



## AQUAMATIC V42 SERIES CAST IRON DIAPHRAGM VALVES



**AquaMatic V42 Series Diaphragm Valves** are constructed of cast iron or brass and designed for water applications. Their unique Y-pattern design with a large seat opening and high lift disc permits higher flow rates at lower pressure loss than competitive valves. This product is manufactured in the USA with foreign and domestic parts.

### Features and Benefits

- Larger diaphragm area than seat area permits drip-tight closing without any springs
- All components can be serviced while the valve is inline
- Separate flow and control chambers permit positive closing without springs
- Reinforced diaphragms are pre-formed and stress relieved to maximize responsiveness and product life
- Adaptable to a wide variety of control devices
- Diaphragm acts as an actuator, eliminating the need for electric or pneumatic actuators
- Cast iron, brass, stainless steel, and nitrile elastomer components for unparalleled service
- Available in 3/4 to 3 inch threaded (NPT or BSP) and 3 to 6 inch flange drilled in accordance with ASA 16.1 class 125, or BSP4504

### Typical Applications

- Agricultural Irrigation
- Car Wash Systems
- Centrifugal Separators
- Cooling Towers
- Laundry Equipment
- Level Control Systems
- Hydraulic Machinery
- Nitrogen Handling
- Plastic Molding
- Process Water Systems
- Pump Controls
- Street Cleaning Vehicles

### Operating Specifications

Max Pressure . . . . . 125 psi (8.6 bar)

Max Temperature . . . . . 140°F (60°C)

**NOTE:** IAPMO R&T NSF/ANSI 61 and NSF/ANSI 372 certifications are limited to restrictions below. Other options were not tested for certification.

Cold water applications below 73°F (23°C).

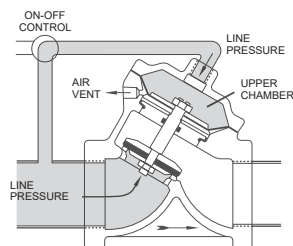
Normally Open valves.

Buna-N seal material (seal option #1).

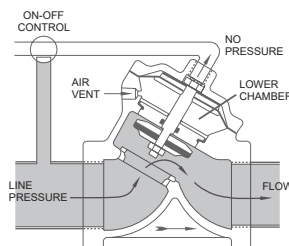
### Options

- Spring-assist closed
- Spring-assist open
- Limit stop for flow control
- Position indicator
- Seal and diaphragm materials for special applications
- High temperature service

### 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.



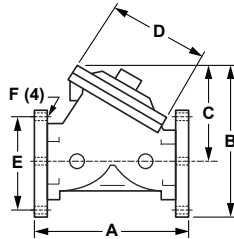
**FULL OPEN OPERATION:** When the closing pressure in the upper chamber is relieved by venting the pilot line, the valve opens positively, by line pressure on the disc.

**Certified by**  
IAPMO R&T to  
NSF/ANSI 61 and  
NSF/ANSI 372 for  
lead free compliance.

# V ALVES



## AQUAMATIC V42 SERIES CAST IRON DIAPHRAGM VALVES



### Dimensions and Weights

Model Number	Pipe Size	Cv	End Connector Style	Approximate Dimensions					
				A	B	C	D	E	F
V42B	3/4" (20 mm)	11.4 (9.8 Kv)	Threaded	3.69" (94 mm)	4.25" (108 mm)	3.75" (95 mm)	2.75" (70 mm)	—	—
V42C	1" (25 mm)	12.8 (11.1 Kv)	Threaded	3.69" (94 mm)	4.25" (108 mm)	3.75" (95 mm)	2.75" (70 mm)	—	—
V42D	1-1/4" (32 mm)	26.5 (22.9 Kv)	Threaded	4.75" (121 mm)	5.37" (137 mm)	4.00" (102 mm)	3.50" (89 mm)	—	—
V42E	1-1/2" (40 mm)	32.5 (28.1 Kv)	Threaded	4.75" (121 mm)	5.37" (137 mm)	4.00" (102 mm)	3.50" (89 mm)	—	—
V42F	2" (50 mm)	56.0 (48.4 Kv)	Threaded	6.62" (168 mm)	7.25" (184 mm)	5.37" (137 mm)	4.87" (124 mm)	—	—
V42G	2" (50 mm)	68.0 (58.8 Kv)	Threaded	7.37" (187 mm)	8.00" (203 mm)	5.75" (146 mm)	5.50" (140 mm)	—	—
V42H	2-1/2" (65 mm)	84.0 (72.7 Kv)	Threaded	7.37" (187 mm)	8.00" (203 mm)	5.75" (146 mm)	5.50" (140 mm)	—	—
V42J	3" (80 mm)	134.0 (116.0 Kv)	Threaded	9.00" (229 mm)	9.75" (248 mm)	6.75" (171 mm)	7.25" (184 mm)	—	—
V42J	3" (80 mm)	134.0 (116.0 Kv)	Flanged	10.62" (270 mm)	10.75" (273 mm)	7.00" (178 mm)	7.25" (184 mm)	6.00" (152 mm)	0.75" (19 mm)
V42K	4" (100 mm)	275.0 (238.0 Kv)	Flanged	11.75" (298 mm)	14.75" (375 mm)	10.00" (254 mm)	8.75" (222 mm)	7.50" (191 mm)	0.75" (19 mm)
V42L	6" (150 mm)	680.0 (588.0 Kv)	Flanged	17.00" (432 mm)	19.00" (483 mm)	13.50" (343 mm)	15.75" (402 mm)	9.50" (241 mm)	0.87" (22 mm)

