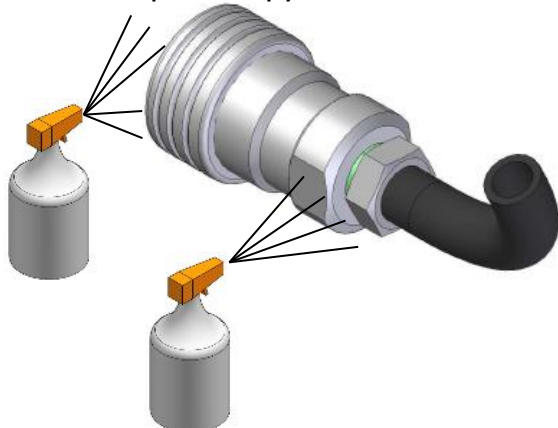
1. Apply thread tape and thread sealant.



2. Join and tighten the connection.

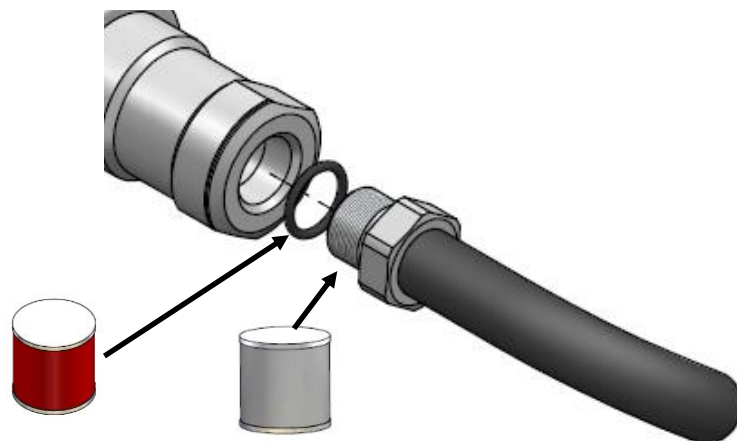


3. Installation complete, check for leaks with snoop or soapy water.

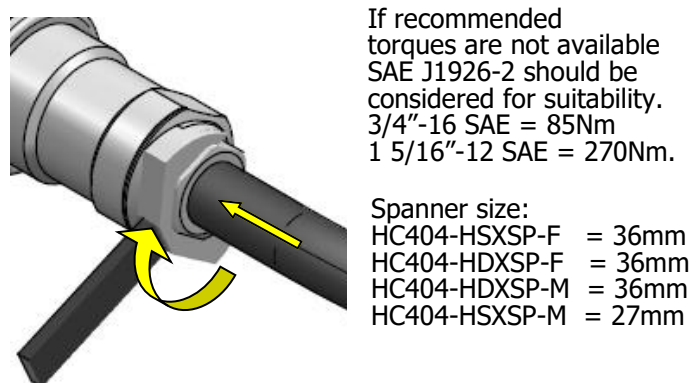


## SAE Threads

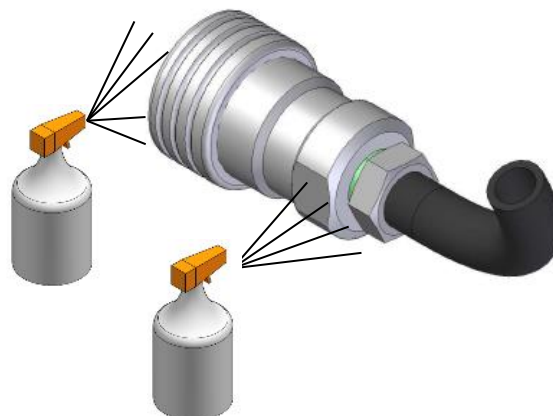
1. Apply anti seize to thread and Silicone grease to the O-ring. Install the O-ring on the fitting if not pre-installed.



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



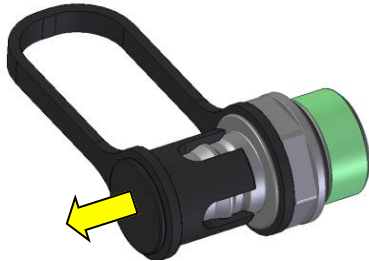
3. Installation complete, check for leaks with snoop or soapy water.



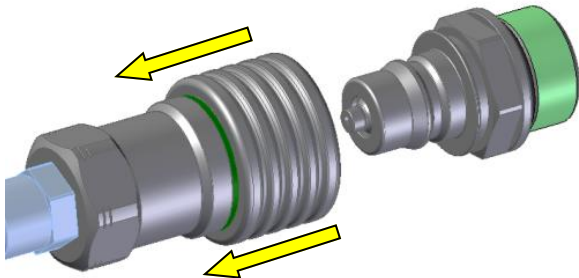


## Connecting Coupler

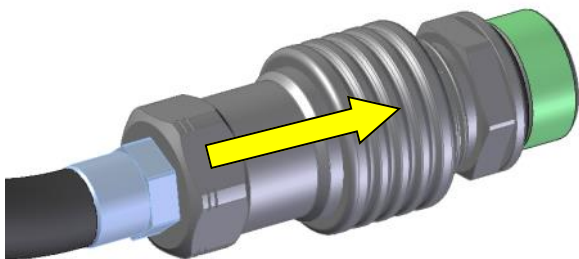
1. Remove the dust cap



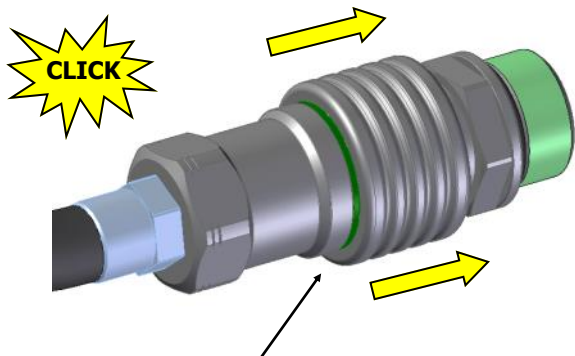
2. Pull back and hold sleeve on female coupler



3. Push onto male fitting.



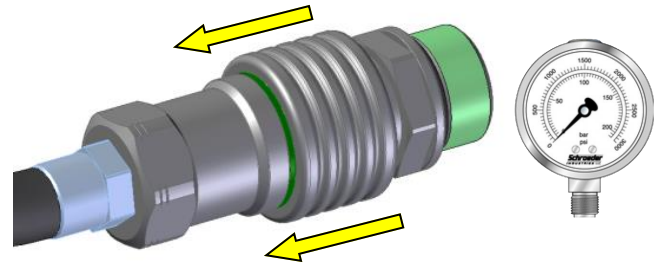
4. Sleeve should click forward into place and the green ring should be visible.



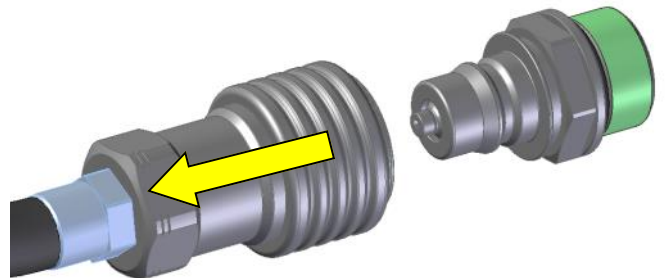
Green ring is only visible when correct coupling is achieved. If it is not visible return to step 1. and re-attempt connection

## Disconnecting Coupler

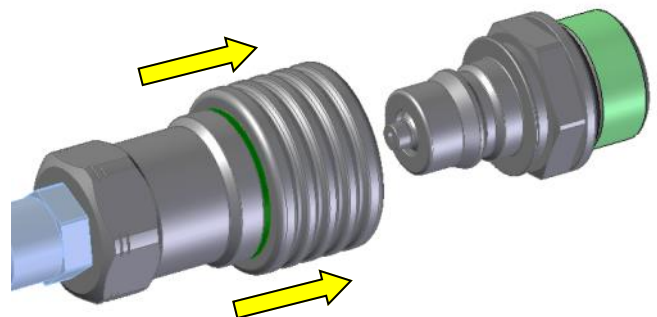
1. Vent coupler pressure, then pull back sleeve on the female coupler.



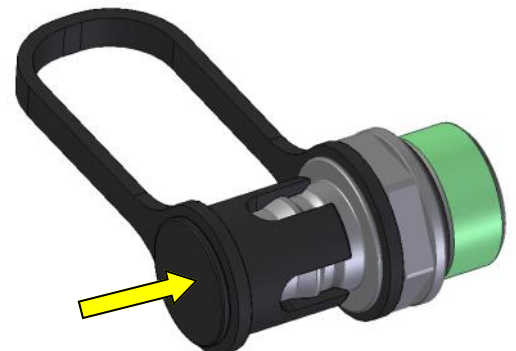
2. Pull away from the male fitting.



3. The sleeve should return forward and the green ring will be visible.



4. Replace dust caps



## Service Kit Parts

### Female/male kit

1 x Poppet



1 x Poppet Spring



2 x SAE O-ring's\*



1 x Connection O-ring#



1 x Backup O-ring#



1 x Lubricant

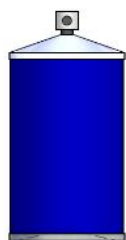


### The Complete Oasis Seal Kit must be used

\* This kit may contain spare O-rings for SAE connections depending on what product is being serviced.

# only required for female coupler servicing, discard if not required.

## Tools Required



Cleaner (Warm Soapy  
Water or Similar)



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



Anti Seize Grease  
(Krytox GPL-205)  
For All Threads



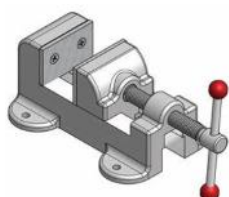
Spanner  
(Wrenches)



Poppet Assembly Tool  
Part Number:  
TOOL-HC404  
(Sold separately )

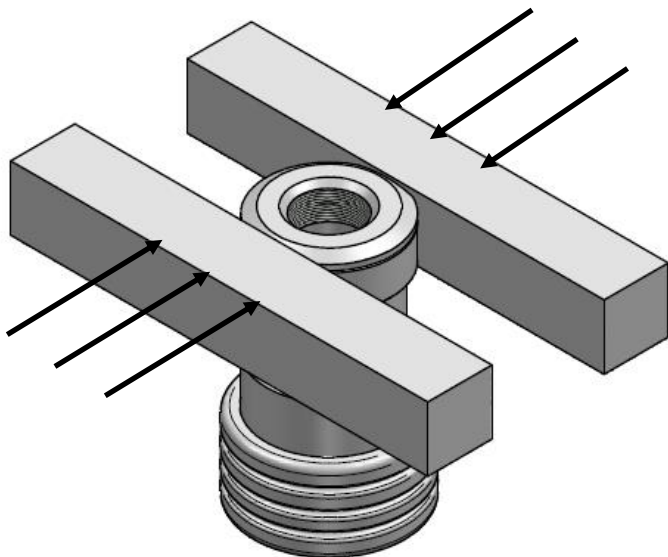


1/2" Allen Key

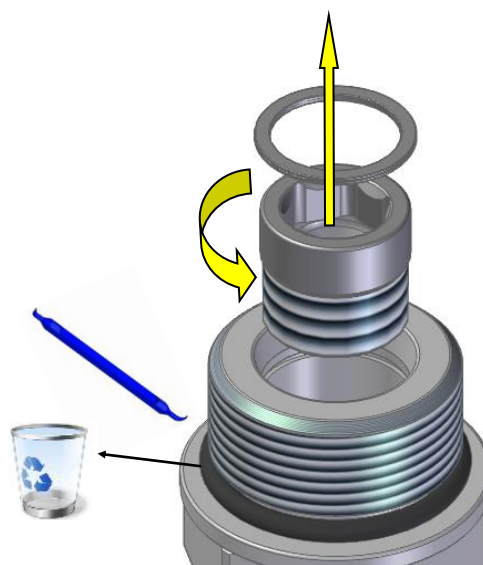


Vice

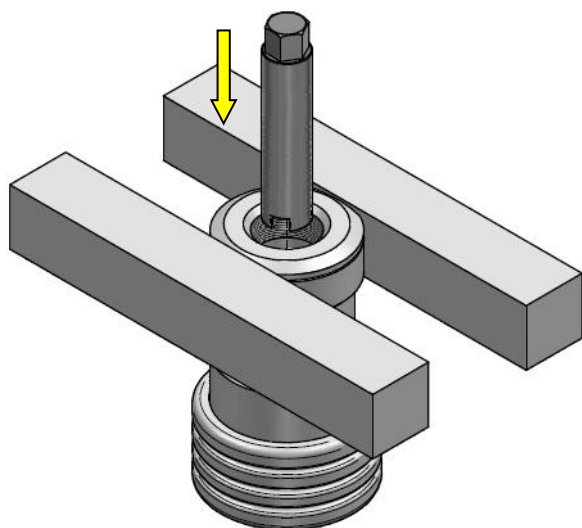
1. Clamp female coupler in vice.



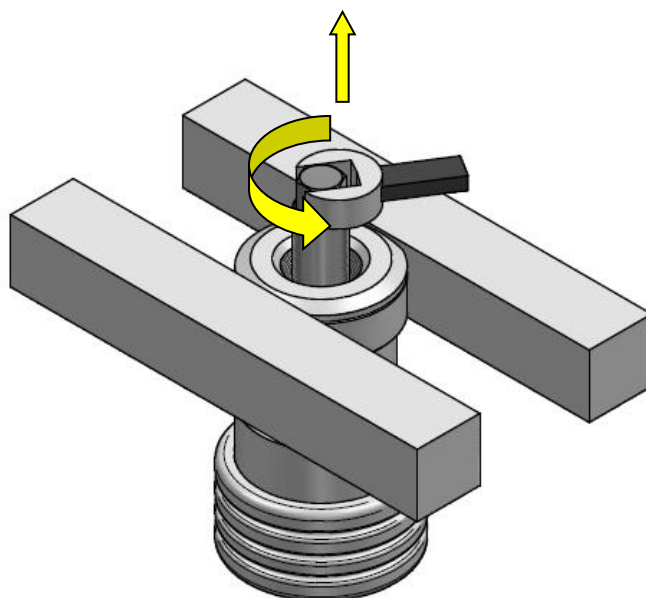
2. If installed remove the retaining clip, flow restrictor and O-ring (HC404-HDXSP-F only). Use a sharp pick for the clip and a 1/2" Allen key for the restrictor. Discard the O-ring only



3. Insert the HC404 retainer tool so that it locates on the poppet retainer.

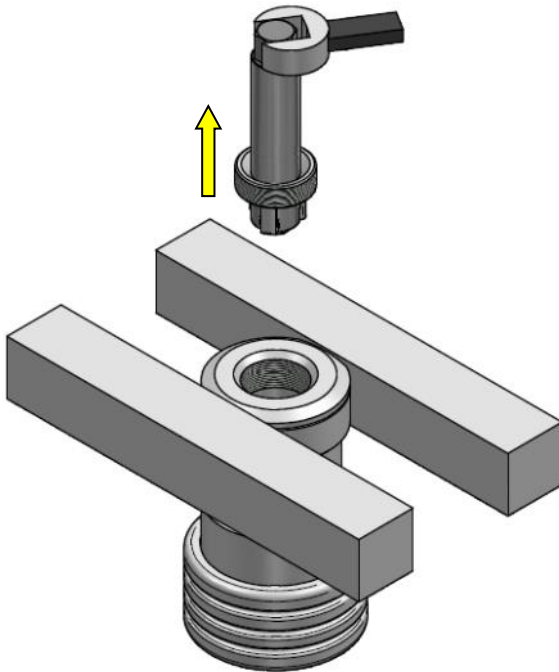


4. Remove the poppet retainer using the assembly tool and spanner.

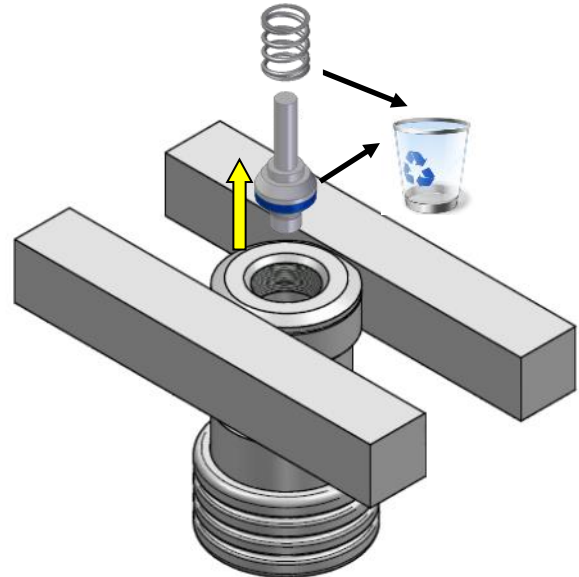




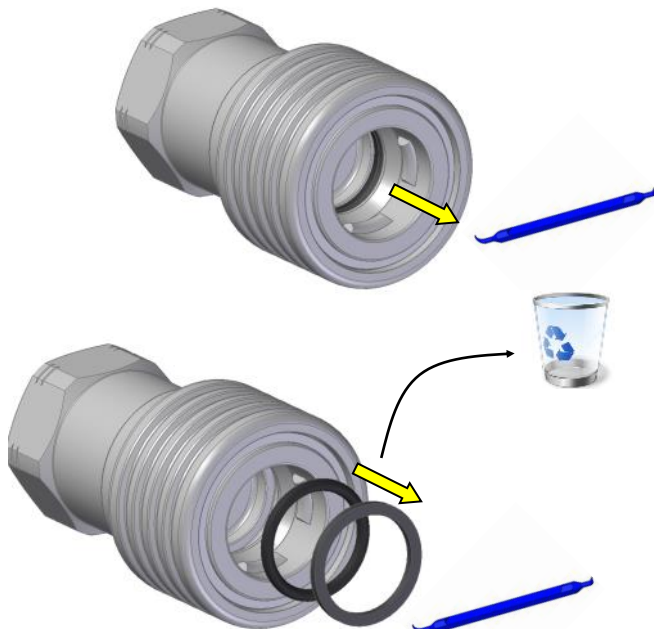
5. Remove and keep the poppet retainer.



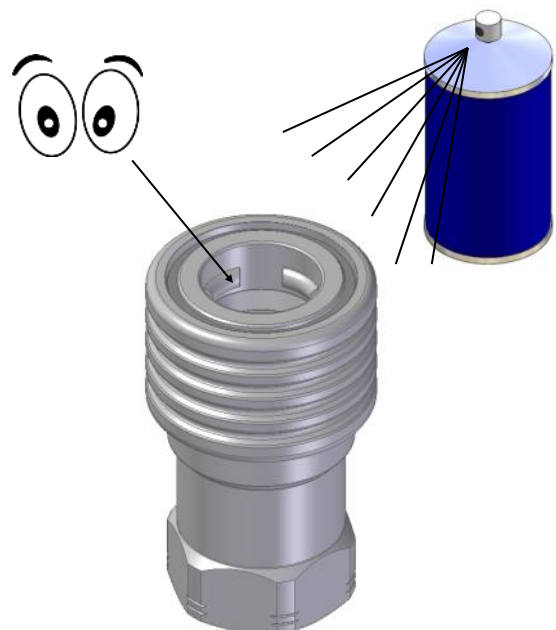
6. Discard the poppet and spring.



7. Pick out the O-ring and Backup and discard.

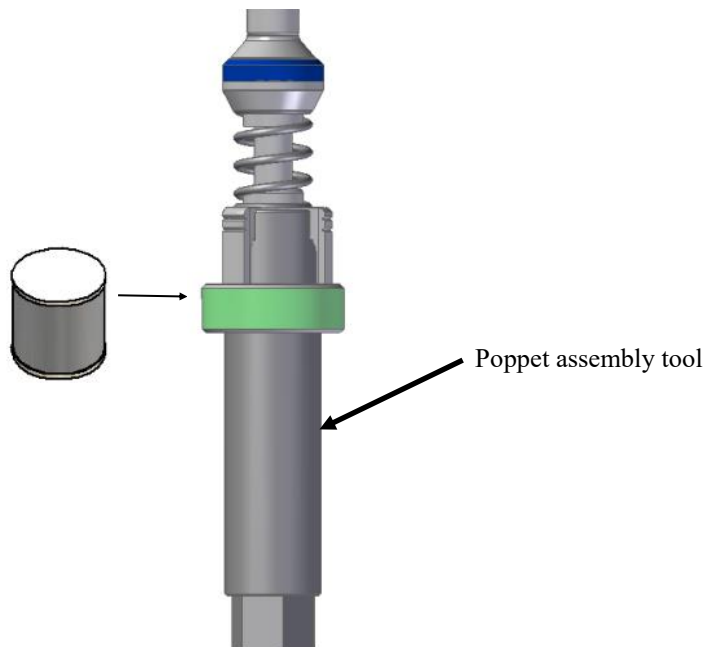


8. Clean all of the components and visually inspect parts for damage.



**Do not scratch  
body**

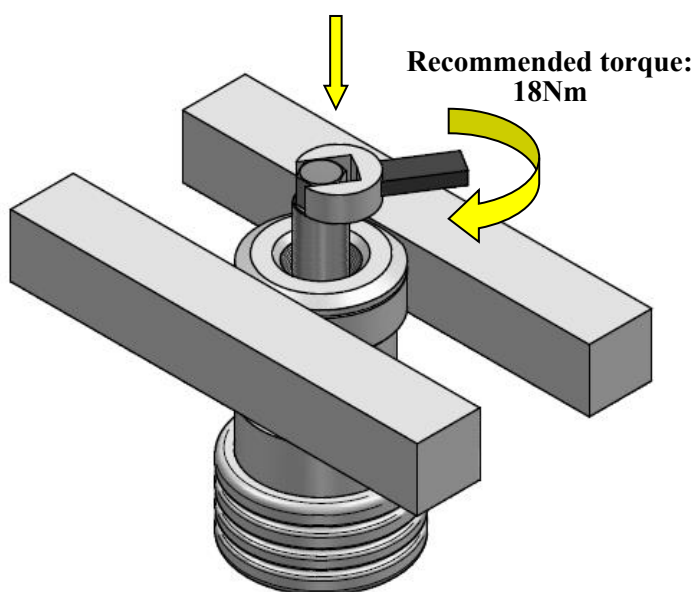
1. Apply anti-seize to the female poppet retainer thread.



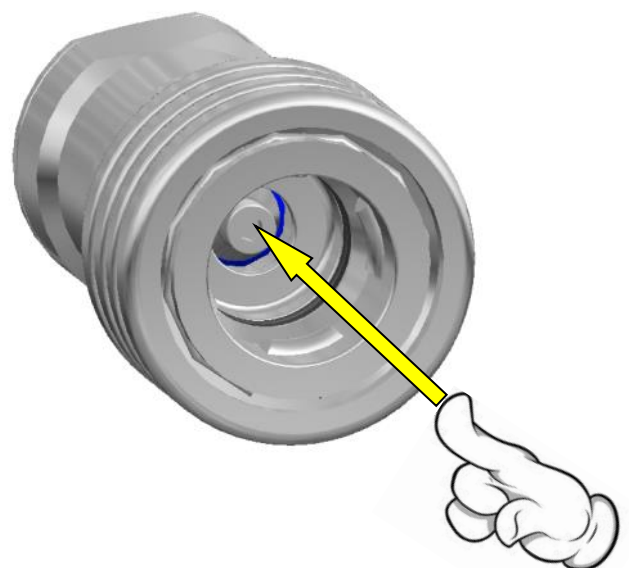
2. Screw the female body onto the poppet assembly. Be careful not to cross thread the retainer.



3. Tighten the female poppet retainer.

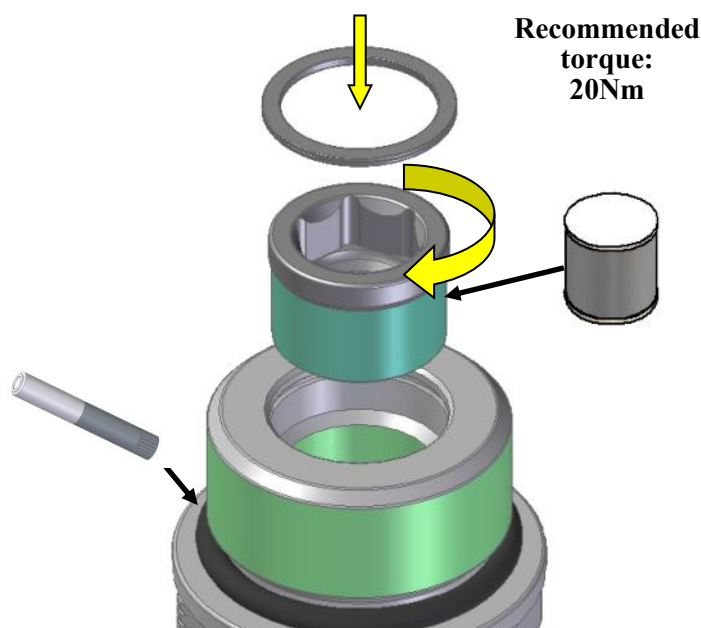


4. Check the poppet by pushing the poppet with your finger and ensure it returns when you release it.

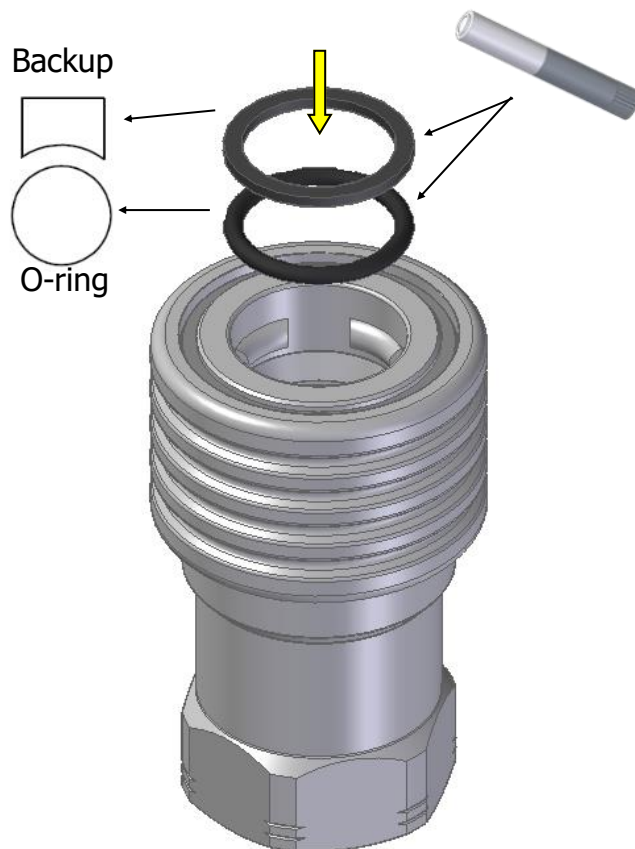




5. HC404-HDXSP-F 1" SAE thread only. Apply supplied lubricant to the O-ring and install. Apply anti-seize to the flow restrictor and tighten in place to 20Nm using a 1/2" Allen key. Install the retaining clip.

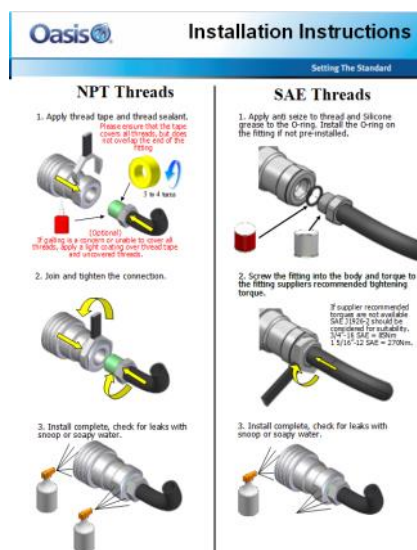
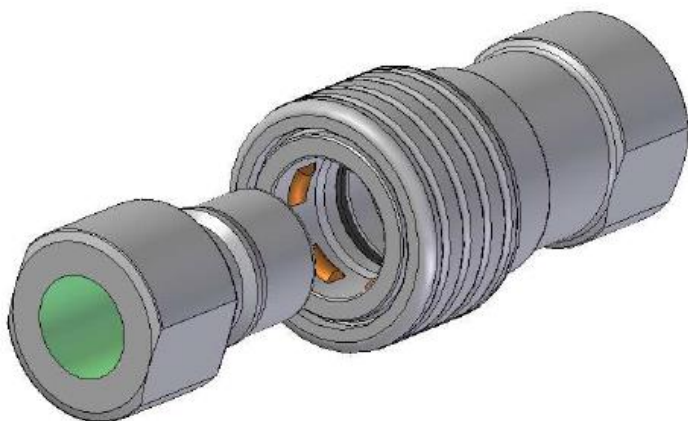


6. Apply lubricant and insert the O-ring and back-up into the groove.

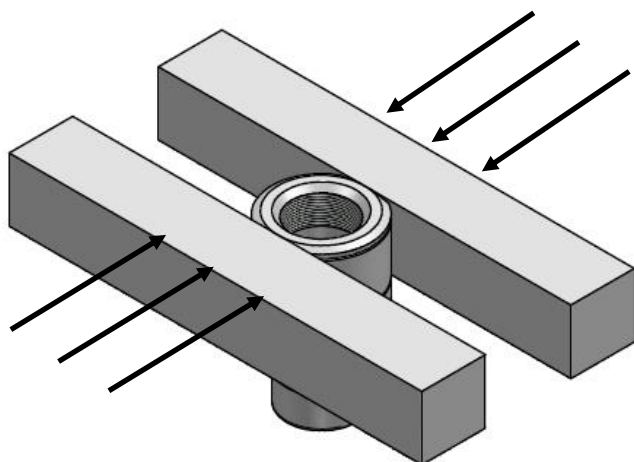


7. Test the connection of the female coupler on a male. Check for correct coupling and the at poppet fully returns on disconnection.

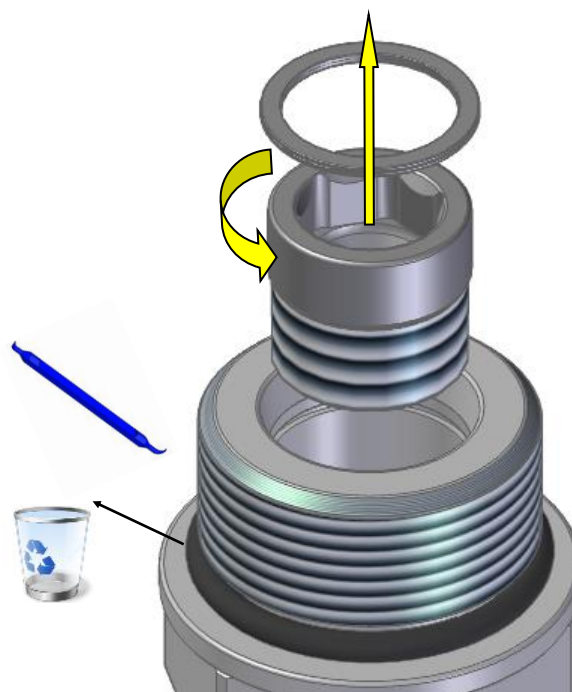
**8. Re-install coupler as per the install instructions on page 3 of this manual.**



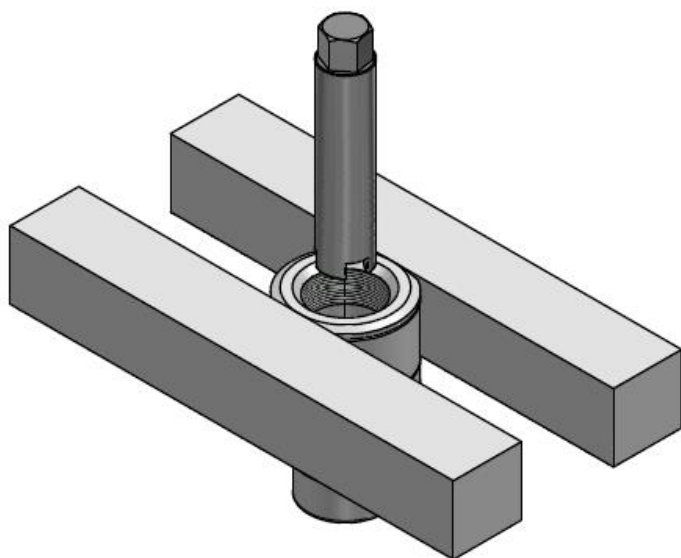
1. Clamp the male coupler in the vice.



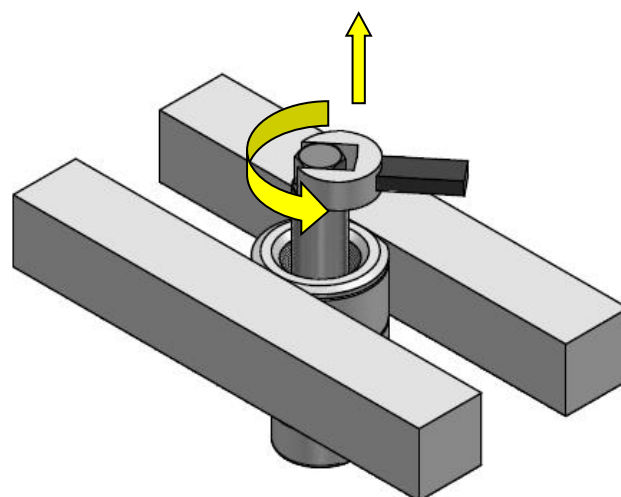
2. If installed remove the retaining clip, flow restrictor and O-ring (HC404-HDXSP-M only). Use a sharp pick for the clip and a 1/2" Allen key for the restrictor. Discard the O-ring only.



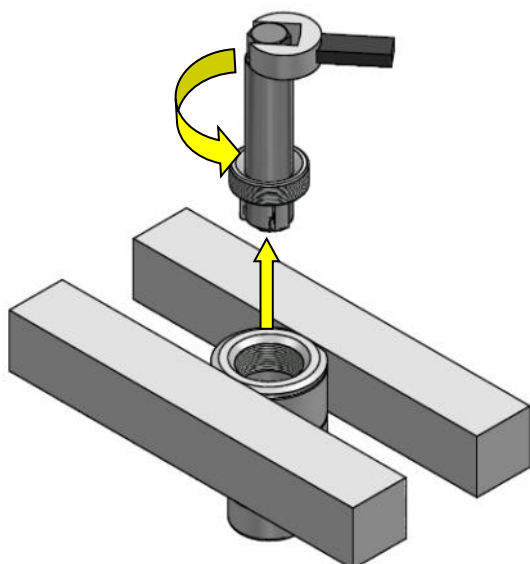
3. Insert the Poppet Assembly Tool.



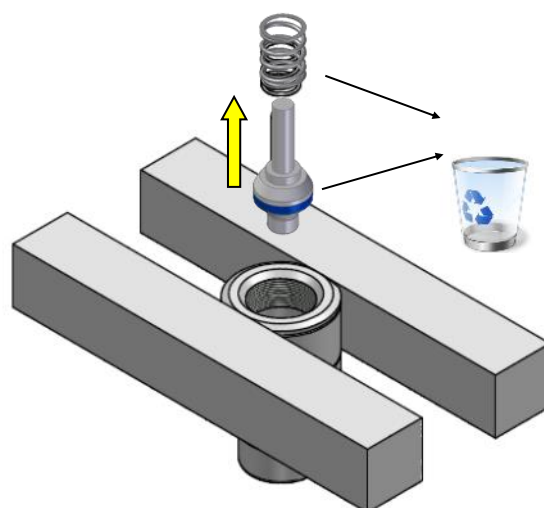
4. Loosen the poppet retainer using the assembly tool.



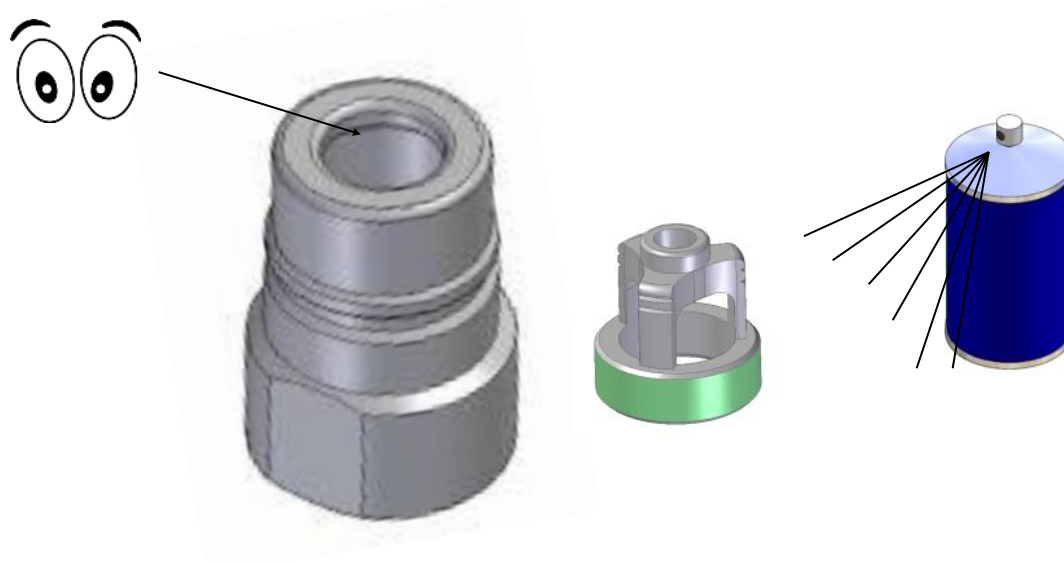
5. Remove and keep the poppet retainer.



6. Discard the poppet and spring.

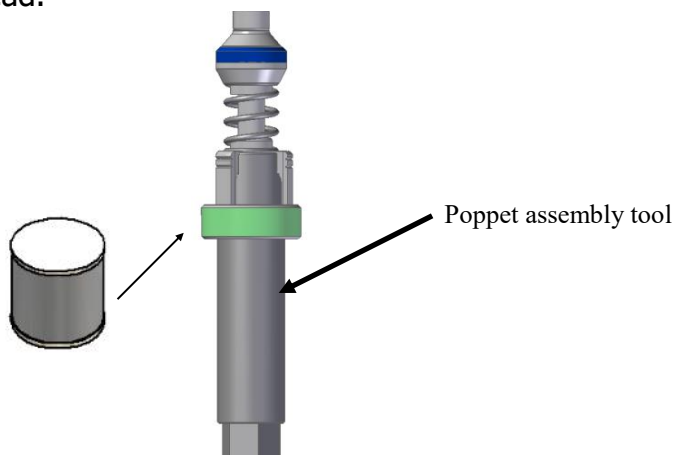


7. Clean all of the components and visually inspect parts for damage.

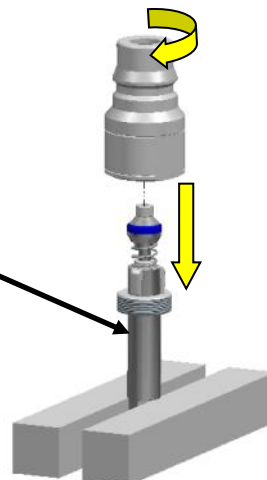




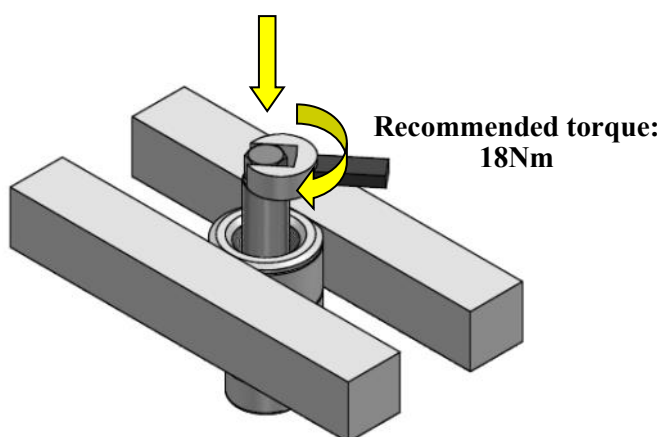
1. Apply anti-seize to the male retainer thread.



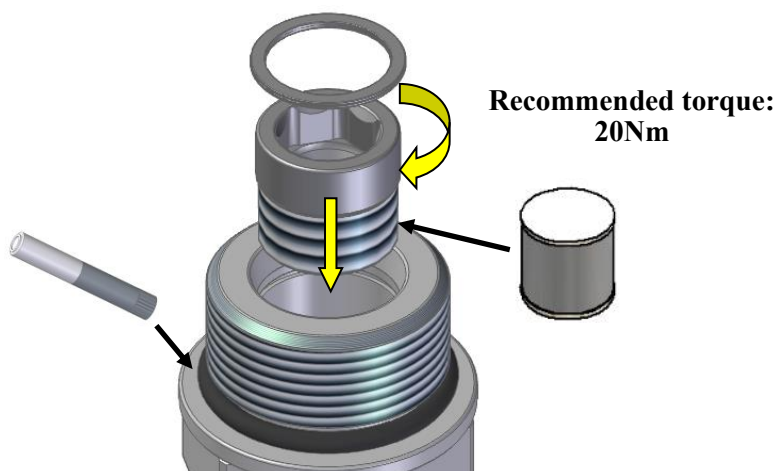
2. Screw the male body onto the poppet assembly. Be careful not to cross thread the retainer.



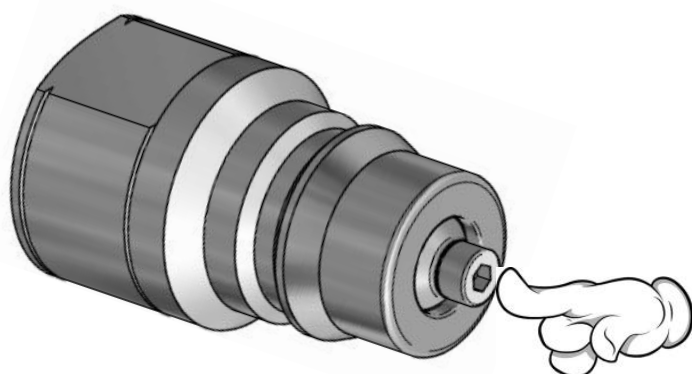
3. Tighten the male poppet retainer.



4. HC404-HDXSP 1" SAE thread only. Apply supplied lubricant to the O-ring and install. Apply anti-seize to the flow restrictor and tighten in place to 20Nm using a 1/2" Allen key. Install the retaining clip.



5. Male coupler servicing complete. Check connection with a female coupler and that the poppet fully returns.



6. Re-install couplers as per the install instructions on page 3 of this manual.

