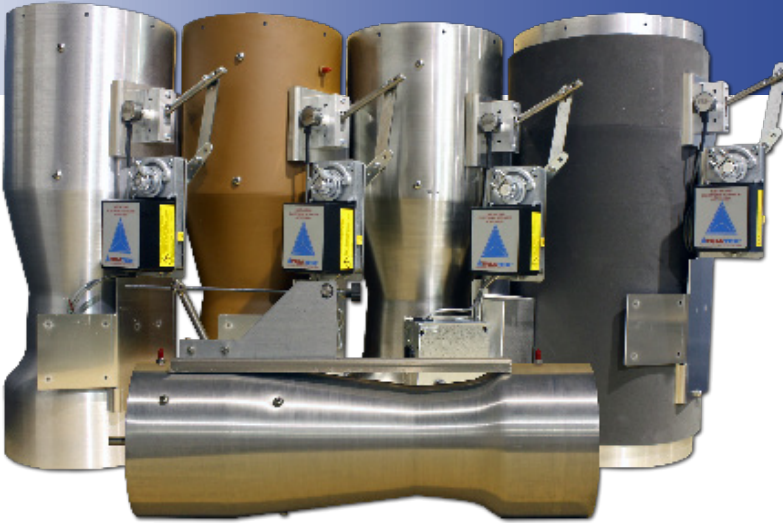


Venturi Valve Overview



ABOUT VENTURI VALVES

Top hospitals, universities, and research facilities across the globe trust Triatek's Venturi air valves to protect its occupants from dangerous airborne pathogens and chemicals.

Triatek's Venturi valves maintain the desired airflow regardless of duct pressure. This is accomplished with a cone and spring-loaded piston inside the cone. As the duct pressure increases, the spring compresses and pushes the cone further into the shell. This mechanism keeps the volumetric flow rate constant as air travels through the valve and duct pressure varies.

Triatek Venturi valves utilize fast-acting electric actuators that provide a rapid response to changing conditions. This rapid response ensures the airflow is maintained which is critical in areas requiring a specific threshold of air flow in order to protect individuals from airborne chemicals or particulates.

FEATURES AND OPTIONS

- Low and medium pressure constant volume valves
- Low and medium pressure partially closed valves
- Low and medium pressure shut-off valves
- Valves available in 8", 10", 12," and 14" diameters
- Available with Heresite[®] or Kynar[®] coatings
- Constant flow control
- Dependable and easy to install
- Available with fast-acting or standard-acting electronic actuators
- Fully pressure independent
- Factory calibrated airflow
- Field adjustable
- Low pressure drop
- Can be ganged for increased flow
- Maintenance-free
- Valves can be calibrated for vertical or horizontal positioning

Venturi Valve Overview

DETAILED OPTIONS

Aluminum or Stainless Steel - Typical Venturi valves are made of aluminum, but stainless steel is the material of choice for environments with highly corrosive or dangerous chemicals in the air stream.

Heresite - Heresite® is a brown phenolic coating baked on exposed aluminum to minimize corrosion. Heresite coatings provide resistance to a wide range of corrosives (reference the Triatek website for a full list of coatings).

Kynar/PVDF - Kynar®/PVDF provides excellent chemical resistance, high levels of purity, and superior mechanical properties. It is often used as a lining or protective barrier in applications in which Heresite® is not sufficient.

Thermal Insulation - Often used for supply valves, thermal insulation decreases energy costs by reducing thermal losses.

Constant Volume or Actuated - Constant volume Venturi valves are used for biosafety cabinets, constant volume fume hoods, ventilated cabinets, and outside air regulation. Actuated valves are used in systems that adapt to a dynamic environment.

Medium or Low Pressure - Medium pressure Venturi valves (0.6" to 3" wc) allow for higher flows for a given valve size, while Low Pressure Venturi Valves (0.3" to 3" wc) require a smaller pressure drop across the valve for maintaining a constant flow.

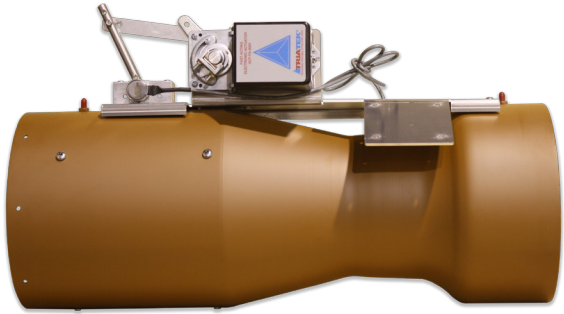
Partially Closed or Shut-Off - Partially closed Venturi valves allow for higher flows for a given valve size, while Shut-Off Venturi Valves allow the valve to close completely for equipment not currently in use, leading to energy savings.

Horizontal or Vertical - Customers should specify how the valve will be situated in the duct work, as vertically mounted valves are calibrated differently.

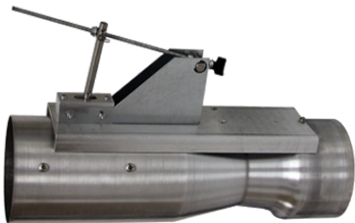
Size - Triatek offers 8", 10", 12" and 14" diameter valves for a variety of applications.

Ganged Valves - Valves can be ganged together to increase flow.

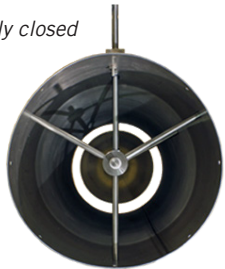
Heresite® coated Venturi valve



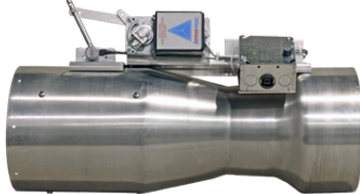
Constant volume



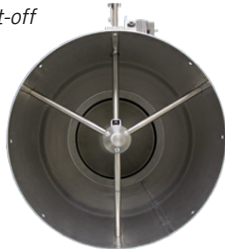
Partially closed



Fully actuated



Shut-off



Ganged Venturi valves



Triatek Venturi valves are available in various sizes



Venturi Valve Overview

Specifications	
Aluminum Shell Thickness	0.060"
Stainless Steel Shell Thickness	0.040"
Accuracy	+/- 5% or 10 cfm; whichever is greater
Internal Assembly Construction Materials	Stainless steel shaft and struts with Teflon® bearings

Notes:

Other options are available but not shown. Contact sales for more information.

Flow rates are subject to change without notice.

¹Medium pressure partially closed Venturi valve flows shown.

²Shut-off valves do not maintain +/- 5% beyond standard valve minimum flow.

³Belimo actuators are available upon request.

⁴Flows for non-stainless medium pressure, partially closed valves. See stainless steel Venturi valve data sheet for more information.

⁵Vertical "up" low pressure valves maintain flow from 0.4" to 3" wc.

⁶Flanged valves cannot be ganged.

⁷For vertical "up" flow and "down" flow applications please consult the factory for more information.

⁸Constant volume valve applications must have a specified flow.

Individual Valves												
Unit Size	Inside Diameter		Outside Diameter		Length		Clearance Height		Min. Flow		Max. Flow ¹	
	in.	mm	in.	mm	in.	mm	in.	mm	cfm	L/s	cfm	L/s
8"	7.75	197	7.88	200	23.00	584	14	356	35	17	700	330
10"	9.74	247	9.87	251	26.00	660	16	406	50	24	1000	472
12"	11.68	297	11.80	300	26.80	681	18	457	90	42	1500	708
14"	13.62	346	13.75	349	29.87	759	22	559	175	83	2100	991

Ganged Valves (Valves can be ganged together in any combination up to 6 valves.)

Unit Size & Number	Length		Width		Collar Height		Clearance Height		Min. Flow		Max Flow ¹		
	in.	mm	in.	mm	in.	mm	in.	mm	cfm	L/s	cfm	L/s	
10"	2	30.00	762	22.63	575	11.44	291	17	432	100	47	2000	944
	3	30.00	762	33.75	857	11.44	291	17	432	150	71	3000	1416
	4	30.00	762	22.50	572	22.88	581	34	864	200	94	4000	1888
	6	30.00	762	33.75	857	22.88	581	34	864	300	142	6000	2832
12"	2	30.80	782	26.75	679	13.50	343	19	483	180	85	3000	1416
	3	30.80	782	40.00	1016	13.50	343	19	483	270	127	4500	2124
	4	30.80	782	26.75	679	27.00	686	38	965	360	170	6000	2832
	6	30.80	782	40.00	1016	27.00	686	38	965	540	255	9000	4248
14"	2	33.87	860	32.15	817	16.00	406	24	610	350	165	4200	1982
	3	33.87	860	48.30	1227	16.00	406	24	610	525	248	6300	2973
	4	33.87	860	32.15	817	32.00	813	48	1219	700	330	8400	3964

Triatek Venturi Valve Flow Rates (CFM)

Size	STANDARD VENTURI VALVES				SHUT-OFF VENTURI VALVES			
	LOW PRESSURE		MEDIUM PRESSURE		LOW PRESSURE		MEDIUM PRESSURE	
	Min	Max	Min	Max	Min ²	Max	Min ²	Max
8"	35	500	35	700	0	400	0	600
10"	50	550	50	1000	0	450	0	850
12"	90	1050	90	1500	0	750	0	1100
14"	175	1400	175	2100 ⁷				

Product specifications are subject to change without notice. Triatek is a registered trademark of Triatek LLC. 062812

Part Number Guide

