

# Fox <sup>™</sup> Triple Effect Air Vent + Anti Water Hammer

Cast 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 ™ Cast Steel Series Air Vent is a release valve, single chamber, triple function with an advanced design with simple mechanism, strong float made in SS316 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.

During pipe filling it is necessary to discharge as much air as water flows in. FOX ™Air Vent will make sure to perform this task allowing the release during hard working conditions.

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 TM 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)Body made in long lasting A216 WCB Cast Steel
- C)Standard epoxy coating suitable for highly aggressive environments (Epoxy paint).
- D)Standard trim and floating ball made in stainless steel SS316 CF8M
- (E) Standard NBR seat suitable for oil, petrol and water
- (F)Standard outside screen for safety and prevent insects or birds in.
- (G)No arms or levers to prevent vibrating, bending, direct closure of the float
- (H) Suitable for harsh conditions: oil, fuel, waterlines, clean water, irrigation, and non-corrosive chemical media without solid particles.
- (I) Maintenance can be easily performed from the top without removing the air valve from the pipe.
- (J) Reduces pressure drop.
- (K)Flange drilling and dimension meets ANSI flange

#### Technical Data

- 1. Size range: NPS 2"~8"
- 2. Pressure ratings: 150LB / 300LB
- 3. Working temperature: -29°~ +80°C.
- 4. Suitable Medium: non-corrosive fluids without solid particles, clean water, industrial water, fuel, oil, and so on.
- 5. Body Material: ASTM A216 WCB
- 6. Standard Trim Material: SS316 CF8M
- 7. Standard Seat: NBR
- 8. Standard Floating ball: SS316 CF8M



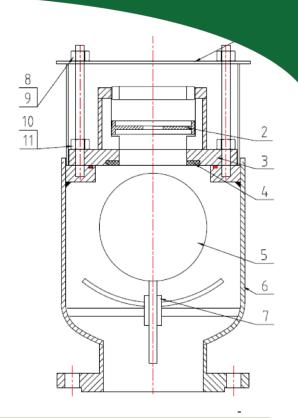
#### Performance Standard

- 1. Design & Manufacture standard as to: ASME B31.3 ASME B16.34
- 2. 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
- 7. Pressure Rating Class 600 Available upon request



### Part List:

No.	Part Name	Materia	Standard	
1.	Сар	F304	ASTM A182	
2.	Restriction Orifice	F316	ASTM A182	
3.	Cover	C.S.	ASTM A105	
4.	Seat	NBR	BNS-D00040	
5.	Floating Ball	SS316	ASTM A276	
6.	Body	C.S.	ASTM A216 WCB	
7.	Buffer bracket	SS316	ASTM A276	
8.	Bolt	B7 (Galvanized)	ASTM A193	
9.	Nut	2H (Galvanized)	ASTM A194	
10.	Bolt	B7	ASTM A193	
11.	Nut	2H	ASTM A194	



### Main dimension

Class 150LB RF

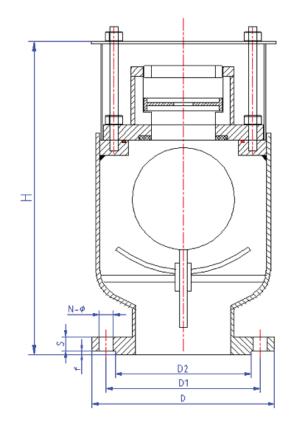
Flange dimension standard conforms as to: ASME B16.5

NPS	Н	D	D1	D2	S	N-Ф	f	Weight
2"	350	150	120.7	92	17.5	4-Ф19	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-Ф19	2	39 Kg
6"	480	280	241.3	216	24	8-Ф22	2	44 Kg
8"	620	345	298.5	270	27	8-Ф22	2	75 Kg

#### Class 300LB RF

Flange dimension standard conforms as to: ASME B16.5

NPS H D D1 D	S N-Φ f Weight
2" 350 165 127 9.	21 8-Φ19 2 25 Kg
2 1/2" 380 190 149.2 10	5 24 8-Φ22 2 28.5 Kg
3" 380 210 168.3 12	7 27 8-Φ22 2 30 Kg
4" 400 255 200 15	7 30.5 8-Φ22 2 45 Kg
6" 480 320 269.9 21	5 35 12-Φ22 2 55 Kg
8" 620 380 330.2 27	0 40 12-Φ25.5 2 82 Kg

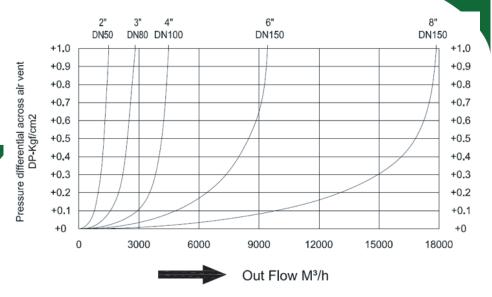


PTV ® Brand is replacing SBM-PTV™ from May 2023, which is made by Sino Base Metal Co., Ltd, Subsidiary of SBM group, 11C, No.1208 South Xizang Road, Shanghai, China Sino Base Metal Co., Ltd, reserves the right to change design/ specifications without further notices.

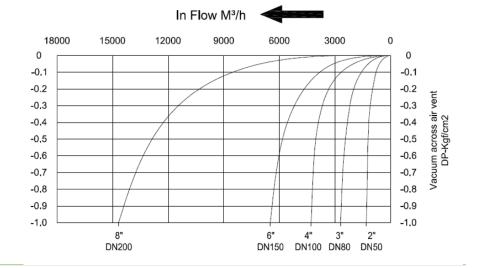


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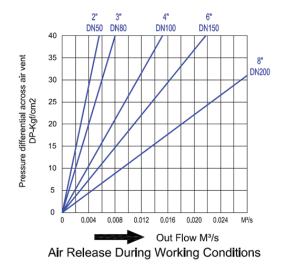
Fox ™ Discharge flow rate capacity, by size



Fox ™ vacuum flow rate, by size



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





# **ORDERING CODE:**

# Example: FOXCS-23-150RF-200

Model: FOX AIR VENT CAST STEEL SERIES CLASS 150

Standard A216 WCB Body SS316 CF8M Trim and floating ball NBR Buna Seat and O'Ring Ansi Class 150 Flanged End RF

SIZE: 2"

# Available Trim and Floating ball Material Code:

SS304 CF8 Stainless Steel: 1

SS316 CF8M Stainless Steel: 2

SS316L CF3M Stainless Steel: 3

# Available Seat and O'Ring Material Code:

Viton: 1

EPDM: 2

NBR Buna: 3

# Available Size Code:

2": 200

2 ½": 250

3": 300

4" 400

6": 600

8": 800



#### **ORDERING CODE:**

Example: 1000LT-222-1-200

Ball Valve, SS316 CF8M Body, SS316 CF8M ball and stem, RPTFE Seat, NPT Thread, Size 2"

### **Available Body Material Code:**

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

### **Available Ball and Stem Material:**

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

CF3M Stainless Steel: 3

### Available End Code:

Female NPT Thread: 1
Female BSP Thread: 2

### **Available Seat Material Code:**

PTFE: 1 RPTFE: 2