



K-010

 PN 16

K-012 PN 25 / **K-014** PN 40

K-016 PN 64 / **K-100** PN 100

AIR & VACUUM VALVE

Description

The Air & Vacuum Valve discharges air during the filling or charging of the system, and admits air to the system during system drainage.

Operation

The Air & Vacuum Valve discharges air at high flow rates during the filling of the system and admits air into the system at high flow rates during its drainage.

High velocity air, or even air mixed with a mist of water spray, cannot blow the float shut. Water entry will cause the sealing of the valve.

At any time during system operation, should internal pressure of the system fall below atmospheric pressure, air will re-enter the system.

The smooth release of air prevents pressure surges and other destructive phenomena.

Admitting air in response to negative pressure, protects the system from destructive vacuum conditions and prevents damage caused by water column separation. Air re-entry is essential to efficiently drain the system.

As the system starts to fill, the valve functions according to the following stages:

1. Entrapped air is released by the valve.
2. The liquid enters the valve lifting the float and sealing.

When internal pressure falls below atmospheric pressure (negative pressure):

1. The float will immediately drop away from the orifice.
2. Air is admitted to the system.

Main Features

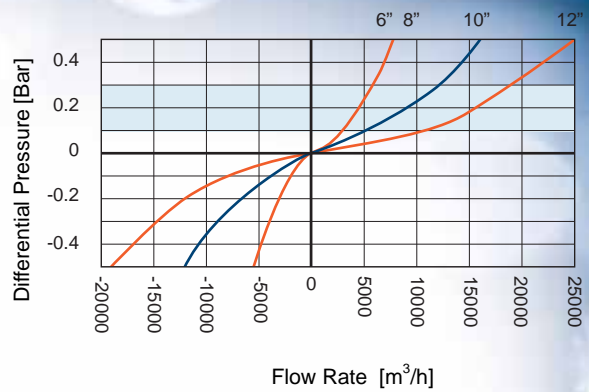
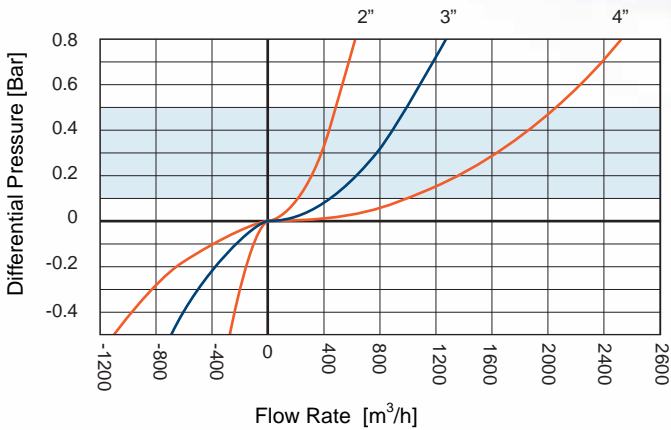
- Working pressure range: 0.2-100 bar
 - Cast body, with high resistance against surge effects in the system.
 - Lightweight, Small dimensions, simple and reliable structure.
 - Special orifice seat design: combination of bronze and E.P.D.M. assures long-term maintenance free operation.
 - Working Temperature: 60⁰ C
- Maximum instantaneous working temperature: 90⁰ C

Valve Selection

- K-010 / K-012 Available in 2" (50mm) -12" (300mm)
- K-014 / K-016 / K-100 Available in 2" (50mm) -8" (200mm)
- The air & vacuum valve is available as a combined air valve in models which include an Automatic Air Release valve.
- These valves are manufactured with flanged ends to meet any requested standard.



AIR AND VACUUM FLOW RATE recommended range



DIMENSIONS AND WEIGHT

Nominal Size	Dimensions mm				Weight Kg. (PN 16)	Orifice Area mm ²
	A	B	internal C	external		
2" (50mm) Threaded	160	237	1½BSP	-	8.4	794
2" (50mm) Flanged	160	243	1½BSP	-	11.4	794
3" (80mm)	284	255	74.6	63.5	17.5	10809
4" (100mm)	342	287	96.0	80.0	27	3317
6" (150mm)	553	530	140.0	124.0	77	17662
8" (200mm)	553	530	140.0	124.0	116	17662
10" (250mm)	463	664	-	-	149	31400
12" (300mm)	463	723	-	-	163	31400



PARTS LIST AND SPECIFICATION

No.	Part	Material
1.	Body 16 bar	Cast Iron ASTM A-48 CL.35B
	16, 25, 40 bar	Sphero Nodular STM A-536 60-40-18
	64, 100 bar	Cast Steel ASTM A-216 WCB
2.	Bolt and Nut	Steel Zinc Cobalt Plated
3.	Plug	Brass ASTM B124
4.	Cover 16 bar	Cast Iron ASTM A-48 CL.35B
	40, 16, 25 bar	Sphero Nodular STM A-536 60-40-18
	64, 100 bar	Cast Steel ASTM A-216 WCB
5.	Nozzle Seat	Bronze ASTM B-62 B271 C83600
6.	Nozzle Seal	Natural and Synthetic Rubber
7.	Float	Polycarbonate / Stainless Steel SAE 304L
8.	O-Ring	BUNA-N
*	Basket 2"	Polypropylene

