









RV VENT CAP COMPARISONS

	Rotating Vents - fume extractors			Stationary vents - fume extractors		Conventional vents caps / debris covers		
See page 2 for airflow / draw rate data and product summary								
	Cyclone	Extreme Vent	RV-360	360 Siphon	Vac-U-Jet	Vent Line	Camco	Custom
Retail Price Range	\$17 - \$20.	\$47 - \$57	\$25.- \$30	\$25.- \$30	\$12 -\$15	\$4 - \$5	\$3 - \$4	\$4 - \$5
Weight / dimensions: width / height / flange dia.	7 oz. / 7.5" / 9" high/ 5" flange	1 lb.. / 10" / 5" high / no flange	8.7 oz. / 9.5" / 10" high/ 5.25" flange	5.4 oz. / 5.5" / 2.5" high / 5.5" Flange	4.2 oz. 4" / 4" / 5.5" flange	2.7 oz. / 3.75" / 3.25" high / 5.5	2 oz. / 3.75" / 3" high / 5.5" flange	5.4 oz. / 4" / 3" high / 5.25" Flange
Installation method	Secures to stack	Secures to stack	Secures to stack	Roof Mount	Roof Mount	Roof Mount	Roof Mount	Roof Mount
Can be mounted on an angle	No	No	No	Yes	Yes	Yes	Yes	Yes
Water seal to pipe and roof membrane (note 1)	Good	Poor	Good	Excellent	Poor	Poor	Poor	Poor
Designed for pipe size:	1.5"	1.5'	1.5"	1.5,. 2", 3"	1.5', 2'	1.5"	1.5"	1.5"
Durability: (Note 2)	Fair	Poor	Fair	Excellent	Good	Good	Poor	Fair
Operational when traveling (note 3)	Excellent	Excellent	Excellent	Excellent	Excellent	Poor	Poor	Poor
Operational when stationary (note 4)	Good	Good	Good	Excellent	Poor - due to tail winds	Poor	Poor	Poor
Ease of inspecting for clogs / cleaning	Poor	Poor	Poor	Excellent	Poor	Poor	Poor	Poor
Bug screen	No	No	No	Yes	No	No	No	No
Availability of replacement tops	No	No	No	Yes	No	Yes	Yes	No

Note 1: Many RV manufacturers seal the cap base to the roof membrane instead of the stack; to prevent water damage the cap should be sealed to the stack









Note 2: Due to the larger size of a rotating vent in addition to being dependant on moving parts , they are more vulnerable to damage.

Note 3: Rotating vents always work well during traveling due to the higher winds that insure proper rotation. Conventional caps allow down drafts with turbulent wind.

Note 4: Rotating vents can fail if wind speed is insufficient to rotate the vent, down drafts can occur. Conventional caps allow down drafts with turbulent wind.

Operational is defined as: when air movement at the vent cap causes a low pressure at the port opening, resulting in exhausting tank fumes. Not high pressure, which pushes fumes into the RV

AIRFLOW COMPARISON CHART

	Rotating vents - fume extractors			Stationary vents - fume extractors		Conventional vents caps / debris covers		
The draw rates tabled below in the medium wind tests, will be over 5 times these readings at highway speed.								
	Cyclone	Extreme Vent	RV-360	360 Siphon	Vac-U-Jet	Vent Line	Camco	Custom
	Draw rates in cubic feet per minute- volume of gasses being expelled out of the stack. Red indicating air volume being blown into the tank; in these situations tank fumes are forced into the RV.							
min wind speed to operate	5 MPH	3.5 MPH	3.5 MPH	2.5 MPH	2.5 MPH	6 MPH	8 MPH	8 MPH
Light wind - 5.5 MPH straight on - horizontal to the roof	1.6 CFM	1.3 CFM	1.5 CFM	1.5 CFM	1.6 CFM / 2.6 CFM	0	0	0
Medium wind - 10MPH straight on - horizontal to the roof	3.1 CFM	2.5 CFM	2.9 CFM	2.6 CFM	2.9 CFM / 3.1 CFM	1 CFM	.6 CFM	.5 CFM
Medium wind - 10MPH. Approx 40 degree down draft to the roof. Typical turbulent wind characteristics	2.8 CFM	1.7 CFM	3 CFM	2.8 CFM	2.7 CFM / 2.4 CFM	1 CFM	1.3 CFM	1.6 CFM
Medium wind - 10MPH. Approx 40 degree up draft to the roof. Common occurrence when cap is located on outer edge of roof	1.8 CFM	1,1 CFM	2.5 CFM	1.1 CFM	1.7 CFM / 2 CFM	.7 CFM	1 CFM	1.3 CFM
<p>All measurements were performed on the same test bed with the same metering devices and anemometers, all tested repeatedly, the above calculations represent the average of all tests performed. The first two readings with a straight on wind is a very rare occurrence on modern day RV's. The second two readings represent a more realistic wind sinairio. Roof top equipment results in turbulent, gusty unpredictable air movement, stationary and while traveling. The caps listed here are the most common; the ones not listed are categorized as debris covers.</p>								
<p>Cyclone - The device functions well in medium and high winds. The biggest draw back of this rotating vent is the lack of balance that impedes the motion in light winds. It is possible the unit could be aiming into the wind, allowing air to be forced down into the tank. The light wind speed test was increased from 5 MPH to 5.5 to enable the Cyclone to function. Vehicle stopping and starting could alter unit direction.</p>								
<p>Extreme Vent - Is a heavy unit, is well balanced and relatively sensitive in light winds. Due to its non-aerodynamic shape the vent has odd characteristics in most wind conditions, usually sitting at 45 degrees to the wind. Its aluminum fins are vulnerable to damage, but the unit functions well.</p>								
<p>RV-360 - is the tallest of the rotating vents, making it more vulnerable to impact. Its well balanced, making it the most sensitive to altering air direction. It's the most aerodynamic of the rotating vents, functions well in all wind conditions.</p>								
<p>360 Siphon - Airflow characteristics match that of the rotating vents, but without the use of moving parts. Can not fail. Very well designed in all areas, installation and weather proofing, maintenance, and bug screen. Poly-carbonate plastic is very durable, high UV resistant.</p>								
<p>Vac-U-Jet - Is designed well for traveling. Airflow rates are as good as any fume extractor. The only weak area is when stationary with a tail wind, coming in within 45 degrees of either side, will shoot straight down the stack, resulting in tank fumes being forced out into the RV</p>								
<p>Vent Line - A well made debris cover. Well constructed, long life, top can be removed for inspection / cleaning.</p>								
<p>Camco - A low cost debris cover, light weight plastic.</p>								
<p>Custom - A low cost debris cover, medium weight plastic.</p>								