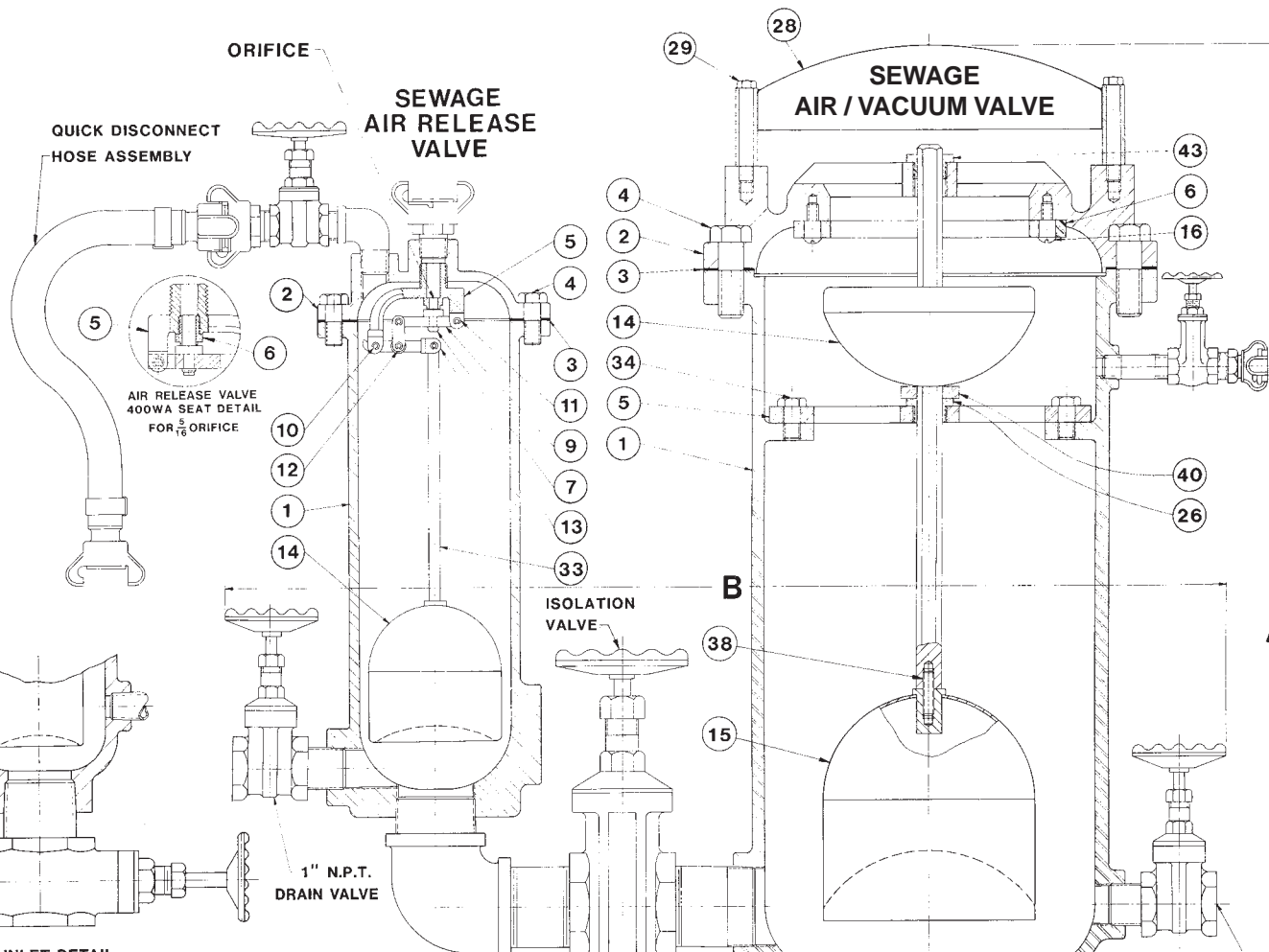


CUSTOM COMBINATION SEWAGE AIR VALVES WITH ATTACHMENTS

CERTIFIED BY:
DATE:



VALVE SIZE	MODEL NO.	COMBINATION	125 LB. CLASS			250 LB. CLASS			OPERATING PRESSURE, psi: 0-50 51-150 151-300		
			A	B	C	A	B	C	FLG. HOLES 1/2" DIA.	FLG. HOLES 3/4" DIA.	FLG. HOLES 1" DIA.
4"	404C	404WA/400WA	35 1/2	29	7	35 1/2	29	7	5/16	3/4	1
6"	406C	406WA/400WA/906	36 1/2	29	12	37 1/2	29	12	5/16	3/4	1
8"	408C	408WA/400WA/908	40	33	12	41	33	12	5/16	3/4	1
10"	410C	410WA/400WA/910	45	35	12	46 1/2	35	12	5/16	3/4	1
12"	412C	412WA/400WA/912	53 1/2	40	12	54 1/2	40	12	5/16	3/4	1
14"	414C	414WA/400WA/914	57 1/2	44	15	58 1/2	44	15	5/16	3/4	1

PRESSURE-ORIFICE SELECTION CHART

ORIFICE DIAMETER, in.	5/16	3/4	STD	5/2
0-50				
51-150				
151-300				

ISOLATION BUTTERFLY VALVE

DET	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 GR.B
2	DISC PIN	STAINLESS STEEL ASTM A582
3	DISC SET SCREW	STAINLESS STEEL 18-8
4	TOP PIVOT PIN	STAINLESS STEEL ASTM A582
5	DISC	BRONZE ASTM B584
6	DISC SEAT	BUNA-N (STEEL REINFORCED)
7	PIVOT PIN SEAL	BUNA-N
8	BOTTOM PIVOT PIN	STAINLESS STEEL ASTM A581
9	LOCKING SCREW	STEEL ASTM A307 GR. B
10	ADAPTER PLATE SCREW	STEEL ASTM A307 GR. B
11	ADAPTER PLATE	STEEL ASTM A36
12	HAND LEVER KEY	STEEL 1018
14	HAND LEVER	CAST IRON ASTM A48 CL. 30
15	LOCK LEVER	CAST IRON ASTM A48 CL. 30
45	RETAINING PLATE	STEEL ASTM A36
46	RETAINING NUT	STEEL ASTM A563
47	THREADED ROD	STEEL ASTM A307 GR. B

SEWAGE AIR / VACUUM VALVE

DET	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 GR.B
2	COVER	CAST IRON ASTM A126 GR.B
3	COVER GASKET	LEXIDE (non-asbestos)
4	COVER BOLT	STEEL ASTM A307 GR. B
5	GUIDE PLATE	STEEL 1019
6	SEAT	BUNA-N
14	UPPER FLOAT	STAINLESS STEEL ASTM A240
15	LOWER FLOAT *	STAINLESS STEEL ASTM A240
16	SEAT RETAINING SCREW	STAINLESS STEEL 18-8
26	BOTTOM GUIDE BUSHING	STAINLESS STEEL ASTM A240
28	HOOD	STEEL AISI 1010
29	HOOD BOLT	STEEL ASTM A307 GR. B
34	GUIDE PLATE RET. SCREW	STAINLESS STEEL 18-8
38	FLOAT SET SCREW	STAINLESS STEEL 18-8
40	BUMPER	BUNA-N
43	TOP GUIDE BUSHING	STAINLESS STEEL ASTM A582
44	FLANGE GASKET	LEXIDE (non-asbestos)

6" TO 14" SEWAGE AIR RELEASE VALVE

DET	DESCRIPTION	MATERIAL
1	BODY	CAST IRON ASTM A126 GR.B
2	COVER	CAST IRON ASTM A126 GR.B
3	COVER GASKET	LEXIDE (non-asbestos)
4	COVER BOLT	STEEL ASTM A307 GR. B
5	LEVERAGE FRAME	STAINLESS STEEL ASTM A351
6	SEAT (orifice only)	STAINLESS STEEL ASTM A276
7	NEEDLE	BUNA-N
9	NEEDLE LEVER	STAINLESS STEEL ASTM A351
10	LEVER PIN	STAINLESS STEEL ASTM A582
11	RETAINING RING	STAINLESS STEEL PH15-7MO
12	CONNECTING LINK	STAINLESS STEEL ASTM A276
13	FLOAT LEVER	STAINLESS STEEL ASTM A351
14	FLOAT *	STAINLESS STEEL ASTM A240
33	FLOAT STEM	STAINLESS STEEL ASTM A213

* CONCAVE FLOAT PATENT PENDING

DATE
09-01-03



DRWG. NO.
S-400C-1

SPECIFICATIONS OTHER SIDE



SPECIFICATIONS

SERIES 400C-I CUSTOM COMBINATION SEWAGE AIR VALVES WITH ATTACHMENTS

The Custom Combination Sewage Air Valve shall be dual function, venting large volumes of air thru the large orifice and small pockets of air thru the small orifice before shutting off without spillage. Thereafter, while the air valve is pressurized, pockets of air collecting will be vented thru the small orifice automatically. Should vacuum develop in the force main, the upper flat top float shall open the large orifice permitting large volumes of air to re-enter the force main to break the vacuum and prevent water column separation. When the force main returns to normal pressure, the Custom Combination Air Valve shall close without spillage. The upper flat top float shall be protected from vacuum impact by a Buna-N Bumper.

The Custom Combination Sewage Air Valve shall consist of an independent large orifice Air / Vacuum Valve with an independent small orifice Air Release Valve connected to its side. The small orifice air valve shall be separated from the large orifice air valve by a 2" solid bronze gate valve. The large orifice air valve shall incorporate one upper flat top float and one lower Concave* stainless steel float, thereby maintaining an air gap between the bottom Concave* float and upper flat top shut-off float.

The small orifice air valve shall have an internal compound lever mechanism including a long float stem with a stainless concave float threaded on, 12" away from the mechanism, thereby maintaining an air gap between the float and the mechanism. The air gaps shall retard waste solids from clogging the upper shut-off float of the large orifice and the lever mechanism of the small orifice valve.

Both lower floats shall be heavily constructed stainless steel (hermetically sealed) having concave bottom impact areas to provide immediate resistance to flow and instant upward movement to shut off each discharge orifice without spilling.

The Air / Vacuum Valve inlet shall be 4" threaded or flanged 6" thru 14" and the outlet shall be plain with hood or 125# flanged (Engineer to specify). The side connected Air Release Valve shall have a 2" NPT inlet and 1/2" NPT outlet. The small orifice shall be 1/4" diameter for operating (opening) pressure up to 150 psi and venting capacity of 90 CFFAM.

The Custom Combination Sewage Air Valve shall be fitted with an inlet isolation valve. A 2" all Bronze gate valve to isolate the Air Release Valve from the Air & Vacuum Valve and a 4" thru 14" BFV to isolate the Air / Vacuum Valve from the force main. (2) blowoff valves, (2) flush valves and minimum of 5' of rubber hose with quick disconnects for back-flushing.

The manufacturer shall certify venting capacity and provide installation and maintenance manuals with each Custom Combination Sewage Air Valve.

Body & cover	Cast Iron	ASTM A126 Gr. B
Internal linkage	Stainless Steel	Series 300
Float Stem*	Stainless Steel	ASTM A213 T303
Lower Concave Float (Patented)	Stainless Steel	ASTM A240 T304
Needle - Seat & Bumper	Buna-N	Nitrile Rubber
Exterior paint	Universal Primer	FDA Approved for Potable Water contact

* Float design may vary on certain sizes

Note: Other materials available.

Valve to be APCO Series 400C-I Custom Combination Sewage Air Valves with attachments as manufactured by Valve & Primer Corporation, Schaumburg, Illinois, U.S.A.



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