

Omega™ Double Effect Air Vent Cast Steel Series

Designed to protect pipelines from air lock and vacuum collapse, the Omega™ Series Combination Air Release and Vacuum Breaker Valve eliminates air and prevents vacuum formations in pipelines. A large venting orifice and large float clearances freely exhaust or admits air during pipeline filling or draining. Omega is the most effective solution to maintain pipeline efficiency and protection from adverse pressure conditions.

Features:

- A) **Charge and discharge** air capacity in one model
- B) **Maintenance** can be easily performed from the top without removing the air valve from the pipeline
- C) **Simple**, Effective, Patented Design
- D) **Corrosion resistant materials** of construction, coating suitable for highly aggressive environments (Epoxy paint).
- E) **Engineered** For Lasting Service
- F) **Advanced and compact** design with simple mechanisms
- G) **Available with Flanges** and Thread NPT Ends
- H) **Smooth cage** outside of the float, keep floating ball moving in specified guide rail
- I) **Floating ball made in stainless steel** A276 SS316 secure a long lasting life
- J) **Suitable for most common environments:** oil pipelines, waterlines, clean water, irrigation, and non-corrosive chemical pipelines.



Technical Data

1. Size range: Flange NPS 2"~8" Threaded: NPS 1"~2"
2. Pressure Ratings: 150LB / 300LB / 600LB
3. Working temperature: -29°~ +120°C.
4. Suitable Medium: Oil, Petroleum, Water, and non-corrosive chemicals.
5. Body Material: ASTM A216 WCB
6. Trim Material: SS316
7. Seat: NBR Buna
8. Epoxy Paint

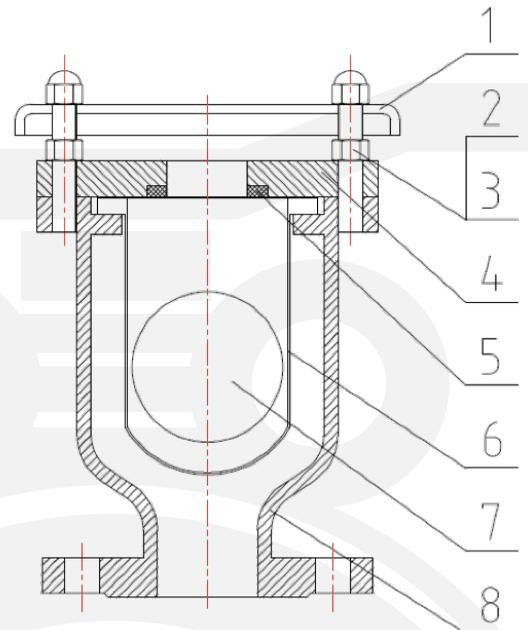
Performance Standard

1. Design & Manufacture standard as to: ASME B31.3ASME B16.34
2. Height dimension (H) Standard as to: MFR-STD
3. Flange dimension conforms as to: ASME B16.5 / BS EN 1092 NPT Threaded Standard as to: ASME B1.20.1
4. Testing And Inspection as to: API 598
5. Pressure-temperature conforms as to: ASME B16.34
6. Anti Corrosion as per NACE MR-0175(2002) requirement
7. Available in Rating Class 600 upon request

Part List:

Omega Double Effect Air Vent Flanged End Class 150 & 300

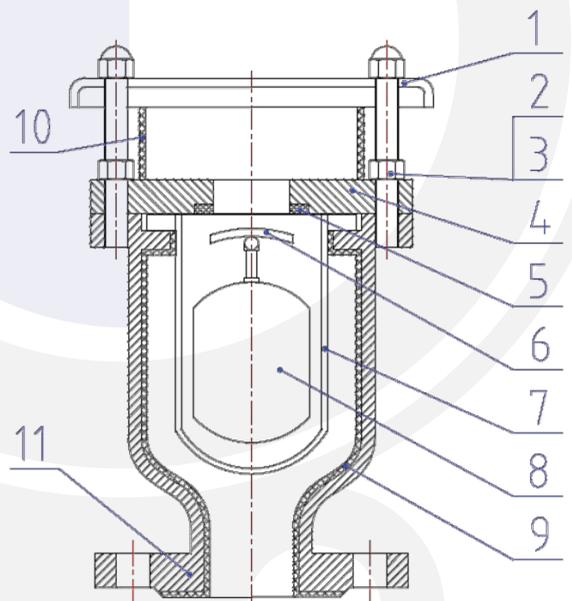
No.	Part Name	Material	Standard
1.	Cap	F304	ASTM A182
2.	Bolt	B7 (Galvanized)	ASTM A193
3.	Nut	2H (Galvanized)	ASTM A194
4.	Cover	C.S.	ASTM A105
5.	Seat	NBR	BNS-D00040
6.	Protective Bushing	C.S.	ASTM A216 WCB
7.	Floating Ball	SS316	ASTM A276
8.	Body	C.S.	ASTM A216 WCB

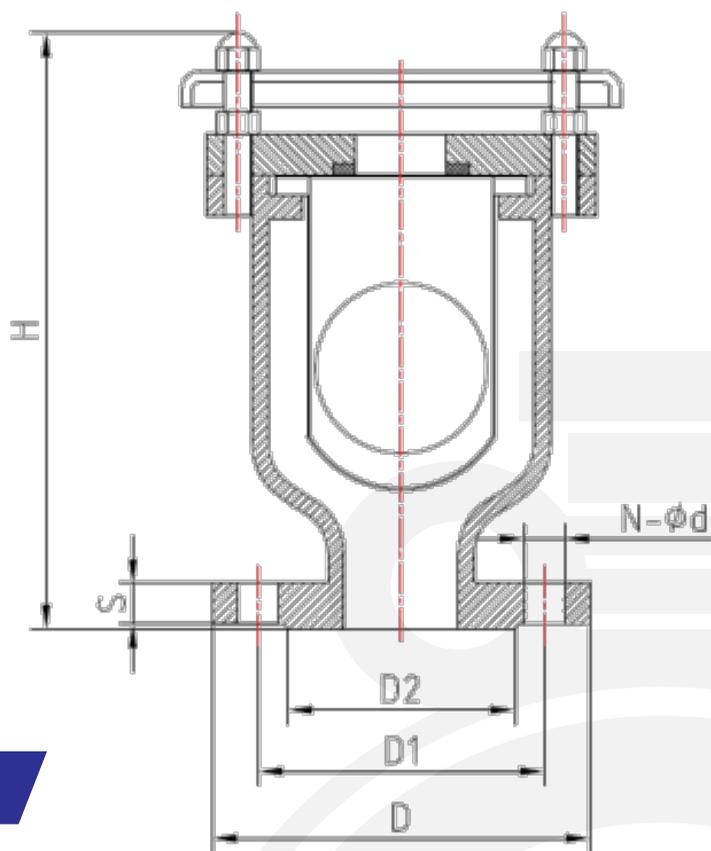


Part List:

Omega Double Effect Air Vent Flanged End Class 600

No.	Part Name	Material	Standard
1.	Cap	F304	ASTM A182
2.	Bolt	B7 (Galvanized)	ASTM A193
3.	Nut	2H (Galvanized)	ASTM A194
4.	Cover	C.S.	ASTM A105
5.	Seat	EPDM	BNS-D00040
6.	Disc	SS316L	ASTM A276
7.	Protective Bushing	SS316L	ASTM A276
8.	Floating Ball	SS316L	ASTM A276
9.	Body Lined	N/A	N/A
10.	Screen	SS304	ASTM A276
11.	Body	C.S.	ASTM A216 WCB





Main dimension

Class 150LB RF

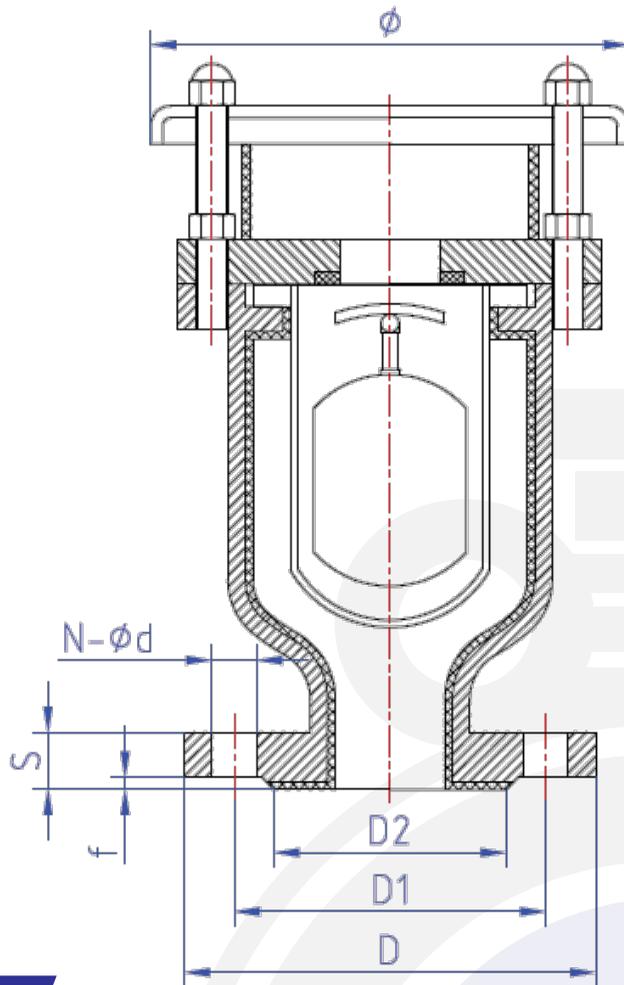
Flange dimension standard conforms as to: ASME B16.5

NPS	H	D	D1	D2	S	N-Φ	f	Weight
2"	260	150	120.7	92	17.5	4-Φ19	2	12 Kg
2 1/2"	270	180	139.7	105	21	4-Φ19	2	17 Kg
3"	270	190	152.4	127	22.5	4-Φ19	2	18 Kg
4"	300	230	190.5	157	22.5	8-Φ19	2	24 Kg
6"	370	280	241.3	216	24	8-Φ22	2	36 Kg
8"	420	345	298.5	270	27	8-Φ22	2	55 Kg

Class 300LB RF

Flange dimension standard conforms as to: ASME B16.5

NPS	H	D	D1	D2	S	N-Φ	f	Weight
2"	260	165	127	92	21	8-Φ19	2	16 Kg
2 1/2"	270	190	149.2	105	24	8-Φ22	2	20.5 Kg
3"	270	210	168.3	127	27	8-Φ22	2	22 Kg
4"	300	255	200	157	30.5	8-Φ22	2	32 Kg
6"	370	320	269.9	216	35	12-Φ22	2	55 Kg
8"	420	380	330.2	270	40	12-Φ25.5	2	65 Kg



Main dimension

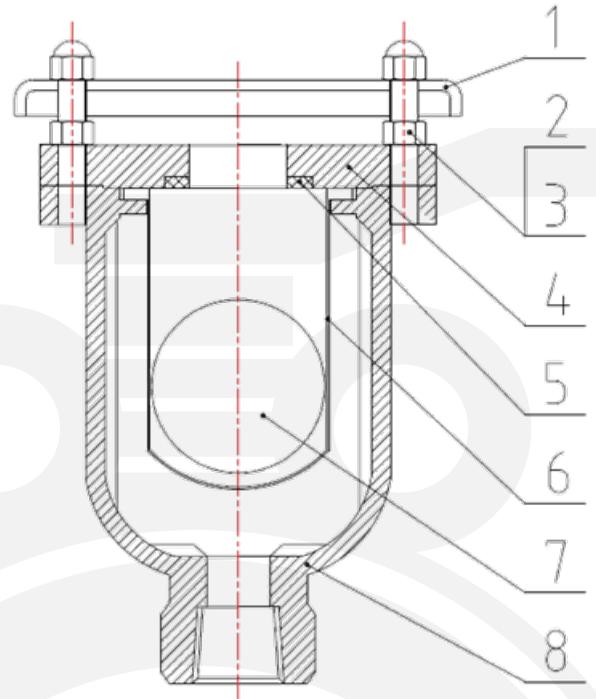
Class 600LB RF dimension standard conforms as to ASME B16.5:

NPS	H	Φ	D	D1	D2	S	N-Φ	f	Weight
2"	360	260	165	127	92	25.5	8-Φ19	7	42 kg
2 1/2"	380	260	190	149.2	105	29	8-Φ22	7	45 kg
3"	450	310	210	168.3	127	32	8-Φ22	7	71 kg
4"	470	310	275	215.9	157.5	38.5	8-Φ25.5	7	83 kg
6"	560	400	355	292.1	216	48	12-Φ29	7	140 kg
8"	590	400	420	349.2	270	56	12-Φ32	7	162 kg

Omega Double Effect Air Vent Thread NPT End:

Part List of Thread NPT End:

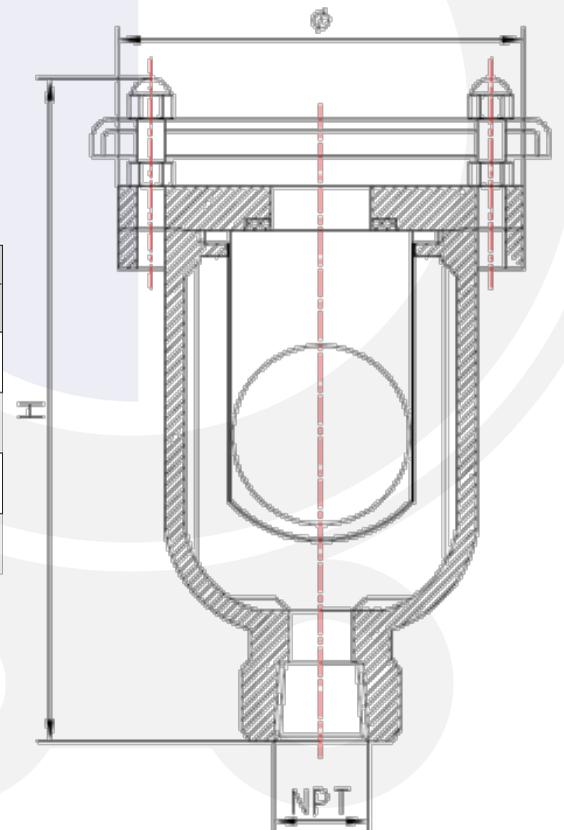
No	Name	Material	Standard
1.	Cap	F304	ASTM A182
2.	Bolt	B7(Galvanized)	ASTM A193
3.	Nut	2H(Galvanized)	ASTM A194
4.	Cover	C.S.	ASTM A105
5.	Seat Protective	NBR	BNS-D00040
6.	Protective Bushing	C.S.	ASTM A216 WCB
7.	Floating Ball	SS316	ASTM A276
8.	Body	C.S.	ASTM A216 WCB



Omega Dimension of Thread Standard as to ASME B1.20.1

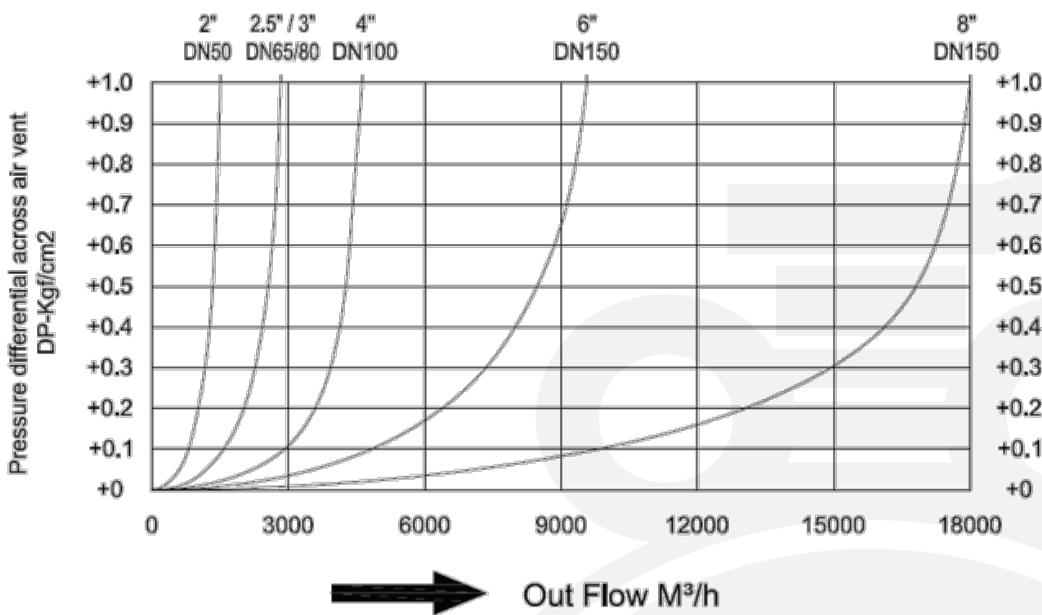
Class 150LB / 300LB NPT Threaded End

NPS	NPT	H	Φ	Weight Kg	
				150LB	300LB
1"	1"	210	135	5	5.6
1 1/4"	1 1/4"	210	135	5.5	6
1 1/2"	1 1/2"	215	150	7	7.5
2"	2"	215	150	8	9

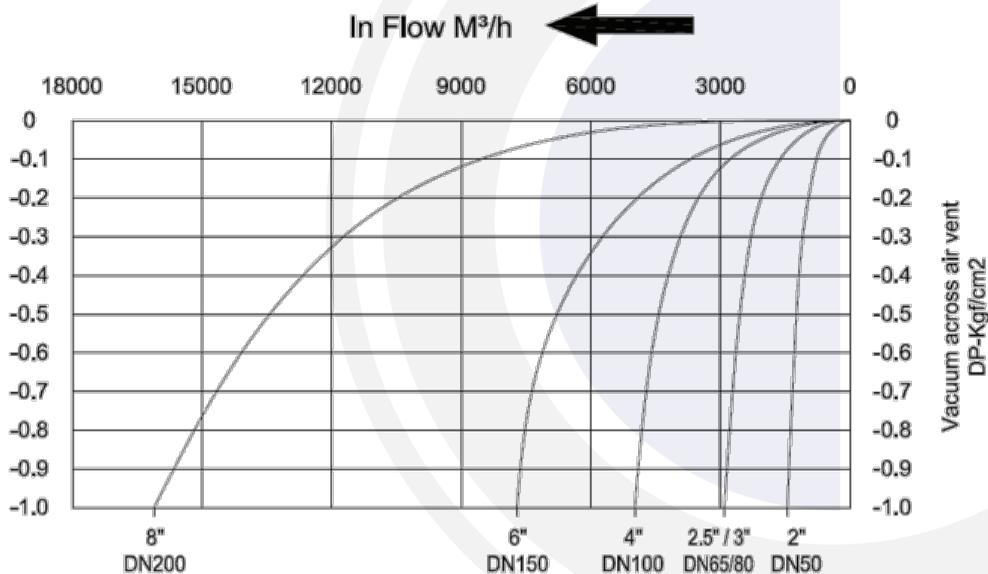


Omega TM Discharge capacity by size, Flanged End:

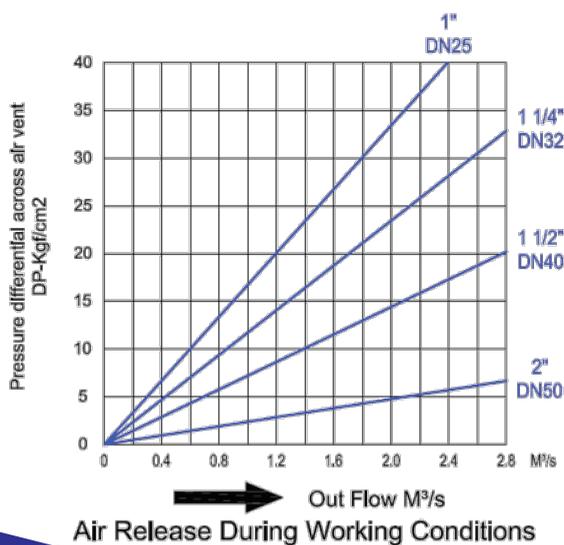
Fox TM Discharge flow rate capacity, by size



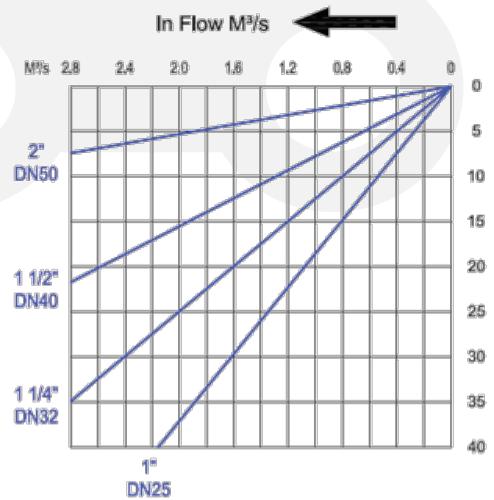
Omega Vacuum flow Charge Capacity by size, Flanged End:



Omega Discharge Capacity by size, Thread NPT End:



Omega Vacuum flow Charge Capacity by size, Thread NPT End:



ORDERING CODE:

Example: OMEGA CS-23-21-200

Model: OMEGA AIR VENT CAST STEEL SERIES CLASS 150
Standard A216 WCB Body Red Epoxy
SS316 CF8M Interior and floating ball
NBR Buna seat
Flanged End RF
Rating Class 150
Size 2"

Available Interior and Floating Ball Material Code:

SS304 CF8 Stainless Steel: 1
SS316 CF8M Stainless Steel: 2
SS316L CF3M Stainless Steel: 3

Available Seat Material Code:

Viton: 1
EPDM: 2
NBR Buna: 3

Available Rating Class Code:

Class 150: 1
Class 300: 2
Class 600: 3

Available Connection Code:

Thread NPT: 1
Flanged End: 2

Available Size Code:

1": 100
1 1/4": 125
1 1/2": 150
2": 200
2 1/2": 250
3": 300
4": 400
6": 600
8": 800