

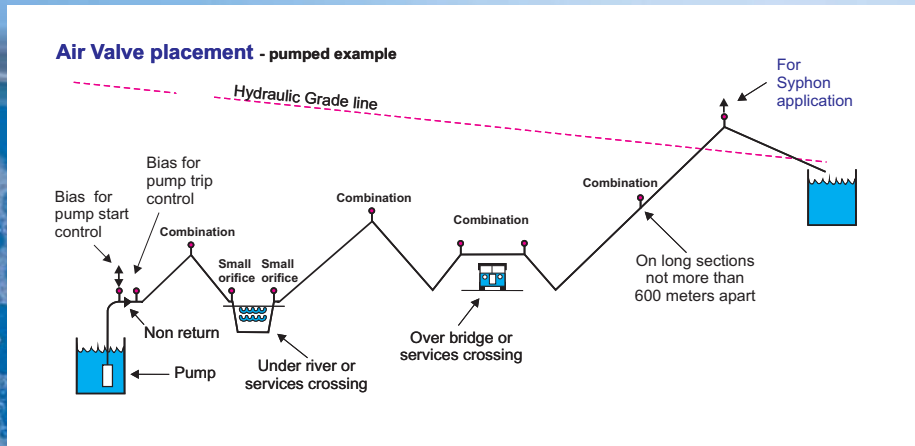
General Sizing Notes

Sizing

Most sizing is based on the need to vent the initial air, to protect the pipeline and seals from a negative pressure and to vent the pressurised air. For small orifice air release see the diagram below for general positioning. A general rule for vacuum protection is to limit the internal pipeline pressure to 0.35 Bar below atmospheric. The intake curve on page 2 shows the safe limits. Calculate the possible outflow out of the pipeline for scouring or rupture for each section to ensure it does not exceed the safe limit of 240 m / Hr for the 50 mm valve. On pumped applications assume the pump flow rate is equal to the rupture rate.

Placement

The graphic below shows most of the common places where air release valves are fitted. High points are a natural start, also over or under obstacles like bridges and roads. Check for syphon application (type 050RPS1613) above the hydraulic grade line. Special care should be given to the pump and check valve with the application of biased valves (type 050RPS1612) before and after the check valve to control pump start and pump trip.



Ventomat series of valves and further information is available from :-

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VENT-O-MAT®

SERIES RPS

GENERAL SERVICE, ROBUST LIGHTWEIGHT
PLASTIC AIR RELEASE AND
VACUUM BREAK VALVES



Eliminates air from pipeline
Breaks vacuum
Self Cleaning
Reduces surge by unique operation
Corrosion resistant
Multifunction options

Pipelines



Industrial



Irrigation

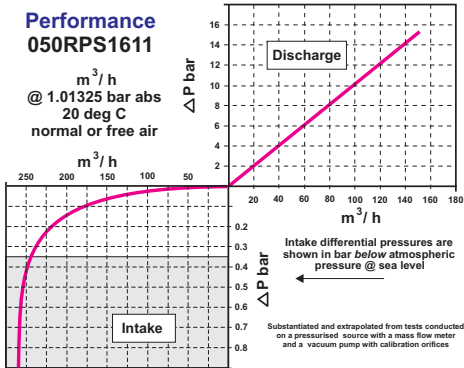


Ventomat Series RPS 50 mm Air release and vacuum breaking

Ventomat Series RPS 25 mm and 15 mm Air Release only

Performance 050RPS1611

m^3/h
@ 1.01325 bar abs
20 deg C
normal or free air



Caution

The VENTOMAT valve is specifically designed to limit the large discharges associated with the large orifice. When evaluating the large orifice performance of **another valve manufacturer** ask specifically if the large orifice discharge data quoted is in the presence of water. In other words if the discharge performance is quoted as say 400 meters cubed / Hr @ 0.8 Bar the valve must be able to close instantaneously with water and still not exceed its max test pressure rating of 24 Bar (1.5 times working pressure)

Parts

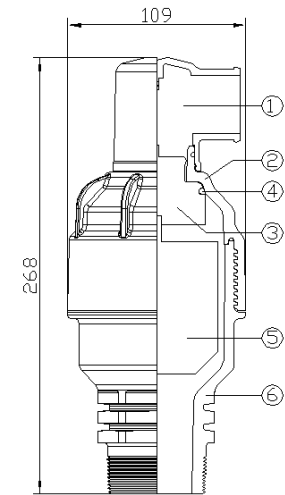
Item	Description	Material
1	Outlet	Polypropylene
2	Upper Body	Polypropylene reinforced
3	Cartridge Assembly	Polypropylene and other
4	O - Rings	Nitrile Rubber
5	Control Float	Polyethylene
6	Lower Body	Polypropylene reinforced

Specifications

Operating pressure	0.2 to 16 Bar
Media	Drinkable water 4 - 85 Deg C
Inlet	2 Inch BSP Male (taper)
Outlet	Rotatable 360 deg for 43 ID pipe
Mass	0.94 kg
Areas (mm^2)	Large orifice 800 , small orifice 12

Ordering information

050RPS1611	Standard - 2 inch BSP 16 bar
050RPSb1611	Pump start- Large orifice in small orifice out
050RPSv1611	For syphon- both orifices out only



Benefits

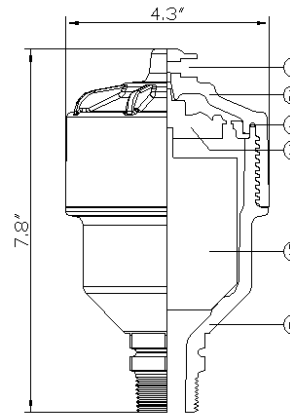
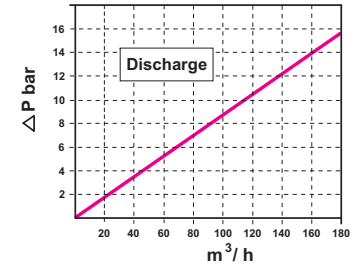
- Simple efficient action
- Reduces water hammer
- Multifunction versatile product
- Ensures maximum protection
- Unique self cleaning operation
- UV stabilised
- Robust lightweight and compact
- Replaces any existing valves

Performance

025RPS1611
015RPS1611

m^3/h
@ 1.01325 bar abs
20 deg C
normal or free air

Substantiated and extrapolated from tests conducted on a pressurised source with a mass flow meter



Benefits

- Simple efficient action
- Reduces water hammer
- Multifunction versatile product
- Ensures maximum protection
- Unique self cleaning operation
- UV stabilised
- Robust lightweight and compact
- Replaces any existing valves

Parts

Item	Description	Material
1	Outlet	(Part of upper body)
2	Upper Body	Polypropylene reinforced
3	Cartridge Assembly	Polypropylene and other
4	O - Ring	Nitrile Rubber
5	Control Float	Polyethylene
6	Lower Body	Polypropylene reinforced

Specifications

Operating pressure	0.2 to 16 Bar
Media	Drinkable water 4 - 85 Deg C
Inlet	½ and 1 Inch BSP Male (taper)
Mass	0.8 kg
Area (mm^2)	Small orifice 12
Outlet	4 mm Dia
Outlet (options)	External pipe min 5 mm dia ID (Press in fitting) hole 9.7 mm dia ID

Ordering information

015RPS1611	Standard - ½ inch BSP 16 bar
025RPS1611	Standard - 1 inch BSP 16 bar
000RPS01	Press in fitting for ext tube - nylon