



# **BV700 Series**Ball Valve ORFS Instruction Manual

### **A 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.



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Servicing Video 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

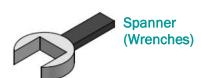


Ensure the system is clean of debris, vented and isolated before any installation or servicing work is carried out.

## **Attention!**

Oasis 700 series ball valves are intended for use with gaseous Hydrogen, CNG, Helium, Biogas or Nitrogen.

### **Tools Required**





**Anti Seize Grease** (Loctite 771 or similar) For all threads.



Spray bottle (Snoop or soapy water)



### Installation **Instructions**

Setting The Standard

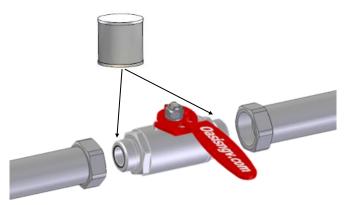
#### For use in Canada:

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:

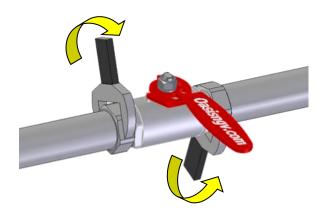
DESIGN PRESSURE: 410 BAR (6000 PSIG)
DESIGN TEMPERATURE: -40 TO +85°C (-40 TO +185°F)
CORROSION ALLOWANCE: 0 mm (0 in)

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.

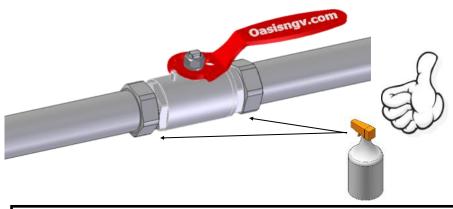
1. Ensure face seal O-rings are in position and sealing faces are free of damage. Apply anti-seize grease to threads.



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



3. Installation complete, check for leaks with snoop or similar 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 lifetime.



# **Operation Instructions**

Setting The Standard

### 1. Closed 2. Opened

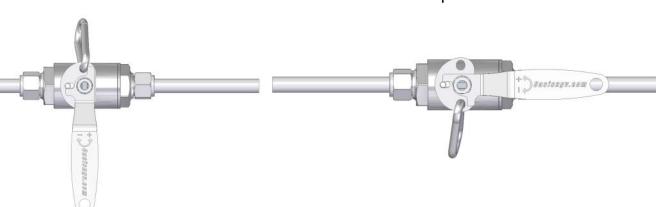




### Important: Actuate valve 4 times before use to ensure initial sealing.

Optional - Lock-plate In Closed Position

Optional - Lock-plate In Open Position



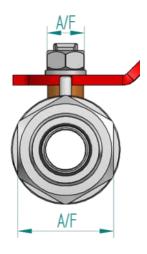
# **Recommended Spanners** for End Caps:

BV702 = 25mmBV703 = 28mm

BV704 = 34mm

BV706 = 50 mm

BV708 = 60 mm



# **Recommended Spanners** for Stem Nuts:

BV702 = 13mm

BV703 = 13mm

BV704 = 13mm

BV706 = 19mm

BV708 = 19mm



### Servicing

Setting The Standard

### **Service Kit Parts**

### BV702 — BV703 — BV704\*\*

2 x Seats<sup>^</sup> 1 x Stem 1 x Ball



1 x Silicone





2 x Face O-ring



1 x Locking Tab\*

1 x Gland



(BV702-012 FKM 90) (BV703-014 FKM 90) (BV704-018 FKM 90)

1 x Cap O-ring

#### BV706\*\* — BV708\*\*

2 x Seats 1 x Stem 1 x Ball



1 x Gland





1 x Cap O-ring 1 x Silicone



1 x Cap Backup O-ring 1 x Locking Tab\*





2 x Face O-ring



(BV706-021 FKM 90) (BV708-025 FKM 90)

### The Complete Oasis Seal Kit must be used

### **Tools Required**



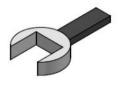
Cleaner (Warm Soapy Water or Similar)



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



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



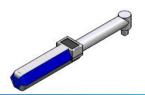
Spanner (Wrenches)



**Pliers** 



**Sockets** 



**Torque Wrench** 



Snoop or **Soapy Water** 

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<sup>\*</sup> only used when servicing actuated ball valves.

<sup>\*\*</sup>It is normal for the service kit to include a ball with a small hole in the bottom

<sup>^</sup>For low pressure service kits, the seats will be supplied with an O-ring installed



# Servicing Disassembly

### Setting The Standard

1. Release any trapped pressure.



2. Remove stem nut, washer and handle.

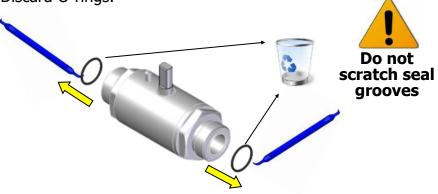


3.Discard gland.

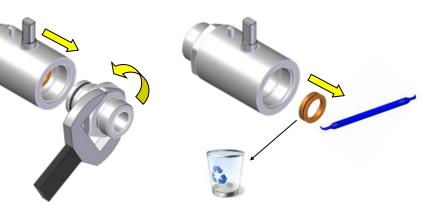




4. Remove face O-rings from valve cap and body. Discard O-rings.



5. Remove end cap.



6.Discard seat.

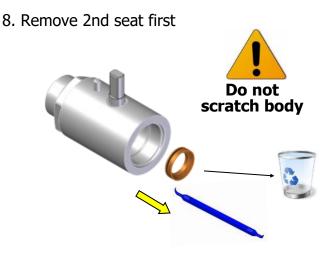
7.Remove ball.



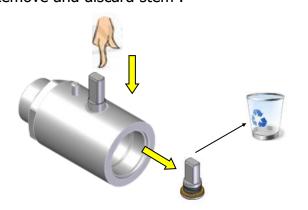
# Servicing Disassembly

Setting The Standard

#### BV702 - BV703

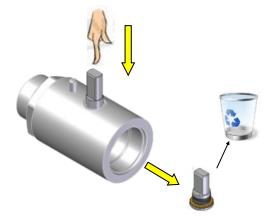


9. Remove and discard stem.



### **BV704 - BV706 - BV708**

8. Remove stem first



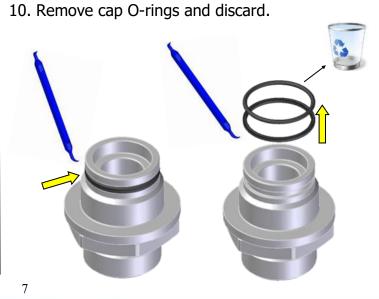
9. Remove and discard 2nd seat



BV702 - BV703 - BV704



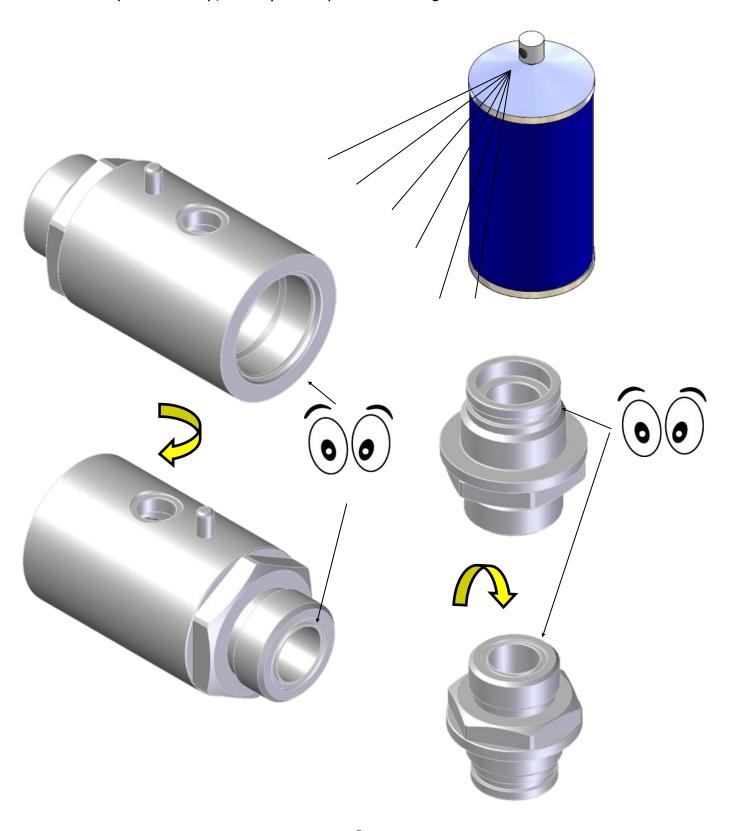
### **BV706 - BV708**



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

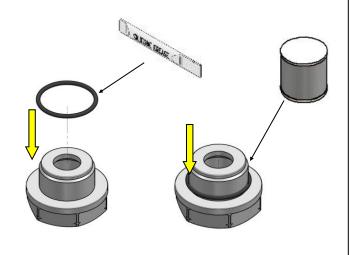


# Servicing Assembly

Setting The Standard

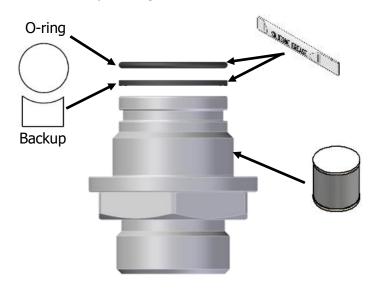
### BV702 - BV703 - BV704

1. Fit O-ring.



### **BV706 — BV708**

1. Fit end cap O-rings.



### BV702 - BV703

2. Insert stem assembly first.

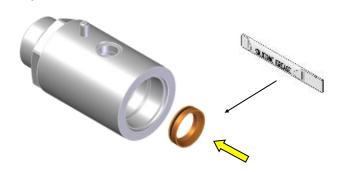


3. Insert first seat



### BV704 - BV706 - BV708

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



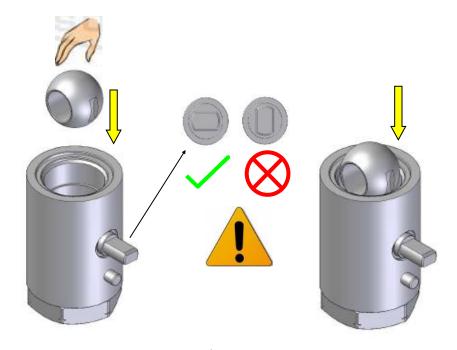
3. Insert stem assembly.



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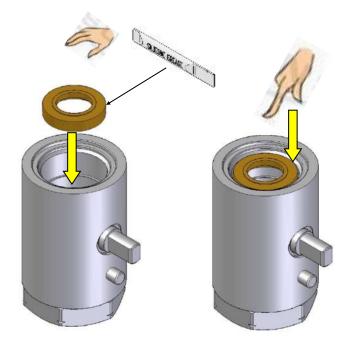


### 4. Insert ball.



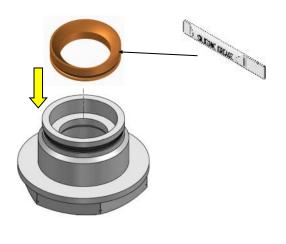
### BV702 — BV703

5. Apply silicon grease to new seat. Take care not to pinch an O-ring if present on seat when installing.



### **BV706 — BV708**

5. Apply silicone grease to new seat and install in cap. Take care not to pinch O-ring when installing seat.



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### BV702 - BV704 - BV706 - BV708

6. Tighten on end cap



8. Install the handle, washer and nut.



10. Lubricate and install face O-rings.



7. Install gland.



9. Tighten stem nut.



11. Servicing complete, follow installation instructions on page 3 for re-installation of product.



Important: Actuate valve 4 times before use to ensure initial sealing.