

#### **DESCRIPTION:**

AAV Series Automatic Air Release Valves are the valves that operate with line pressure. AAV Series Automatic Air Release Valves are the air valves that provide the venting of the air during filling and preventing of vacuum by taking air into the installation during emptying, releasing of the air that accumulates in the installation during active operation with the help of pressure and that operates in automatic manner.

#### TECHNICAL SPECIFICATIONS:

General Specifications			
Pressure Rating	0,2 Bar – 25 Bar		
Temperature	(-10°C) – (80 °C)		
Valve Sizes	2"-3"-4"-6"-8"		
Air Valve Type			
AAV3	Combination		
AAV4	Combination w/Surge Arrester		
Material Properties			
Body - Cover	Ductile Iron		
Float	Delrin		
Stem	Stainless Steel		
Internal Parts	Stainless Steel, Brass		
Sealing	Natural Rubber		
Bolt - Nut	Galvanized Steel (standard) Stainless Steel (optional)		
Coating	Epoxy Powder Blue (standard) Polyester Blue (optional)		
Connection			
Flanged	TS EN 1092/2 (standard) ANSI Class 150 (optional)		

#### AIR COMBINATION VALVE

AAV3 – AAV4



#### FEATURES & BENEFITS

■AAV Series Automatic Air Release Valves that have modular structure protect the installation and the installation armatures by affecting the release of the air in formations of impacts like water hammer, etc., without impact by adding modular parts.

■Models of AAV Series Automatic Air Release Valves with 3 Functions have two cylindrical floats that operate in coupled manner with each other.

■Models of AAV Series Automatic Air Release Valves with Surge Arrester have an extra cylindrical float also.

■AAV Series Automatic Air Release Valves affect effective air release and suction due to their having main orifices at their nominal diameters.

■AAV Series Automatic Air Release Valves have appropriate release and suction flow rates due to their having main orifices at their nominal diameters.

The body design is more durable due to its feeders.

■AAV Series Automatic Air Release Valves provide effective sealing with their 3 stage closure gaskets that provide full sealing. The sealing between the body and the median cover has thus been maximized.

■ AAV Series Automatic Air Release Valves have minimized outlet turbulence due to their having double outlet on the upper cover. These valves have both unique design feature and appropriate release flow rates with their such properties.

■AAV Series Automatic Air Release Valves provide means for being transported easily through their lifting lugs that are being integrated onto each product.

■AAV Series Automatic Air Release Valves are being used safely in PN16 and PN25 pressure classes due to their material qualification and their geometrical properties.



### **OPERATING:**

#### 1st Function | Releasing of Air in the Installation Line

AAV Automatic Air Valve allows the releasing of trapped air into the atmosphere with the filling of the system with water

Automatic Air Valve would proceed to its closed position by reaching of water to the float, by remaining in open position even at very high air flow speed



# **3rd Function |** Releasing of Air the has been solved in the pressurized Line

The air that is included in the fluid in the installation in the systems with pump(s) that continue to pump into the installation while the installation is full or the air that is included in the fluid in the installation due to any one reason, accumulates at the highest point(s) of the installation, while such air is continuing its flow inside the fluid as bubble(s) and the air that has been accumulated affects the flow and the flow rate in such an installation in an adverse manner. The 2<sup>nd</sup> function of the Air Release Valve intervenes for releasing of the air bubbles that have been accumulated and releases the air that has been accumulated with the help of the pressure



#### 2nd Function | Breaking of Vacuum in the Installation Line

Variations in the flow rate cause vacuum to be formed in the system by separating the water masses and attracting of the water masses by each other in a fast manner. Under such circumstances the water masses collide with each other and impact is formed in the system.

AAV Air Release Valve sucks the air in the system to prevent the surge in a fast manner and prevents the colliding of the water masses by lifting the vacuum

#### 4th Function | Surges damping during operation of pipeline

The air that enters into the valve after the air release forms an air pocket at the upper part of the valve. The resistance that the air pocket exerts against the float would fall and this would cause an impact to be formed, when the water level approaches to the level of the float of the valve.

Breaking of Vacuum (Intake of Air) : The disk "D" will open, by moving downward slowly, when the pressure in the system falls to a negative value (when vacuum is formed), after releasing of air. Entering of air into the valve will be provided, by opening of the disk and then the air pressure will also be balanced.







# Air Valves Product Datasheet

# MATERIALS:

NO	PART NAME	MATERIAL
1	Body	Ductile Iron - GGG50
2	Bush	Stainless Steel- AIS/304
3	Washer	Galvanized
4	Washer	Galvanized
5	Stern	Stainless Steel- AIS/304
6	Nut	Galvanized
7	Float Body	Delrin
8	Plug	Natural Rubber
9	Nozzle	Stainless Steel- AIS/304
10	0-ring	NBR
11	Float Cover	Delrin
12	Discharge Pipe	Stainless Steel- AIS/304
13	Washer	Stainless Steel- AIS/304
14	Washer	Stainless Steel- AIS/304
15	Screw	Galvanized

ю	PART NAME	MATERIAL
16	Gasket	Natural Rubber
17	Middle Bonnet	Ductile Iron - GGG50
18	Guiding Shaft	Stainless Steel- AISI304
19	Washer	Galvanized
20	Screw	Galvanized
21	Filter	Stainless Steel- AISI304
22	Gasket	Natural Rubber
23	Upper Bonnet	Ductile Iron - GGG50
24	Eye Nut	Galvanized
25	Bolt	Galvanized



NO	PART NAME	MATERIAL
1	Body	Ductile Iron - GGG50
2	Bush	Stainless Steel- AISI304
3	Washer	Galvanized
4	Washer	Galvanized
5	Stem	Stainless Steel AISI304
6	Nut	Galvanized
7	Float Body	Delrin
8	Plug	Natural Rubber
9	Nozzle	Stainless Steel AISI304
10	O-ring	NBR
11	Float Cover	Delrin
12	Washer	Stainless Steel AISI304
13	Screw	Galvanized
14	Gasket	Natural Rubber

15 Middle Bonnet





# **DIMENSIONS:**

Si	ze	н	L	w
inch	mm	mm	mm	mm
2	50	282	220	214
3	80	362	350	304
4	100	427	370	339
6	150	623	500	421
8	200	733	630	487



Siz	re	н	L	w
inch	mm	mm	mm	mm
2	50	332	220	214
3	80	442	350	304
4	100	527	370	339
6	150	773	500	421
8	200	933	630	487

Ductile



## **INSTALLATION:**





# PERFORMANCE:

