

AIR AND VACUUM VALVES

FOR HIGH FLOW
K-06NS SERIES

DESCRIPTION

The K-06NS Series Air and Vacuum Valve discharges air during the filling or charging of the system and admits air into the system during system drainage, valve or pump shut-off or at water column separation.

MAIN FEATURES

- All main flow cross-sections are equal or greater than the nominal port area.
- Two additional NPT ports for the connection to gauges, testing and draining.
- Aerodynamic design enables high flow rates of air both at intake and at discharge.
- Reliable operation reduces water hammer incidents.
- Dynamic design allows for high velocity air discharge while preventing premature closure.
- Special orifice seat design: Stainless steel and E.P.D.M. rubber assures long-term maintenance-free operation.
- NSF 61 certified.
- Screen protected outlet upper screen is protected with a protective cover.

PRODUCT SELECTION

- Size Range: 2" - 10"
- These valves are manufactured with flanged ends to meet ASA standard (65K060 NS ASA 150, 65K064 NS ASA 300) or any requested standard.
- The 2" valve is also available with a threaded male NPT connection.
- Other coatings are available upon request.
- The 65K060NS Series Air and Vacuum Air Valve is also available as a combination air valve with the addition of an automatic air release valve.



Air and Vacuum Valve

K-06NS

SPECIFICATIONS

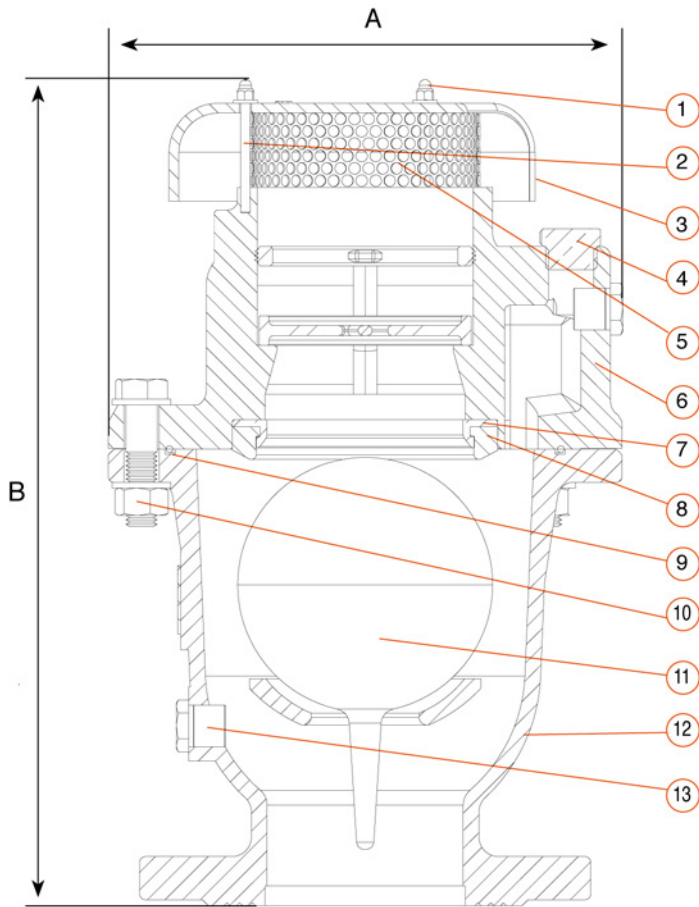
- Working pressure range:
 - 65K060NS: 3 - 250 psi
 - 65K064NS: 3 - 580 psi
- Testing pressure: 1.5 times working pressure
- Maximum working temperature: 140° F
- Maximum intermittent temperature: 194° F
- FBE coating, both interior & exterior, in accordance with standard DIN 30677-2

K-06NS SERIES

OPERATION

The 65K060 NS Series Combination Non-Slam Air Valve is a surge-dampening, slam-preventing, 3 stage combination air valve. The air valve provides high capacity vacuum protection and, at the same time, efficient surge suppression. At sudden drainage and/or water column separation (sudden pump trips or valve closure for instance) the air and vacuum orifice admits air at high flow rates, thus preventing vacuum. As the water column and/or pressure wave returns, large volumes of air are discharged at high velocities, raising the non-slam disc, partially closing the air and vacuum orifice and allowing air to exhaust slowly through the smaller orifice of the non-slam disc. This slowly exhausting air pocket dampens the slam of the returning water column, thus suppressing the pressure surge. As the water flow arrives at a much slower rate, dampened by the slower air discharge, it buoys up the main float, gently closing the air and vacuum component of the air valve .

K-06NS SERIES



MATERIAL SPECIFICATIONS

NO.	PART	MATERIAL
1	Nut	NSF 61 Certified STST UNS 30400
2	Bolt	NSF 61 Certified STST UNS 30400
3	Screen Cover	Cast Iron ASTM A48 CL35B/ Resicoat RT R4
4	Plug	NSF 61 Certified STST UNS 30400
5	Screen	NSF 61 Certified STST UNS 30400
6	Cover	Cast Iron ASTM A48 CL35B/ Resicoat RT R4
7	Orifice Seat	NSF 61 Certified STST UNS 30400
8	Orifice Seal	NSF 61 Certified E.P.D.M
9	O-Ring	NSF 61 Certified NBR 70
10	Bolt & Nut	NSF 61 Certified STST UNS 30400
11	Float	NSF 61 Certified STST UNS 31600 / NSF 61 Certified Polycarbonate
12	Body	Cast Iron ASTM A48 CL35B/ Resicoat RT R4
13	Plug	NSF 61 Certified Reinforced Nylon

DIMENSIONS AND WEIGHTS

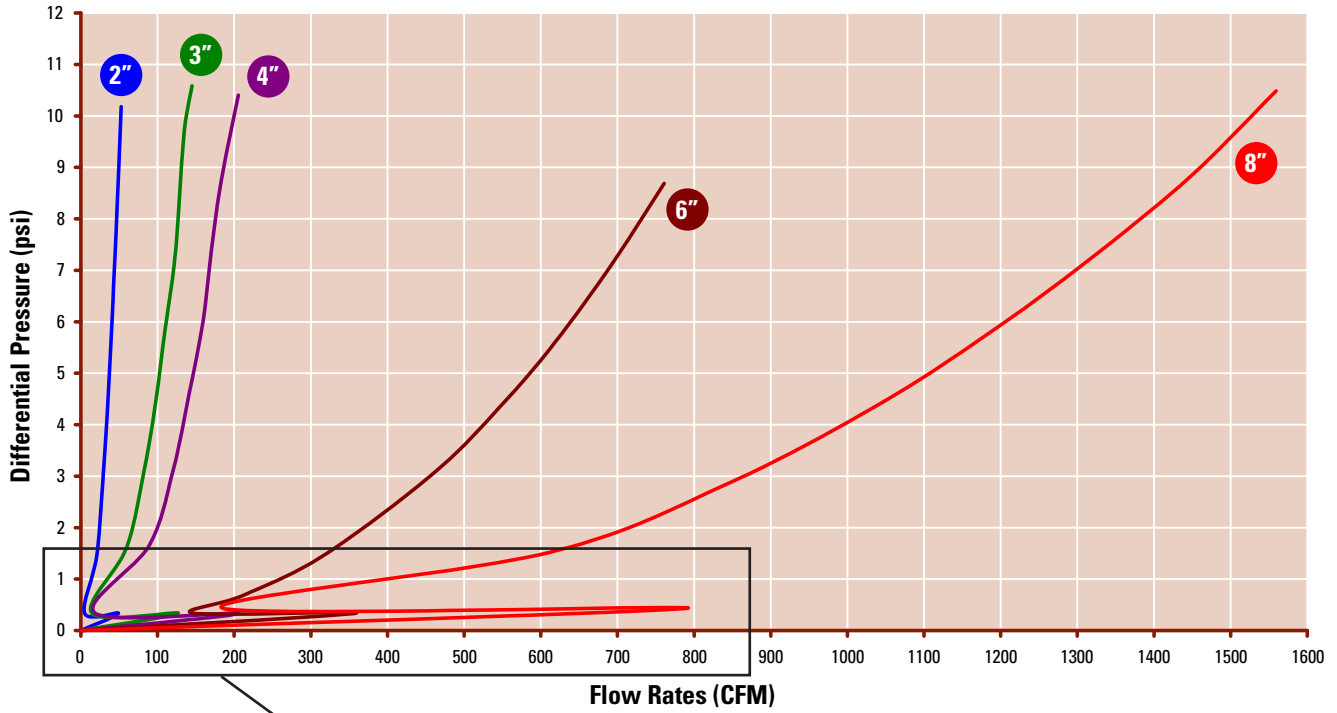
SIZE	DIMENSIONS		WEIGHT (LBS.)	ORIFICE AREA (IN ²) AIR & VACUUM
	A	B		
2" Threaded	7.6	11.3	27.3	3.038
2" Flanged	7.6	8.6	27.3	3.038
3"	8.9	14.2	42.7	7.796
4"	10.3	16.6	60.3	12.167
6"	14.7	26.4	199.2	27.376
8"	18.2	30.7	305.0	48.670
10"	23.0	36.6	676.4	76.08

MODEL NUMBER AND FLANGE TYPE

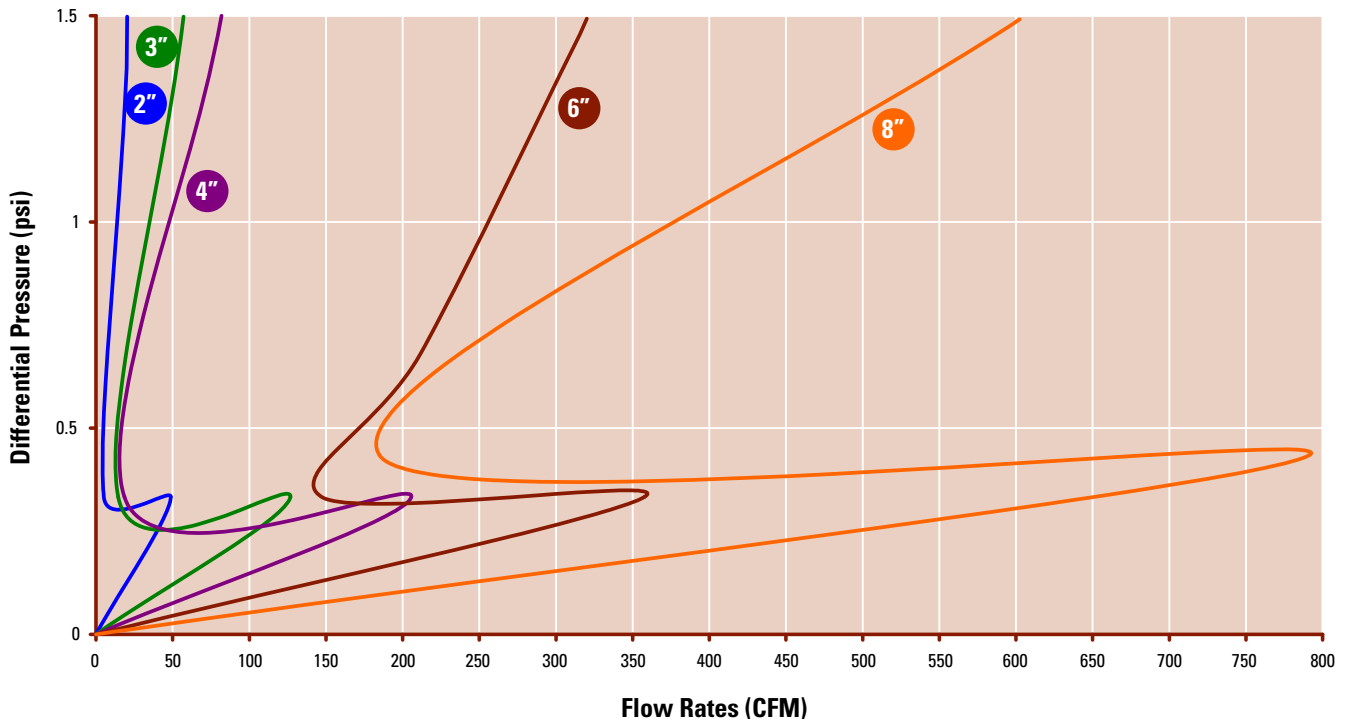
MODEL #	SIZE	CONNECTION	PSI
65K0602TNS	2"	MNPT	250
65K0602NS	2"	150 lb. Flg.	250
65K0603NS	3"	150 lb. Flg.	250
65K0604NS	4"	150 lb. Flg.	250
65K0606NS	6"	150 lb. Flg.	250
65K0608NS	8"	150 lb. Flg.	250
65K06010NS	10"	150 lb. Flg.	250
65K0642NS	2"	300 lb. Flg.	580
65K0643NS	3"	300 lb. Flg.	580
65K0644NS	4"	300 lb. Flg.	580
65K0646NS	6"	300 lb. Flg.	580
65K0648NS	8"	300 lb. Flg.	580
65K06410NS	10"	300 lb. Flg.	580

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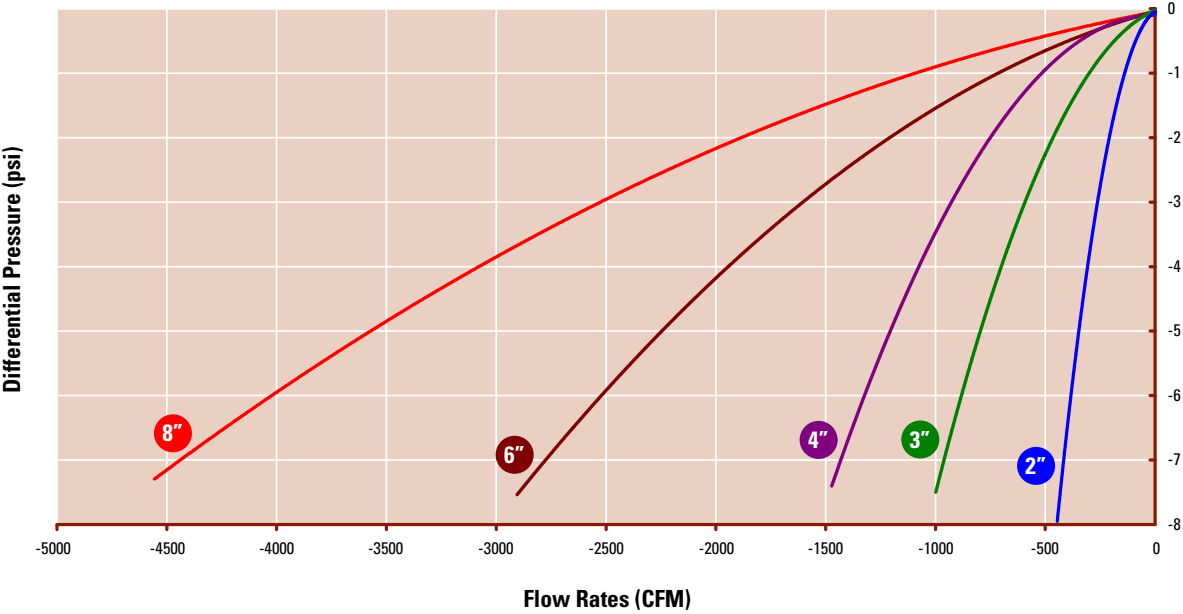
K-060NS K-064NS 2" - 8"
DISCHARGE FLOW RATE



ENLARGED SECTION FROM ABOVE CHART
K-060 HF NS AIR DISCHARGE SWITCHING REGION



K-060, K-064 HF NS INTAKE FLOW RATES



DISCHARGE FLOW RATE (CFM)

SIZE	DIFFERENTIAL PRESSURE (PSI)					
	0	2	4	6	8	10
2"	0	24	34	41	47	52
3"	0	68	93	111	127	137
4"	0	100	133	159	175	200
6"	0	370	525	640	730	823
8"	0	710	1,000	1210	1,385	1,530

INTAKE FLOW RATE (CFM)

SIZE	DIFFERENTIAL PRESSURE (PSI)							
	-7.5	-7	-6	-5	-4	-3	-2	0
2"	-428	-418	-382	-348	-310	-270	-210	0
3"	-1,020	-965	-890	-795	-705	-592	-495	0
4"	-1,490	-1,435	-1,320	-1,205	-1,080	-935	-780	0
6"	-2,900	-2,790	-2,520	-2,280	-1,960	-1,585	-1,205	0
8"	-4,610	-4,450	-4,035	-3,580	-3,100	-2,590	-1,850	0



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