



## Young Regulator Co.

7100 Krick Rd • Walton Hills, OH 44146

P: 440-232-9700 • F: 440-232-8266

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

Submit CVR-XX

### Constant Volume Regulator CVR-XX

## Application and Design

Constant Volume Regulators (CVR) are designed to save significant amounts of energy and money by limiting airflow and therefore not over-ventilating or over-serving a space. They are engineered with a specifically shaped free area and a wing-like damper (Aero-Gate)<sup>①</sup>. When pressure increases, the increased flow causes the Aero-Gate to rise and block more of the free area. The CVR is adjustable<sup>②</sup> to provide various maximum flow profiles over its rated pressure range. (See Back for performance curves) The product is precision molded of fire-resistant ABS plastic. They have been used in Europe for years and are starting to gain a larger market in North America as well. Constant Volume Regulators may contribute to meeting coveted USGBC Leed Building Certification.

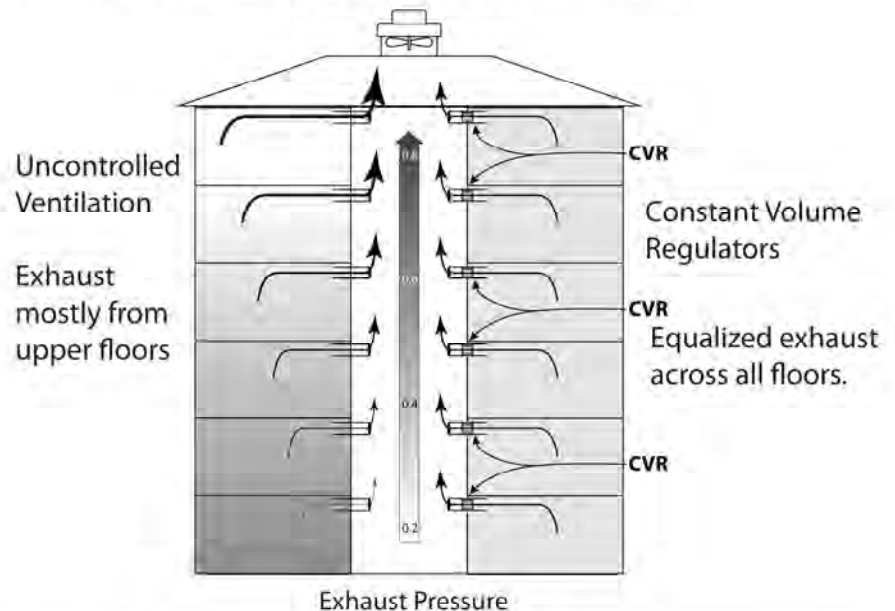
If there are areas that over-condition because of ductwork limitations, a CVR can limit the air entering the space. Conversely it can limit bathroom exhaust or equalize the flow across a multi-story exhaust chase. It can regulate intake air from the outside to ensure a small positive pressure in a mechanical room. In short it is a very versatile tool.

The CVR is a natural part of the Young Regulator Co. solution set. After all, Regulator is our middle name.



SIZE INFORMATION	
Diameter	Flow (@ 0.2inWC-0.8WC)
3"	10-30 CFM
4"	10-30 CFM 30-60 CFM
5"	10-30 CFM 30-60 CFM 60-105 CFM
6"	10-30 CFM 30-60 CFM 60-105 CFM 105-175CFM
8"	60-105 CFM 105-175 CFM 175-295 CFM
10"	105-175 CFM 175-295 CFM 295-410 CFM

STANDARD CONSTRUCTION	
Construction	Molded in a specialty engineered ABS plastic
Safety Ratings	UL 2043 European fire and Smoke Rated M1
Mounting	Friction Fit in appropriately sized duct
Color	Black



QUANTITY	DIAMETER	CFM SET POINT	NOTES
PROJECT			LOCATION
CONTRACTOR			DESIGN SPECIFIER

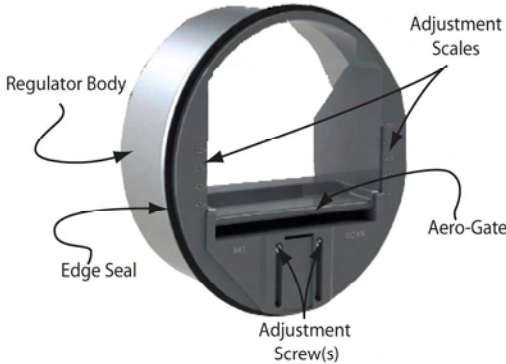
## Constant Volume Regulators Performance Data

The CVR is a precision control. Choose the size to meet your performance criteria. Each diameter regulator is adjustable over a range of flow rates. Choose the correct part from the table below. Ensure that both fitting diameter and flow rates match your requirements.

CVR Available Flow Ranges (CFM) & Sound Data						
	Diameter (inches)					
	3	4	5	6	8	10
Part #	CVR-03	CVR-04L	CVR-05L	CVR-06L		
CFM Range	10-30	10-30	10-30	10-30		
		CVR-04H	CVR-05M	CVR-06ML		
		30-60	30-60	30-60		
			CVR-05H	CVR-06MH	CVR-08L	
			60-105	60-105	60-105	
				CVR-06H	CVR-08M	CVR-10L
				105-175	105-175	105-175
					CVR-08H	CVR-10M
					175-295	175-295
						CVR-10H
						295-410
Sound						
dB(A)	26-38	32-42	33-45	33-45	33-45	39-53

### Adjustment Process

Constant Volume Regulator (CVR)



1. Select the maximum flow rate (in CFM) from the Performance Curve table (right).
2. Note the Adjust Scale number next to the desired flow.
3. Loosen the adjustment screw using a Torx® T-10 bit.
4. Adjust the carriage that holds the Aero-Gate up and down to line up the top of the Carriage with the desired Adjust Scale number.



In the picture the CVR is set to 50 on the Adjust Scale. That equates to 30 CFM.

5. Retighten Adjustment Screw. Finger tight is sufficient. Do not over-tighten the screw(s).

### Constant Volume Regulator Combined Performance Curves

