

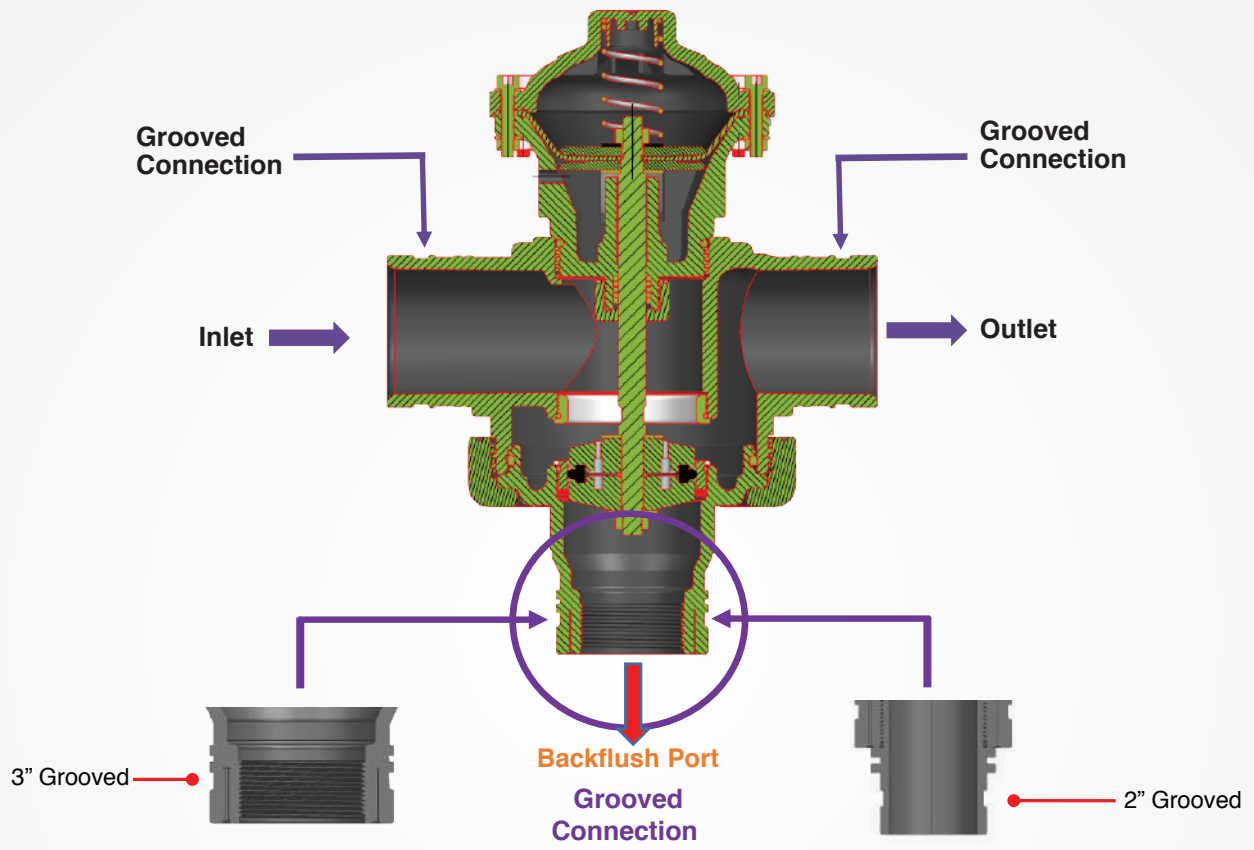
# BACKFLUSH VALVE

**FOR  
CORRECT  
AIR & WATER  
CONTROL**



Installation, Operation and Maintenance  
Manual

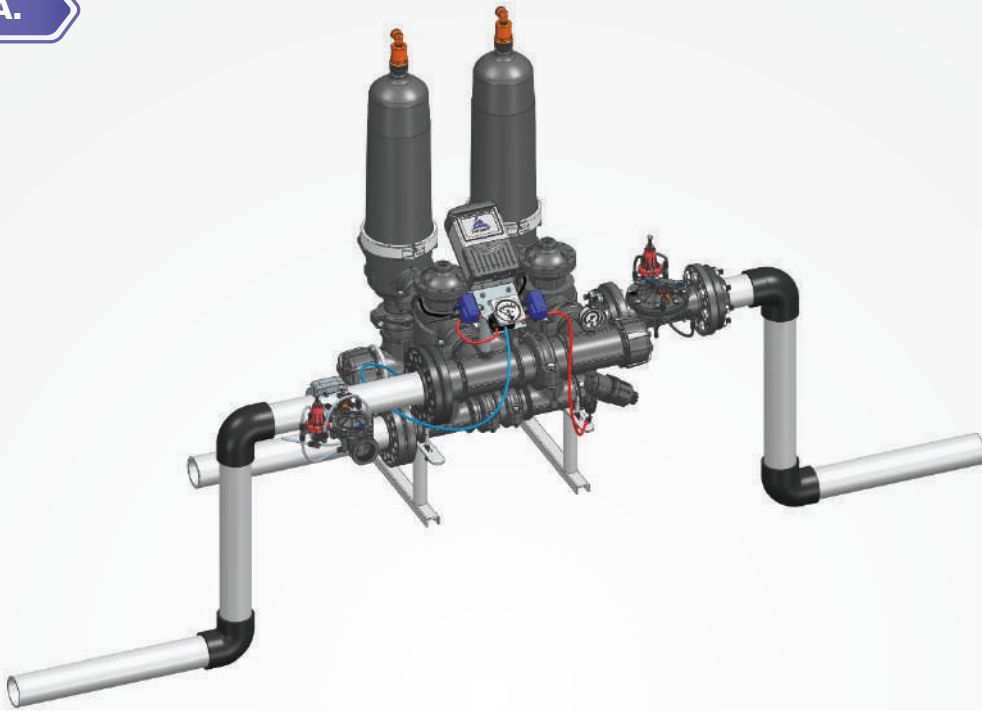
# AVAILABLE CONNECTION



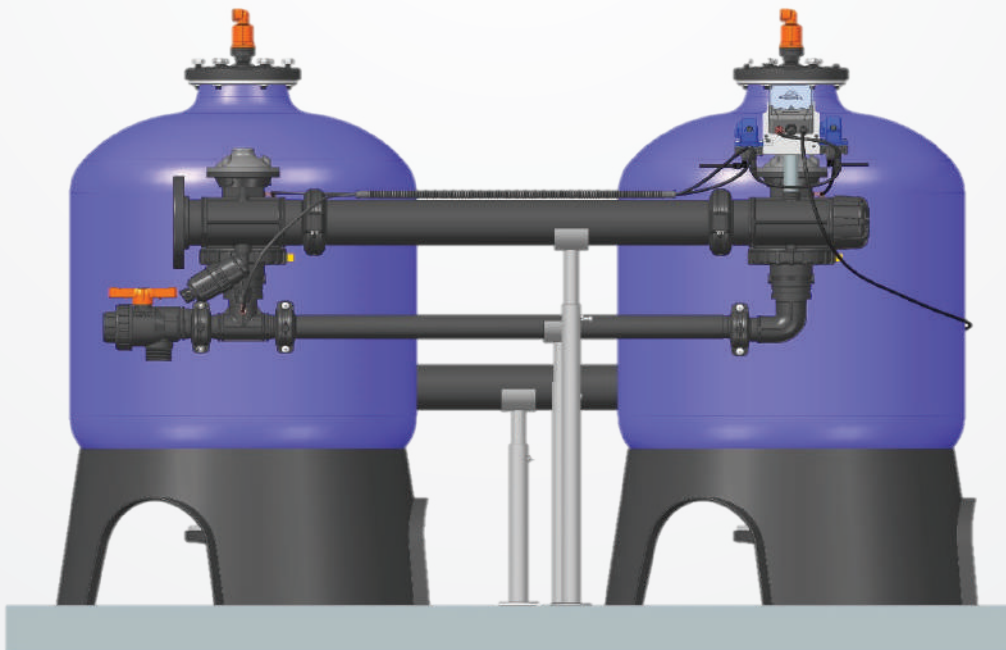
Specification	Connection Size	Connection Type
Inlet/Outlet Connections	3" (80 mm)	Grooved
Drain Port	2" (50 mm)	Grooved
	3" (80 mm)	Grooved

## TYPICAL INSTALLATION

A.



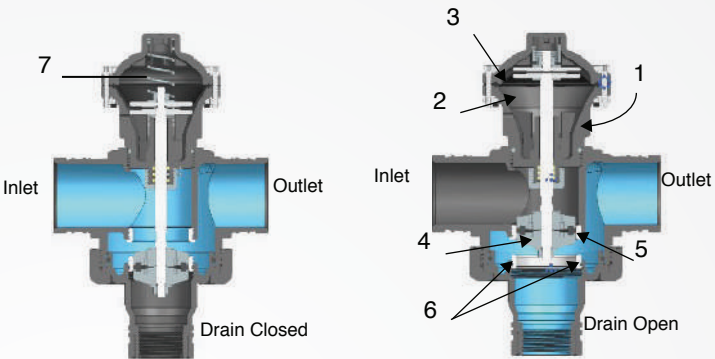
B.



# OPERATION

## Straight Flow

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.

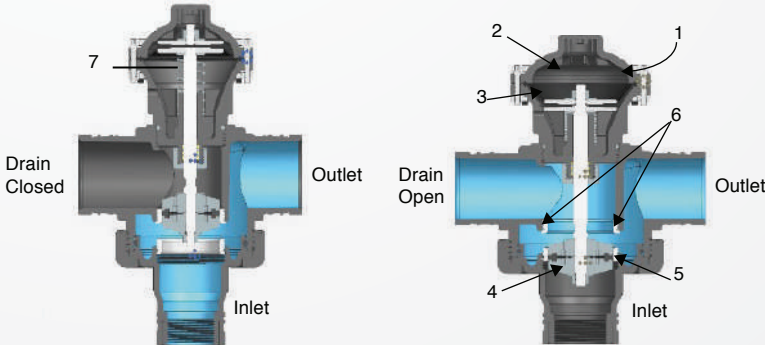


**FILTRATION MODE**

**BACK WASH MODE**

## Angle Flow

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.



**FILTRATION MODE**

**BACK WASH MODE**



# MAINTENANCE

## General Safety Instructions

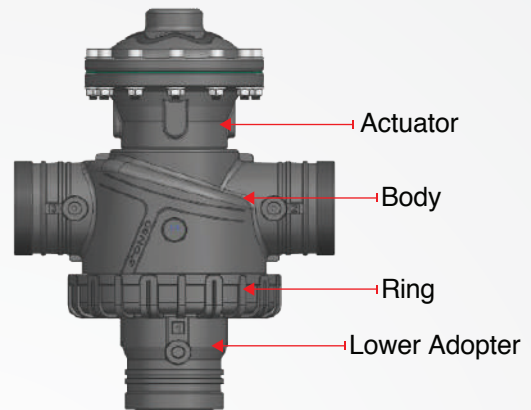
1. Installation, operation, and maintenance should be performed in accordance with instructions described in this manual.
2. The valve have to be checked on regular basis.
3. Do not perform any maintenance work or try to open backwash parts when the valve is in pressurized condition.

# 1

## DISASSEMBLING THE ACTUATOR FROM THE VALVE

A.

Assembled Backflush Valve  
(Main Components).



B.

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



C.

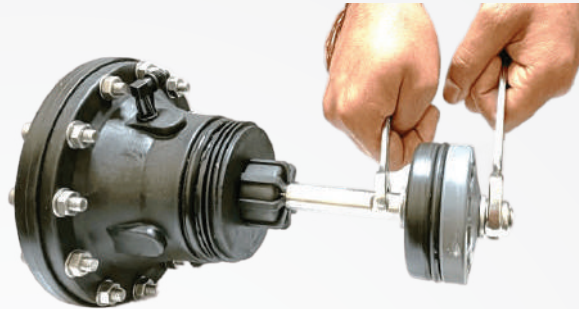
Slowly Pull the actuator upwards & take the  
actuator out of the valve .



## 2 REPLACING THE DYNAMIC SEAL

### A.

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



### B.

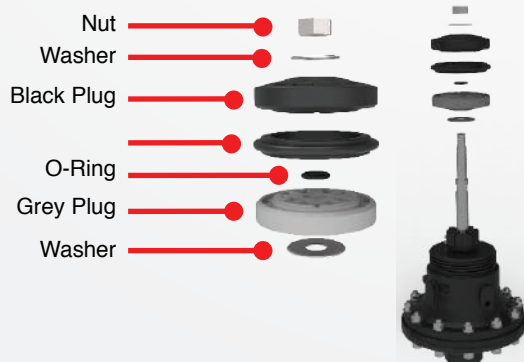
Remove the plug , washer & then remove the Dynamic seal.  
(Check the condition of the Dynamic seal & replace if required.)



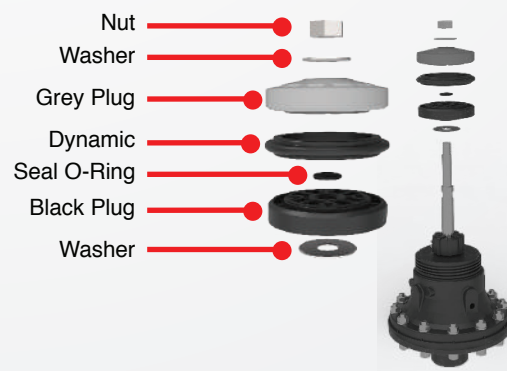
### C.

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. (Use Suitable thread locker on the shaft threads)



**E.**

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

Actuator  
O-Ring



**F.**

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





# 3 REPLACING THE DIAPHRAGM

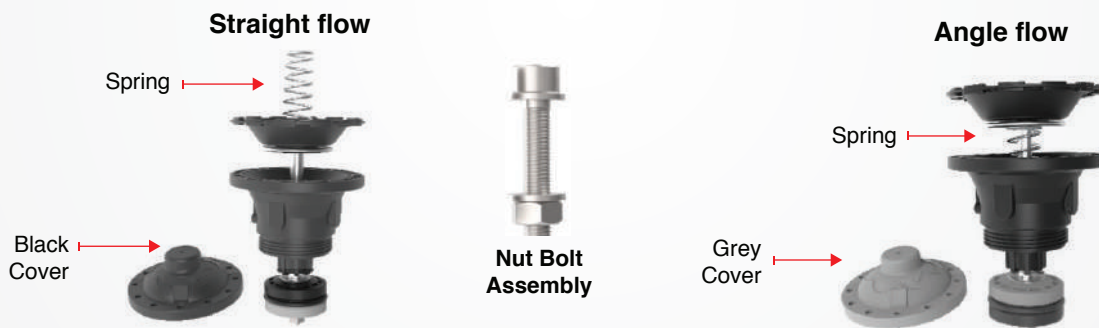
## A.

Using 13 mm wrench hold the nut & open Allen screws by using 6 mm Allen key to open the cover.



## B.

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



## 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,  
(Please pay attention to the sequence & direction of the parts)



Note – Use suitable thread locker on threads

# 4

## REPLACING THE SHAFT SEALS & SPACERS

### A.

Using proper wrench loose the end-plug by rotating it anti-clock wise and then change the O-ring & Spacer if required .



### B.

Use the silicon lubricant while replacing the seals.





# 5 REPLACING THE VALVE SEATS

## A.

Using proper wrench, open the cover ring by turning anti-clockwise.



## B.

Disassemble the body and the lower adopter assembly.



## C.

Visually inspect the SS Valve Seat, in case of damage, go to next step.

Open the Valve Seats from Body & Lower Adopter with the help of suitable spanner by rotation it in anti clock wise direction to open seats.

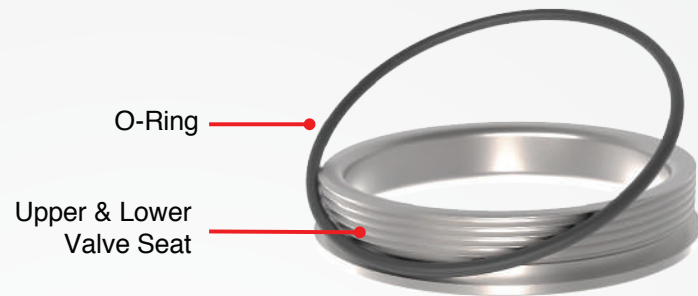


Upper Seat

Lower seat

**D.**

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



**E.**

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



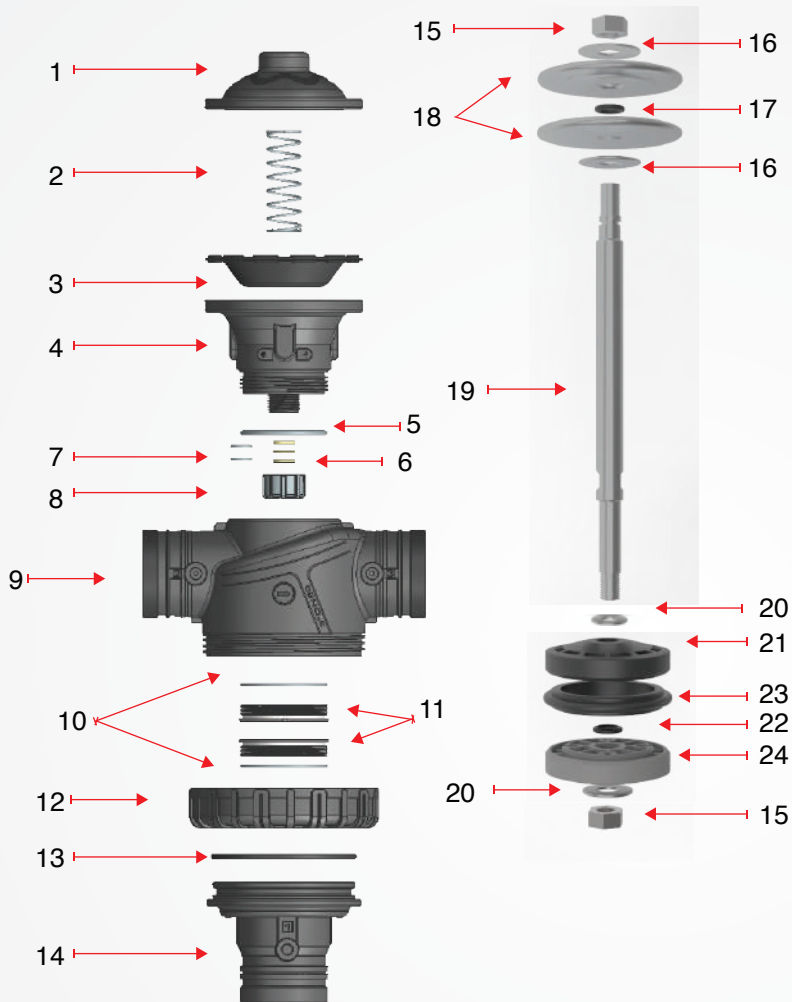
**F.**

Reassemble the Valve as Disassembled.

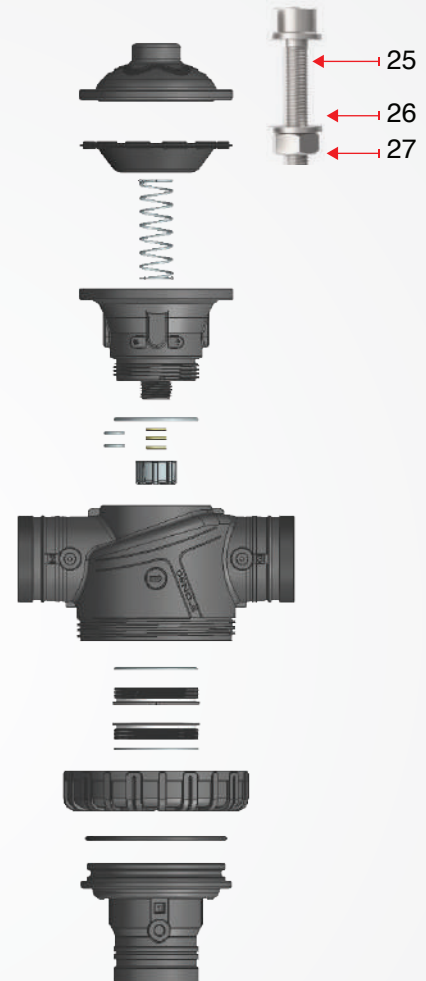


# 6 EXPLODED VIEW

## STRAIGHT FLOW



## ANGLE FLOW



**Note: For Angle Flow Mode**

The position of Spring will be below the Diaphragm (As shown in Figure).  
The position of Upper and Lower Plug will be interchanged 21 to 24.



## 7 PART DESCRIPTION

S.No.	Part Name	Part No.	Qty.
1	Cover Black/Grey	12500120/ 12500121	1
2	Spring	50102591	1
3	Diaphragm	50030068	1
4	Actuator	12500119	1
5	Actuator O-Ring	50010170	1
6	Spacer	50102590	3
7	Shaft O-Ring	50010067	2
8	End Cap	12530053	1
9	Body	12500116	1
10	Valve Seat O-Ring	50102583	2
11	Valve Seat	50102584	2
12	Cover Ring	12500117	1
13	Lower Adopter O-Ring	50102589	1
14	Lower Adopter	12500118	1
15	M12 Nyloc Nut	50060062	2

S.No.	Part Name	Part No.	Qty.
16	Flat Washer M12 (13x29.5mm)	50103015	2
17	Diaphragm O-Ring (8.3x17.3 mm)	50010100	1
18	Diaphragm Support	50102585	2
19	Drive Shaft	50102587	1
20	Flat Washer M12 (13x25 mm)	50102592	2
21	Black Plug	12500142	1
22	Plug O-Ring (9.6 x 15 mm)	50010005	1
23	Dynamic Seal	50102588	1
24	Grey Plug	12500143	1
25	Allen Bolt (M8*35)	55010180	12
26	M8 Washer	50060136	24
27	M8 Nut	50060133	12

# 8

## TOOLS REQUIRED

A.

Spanner For Opening Actuator



B.

Spanner For Opening Ring



C.

Spanner For Opening Valve Seats

