"Apollo"®

REVISION DATE: 02/13/06

MODEL A8000

DESCRIPTION

A8000 ON-OFF FLOAT VALVE

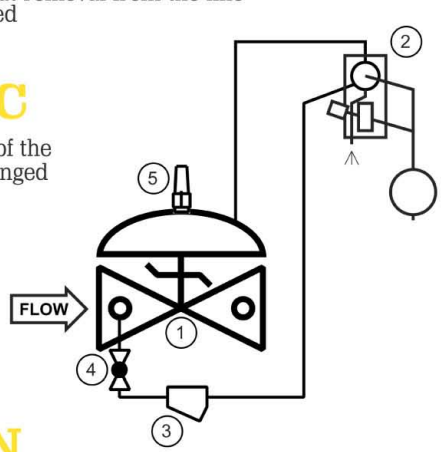
The Model A8000 is applicable anywhere it is necessary to automatically maintain the water level in storage tanks or reservoirs. Such applications occur in:
- Municipal water
- Rural water
- Industrial plants
- Fire protection systems

SERIES FEATURES

- Automatic tank fill and shut-off
- Accurate shut-off
- Opening and closing levels independently adjustable
- Pilot can be valve-or remote-mounted
- Float pilot design provides air gap to prevent cross connection
- Can be maintained without removal from the line
- Adjustable response speed
- Factory tested

SCHEMATIC

The Model A8000 consists of the following components, arranged as shown on the schematic diagram:
1.) Basic Control Valve
2.) Float Pilot 814
3.) Y-Strainer
4.) Isolation Ball Valve
5.) Visual Indicator (Optional)



OPERATION

The Model A8000 is designed for tank fill only. A rotary, 3-port, float activated pilot controls the main valve. With the float at the low position on the rod, the pilot shifts to vent water from the diaphragm chamber of the main valve. This allows the valve to open and fill the tank. When the float/fluid level reaches the high position, the pilot shifts to apply full valve inlet pressure to the diaphragm of the main valve, forcing the valve fully closed.

On 6" and smaller valves, the float pilot operates the main valve directly. On 8" and larger valves, the float pilot operates the main valve through a high-capacity, three-way auxiliary pilot.

RECOMMENDED INSTALLATION

- Install the valve with adequate space above and around the valve to facilitate servicing. Refer to dimension table.
- Valve should be installed with the bonnet (cover) at the top, particularly 8" and larger valves, and any valve with a limit switch.
- VALVE AT TOP OF TANK (valve mounted float pilot)

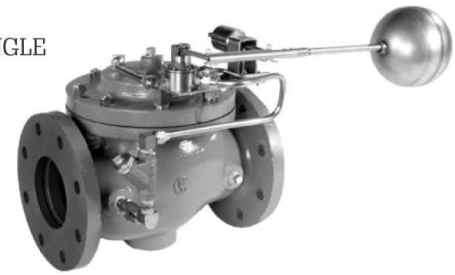
A shut-off valve should be installed upstream of the control valve to allow for isolation of the valve during startup and maintenance. Install a stilling well to protect the float ball assembly from surface turbulence.

- VALVE AT THE BOTTOM OF TANK (remote mounted float pilot)

Shut-off valves should be installed upstream and downstream of the control valve to allow for isolation of the valve during start and maintenance. If necessary, install a stilling well to protect the float ball assembly from surface turbulence. The float pilot ports must be connected to the main valve via field installed tubing, minimum 3/8" O.D. Refer to Operations/Maintenance Manual for details.

Sizes: GLOBE/ANGLE

Threaded Ends:
1 1/4" - 3"
Grooved Ends:
1 1/2" - 4"
Flanged Ends:
1 1/4" - 24" (globe);
1 1/4" - 16" (angle)



SIZING GUIDELINES

While most Model A8000 Float Valves are line size, there are two factors to check. To keep from using too small a valve, flow rate should be limited to a maximum velocity of 25 ft/sec. Too large a valve can result in loss of inlet pressure, which is needed to close the valve on high level. Consult the factory for assistance.

SIZE	1 1/4"-1 1/2"	2"	2 1/2"	3"	4"	6"
MIN. FLOW GPM	14-23	50	75	115	200	450
MAX. FLOW GPM	115-160	260	370	570	1000	2250

SIZE	8"	10"	12"	14"	16"	24"
MIN. FLOW GPM	780	1225	1750	2100	2750	6250
MAX. FLOW GPM	3900	6150	8700	10500	13800	31300

MAXIMUM PRESSURE

Limited by float pilot to 250 PSI MAX., all materials and end connections.

FLOAT PILOT - Rods

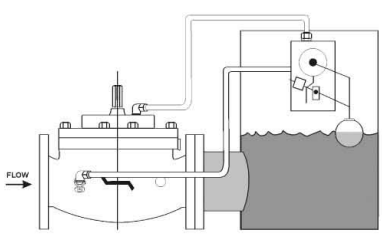
Sizes: 1 1/4" - 6" supplied with (2) 12" rods; 8" and larger valves supplied with (4) 12" rods

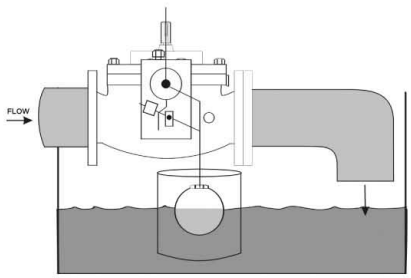
TEMPERATURE RANGE

(Valve Elastomers)
Buna-N -40° F - 180°F; Viton 0° F - 400°F; EPDM 0° F - 300°F

STANDARD MATERIALS

Body/Bonnet: Ductile Iron (epoxy coated), Carbon Steel (epoxy coated), Stainless Steel, B61 Bronze, Others available (consult factory)
Seat Ring: Bronze B61, Stainless Steel
Stem: Stainless Steel, Monel
Spring: Stainless Steel
Diaphragm: Nylon Reinforced, Buna-N, Viton, EPDM
Seat Disc: Buna-N, Viton, EPDM
Pilot: Bronze, Stainless Steel
Other pilot system components: Bronze/Brass, All Stainless Steel
Tubing & Fittings: Copper/Brass, Stainless Steel





"Apollo" Valves
Manufactured by Conbraco Industries Inc.

Email : conbraco@conbraco.com
Sales & Service Department: P.O. Box 247 Matthews, N.C. 28106 Phone: 704.841.6000 Fax: 704.841.6021
International Sales Department: P.O. Box 247 Matthews, N.C. 28106 Phone: 704.841.6000 Fax: 704.841.6020

"Apollo"®

MODEL A8000

REVISION DATE: 02/13/06

SPECIFICATIONS

The float control valve shall control the level in the tank by (a) opening when the float is down, indicating the tank needs filling, and (b) closing tightly when the float is up, indicating the tank is full. The primary control shall be a three-way, rotary disc, air gap float pilot which is adjustable for both the high and low level points.

DESIGN

The float control valve shall be a single-seated, line pressure operated, diaphragm actuated, pilot controlled globe valve. The valve shall seal by means of a corrosion-resistant seat and a resilient, rectangular seat disc. These, and other parts, shall be replaceable without removing the valve from the line. The stem of the main valve shall be guided top and bottom by integral bushings. Alignment of the body, bonnet and diaphragm assembly shall be by precision dowel pins. The diaphragm shall not be used as a seating surface, nor shall pistons be used as an operating means. The pilot system shall include a Y-strainer and isolation ball valves. The float pilot shall be furnished separately for remote mounting in the tank. The float control valve shall be operationally and hydrostatically tested prior to shipment.

MATERIALS OF CONSTRUCTION

The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. All ferrous surfaces shall be coated with 4 mils of epoxy. The main valve seat ring shall be bronze per ASTM B61. Elastomers (diaphragms, resilient seats and O-rings) shall be Buna-N. The float pilot shall be bronze per ASTM B61, with stainless steel internals. The 5" spherical float shall be stainless steel, as shall the float rods and linkage. The isolation ball valves shall be brass and control line tubing shall be copper.

OPERATING CONDITIONS

The float control valve shall be suitable for mounting at the base of the tank, with the float pilot remotely mounted inside the tank. Two field-installed lines shall connect the main valve and float pilot. The valve shall be capable of a maximum fill rate of <X> gpm at inlet pressures ranging from <X to X> psi with an outlet tank level of <X> feet.

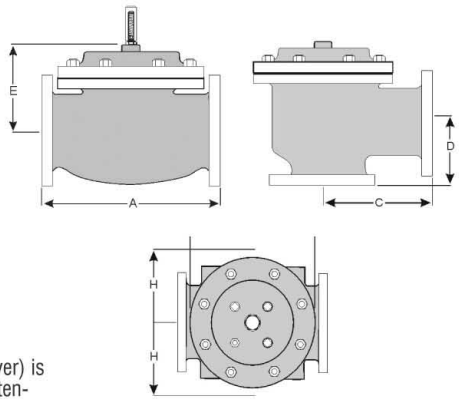
ACCEPTABLE PRODUCTS

The float control valve shall be a <size> Model A8000, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by Conbraco Industries, Matthews, NC.

U.S. DIMENSIONS - INCHES

DIM	END CONN.	1 1/4-1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	24
	SCREWED	8 3/4	9 7/8	10 1/2	13	--	--	--	--	--	--	--	--
A	GROOVED	8 3/4	9 7/8	10 1/2	13	15 1/4	--	--	--	--	--	--	--
	150# FLGD	8 1/2	9 3/8	10 1/2	12	15	17 3/4	25 3/8	29 3/4	34	39	40 3/8	62
	300# FLGD	8 3/4	9 7/8	11 1/8	12 3/4	15 5/8	18 5/8	26 3/8	31 1/8	35 1/2	40 1/2	42	63 3/4
	SCREWED	4 3/8	4 3/4	6	6 1/2	--	--	--	--	--	--	--	--
C	GROOVED	4 3/8*	4 3/4	6	6 1/2	7 5/8	--	--	--	--	--	--	--
ANGLE	150# FLGD	4 1/4	4 3/4	6	6	7 1/2	10	12 11/16	14 7/8	17	--	20 13/16	--
	300# FLGD	4 3/8	5	6 3/8	6 3/8	7 13/16	10 1/2	13 3/16	15 9/16	17 3/4	--	21 5/8	--
	SCREWED	3 1/8	3 7/8	4	4 1/2	--	--	--	--	--	--	--	--
D	GROOVED	3 1/8*	3 7/8	4	4 1/2	5 5/8	--	--	--	--	--	--	--
ANGLE	150# FLGD	3	3 7/8	4	4	5 1/2	6	8	11 3/8	11	--	15 11/16	--
	300# FLGD	3 1/8	4 1/8	4 3/8	4 3/8	5 13/16	6 1/2	8 1/2	12 1/16	11 3/4	--	16 1/2	--
E	ALL	6	6	7	6 1/2	8	10	11 7/8	15 3/8	17	18	19	27
H	ALL	10	11	11	11	12	13	14	17	18	20	20	28 1/2

*GROOVED END NOT AVAILABLE IN 1 1/4"



For maximum efficiency, the Apollo control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8" and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

Special Functions
000=STD MDL-Remote Mounted Float
VVM=Pilot W/Float Rod Mount Parallel Flow
PVM=Pilot W/Float Rod Perpendicular Flow

***Float Rod Furnished**
2FT Length (1 1/4 - 6")
4FT Length (8" & Above)

Model Number

A 8 0 0	G	V V M	0 2 0	1	1	1	1

Valve Type / Connection
A=Angle / Flanged ANSI 150 Class
B=Angle / Flanged ANSI 300 Class
C=Angle / Threaded (1-1/4 - 3")
E=Angle / Grooved Ends (1-1/2 - 4")
F=Angle / Flanged 300clsX150cls
G=Globe / Flanged ANSI 150cls
H=Globe / Flanged ANSI 300cls
J=Globe / Threaded Ends (1-1/4 - 3")
V=Globe / Grooved Ends (1-1/2 - 4")

Valve Size
012= 1 - 1/4"
015= 1 - 1/2"
020= 2"
025= 2 1/2"
030= 3"
040= 4"
060= 6"
100= 10"
120= 12"
140= 14"
160= 16"
240= 24"

Seat Ring Material
1=Bronze, B61
2=Stainless Steel

Body & Bonnet Material
1=Ductile Iron
2=Cast Steel
4=Bronze
7=Stainless Steel

Elastomers
1=Buna-N 2=Viton 3=EPDM

Pilot, Fitings, Tube

MATERIAL			
CODE	PILOT	FTGS	TUBE
1	BZ	BRS	CU
4	SS	BRS	CU
8	SS	SS	SS
9	BZ	SS	SS

"Apollo" Valves
Manufactured by Conbraco Industries Inc.

Email : conbraco@conbraco.com
Sales & Service Department: P.O. Box 247 Matthews, N.C. 28106 Phone: 704.841.6000 Fax: 704.841.6021
International Sales Department: P.O. Box 247 Matthews, N.C. 28106 Phone: 704.841.6000 Fax: 704.841.6020