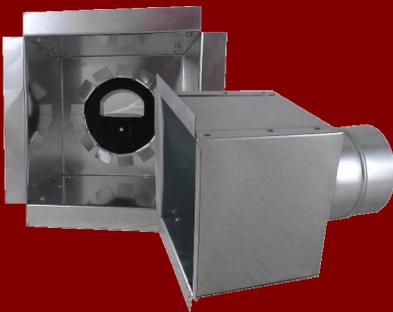


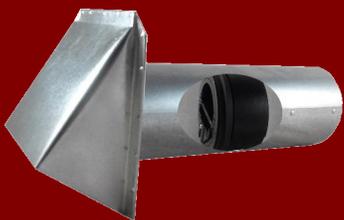
CVR-XX



CVR-SXX / CVR-RXX



CVR-SFXXX / CVR-RFXX



CVR-EXX / CVR-IXX

Constant Volume Regulators

Constant Volume Regulators (CVR) save energy and money by precisely controlling airflow into or out of a space regardless of static pressure. The precision molded and balanced parts, react to the airflow through the regulator. As pressure and therefore velocity increases, the Aero-Gate lifts to reduce the free area, thus limiting total airflow.

This provides a tremendously versatile tool to prevent over-serving or over ventilating a space. It can be used to favor one area over another or to equalize flow across an entire building.

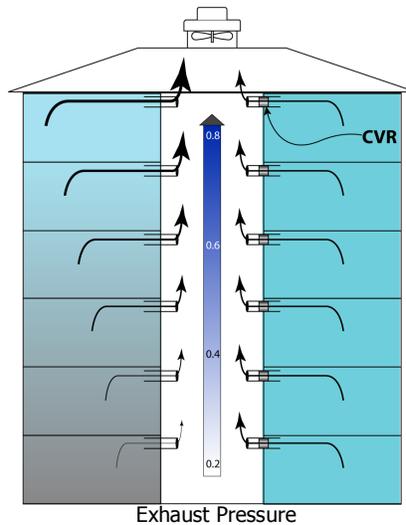
The Young Regulator CVRs are adjustable so you can select the flow you need. See the back of any Specification Sheets for performance curves.

Let's look at one CVR application. Central Ventilation. Varying Static pressure is going to produce very different results depending building position.

Uncontrolled Exhaust

Closer to the exhaust ventilator, the exhaust pressure is higher so we get more flow close to the equipment. Further from the equipment we are moving very little air.

Spaces at the top of the building may be pulled into a negative pressure condition encouraging outside air infiltration. Lower units may not get enough air changes with the accompanying stuffy, close feeling and potentially unhealthy indoor air.



CVR Control

The CVR adjusts itself to limit flow regardless of pressure (through its rated range). Therefore we equalize the flow across the rooms. No one is over served and no one smells yesterday's onions.

Energy and Dollar Savings can be tremendous especially at the top end of the pressure scale.

CVRs Pay for themselves!

Housings

You can put a CVR almost anywhere. We are offering it in four configurations to serve any application. Enclosures are available in heavy gage galvanized steel. The low-profile box is only 2" deep. The deeper box has plenty of room for a fire or radiation damper. Standard square sizes provides aesthetic flexibility and reduced cost.

For More Information:

www.YoungRegulator.com/CVR.aspx

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Mark Votaw (mvotaw@youngregulator.com)
(440)232-9700 or After 5 ET (330)354-7104.





**Young Regulator Co.
Makes Constant
Volume Easy!**

**Application Guide
Choose your Size and
Mounting Option**

<p>CVR-XX CVRs are available</p>  <p>in 4,5,6,8 and 10 inch sizes and Adjustable Flows</p> <p>Slides into existing ductwork.</p>	<p>CVR-SXX/CVR-RXX</p>  <p>CVR Housed in a low-profile enclosure. CVR-SXX for supply applications CVR-RXX for return applications.</p>	<p>CVR-SFXX/CVR-RFXX</p>  <p>Room to add a fire Damper CVR-SFXX for supply CVR-RFXX for return</p> <p>Square grille and fire dampers by others.</p>	<p>CVR-EXX/CVR-IXX</p>  <p>Mounted in a Fresh-Air Intake CVR-EXX for exhaust CVR-IXX for intake.</p> <p>12+ sleeve for all size penetrations</p>
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Constant Volume Regulators (CVR) can be used anywhere you want to limit airflow. It maintains a stable airflow throughout their rated pressure range (typically 0.2 inWC to 0.8 inWC).

Cost Savings

Constant Volume Regulators can provide great cost and energy savings. It may also help designers reach USGBC LEED Certification goals.

The Flow Rate and Costs table (right) illustrates how important controlling flow can be. Let's consider a building with a central ventilation chase. (See drawing on page 1) At the bottom of the building the static pressure may be as designed at 0.1 inWC or even lower. But at the top of the building, because of the stack effect and wind loads the pressure will be much higher. The Flow and Costs table above compares the flow through a 6" opening at 0.1 inWC and the same opening at 0.8 inWC. The apartments on the top floor will send 3 times more air through that exhaust. (The cost numbers in the table are based on energy costs and conditions in Boston, MA.)

Flow Rates and Costs - 6" Exhaust Vent				
Static Pressure (inWC)	Uncontrolled Flow (CFM)	Annual Cost to Condition ¹ "New Air"	Annual Cost to Condition ¹ w/105 CFM CVR	Savings
0.8	330	\$702	\$226	\$476
0.6	280	\$604	\$226	\$378
0.4	225	\$488	\$226	\$262
0.2	155	\$338	\$226	\$112
0.1	105	\$226	\$226	--

1 Cost figures from Paul Raymer, "Cost of Ventilation" Ventilation News and Views Aug 2013 (Boston: HDD(55) =3299, Gas= \$1.28/therm electricity=\$0.18 kWh)

Think Young Regulator for

- Bowden Cable Controls**
- Remote Dampers**
- Motor Driven Dampers Round or Rectangular**
- Commercial Quality Balancing Dampers**

- Electronic Balancing Dampers**
- VAV Dampers**
- Automatic and Barometric Bypass Dampers**
- Demand- Air™ CO₂ Demand Ventilation IAQ System**
- Custom air distribution solutions**