DAV-Metal
Air Release and Vacuum Break Valves

First Operation:
Venting air from a filling pipeline

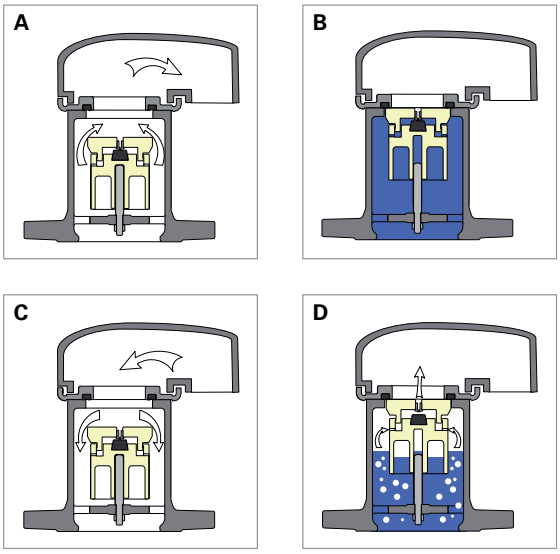
The standard valve allows discharge of trapped air while the system is being filled with liquid. The valve will remain open, even at very high air flow velocity (A), until the liquid has reached the float and lifted it to its closed position (B).
Available for valve models with suffix “K” and “KA”.

Second Operation:
Vacuum Breaking (Air Intake) of a draining pipeline

Decrease or the pressure in the system to negative value and the simultaneous drainage of the valve chamber, forces the floats down, allowing the admittance of air into the pipe, thus preventing negative pressure and possible collapse of the pipe (C).
Available for valve models with suffix “K” and “KA”.

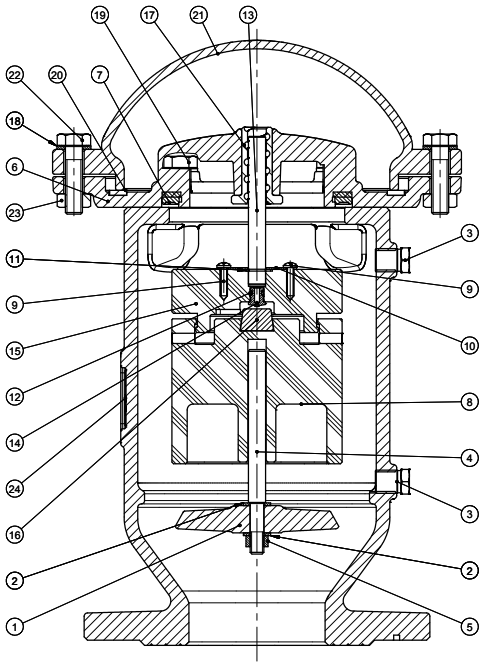
Third Operation:
Release of dissolved air from a pressurized pipeline

Air that is being released from the liquid in the pressurized system or being introduced into the system from open sources and pumping vortexes, accumulates in the air release valves located at high places.
The accumulated air forces the liquid out of the valve chamber, so the floating force of the bottom float decreases.
The bottom float then drops, allowing for the trapped air to be vented through the small nozzle at the center of the top float. Then the liquid level rises, the bottom float is lifted and the nozzle closes (D).
Available for valve models with suffix “KA” only.



Edition 05/2016

Components



No.	Description	Material	Optional
1	Body	D.I.	Steel A-216 WCB, SST CF8M, NI Aluminium Bronze, S.Duplex
2	Washer	SST	SST 316, S.Duplex
3	Plug	BRS	SST 316, S.Duplex
4	Bottom Guiding Shaft	SST	SST 316, S.Duplex
5	Nut	SST	SST 316, S.Duplex
6	Plate	D.I.	Steel A-216 WCB, SST CF8M, NI Aluminium Bronze, S.Duplex
7	Seal	EPDM	NBR, Viton
8	Float Body	PE-H.D.	
9	Bolt	SST	SST 316, S.Duplex
10	Disc	SST	SST 316, S.Duplex
11	I.D. Plate	AL	SST 316
12	O-Ring 2-009	NBR	EPDM, Viton
13	Top Guiding Shaft	SST	SST 316, S.Duplex
14	Nozzle	SST	SST 316, S.Duplex
15	Float Cover	PE-H.D.	
16	Nozzle Seal	EPDM	NBR, Viton
17	Guiding Insert	POM	
18	Washer	SST	SST 316, S.Duplex
19	Bolt	SST	SST 316, S.Duplex
20	Cover Seal	EPDM	NBR, Viton
21	Cover	D.I.	Steel A-216 WCB, SST CF8M, NI Aluminium Bronze, S.Duplex
22	Bolt	SST	SST 316, S.Duplex
23	Nut	SST	SST 316, S.Duplex

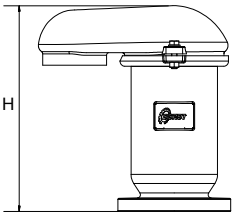
DAV-MH

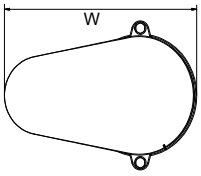
High Capacity Combination and Kinetic Valves

Dimensions & Weights

Nom. diameter		Height H		Width W		d-Kinetic orifice area		Approx. shipping Weight	
inch	mm	inch	mm	inch	mm	inch^2	mm^2	kg	lbs
2	50	10.7	273.5	9.2	236	3.0	1960	11	24.2
3	80	14	355	12.8	326	7.7	5000	18	39.6
4	100	15.5	395	15.4	393	12.2	7855	30	66.1
6	150	19.1	486.5	24.4	621	27.4	17670	60	132.3
8	200	22.3	567	19.8	503	48.7	31415	100	220.5
10	250	29.6	752	27.8	707.5	76	49090	200	441

Connections: ISO, ANSI, BS, JIS flanges, BSP, NPT threads (50mm valves only)

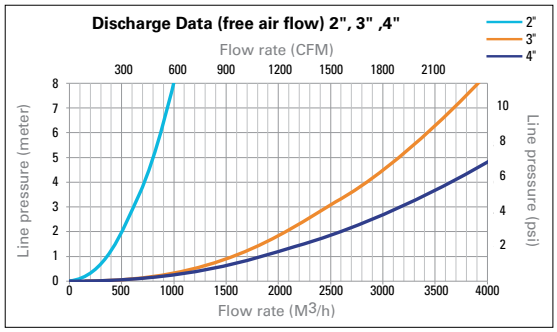


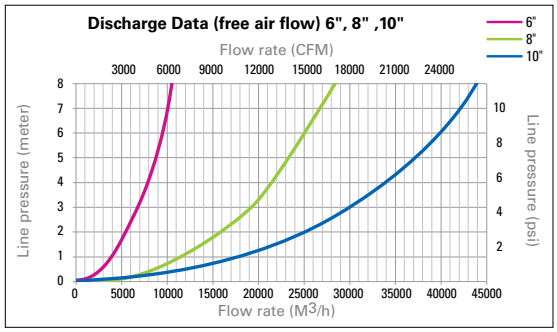


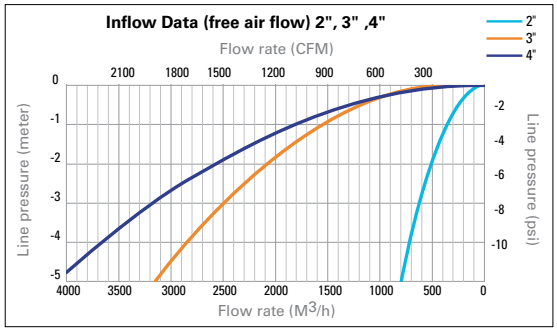
Specifications

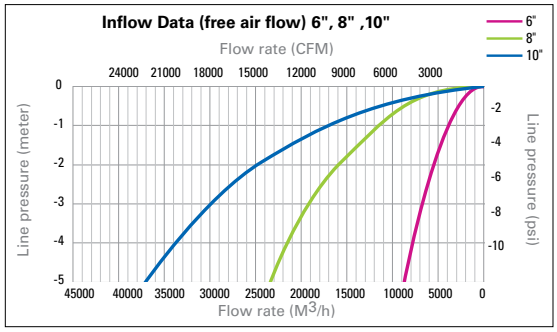
Nominal sizes	2" / 50mm to 10" / 250mm
Pressure rating	PN16 (250 psi), PN25 (350 psi) and PN40 (580 psi)
Minimal pressure for drip-tight sealing	0.2 bar
Temp. Range	Operating: 0-60°C / 32-140°F
	Storage: -10-70°C / 15-160°F

Aero-Dynamic Performance









Small-orifice ('Automatic') discharge flow