CC200 Series
Cartridge Check 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.

Oasis recommends that all service technicians should watch the Product Servicing Video before attempting to service this part.

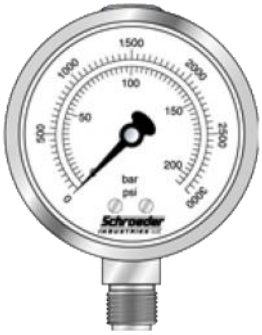
Oasis Engineering Ltd
129 Birch Avenue, Tauranga, New Zealand.
T: +64 7 928 3808
E: info@oasisNGV.com
W: www.OasisNGV.com

Instruction Manual

Warning!

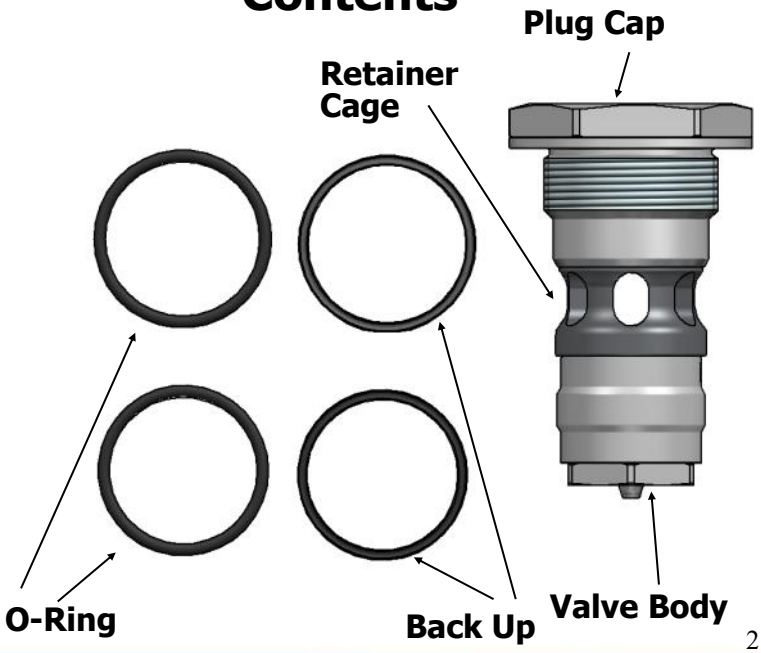
High pressure gas and gas equipment can cause serious harm to both infrastructure and personnel if safety precautions are not followed.

Oasis recommends considering the use of the following PPE when working with high pressure along with any other site specific health and safety requirements:

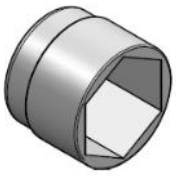


Ensure the system is clean of debris, vented and isolated before any installation or servicing work is carried out.

Contents



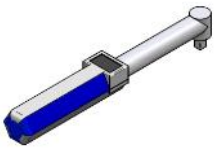
Tools Required



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

Sockets:
48mm—CC204
55mm—CC206

Spray bottle
(Snoop or soapy water)



Torque Wrench

Silicone Grease

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Caution

This valve is intended for use in embedded manifold systems that have been designed according to Oasis specifications. Use in non-conforming manifold systems could damage the valve and manifold and will void warranty.

See page 10 for manifold pocket dimensions.

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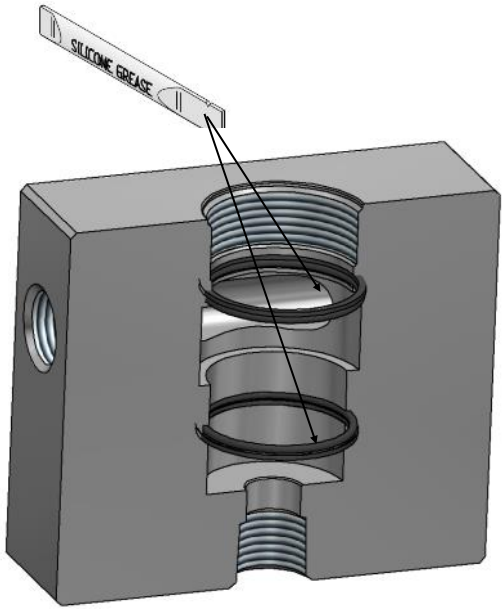
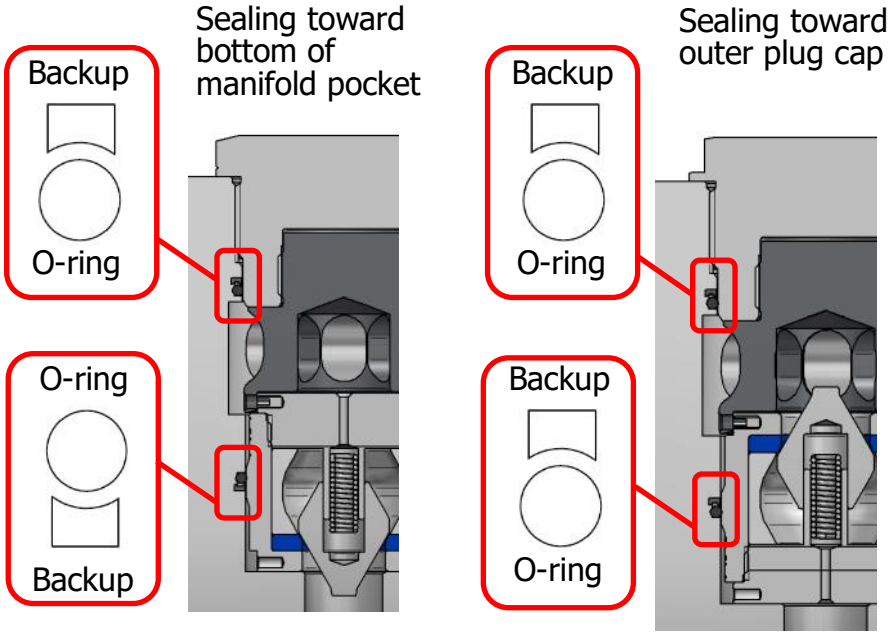
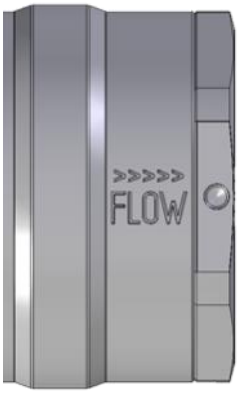
1. Lubricate O-rings and Backups with silicone grease (packed separately to valve) and install into manifold grooves. The smaller O-ring and backup goes in the inner-most groove.
Ensure the O-ring and backup ring orientation is correct (see images below for reference)





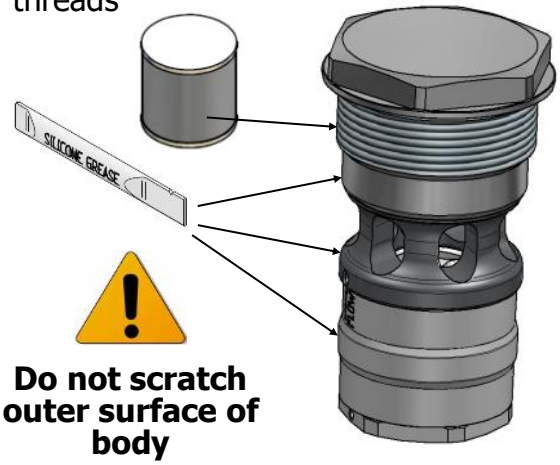
2. Ensure flow arrow on the valve is facing the correct way for your application. The direction can be reversed by removing the grub screws and reversing the valve. See servicing instructions on pages 6—9 for more info.



Ensure flow direction marking points in the correct orientation for your application.

The check valve body may be mounted into the retainer cage with flow going in either direction. Refer to the manifold manufacturers directions for correct orientation for the application.

3. Apply silicone grease to the valve body, retainer cage and plug cap.
Apply Anti-seize grease to the plug cap threads



Do not scratch outer surface of body

Valve is pre-assembled with flow direction away from plug cap. This is reversible, where required, during installation process.

Valve body in retainer cage has a clearance fit. Slight wobble-movement is normal.

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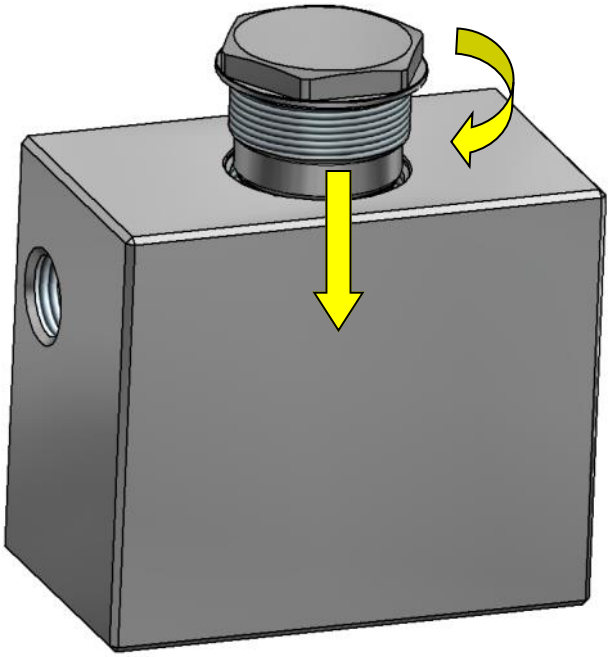
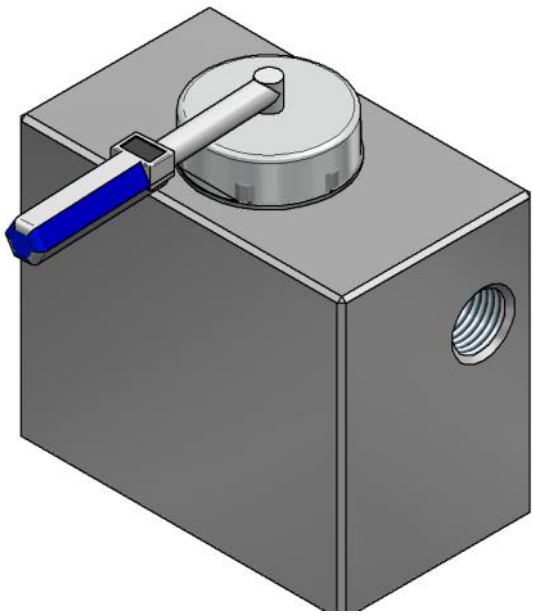
4. Install the valve into the manifold pocket. Thread in all the way by hand.



Twist while pushing down to avoid pinching the O-ring.

5. Torque cap to the specifications listed below



Recommended Torque:
CC204 - 120Nm
CC206 - 180Nm

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.

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Service Kit Parts

1 x Poppet

1 x Poppet Spring

1 x Seat

1 x Silicone Grease

1 x End Cap
(outer) O-ring

1 x End Cap
(outer) Backup

1 x Body (inner)
O-ring

1 x Body (inner)
Backup

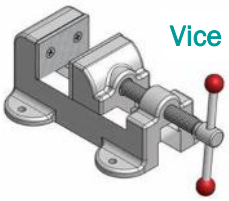
Plastic Pick Tool
TOOL-PICK

CC204 = 126 O-ring & Backup
CC206 = 135 O-ring & Backup

CC204 = 125 O-ring & Backup
CC206 = 134 O-ring & Backup

The Complete Oasis Seal Kit must be used

Tools Required

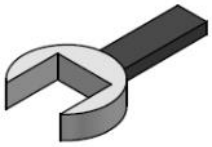


Vice

Cleaner (Warm
Soapy Water or
Similar)

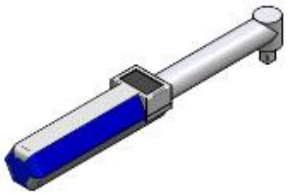
Plastic Pick Tool
TOOL-PICK (supplied
with service kit)

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

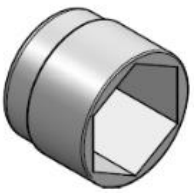


Spanner
(Wrenches)
28mm, 48mm—CC204
42mm, 55mm—CC206

Allen Key
1 .5 mm



Torque Wrench



Sockets:
28mm, 48mm—CC204
42mm, 55mm—CC206

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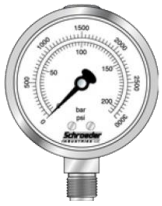
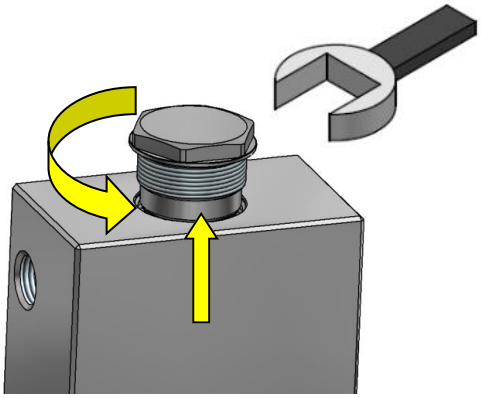
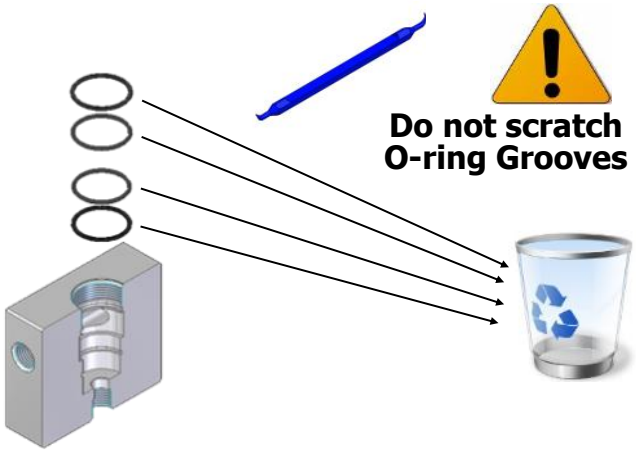
1. Vent system. Unthread plug and withdraw valve from manifold.



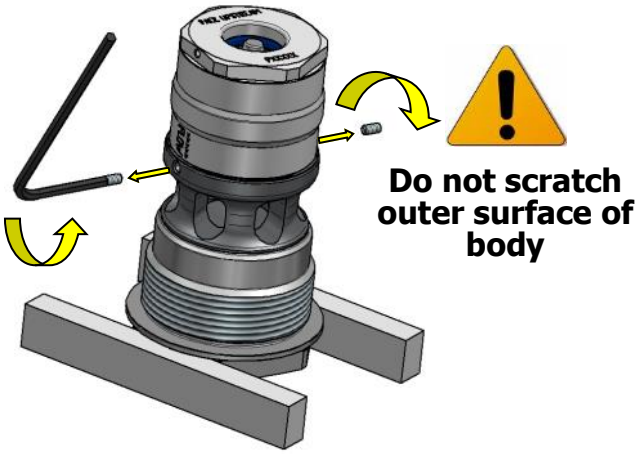
Ensure system is vented of all pressure before removal.



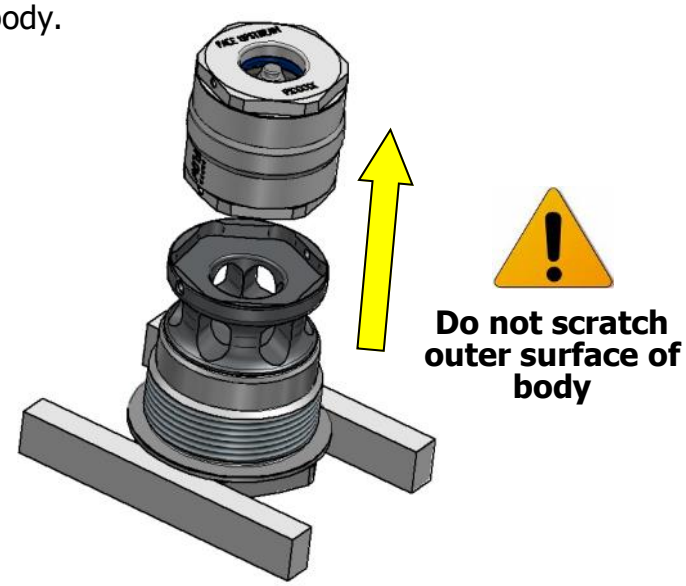
2. Remove manifold O-rings and backups and discard.



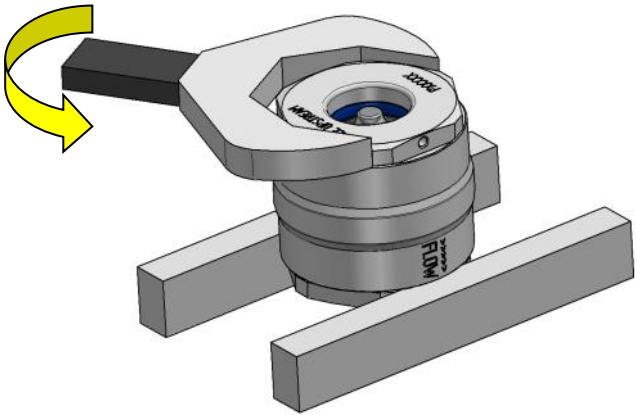
3. Place hex of plug in vice with body side facing up. Use 1.5mm allen key to remove grub screws



4. Lift valve body out of retainer cage. Take care not to scratch the outer surface of the body.



5. Place hex of valve end cap in vice with body side facing up. Use spanner or socket to loosen body, then unthread by hand.



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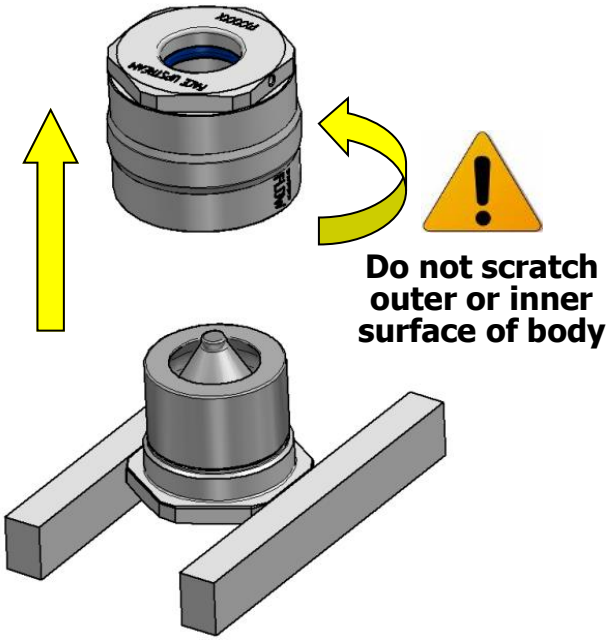
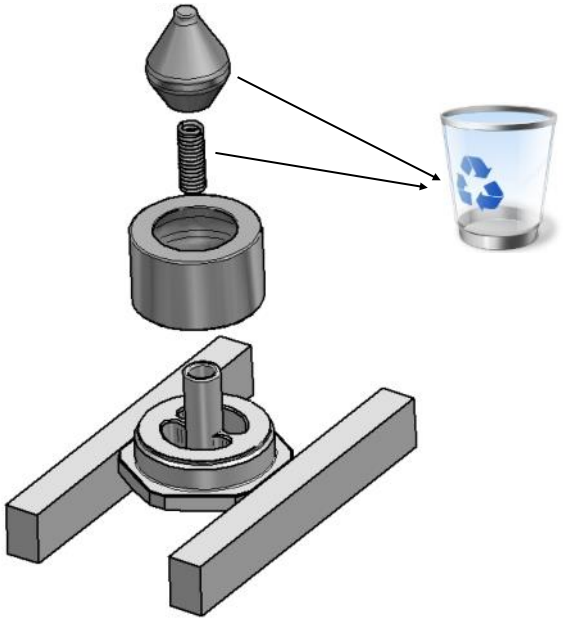
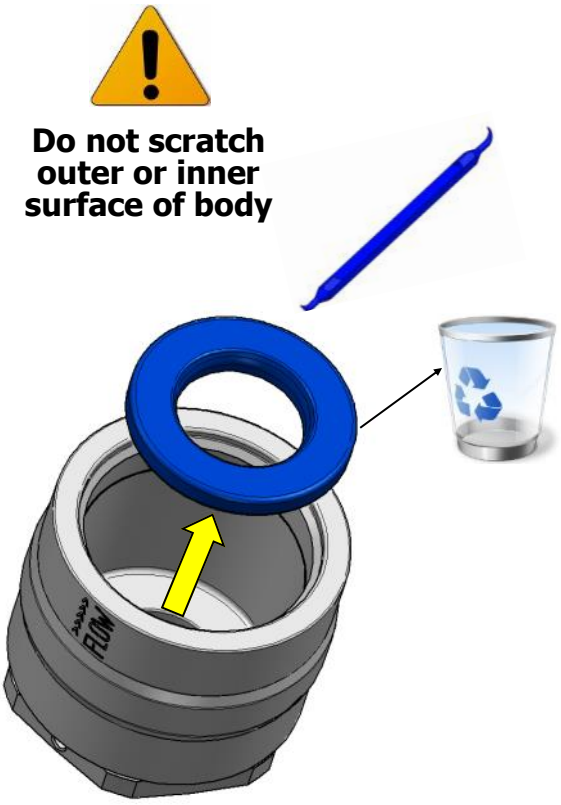
6. Carefully remove body from valve.



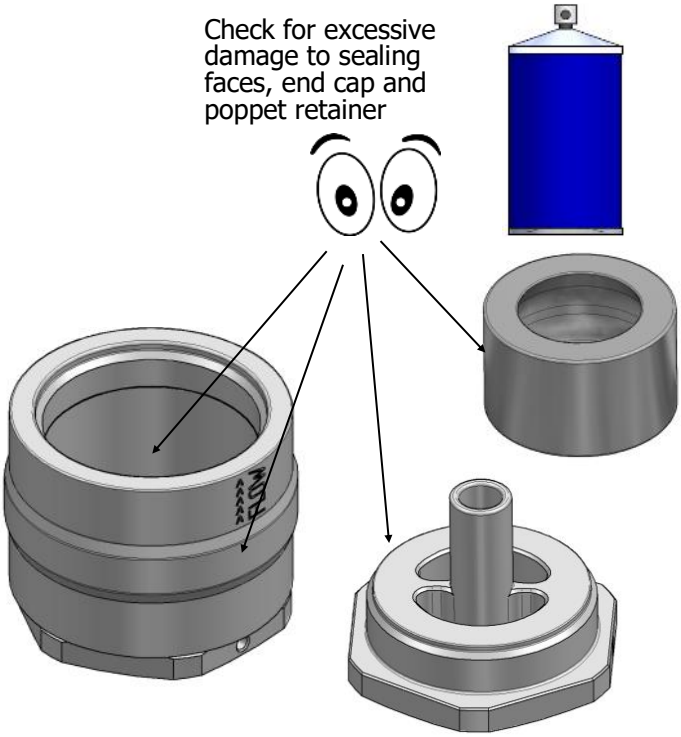
7. Discard check valve poppet and spring. Do not throw away the aluminium insert.



8. Remove poppet seal and discard.



9. Clean components and inspect for damage.



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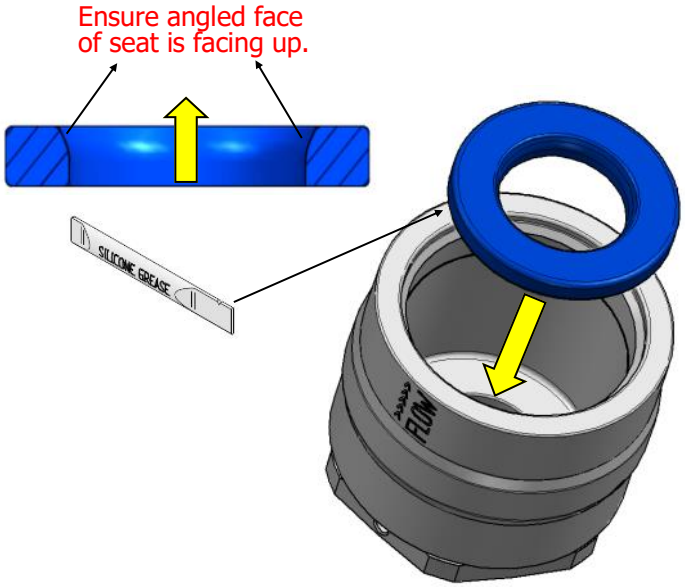
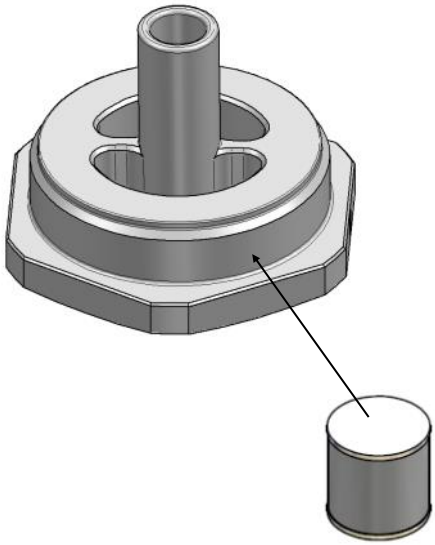
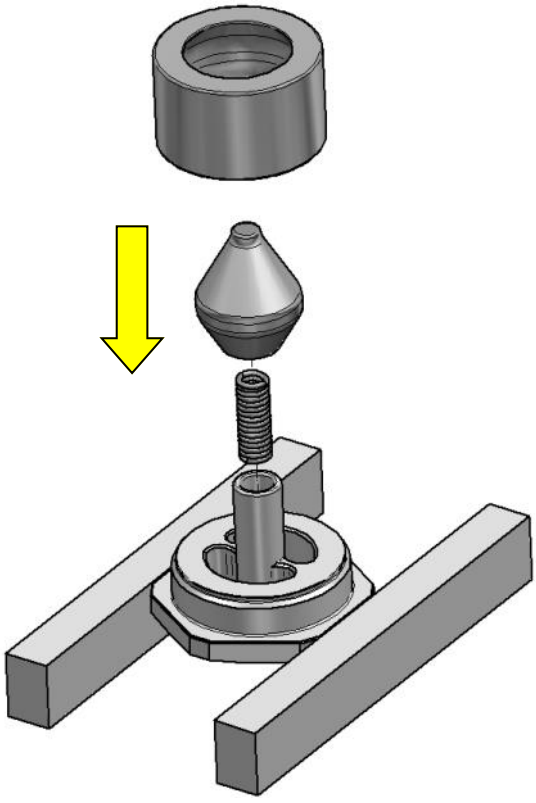
1. Apply silicone grease to edge of seat and insert into valve body. Ensure angled face of seat is facing up when you look down into the body.



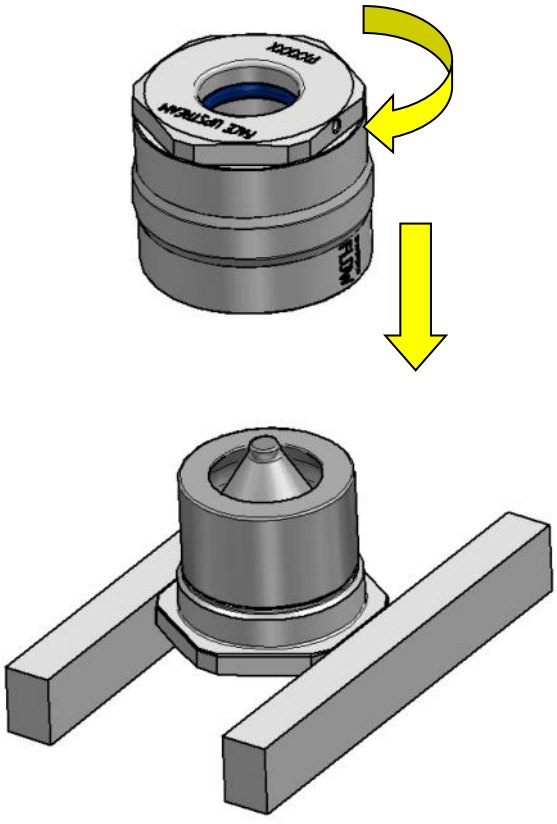
2. Apply anti-seize to end cap thread.



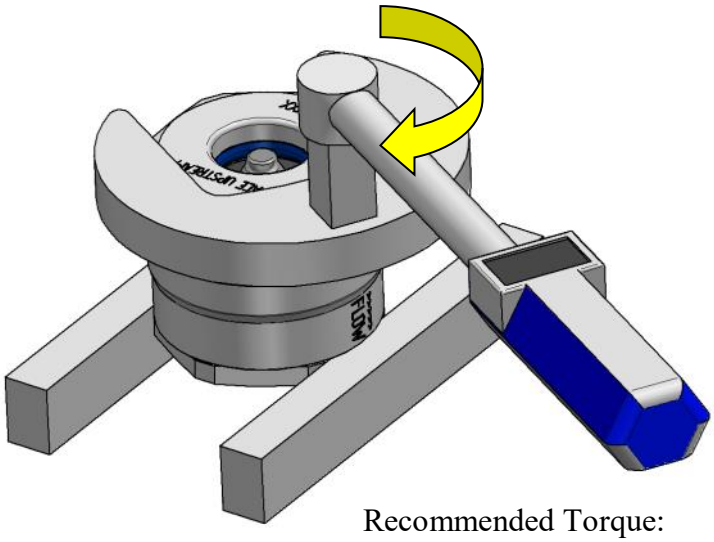
3. Secure end cap in vice and insert spring and poppet, then place insert onto end cap.



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

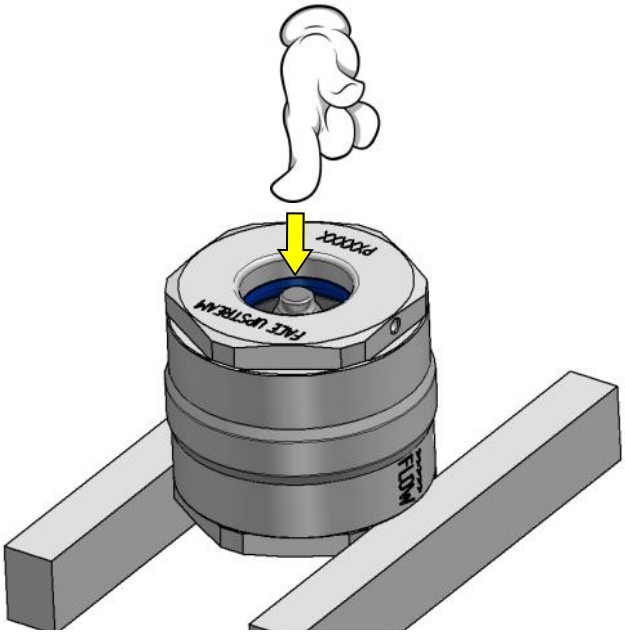


5. Torque body.

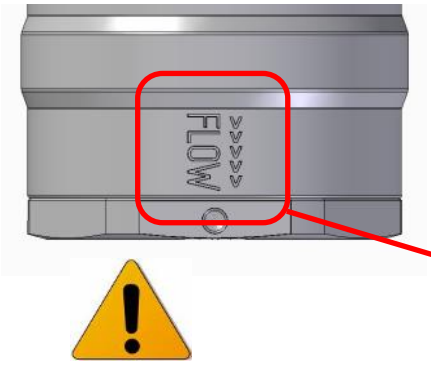


Recommended Torque:
CC204 - 80Nm
CC206 - 120Nm

6. Depress poppet to check for smooth operation.

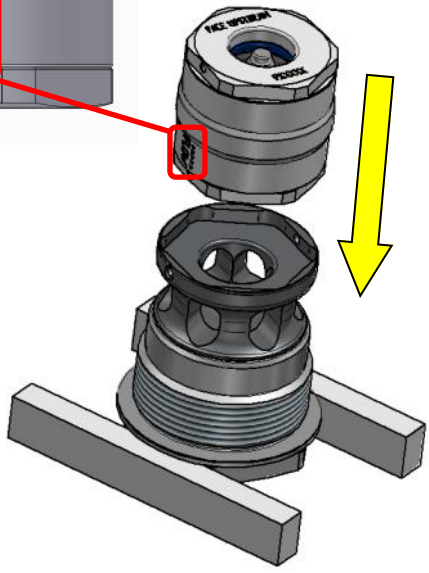


7. Insert check valve body into retainer cage. Apply anti seize to grub screws and tighten. Lubricate O-rings with silicone grease and follow installation instructions on pages 2-4 for re-installation into manifold pocket.

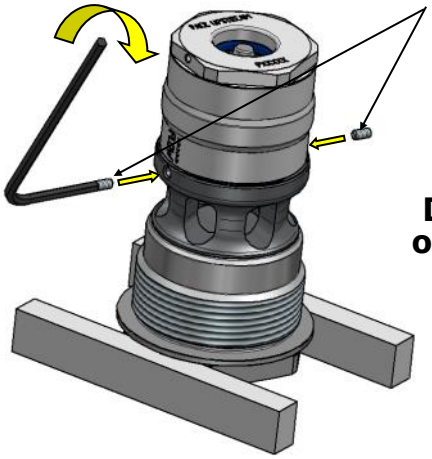


Ensure flow direction marking points in the correct orientation for your application.

The check valve body may be mounted into the retainer cage with flow going in either direction. Refer to the manifold manufacturers directions for correct orientation for the application.

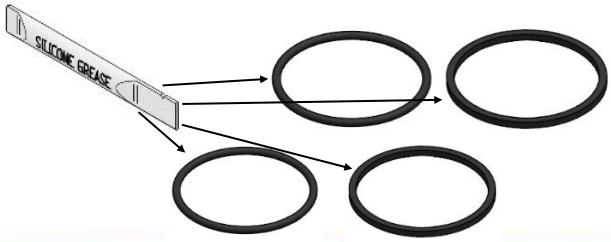


Valve body in retainer cage has a clearance fit. Slight wobble-movement is normal.



Do not scratch outer surface of body

Recommended grub screw Torque:
1 Nm



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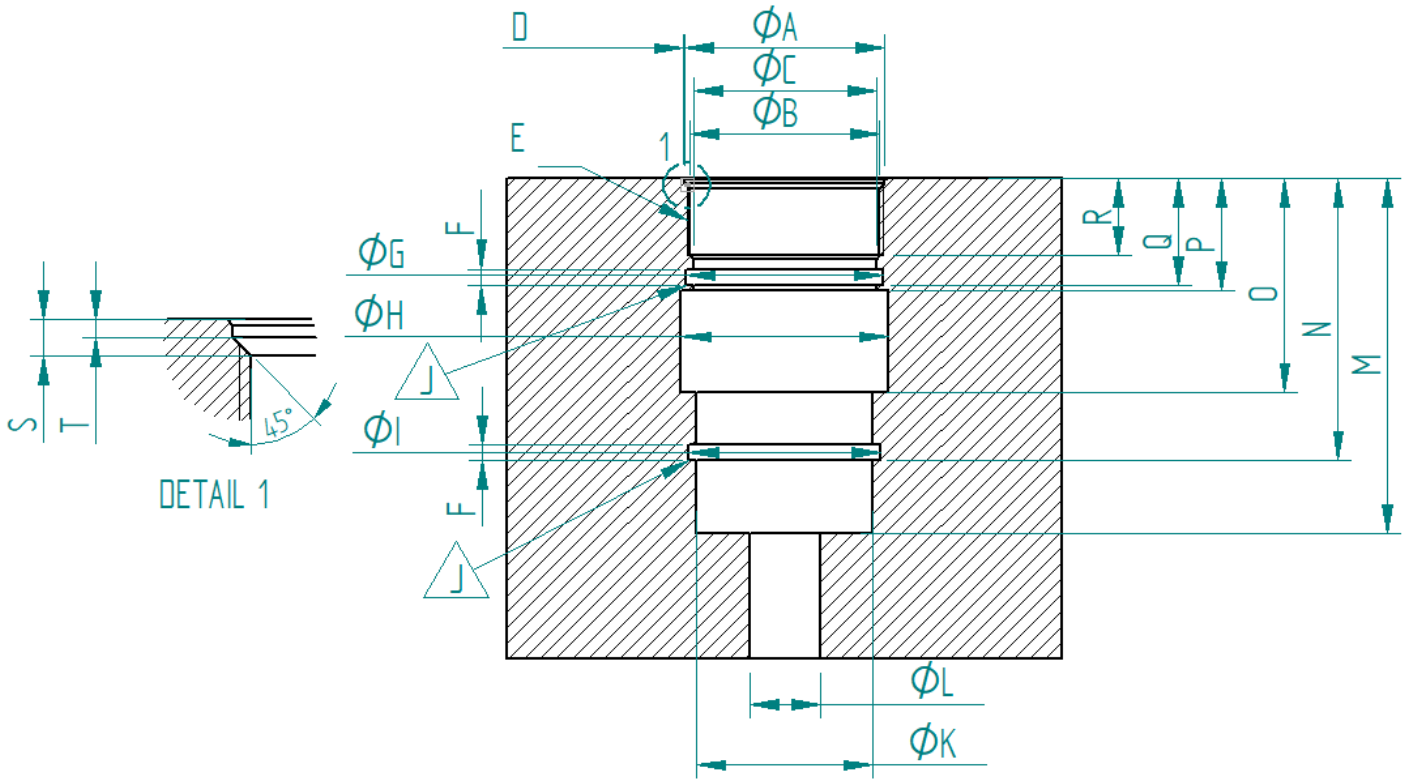
See specification sheet for full-manifold pocket information.



	A (ømm)	B (ømm)	C (ømm)	D (Chamfer)	E (Thread)	F (mm)	G (ømm)	H (min)* (ømm)	I (ømm)	J (O-ring groove surface finish)	K (ømm)	L (port)**	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)	R (mm)
CC204	39.7	37.19	35.02	0.5mm X 45°	M39x1.75	4.36	39.09	35.05	37.49	RA: Max 0.8	33.42	1/2"	75.8	61	47.6	26.31	24.11	16.6
	39.3	37.09	34.98		Eff ø 37.9 - 39.03mm	4.46	39.05		37.45	Free from nicks	33.38	13mm	75.7	60.9	47.5	26.21	24.01	16.4
CC206	54.2	51.19	49.29		M53x.1.75	4.36	53.36	49.3	51.79	burrs and	47.72	3/4"	96.3	76.56	58.2	30.6	29.1	21.1
	53.8	51.09	49.25		Eff ø 51.9 - 53.03mm	4.46	53.32		51.75	chatter	47.68	19mm	96.2	76.46	57.8	30.5	29	20.9

* Minimum bore diameter. Bore size in this area may be increased for improved flow according to manifold manufacturers requirements. For optimal flow, Oasis recommends a bore diameter of: 44mm (CC204), 56mm (CC206).
** Lower port only shown on drawing. A side port which intersects the cross-flow bore (H) will be required according to the manifold manufacturers specifications.
^ The dimensions given are internal dimensions of the manifold pocket only, for use with Oasis CC200 series cartridge check valves.
Manifold design, inclusing strength considerations and relevant standards and certification of the manifold are the responsibility of the manifold designer.

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