

# Non Return Valves

The Supreme Industries ltd., is an acknowledged leader of India's plastic industry. It is credited with pioneering several path breaking products and has been a torch bearer in the transition from conventional to advanced plastic piping products in the country. Its customer centric approach fuels its research for designing unmatched quality products to meet the aspirations of its quality conscious customers. The innovative product portfolio offered by Supreme is extensive in range and application and comprises variety of pipes and vast spectrum of fittings totaling over 8000 diverse products. Recently we have introduced '**Non Return Valves**' in three different variants to meet the requirements of agriculture, building and industrial sector. These valves are used to ensure unidirectional flow of water in pressure piping and to avoid emptying of pipelines .With its excellent sealing ability, Supreme NRV's restricts the sudden reverse flow of water in order to safeguard the pump, compressor etc. These valves avoids pipe squeezing and water hammer problems and protects the pipeline from failure. These NRV's are self operated and doesn't require any hand wheel or gear for operation.



### **Unique Features**

- Strong and Sturdy
- 100% factory tested
- Can be used horizontally as well as vertically
- Simple and Quick installation
- Minimum space required for installation
- Free from vibrations at high flow velocities
- Excellent flow characteristics
- Resistant to corrosion & most inorganic chemicals
- Union type design for easy cleaning & maintenance
- Durable to last a lifetime
- Minimal maintenance

Jeevan bhar ka saath...



## **Non Return Valves**

#### Working Mechanism

Supreme NRVs has only one movable part i.e. spherical ball. This ball works as closing member to block the reverse flow of water when flow is stopped. NRV remains always in open position when the water is flowing through it. When the flow stops, the ball moves towards its seat and creates positive seal to prevent the reverse flow. These ball type NRVs can be installed horizontally as well as vertically. While using in vertical applications, the valve should be placed in such a way that the flow is always in the upward direction.

#### **Components of Non Return Valve**

3	No.	Part Name	Material
	1	Union nut	U-PVC
	2	End connector	U-PVC
	3	End connector O-ring	EPDM
6 6 5	4	Body	U-PVC
	5	Ball	U-PVC
	6	Closing ring	U-PVC
	7	Body O-ring	EPDM
$(3) \rightarrow \bigcirc$	8	Seal carrier	U-PVC

#### **Applications**

(1)

Agriculture 
Micro Irrigation 
Domestic water systems

• Industrial applications and for transportation of industrial effluents without suspended particles etc.

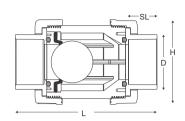
#### **Product Range**

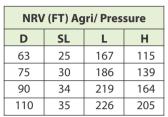
Standard Dia.	<b>Pressure Rating</b>	Type of Joint	
63mm	PN 10	Solvent Weld (SW)	
75, 90, 110mm	PN 6	Solvent Weld (SW)	
63mm	PN 10	Female Threads (FT)	
75, 90, 110mm	PN 6	Female Threads (FT)	
21⁄2", 3", 4"	SCH 80	Solvent Weld (SW)	

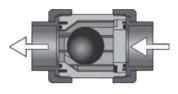
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#### **Dimension Details**

NRV (SW) Agri/ Pressure					
D	SL	L	н		
63	38	192	115		
75	44	209	139		
90	51	253	164		
110	62	298	205		

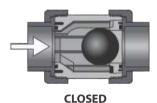






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NRV (SW) IPS- Plumbing					
D	SL	L	н		
63	39	196	115		
75	47	219	139		
90	50	252	164		
110	60	275	205		



(all dimensions are in mm)

#### **Installation Procedure**

- 1. Check the diameter and pressure rating of pipeline in which the Non Return Valve is to be installed to verify the suitability.
- 2. NRV should be installed immediately after the pump and followed by air release valve.
- 3. Unpack the valve and check that the bores are clean and free from foreign material.
- 4. The valve must be installed in such way that the direction of the arrow marked on the body is in the direction of flow.
- 5. Open the union ends to separate them from valve body. Pass the pipe through union nut and join it with bush (end connector) using solvent cement. This will ensure quick and easy connection without entry of solvent cement inside the valve and subsequent damage of the ball.
- 6. Apply Teflon tape or thread sealant on male threads of the valve body and screw the union ends from both sides with sufficient torque.
- 7. After ensuring firm joint allow sufficient time for curing solvent cemented joints prior to commissioning.

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