

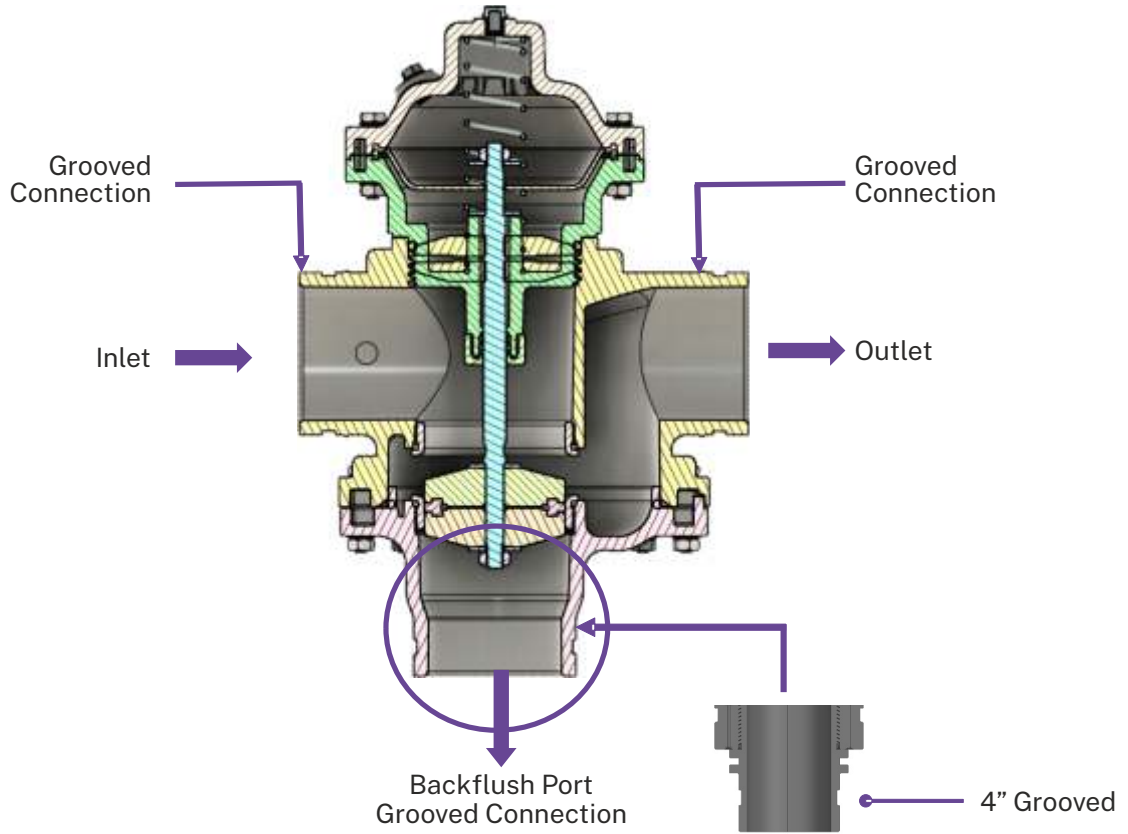
# BACKFLUSH VALVE

Installation, Operation And Maintenance Manual



Available Connections | Typical Installation  
Typical Operation | Maintenance  
Exploded View & Part Description Tools Required

# Available Connection

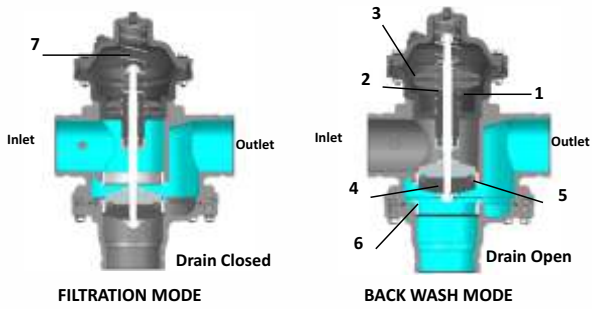


Specification	Connection Size	Connection Type
Inlet/Outlet Connections	4" (100 mm)	Grooved
Drain Port	4" (100 mm)	Grooved

## Typical Installation

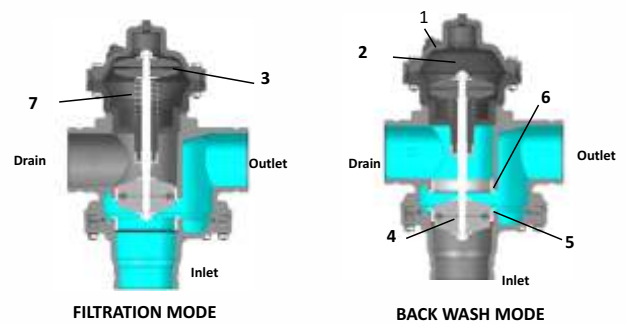


## Typical Installation



A hydraulic command from the solenoid allows water to come in from control tubing (1), which pressurizes the Lower Control Chamber (2), forces the Diaphragm (3) actuated Plug Assembly (4) to move up towards the upper seat (5), sealing the upper valve chamber drip tight. This allows water flow from the filter through the Drain Port. Venting the Lower control chamber (2) causes the line pressure, together with the Spring (7) force, to move the valve back to lower seat (6) brings to filtration mode.

A hydraulic command from the solenoid allows water to come in from control tubing (1), which pressurizes the Upper Control Chamber (2), forces the Diaphragm (3) actuated Plug Assembly (4) to move down towards the lower seat (5), sealing it drip tight. This allows water flow from the filter through the Drain Port (6). Venting the upper control chamber causes the line pressure, together with the Spring (7) force, to move the Valve back to upper seat, brings to filtration mode.



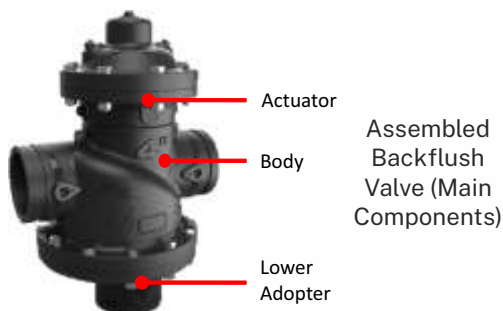
## Maintenance

### General Safety Instructions:

1. Installation, operation, and maintenance should be performed in accordance with instructions described in this manual.
2. A general inspection of the valves should be done on regular basis without any scheduled maintenance.
3. Do not perform any maintenance work or try to open backwash parts when the valve is in pressurized condition.

## 1. Disassembling The Actuator From The Valve

A



B



Disconnect control tube & Turn the actuator anti-clockwise direction. (Use a suitable wrench or spanner if required)

C



Slowly Pull the actuator upwards & take the actuator out of the valve

## 2. Replacing The Dynamic Seal

A



Using 13/19 mm wrench to hold the shaft & loose the Nyloc Nut

B

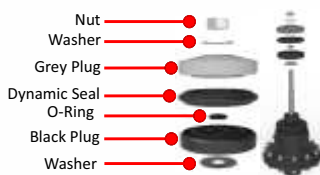


Remove the plug , washer & then remove the Dynamic seal. (Check the condition of the Dynamic seal & replace if required.)

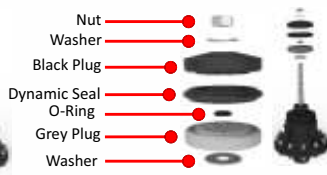
C

Reassemble the components of the plug assembly in the same order as disassembled

**Angle Flow Model**



**Straight Flow Model**



D



Tighten the Locknut using proper wrench as before. (Use Suitable thread locker on the shaft threads)

E

Actuator O-Ring



Check the condition of the actuator O-ring and replace it if required

F



Apply the silicon lubricant on the dynamic seal, actuator O-ring and threads of the actuator

## 3. Replacing The Diaphragm

A

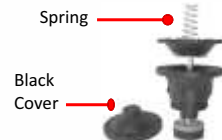


Using 17 mm C Spanner hold the nut & open hex bolt by 17 mm C Spanner

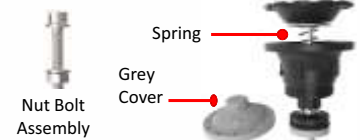
B

Remove the cover. (Pay attention to the position of the parts and their direction)

**Straight flow**



**Angle flow**



C

Pulling gently, slides the shaft out of the separation partition

**Straight flow**



**Angle flow**



D



Using 13/19 mm wrench to hold the shaft & loose the Nyloc Nut

E



Remove the diaphragm support washer and then replace the diaphragm

F

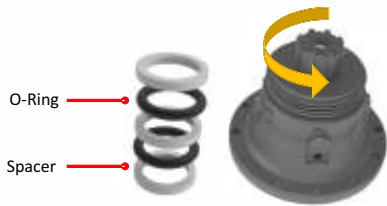


Reassemble the diaphragm assembly, as before ( Please pay attention to the sequence & direction of the parts )

Note - Use suitable thread locker on threads

### 4. Replacing The Shaft Seals & Spacers

A



Remove the diaphragm support washer and then replace the diaphragm

B



Use the silicon lubricant while replacing the seals

### 5. Replacing The Valve Seats

A



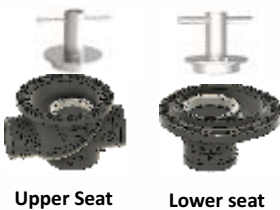
Using 17 mm C Spanner hold the nut & open hex bolt by 17 mm C Spanner

B



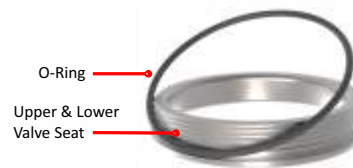
Disassemble the body and the lower adapter assembly

C



Visually inspect the SS Valve Seat, in case of damage, go to next step.  
Open the Valve Seats from Body & Lower Adapter with the help of suitable spanner by rotation it in anti clock wise direction to open seats.

D



Check the O-Ring after loosing the Valve Seat.  
(Check the Condition of both O-ring & Valve seat and replace if required).

E



Check the Condition of the Lower Adapter O-Ring & replace it if required

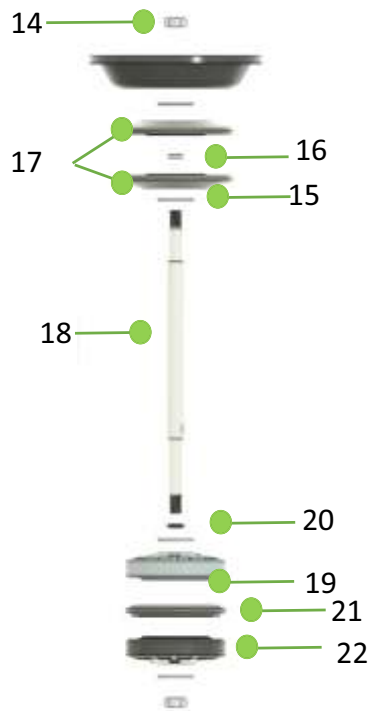
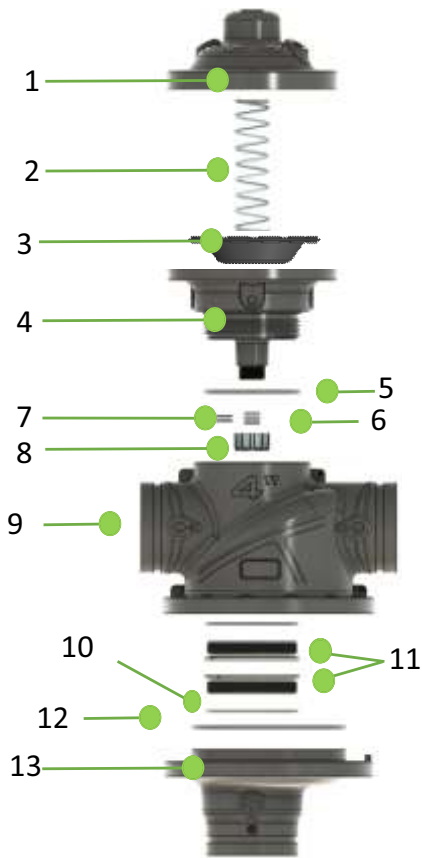
F



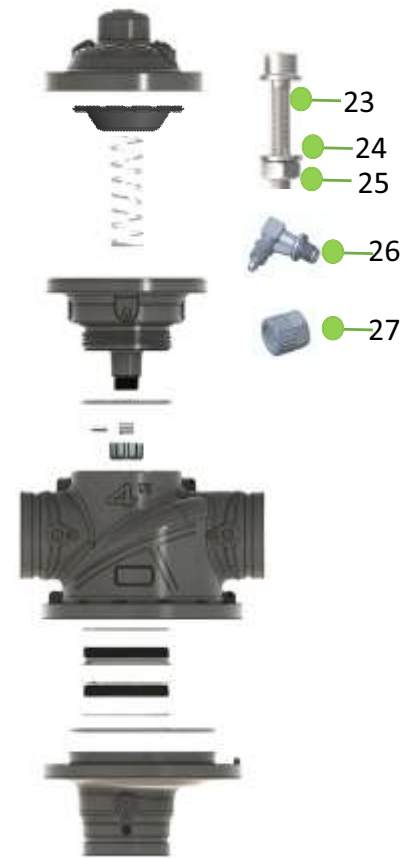
Reassemble the Valve as Disassembled

## 6. Exploded View

### Straight Flow



### Angle Flow



## 7. Part Description

S.No.	Part Name	Part No.	Qty.
1	Cover Black	12500170	1
2	Spring	50433590	1
3	Diaphragm	50433591	1
4	Actuator	12500169	1
5	Actuator O-Ring	50433592	1
6	Spacer	50102590	3
7	Shaft O-Ring	50433593	2
8	End Cap	12530053	1
9	Body	12500167	1
10	Valve Seat O-Ring	50433594	2
11	Valve Seat	50433517	2
12	Lower Adaptor O-Ring	50433595	1
13	Lower Adaptor	12500168	1

S.No.	Part Name	Part No.	Qty.
14	M12 Nyloc Nut	50060222	2
15	Flat Washer M12 (13x29.5mm)	50103015	4
16	Diaphragm O-Ring	50433596	1
17	Diaphragm Support	12500171	2
18	Drive Shaft	50433518	1
19	Grey Plug	12500173	1
20	Plug O-Ring	50433597	1
21	Dynamic Seal	50433598	1
22	Black Plug	12500172	1
23	HEX Bolt (M10*60)	50102825	20
24	M10 Washer	50020006	40
25	M10 Nut	50060013	20
26	1/4" Elbow	12850004	1
27	Locknut	12850001	1

Note: For Straight Flow Mode  
The position of Spring will be above the Diaphragm (As shown in Figure).  
The position of Upper and Lower Plug will be interchanged 21 to 24.

## 8. Tools Required

A



Spanner  
For Opening  
Actuator

B



Spanner  
For Opening  
Valve Seats

