

# Fox™ Triple Effect Air Vent + Anti Water Hammer

## Super Steel Series

Bleeding and Venting Air Vent, Fox™ Combination kinetic air release valve provide 3 functions in one:

1. Large air release during filling of the pipeline
2. Small air release under pressurized pipeline
3. Large air intake during draining of the pipeline

*Fox™ Super Steel Series are made in top quality materials for hazard work with highly corrosive fluids.*

*It is a release valve, single chamber, triple function with an advanced design with simple mechanism, SS316L CF3M Body as a standard and float made in SS316L to prevent cracking during sudden water hammer & quick closure. Aero kinetic mechanism to resist blow shut under higher air velocity even up to sonic velocity of air.*

*Following Archimedes' principle, the float, no longer sustained by water thrust, falls down to free the nozzle hole helping the release of the air pocket, while the upper disk closes the main orifice due to internal pressure. FOX™ avoids the air entrance thanks to a special system, composed of a spring, float and O-ring, whose high sensitivity and accuracy allows the air discharge with a DP across the valve between 0,03 and 0,05 bar.*



## Features:

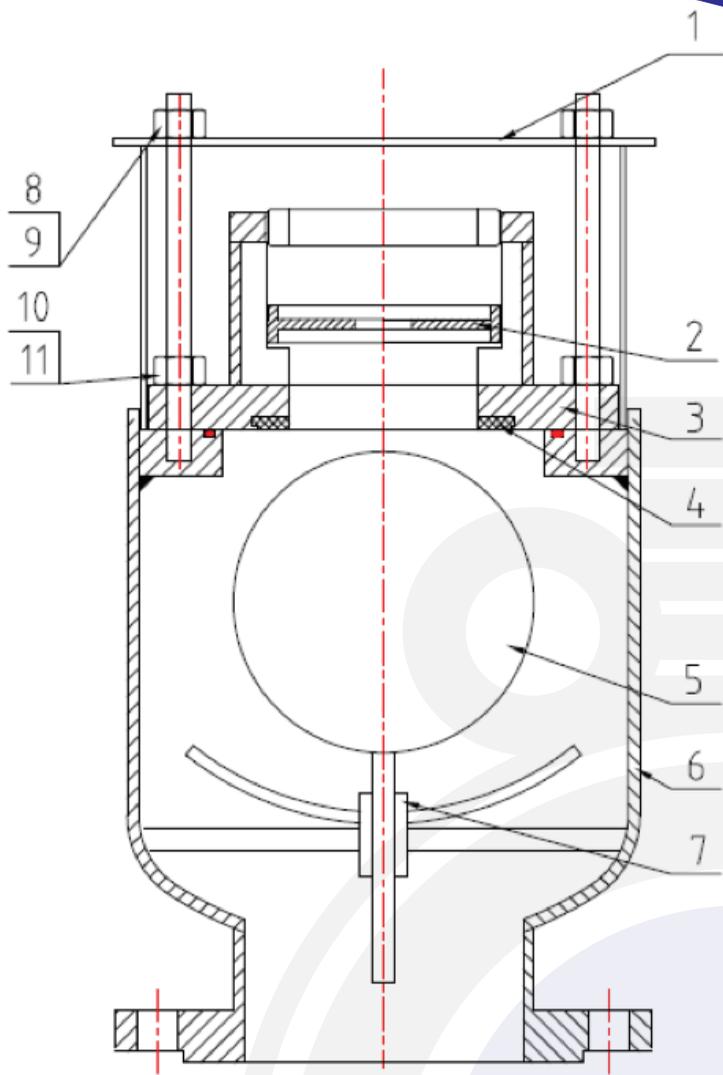
- A) **Three function** in one design + Anti Water Hammer
- B) **Standard** body made in high quality SS316L CF3M Stainless Steel
- C) **Standard** Trim and float made in SS316L CF3M Stainless Steel
- D) **Standard** Viton Seat and O'Ring for highly corrosive fluids
- (E) **Standard** outside screen for safety and prevent insects or birds in.
- (F) **No arms or levers to prevent vibrating**, bending, direct closure of the float.
- (G) **Maintenance** can be easily performed from the top without removing the air valve from the pipe.
- (H) **Reduces** pressure drop.
- (I) **Flange** drilling and dimension meets ANSI flange

## Technical Data

1. Size range: NPS 2"~8"
2. Pressure ratings: 150LB / 300LB
3. Working temperature: -29°~ +180°C.
4. Suitable Medium: most corrosive fluids without solid particles, sea water, sulfuric acid 98% concentration, corrosive chemicals, gasoline, petroleum, and so on.
5. Body Material: ASTM A351 CF3M
6. Trim Material: SS316L
7. Seat: Viton

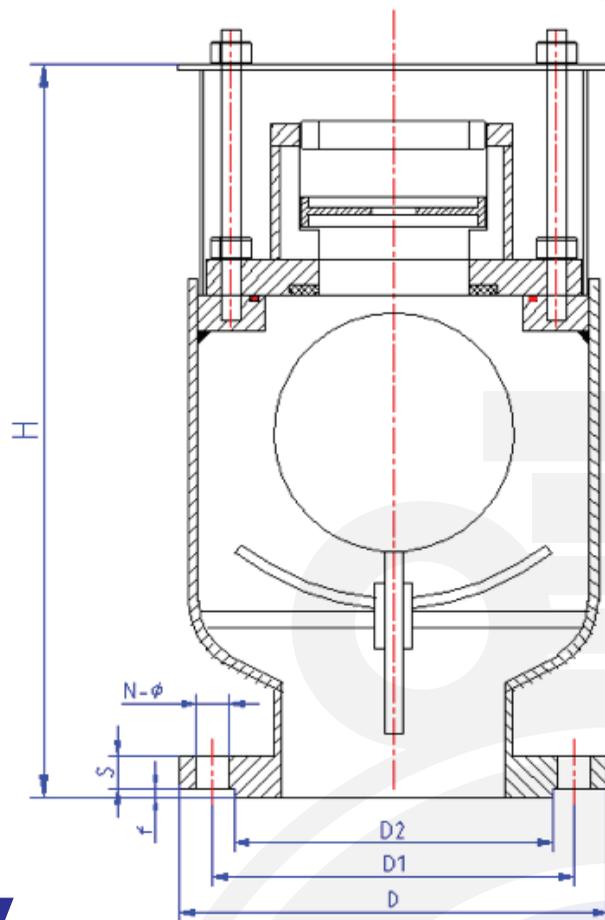
## Performance Standard

1. Design & Manufacture standard as to: ASME B31.3 ASME B16.34
1. Height dimension (H) standard as to: MFR-STD
3. Flange dimension conforms as to: ASME B16.5 / BS EN 1092
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



## Part List:

No.	Part Name	Material	Standard
1.	Cap	F316L	ASTM A182
2.	Restriction Orifice	F316L	ASTM A182
3.	Cover	F316L	ASTM A182
4.	Seat	Viton	USA DuPont
5.	Floating Ball	SS316L	ASTM A276
6.	Body	CF3M	ASTM A351
7.	Buffer bracket	SS316L	ASTM A276
8.	Bolt	B8M	ASTM A193
9.	Nut	8M	ASTM A194
10.	Bolt	B8M	ASTM A193
11.	Nut	8M	ASTM A194



## 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"	350	150	120.7	92	17.5	4-Φ19	2	20 Kg
2 1/2"	380	180	139.7	105	21	4-Φ19	2	26.5 Kg
3"	380	190	152.4	127	22.5	4-Φ19	2	28 Kg
4"	400	230	190.5	157	22.5	8-Φ19	2	39 Kg
6"	480	280	241.3	216	24	8-Φ22	2	44 Kg
8"	620	345	298.5	270	27	8-Φ22	2	75 Kg

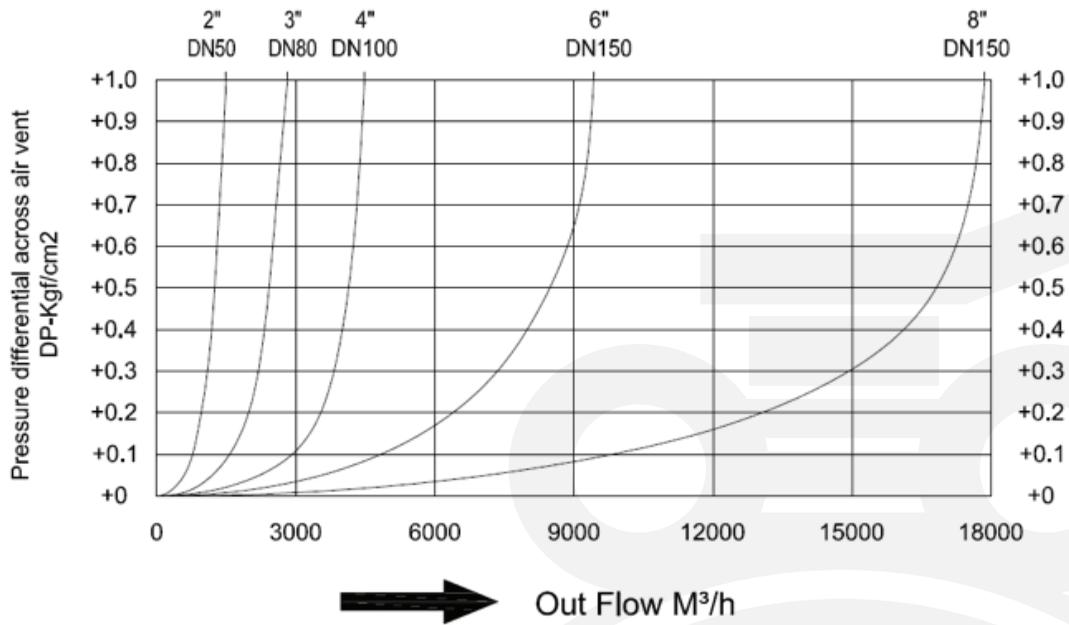
### Class 300LB RF

Flange dimension standard conforms as to: ASME B16.5

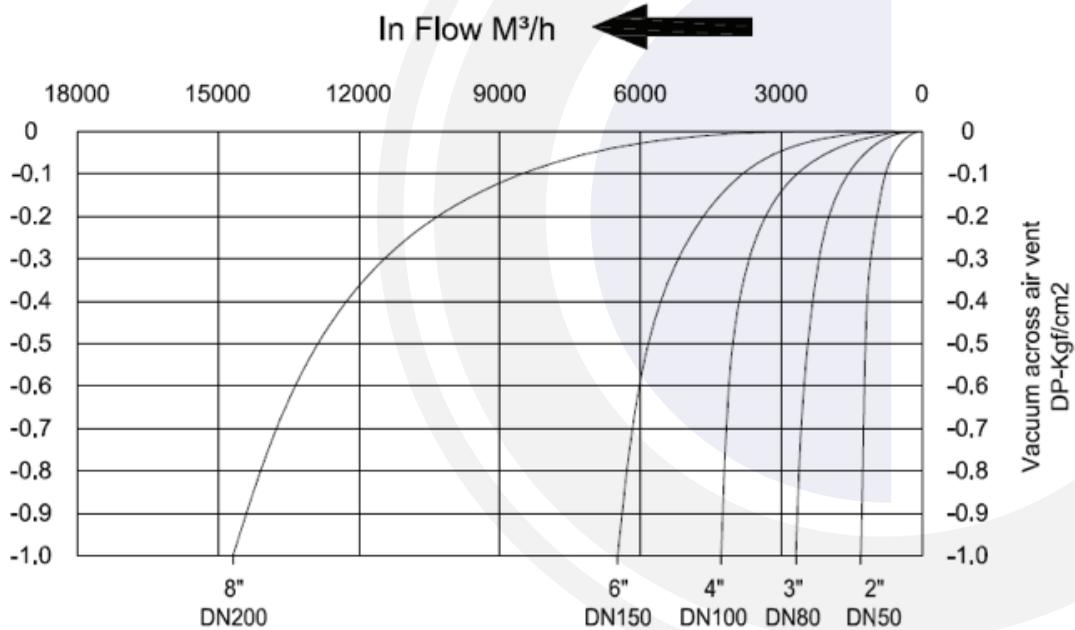
NPS	H	D	D1	D2	S	N-Φ	f	Weight
2"	350	165	127	92	21	8-Φ19	2	25 Kg
2 1/2"	380	190	149.2	105	24	8-Φ22	2	28.5 Kg
3"	380	210	168.3	127	27	8-Φ22	2	30 Kg
4"	400	255	200	157	30.5	8-Φ22	2	45 Kg
6"	480	320	269.9	216	35	12-Φ22	2	55 Kg
8"	620	380	330.2	270	40	12-Φ25.5	2	82 Kg

# FOX™ Super Steel Series Graphics

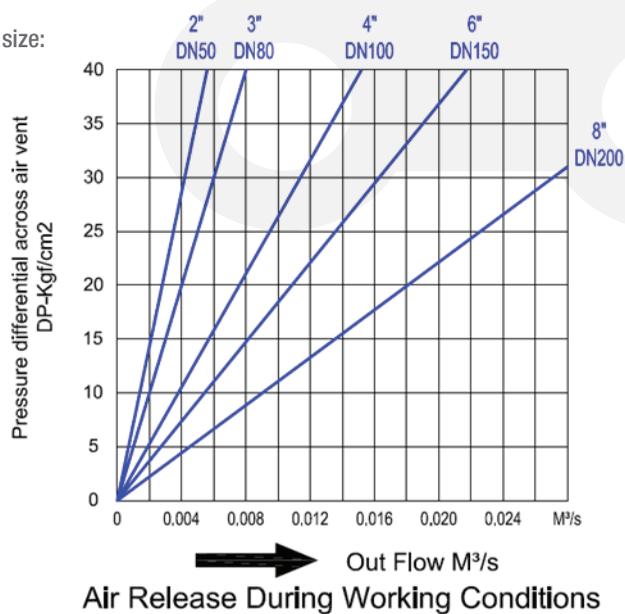
## Fox™ Discharge flow rate capacity, by size



## Fox™ vacuum flow rate, by size



Fox™ automatic air flowing out capacity, at high pressure, by size:



## ORDERING CODE:

**Example: FOXSS-221-150RF-200**

Model: FOX AIR VENT SUPER STEEL SERIES  
SS316L Stainless Steel Body  
SS316L Trim and Floating ball  
Viton Seat  
Ansi Class 150 Flange RF  
SIZE: 2"

## Available Body Material Code:

SS316 CF8M Stainless Steel: 1  
SS316L CF3M Stainless Steel: 2  
Duplex 2205 Super Alloy Steel: 3  
Super Duplex 2507 Super Alloy Steel: 4  
Hastelloy C-276 Super Alloy: 5  
CN7M Alloy 20 Super Alloy: 6  
SS304 CF8 Stainless Steel: 7

## Available Trim and Floating Ball Material Code:

SS316 CF8M Stainless Steel: 1  
SS316L CF3M Stainless Steel: 2  
Duplex 2205 Super Alloy Steel: 3  
Super Duplex 2507 Super Alloy Steel: 4  
Hastelloy C-276 Super Alloy: 5  
CN7M Alloy 20 Super Alloy: 6  
SS304 CF8 Stainless Steel: 7

## Available Size Code:

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

## Available Seat Material Code:

Viton: 1  
EPDM: 2  
NBR: 3