

# Osmonics®

## AquaMatic® K520 Series Product Specifications Corrosive Application Valves



AquaMatic® series K520 composite valves are designed to handle deionized water as well as acids, caustic harsh chemicals or gases that would rapidly corrode metal valves. The valves are constructed of corrosion-resistant materials, but still have all of the advantages of unparalleled AquaMatic® metal body valve design, along with their own design advantages. The K520 series valve body and cap are molded with glass-filled Noryl\* thermoplastic.

### ■ K520 Series Features and Options

- Low Pressure Loss .....Y-pattern diaphragm valve, with large seat opening and high lift disc permits higher flow rates at lower pressure loss than other comparable valves.
- Positive Control .....Separate flow and control chambers permit positive closing without springs; and only nominal cost for spring assist opening for low-pressure and self-draining applications.
- Cost-Effective Design .....The K520 series valve is a cost-effective solution in initial purchase price as well as in lifetime maintenance. All components can be serviced while the valve is in-line.
- Separate Diaphragm Chambers .....Separate diaphragm chambers protect the valve diaphragm from the flow stream. This allows the diaphragm to be replaced without disrupting service.
- Long Diaphragm Life.....Pre-formed, stress relieved diaphragm minimizes fatigue, maximizes valve responsiveness and diaphragm lifetime.
- Corrosion Resistant .....All internal parts in contact with media are made of composite materials. Seals are ethylene propylene for better chemical resistance\*\*.
- Pipe Sizes .....Series K520 valves are available in four different sizes, from 1/2-inch to 2-1/2-inch. A variety of available end connectors makes the valve compatible for 3/8-inch to 3-inch pipe sizes.
- Design/Application Services
- Optional Adjustable Flow Control
- Optional Position Indicators
- Optional Seal and Diaphragm Materials for Special Applications
- Optional Spring Assist
- Adaptable to a Wide Variety of Control Devices

### ■ Operating Specifications

- Maximum Pressure.....125 PSI (8.6 bars)
- Maximum Temperature .....140°F (60°C)
- Operation.....The K520 series valve is closed by introducing either hydraulic or pneumatic pressure to the upper diaphragm chamber. The control pressure must be equal to or greater than the line pressure. The valve is opened by relieving the pressure from the upper diaphragm chamber. The line pressure under the seat will then open the valve. The unique AquaMatic® Y-pattern design minimizes pressure loss in the valve.

### ■ Available Valve Options

- Normally Open (Standard)
- Spring Assist Closed
- Limit Stop Flow Control
- Optional Seals
- Normally Closed
- Spring Assist Open
- Position Indicator
- Material

### ■ Ordering Information

- To order the K520 series valve, you will need to specify
  - Valve Size
  - Working Pressure and Temperature
  - Valve Option
  - Type of End Connections

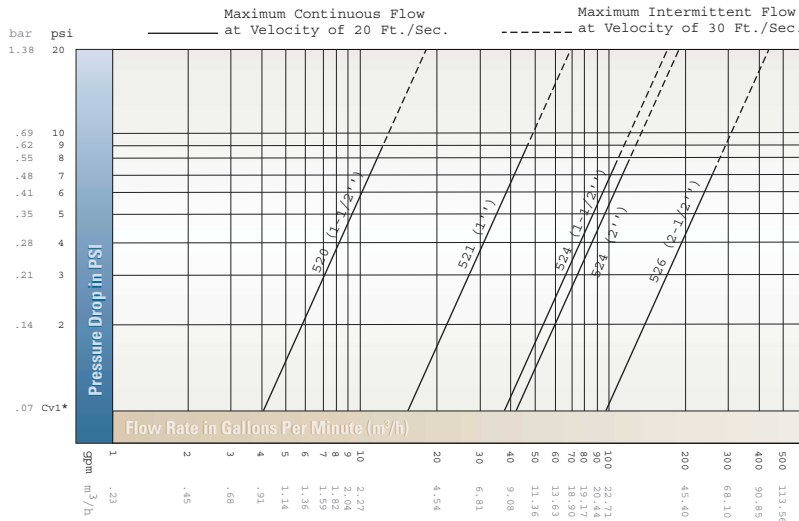
### ■ Typical Applications

- Water Treatment Systems
- Evaporation
- Level Control Systems
- Deionizers
- Metal Recovery Systems
- Fertilizer Spray Equipments
- Chemical Injection
- Process Water Systems
- Electronic Industry
- Desalination
- Mining Wastes
- Detergent and Bleach Handling

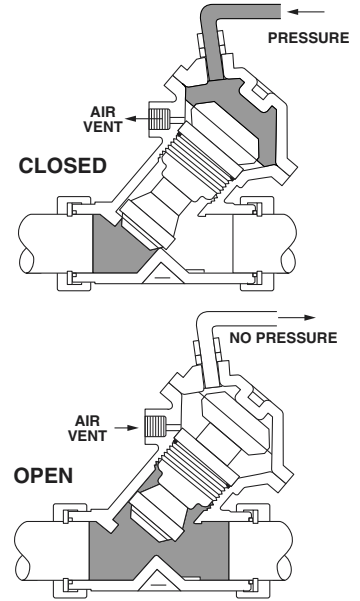
\* Noryl is a trademark of General Electric Company.

\*\*Valves are **NOT** recommended for use with any aromatic hydrocarbon based media.

# Flow Capabilities of K520 Plastic Diaphragm Valves

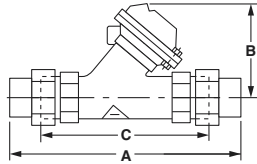


\*Cv=Flow rate in GPM of water @ 60°F (15.5°C) @ 1 PSI (.069 bar) drop.



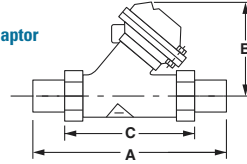
# Dimensions for K520 Series Valves

Valve With Union End Connectors



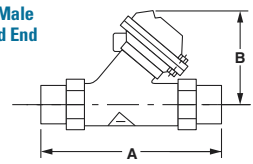
Valve Series	Units	Length A	Height B	Length C
K520	inches	7.00	2.62	4.87
	mm	177.8	68.5	123.7
K521	inches	9.00	4.06	6.31
	mm	228.6	103.1	160.3
K524	inches	12.50	5.06	9.31
	mm	317.5	128.5	235

Valve With Grooved Adaptor Connectors



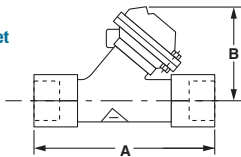
Valve Series	Units	Length A	Height B	Length C
K520	inches	7.00	2.62	3.93
	mm	177.8	65.5	99.8
K521	inches	9.00	4.06	4.50
	mm	228.6	103.1	114.3
K524	inches	13.25	5.05	7.75
	mm	336.5	128.5	196.8

Valve With Male Socket Weld End Connectors



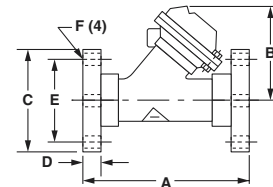
Valve Series	Pipe Size	Units	Length A	Height B
K524	2"	inches	10.50	5.06
		mm	266.7	128.5
K526	2-1/2"	inches	15.00	7.31
		mm	381.0	185.7

Valve With Female Socket Weld End Connectors



Valve Series	Pipe Size	Units	Length A	Height B
K524	2"	inches	10.50	5.06
		mm	266.7	128.5
K526	2-1/2"	inches	15.00	7.31
		mm	381.0	185.7

Valve With Flanged Socket Weld End Connectors



Valve Series	Pipe Size	Units	Length A	Height B	Dia. C	Thk. D	B.C. Dia. E	Dia. F
K524	2"	inches	9.00	5.06	6.00	.75	4.750	.688
		mm	226.6	128.5	152.4	19.05	120.85	17.48
K526	2-1/2"	inches	11.37	7.31	6.94	.94	5.500	6.88
		mm	288.8	185.7	176.3	23.9	139.7	17.48
K526	3"	inches	12.37	7.31	7.38	1.81	6.000	.750
		mm	314.2	185.7	187.5	45.7	152.4	19.05

## For More Information:

Call **Osmonics** at **(815) 964-9421** or **(800) 245-9421**, or visit **www.osmonics.com**



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