

# Victaulic Vortex® 500 Fire Suppression System

The Victaulic Vortex® 500 fire suppression system is a hybrid system incorporating liquid (water) and inert gas (nitrogen) extinguishing agents discharged together from a single emitter.

Using proprietary supersonic technology, the system atomizes the water to <10µm forming a dense homogeneous suspension of nitrogen and water. In this manner two extinguishment mechanisms are occurring simultaneously: cooling and oxygen reduction.

The Victaulic Vortex 500 Fire Suppression System is self contained, requiring no additional piping once placed in the risk area, and unlike other technologies that use toxic agents it can activate immediately without pre-discharge delay. With only .26 gallons of water discharged from each emitter per minute, minimal wetting is incurred.

The Victaulic Vortex 500 Fire Suppression System allows for adjustments to aim the emitter only, it is not permissible to customize or alter after point of sale. Application in a room volume or elevation above sea level different than that specified during purchase is not condoned. Please contact Victaulic for more details on these guidelines.



**PATENT 7,686,093 - DUAL EXTINGUISHMENT FIRE SUPPRESSION SYSTEM USING HIGH VELOCITY LOW PRESSURE EMITTERS. FOREIGN PATENTS ALSO APPLIED FOR AND GRANTED.**

## APPLICATION

The Victaulic Vortex 500 Fire Suppression System can effectively be applied in total flooding fire suppression applications in the following areas:

- Information technology equipment areas
- Motor control centers (MCC)

### Environmental Impact

Since the Victaulic Vortex 500 system only discharges pure nitrogen and water, there are no environmental or life-safety risks as a result of a system discharge. The Environmental Protection Agency Significant New Alternatives Policy (SNAP) approval recognizes the Victaulic Vortex homogenous suspension discharge as a suitable replacement for Halon 1301. The system can be discharged immediately upon hazard detection, without a delay for occupant evacuation.

## OPERATION

The system is fully compatible with automatic hazard detection systems and is adaptable for remote manual activation if required.

A system installation and maintenance manual is available containing information on system components and procedures concerning design, operation, inspection, maintenance and recharge.

The Victaulic Vortex 500 system is particularly useful for suppressing fires in hazards where an electrically non-conductive medium is essential or desirable, where clean up of other agents present a problem, room integrity is not possible, or where the hazard is normally occupied and requires a non-toxic agent.

The basic system consists of stored nitrogen, a captive water supply, and integral overhead emitters in the hazard area. The quantity of stored nitrogen required is dictated by both the elevation and enclosure volume of the area being protected. The suspension of water and nitrogen is distributed and discharged into the hazard area through a twin piping network and emitter. The sidewall emitters are located at the top of the system, and require no additional piping before use in the hazard area.

### JOB/OWNER

System No. \_\_\_\_\_

Location \_\_\_\_\_

### CONTRACTOR

Submitted By \_\_\_\_\_

Date \_\_\_\_\_

### ENGINEER

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_

Approved \_\_\_\_\_

Date \_\_\_\_\_

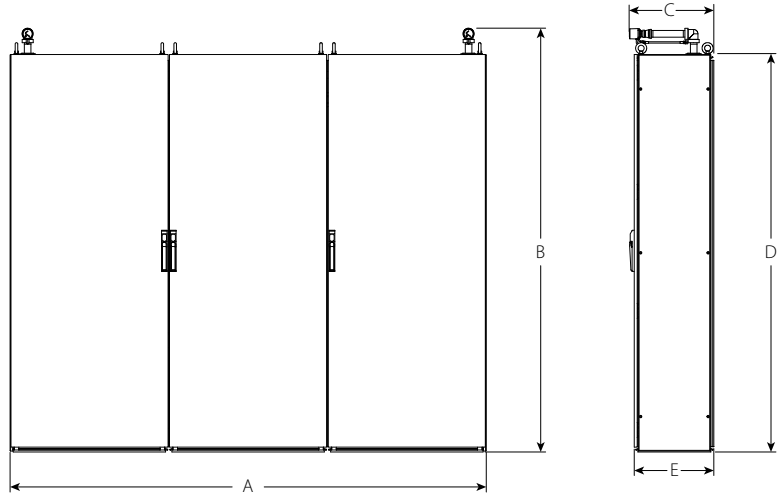
[www.victaulic.com](http://www.victaulic.com)

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## DIMENSIONS WITH OPTIONAL CABINET

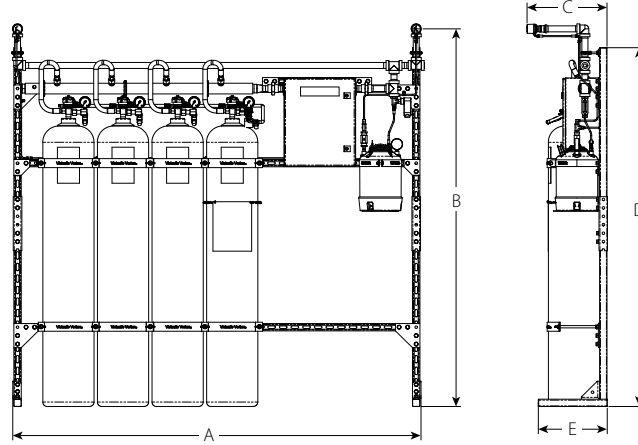


No. of tanks	Dimensions with Optional Cabinet					Weight*		
	A	B	C	D	E	cabinet without N tanks	with 49L tanks	with 80L tanks
	in/mm	in/mm	in/mm	in/mm	in/mm	lbs./kg.	lbs./kg.	lbs./kg.
1	63 1600	86.89 2207.1	17.6 447	79 2000	15.75 400	475 215.5	660 299.4	795 360.6
2	63 1600	86.89 2207.1	17.6 447	79 2000	15.75 400	475 215.5	845 383.3	1115 505.8
3	94.5 2400	86.89 2207.1	17.6 447	79 2000	15.75 400	750 340.2	1305 591.1	1710 775.6
4	94.5 2400	86.89 2207.1	17.6 447	79 2000	15.75 400	750 340.2	1490 675.8	2030 920.8

\* Average weight of Nitrogen cylinders - 49L (185 lbs.) 80L (320 lbs.)

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## DIMENSIONS



No. of Tanks	Size of N Tanks	Dimensions					Weight with N tanks*
		A	B	C	D	E	
		in/mm	in/mm	in/mm	in/mm	in/mm	lbs./kg.
1	49L	63.75 1619.3	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	410 185.9
2	49L	63.75 1619.3	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	620 281.2
3	49L	76.75 1949.5	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	830 376.5
4	49L	89.75 2279.7	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	1040 471.7
1	80L	63.75 1619.3	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	545 247.2
2	80L	63.75 1619.3	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	890 403.7
3	80L	76.75 1949.5	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	1235 560.2
4	80L	89.75 2279.7	86.89 2207.1	17.6 447	82.7 2100.6	15.15 384.8	1580 716.7

\* Average weight of Nitrogen cylinders - 49L (185 lbs.) 80L (320 lbs.)

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**INSTALLATION**

All system components and accessories must be installed by personnel trained by the manufacturer. All installations must be performed according to the guidelines stated in the manufacturer's design, installation, operation, inspection, recharge and maintenance manual. See publication: I-VORTEX.500

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**WARRANTY**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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**NOTE**

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

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For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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