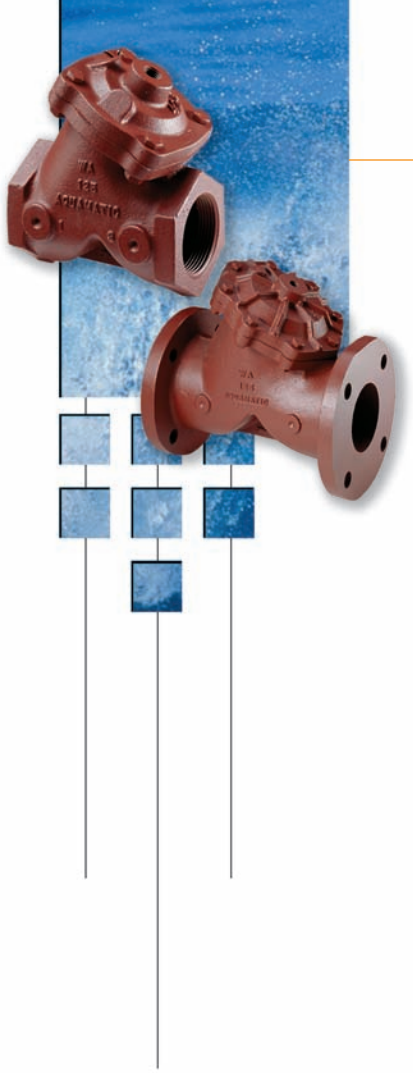


GE

Water & Process Technologies

AquaMatic® Product Specifications

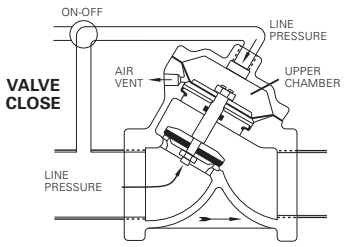
Metal Diaphragm Valves

Features and Options

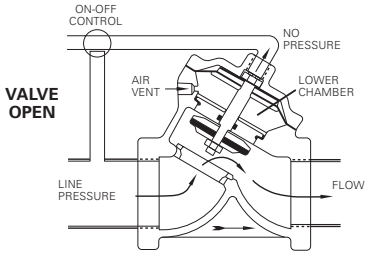
- **Low Pressure Loss** ..... The AquaMatic Y-pattern diaphragm valve features a large seat opening and high lift-disc for higher flow rates at a lower pressure loss than other comparable valves
- **Positive Control** ..... A separate valve flow and control chambers permits positive sealing without springs. The optional spring-assist open feature is available for low pressure and self-draining applications.
- **Cost Effective** ..... The AquaMatic is a cost-effective solution both in initial cost, as well as lifetime maintenance expenses.
- **Long Diaphragm Life** ..... Separate diaphragm chambers protects the diaphragm from the flow stream, while allowing the valve to be serviced in-line.
- **Durable Construction** ..... The valve is constructed of cast iron, brass, stainless steel and Nitrile elastomer components, giving an unparalleled service life of three years or longer depending on the application's environment.

- Design and application engineering service
- Optional seal and diaphragm materials for special applications
- Handles liquid and gases
- Adaptable to wide variety of control devices
- Optional adjustable flow rate control
- Optional spring assist
- Optional position indication
- Optional all stainless internals (3" and 4" sizes only)

Principles of Operation



Drip-Tight Closing: *Closure is obtained by directing line pressure or equivalent independent pressure into the upper chamber. This pressure on the large diaphragm area causes the valve disc to seal against the seat. (Ratio of diaphragm to disc area is 1.3 or greater.)*



Full Open Operation: *When closing pressure in upper chamber is relieved by venting the pilot line, the valve opens, positively, by line pressure on the disc.*

Applications

In addition to the water treatment process systems, the valves are used in a wide variety of applications. Some of the typical applications are:

- Concrete Additive
- Agricultural Irrigation
- Turf Irrigation
- Air Dryers
- Pump Controls
- Fuel Handling
- Cooling Towers
- Level Control Systems
- Sand Blasting
- Car Wash Systems
- Process Water Systems
- Laundry Equipment
- Conveyor Systems
- Air Control Systems
- Dust Suppression
- Plastic Molding
- Machinery
- Nitrogen Handling
- Vacuum Control Systems
- Machine Hydraulic
- Cooling Control
- Street Cleaning Vehicles
- Centrifugal Separators
- HVAC Systems

Series 420 Valves

Standard valves are normally open. Body and cap are of cast iron. Preformed stress-relieved diaphragm of Nitrile (Buna N) on Polyamide, and static seals are Nitrile, stainless steel and brass internal parts.

Pipe sizes are 3/4 to 3-inch threaded (N.P.T. or B.S.P.); 3-inch through 6-inch flanged drilled in accordance with ASA16.1 class 125, or BSP4504.

Options

Normally closed, spring assist closed, spring assist open, limit stop, position indicator, high temperature service, brass body and cap (3/4 to 3-inch only), optional seal and diaphragm materials for special application, stainless steel internal parts.

Operating Specifications

Working Pressure.....125 PSI (8.6 bar)
Maximum Temperature 150ºF (65ºC)
250ºF (120ºC) – Optional

Series VAV Air Valves

Standard valves are normally open. Body and cap are of cast iron. Preformed stress-relieved diaphragm of Nitrile (Buna N) on Nylon, and static seals are FKM & Hycar, stainless steel and brass internal parts.

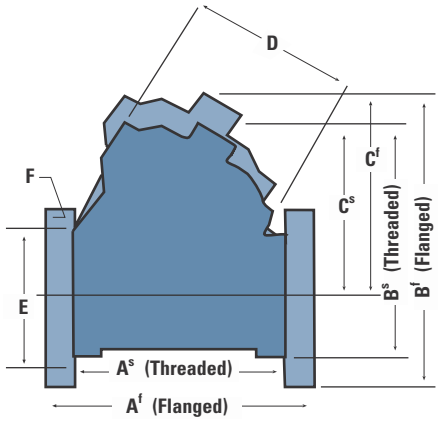
Pipe sizes are 3/4 to 3-inch threaded (N.P.T. or B.S.P.); 3 to 4-inch flanged drilled in accordance with ASA16.1 class 125, or BSP4504.

Options

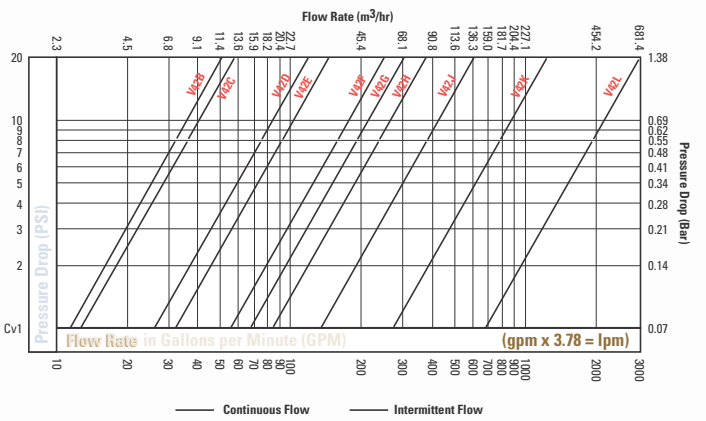
Normally closed, spring assist closed, spring assist open, FKM diaphragm for high temperature service.

Operating Specifications

Working Pressure.....125 PSI (8.6 bar) maximum
Temperature 150ºF (65ºC)
250ºF (120ºC) – Optional



Metal Body Valves



Flow Thru Metal Diaphragm Valves

	Pipe Size	Model Number			Unit	Dimensions (Approximate)								
		420 Series	VAV Series	CV (3)		A^s	A^f	B^s	B^f	C^s	C^f	D	E(1)	F(2)
Threaded	3/4"	V42B	VAVB	11.4	in.	3.69		4.25		3.75		2.75		
	1"	V42C	VAVC	12.8	mm	94		108		95		70		
	1-1/4"	V42D	N/A	26.5	in.	4.75		5.37		4.00		3.50		
	1-1/2"	V42E	VAVE	32.5	mm	121		137		102		89		
	2"	V42F	VAVF	56	in. mm	6.62 168		7.25 184		5.37 137		4.87 124		
	2"	V42G	VAVG	68	in.	7.37		8.00		5.75		5.50		
	2-1/2"	V42H	VAVH	84	mm	187		203		146		140		
	3"	V42J	VAVJ	134	in. mm	9.00 229		9.75 248		6.75 171		7.25 184		
Flanged	3"	V42J	VAVJ	134	in. mm		10.62 270		10.75 273		7.00 178	7.25 184	6.00 152	0.75 19
	4"	V42K	VAVK	275	in. mm		11.75 298		14.75 375		10.00 254	8.75 222	7.50 191	0.75 19
	6"	V42L	N/A	680	in. mm		17.00 432		19.00 483		13.50 343	15.75 402	9.50 241	0.87 2

(1) *Bolt circle diameter* **(2)** *Bolt hole diameter* **(3)** *CV = Flow rate in gpm of water at 60°F @ 1psi pressure drop*