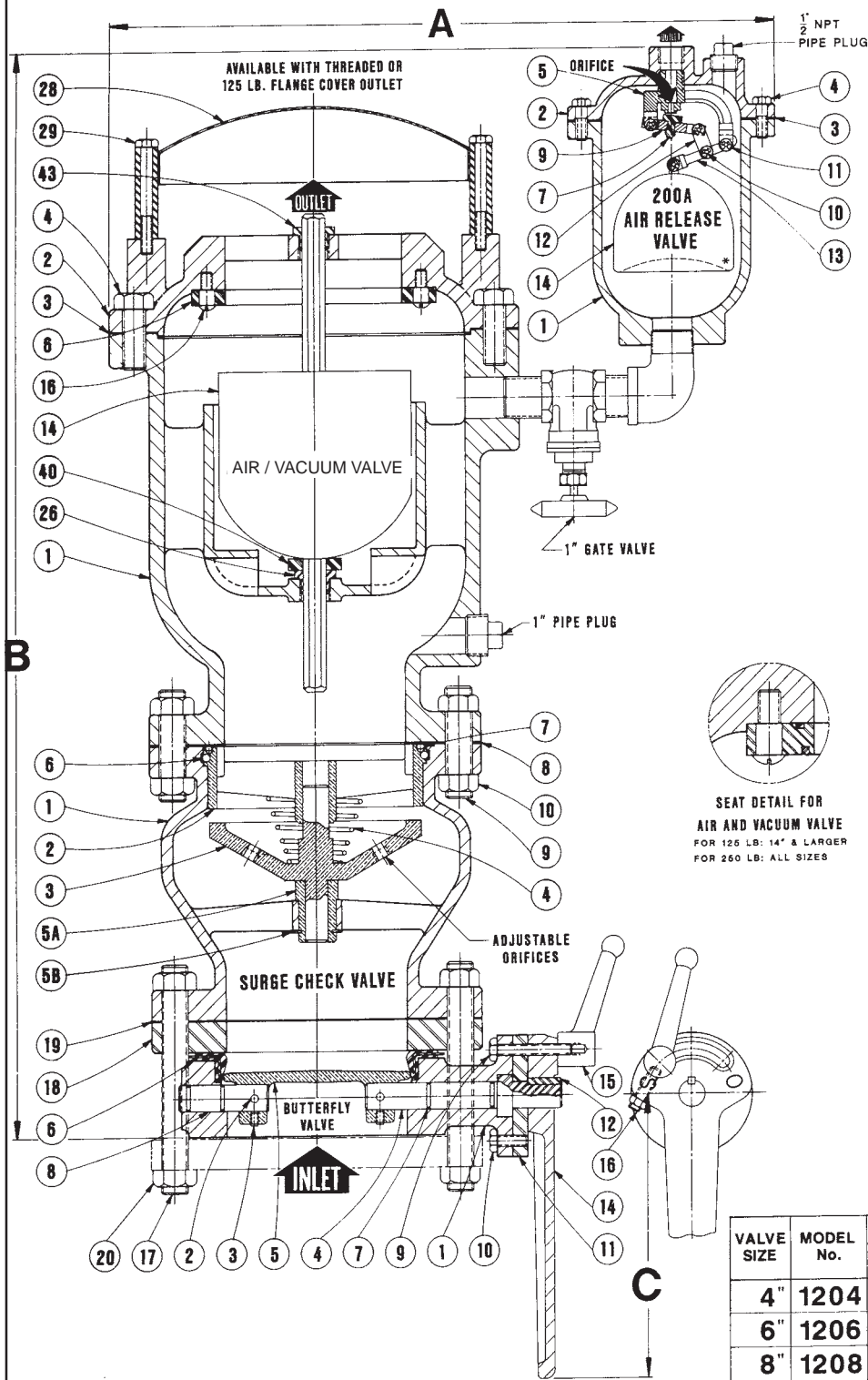


# SLOW CLOSING AIR / VACUUM VALVE WITH AIR RELEASE AND ISOLATION BUTTERFLY VALVE



### 200A AIR RELEASE VALVE

DET.	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 Gr. B
2	COVER	CAST IRON ASTM A126 Gr. B
3	GASKET	LEXIDE (NON-ASBESTOS)
4	COVER BOLT	STEEL ASTM A307 Gr. B
5	LEVERAGE FRAME	DELIRIN ASTM D4181
7	NEEDLE	BUNA-N
9	NEEDLE LEVER	DELIRIN ASTM D4181
10	LEVER PIN	STAINLESS STEEL ASTM A582 T303
11	RETAINING RING	STAINLESS STEEL 15-7Mo
12	CONNECTING LINK	NYLON
13	FLOAT LEVER	DELIRIN ASTM D4181
14	FLOAT*	STAINLESS STEEL ASTM A240 T304

CONCAVE FLOAT\*

### AIR / VACUUM VALVE

DET.	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 Gr. B
2	COVER	CAST IRON ASTM A126 Gr. B
3	GASKET	LEXIDE (NON-ASBESTOS)
4	COVER BOLT	STEEL ASTM A307 Gr. B
6	SEAT <sup>1</sup>	BUNA-N
14	FLOAT	STAINLESS STEEL ASTM A240 T304
16	SEAT SCREW	STAINLESS STEEL ASTM A582 T303
26	FLOAT GUIDE BUSHING	STAINLESS STEEL ASTM A582 T303
28	HOOD	H. R. S.
29	HOOD SCREW	STEEL ASTM A307 Gr. B
40	BUMPER	BUNA-N
43	FLOAT GUIDE BUSHING	STAINLESS STEEL ASTM A582 T303

STAINLESS STEEL WITH BUNA-N SEAL FOR 14" & LARGER ON 125 LB. AND FOR ALL SIZES ON 250 LB. CLASS.

### SURGE CHECK VALVE

DET.	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 Gr. B
2	SEAT	BRONZE ASTM 584
3	PLUG	BRONZE ASTM 584
4	SPRING	STAINLESS STEEL ASTM A276 T316
5A	BUSHING	BRASS ASTM B16 C36000
5B	RETAINING RING	STAINLESS STEEL 15-7Mo
6	RETAINING BALL	STAINLESS STEEL ASTM A276 T440
7	SEAT RETAINING SCREW	STAINLESS STEEL 18-8
8	GASKET	LEXIDE (NON-ASBESTOS)
9	STUD	STEEL AISI 1018
10	NUT	STEEL ASTM A307 Gr. B

### BUTTERFLY VALVE

DET.	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 Gr. B
2	DISC PIN	STAINLESS STEEL ASTM A582 T303
3	DISC SET SCREW	STAINLESS STEEL 18-8
4	TOP PIVOT PIN	STAINLESS STEEL ASTM A582 T303
5	DISC	BRONZE ASTM B584 C92200
6	DISC SEAT	BUNA-N
7	PIVOT PIN SEAL	BUNA-N
8	BOTTOM PIVOT PIN	STAINLESS STEEL ASTM A582 T303
9	LOCKING SCREW	STEEL ASTM A307 Gr. B
10	ADAPTER PLATE SCREW	STEEL ASTM A307 Gr. B
11	ADAPTER PLATE	STEEL
12	HAND LEVER KEY	STEEL ASTM A108 C10180
14	HAND LEVER	CAST IRON ASTM A126 Gr. B
15	LOCK LEVER	CAST IRON ASTM A126 Gr. B
16	DISC STOP	STEEL ASTM A307 Gr. B
17	STUD	STEEL ASTM AISI 1018
18	RETAINING PLATE	STEEL
19	GASKET	LEXIDE (NON-ASBESTOS)
20	NUT	STEEL ASTM A563

<sup>1</sup> 8" TO 12" CAST IRON  
14" TO 16" DUCTILE IRON

VALVE SIZE	MODEL No.	COMBINATION	A	B		C
				125 LB. 3/16" ORIFICE	250 LB. 5/32" ORIFICE	
4"	1204	904 / 1604 / 152 / 200A	19 <sup>7</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>2</sub>	30 <sup>7</sup> / <sub>8</sub>	6
6"	1206	906 / 1606 / 153 / 200A	22 <sup>11</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>8</sub>	36	12
8"	1208	908 / 1608 / 154 / 200A	25 <sup>1</sup> / <sub>2</sub>	41 <sup>7</sup> / <sub>8</sub>	42 <sup>3</sup> / <sub>8</sub>	12
10"	1210	910 / 1610 / 155 / 200A	27 <sup>7</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>2</sub>	12
12"	1212	912 / 1612 / 156 / 200A	32 <sup>7</sup> / <sub>8</sub>	50 <sup>7</sup> / <sub>8</sub>	50 <sup>7</sup> / <sub>8</sub>	12
14"	1214	914 / 1614 / 157 / 200A	41 <sup>7</sup> / <sub>8</sub>	52 <sup>1</sup> / <sub>4</sub>	52 <sup>1</sup> / <sub>4</sub>	15
16"	1216	916 / 1616 / 158 / 200A	45 <sup>1</sup> / <sub>2</sub>	55 <sup>3</sup> / <sub>8</sub>	55 <sup>3</sup> / <sub>8</sub>	15

CERTIFIED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE  
09-01-03



DRWG. NO.  
S-1200

SPECIFICATIONS OTHER SIDE



# SPECIFICATIONS

## SERIES S-1200 SLOW CLOSING AIR / VACUUM VALVE WITH AIR RELEASE VALVE AND ISOLATION BUTTERFLY VALVE

The Slow Closing Air / Vacuum Valve shall be four (4) valves furnished assembled and tested as a single unit. The Air / Vacuum Valve must have a stainless steel float guided at each end with stainless steel stems. The stems shall be guided thru stainless steel bushings inside the body and cover. The seat must be Buna-N fastened to the cover with stainless steel shoulder screws without distortion to allow drop tight closure.

The cover shall have a male lip to fit the female body register for positive float guide direction into the seat. Cover outlets may be threaded, flanged, or hooded. (Engineer to specify one).

The Surge Check Valve shall be a normally open spring loaded valve consisting of a body, seat and plug bolted to the inlet of the Air / Vacuum Valve. The Surge Check shall operate on the interphase between the kinetic energy and relative velocity flows of air and water. It allows air to pass through, but water closes the surge check. The rate of water flow is reduced by means of throttling orifices in the plug to prevent shock closure of the Air Valve. The surge check orifices must be adjustable to suite operating conditions in the field.

The inlet Isolation Butterfly Valve shall be Wafer (Compact) Style constructed to AWWA Standards with hand lever and variable position locking device. The seat to be freely interchangeable from the body without need for special tools. The seat must be Buna-N, molded with a steel flanged insert for high strength and tight seating. The disc must pivot eccentrically from closed position to clear center valve area.

The Air Release Valve shall be side connected to the upper valve, but separated with a bronze isolation shut-off valve. The internal mechanism shall be the compound lever type to permit the valve to open under pressure to vent pockets of entrapped air as they accumulate. The compound mechanism shall be activated by a stainless steel concave float to lift the Buna-N needle to shut off the Air Release orifice.

The Slow Closing Air / Vacuum Valve shall have been flow tested in the field, substantiated by test data to show reduction of surge pressure in the valve.

Materials shall be certified to A.S.T.M. specifications:

Air Valve covers, bodies	Cast Iron	ASTM A126 Gr. B
Surge check body & BFV body		
*Floats (ARV Float Concave)	Stainless Steel	ASTM A240 T304
Surge check seat & disc	Bronze	ASTM 584
Surge check spring	Stainless Steel	ASTM A276 T316
Seat & needle	Buna-N	
Leverage assembly	Delrin	D4181
B.F.V. shaft (Top & Bottom Pivot Pins)	Stainless Steel	ASTM A582 T303
Exterior paint	Universal Primer	FDA Approved for Potable Water

\*Float Design may vary on certain sizes

Note: Other materials available.

Valve to be APCO Series S-1200 Slow Closing Air / Vacuum Valve with Air Release Valve and Isolation Butterfly Valve as manufactured by Valve & Primer Corporation, Schaumburg, IL, USA.