

QUALIFICATIONS:

- UL-2043 Listing: UL R38307.

CVR-HP HIGH PRESSURE:

The CVR-HP constant volume regulator is an extremely cost-effective way to precisely control the airflow of the HVAC systems – especially high rise buildings – without the need for on-site electric or pneumatic controls or sensors. A self-regulating blade and spring piston adjust automatically to maintain a constant set airflow volume. These regulators are designed to be operated in pressure ranges of 0.6" w.g. to 2.4" w.g. They adjust automatically for variable duct pressures caused by building pressure, thermal stack effect, dust buildup and other variable adverse conditions.

STANDARD CONSTRUCTION:

Frame: Fire resistant UL94V-0 ABS plastic.

Blade: Self-regulating.

Spring: Internal spring piston.

Seal: Full circumference rubber gasket.

SIZING:

Regulator (Nominal)	D Dia.	C Depth
4" (102)	3.7" (94)	2.8" (70)
5" (127)	4.625" (117)	3.4" (86)
6" (152)	5.9" (150)	3.6" (91)
8" (203)	7.7" (196)	3.6" (91)
10" (254)	9.625" (244)	5.0" (127)

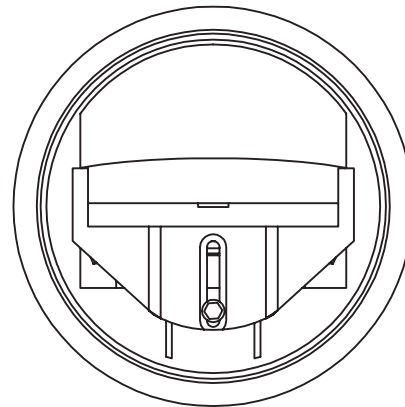
OPERATIONAL STATIC PRESSURE RANGE:

0.6" w.g. – 2.4" w.g. (150 Pa – 600 Pa).

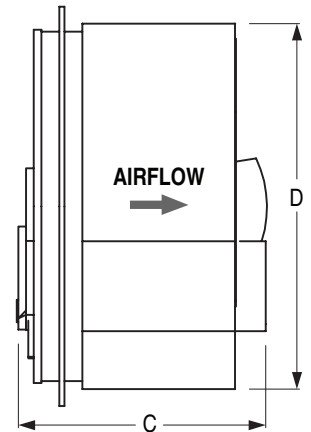
HIGH PRESSURE AIR FLOW (FLOW RANGE):

Sizes	Flow Rate Ranges in CFM (m ³ /h)				
4" (102)	53 - 100 (50 to 170)	—	—	—	—
5" (127)	53 - 100 (50 to 170)	105 - 175 (180 - 300)	—	—	—
6" (152)	53 - 100 (50 to 170)	105 - 175 (180 - 300)	175 - 295 (300 - 500)	—	—
8" (203)	53 - 100 (50 to 170)	105 - 175 (180 - 300)	175 - 295 (300 - 500)	295 - 500 (500 - 850)	—
10" (254)	—	105 - 175 (180 - 300)	175 - 295 (300 - 500)	295 - 500 (500 - 850)	500 - 765 (850 - 1300)

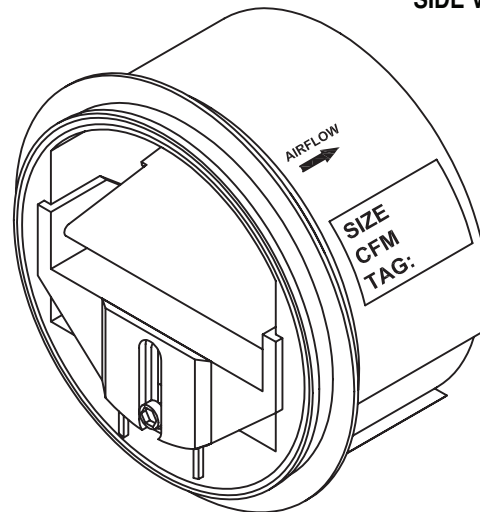
Note: Each diameter can be adjusted with shims to achieve different airflow ranges. Ensure both overall CVR-HP diameter and airflow match your requirements.



FRONT VIEW



SIDE VIEW



*For installation, see IOM-CVRINST.

SCHEDULE TYPE:				
PROJECT:				
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	6 - 19 - 20	CBD	NEW	CVR-HP

HIGH PRESSURE CVRH PERFORMANCE:

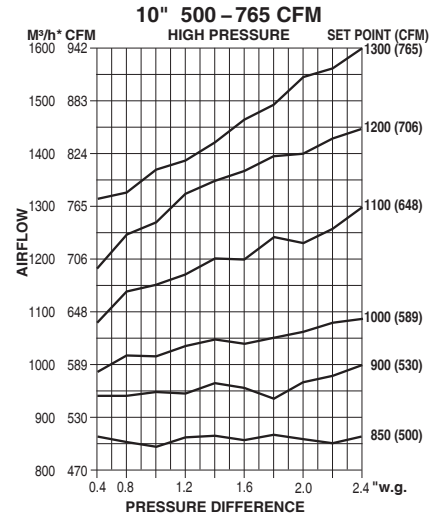
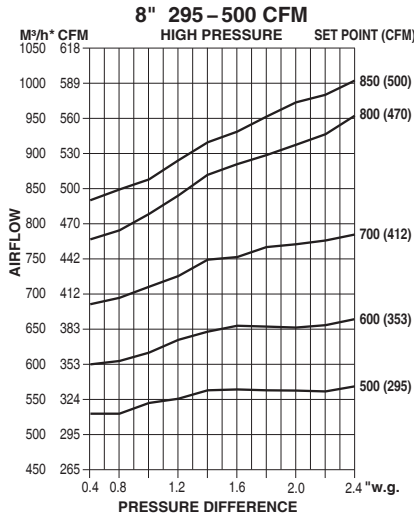
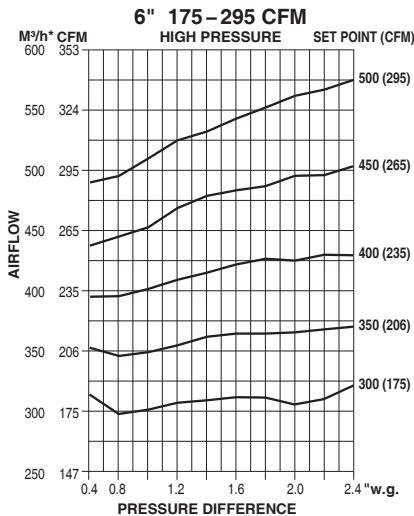
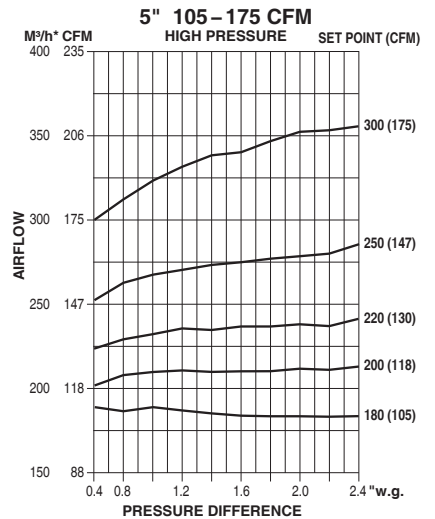
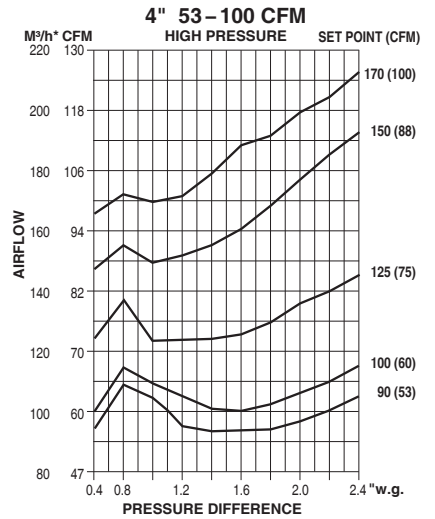
The data charts show the approximate constant volume airflow through the CVR-HP at a given pressure differential. High Pressure CVR-HP is designed for system pressure of 0.6" w.g. (150 Pa) through 2.4" w.g. (600 Pa). As shown, if the pressure across the regulator falls below 0.6" w.g. (150 Pa) the airflow volume will be reduced. Likewise, if the pressure across the regulator increases to over 2.4" w.g. (600 Pa), then the airflow volume will be increased. The CVR-HP is factory set to a specific airflow, but can be field-modified to another desired airflow using a standard screwdriver. The charts shown are at 68°F (20°C) and 1 atmosphere pressure. The graphs shown are averages and can vary from 5%.

HIGH PRESSURE SET POINT INTERVAL TABLE:

Regulator Size (Flow Rate)	Set Point Intervals	
	CFM	M ³ /h
4" (102) (53 - 100 cfm [90 - 170 m ³ /h])	5	8
5" (127) (105 - 175 cfm [180 - 300 m ³ /h])	6	10
6" (152) (175 - 295 cfm [300 - 500 m ³ /h])	15	25
8" (203) (295 - 500 cfm [500 - 850 m ³ /h])	15	25
10" (254) (500 - 765 cfm [850 - 1300 m ³ /h])	15	25



Sample of setting:
 Set Point Mark 140 = 140 m³/H = 83 cfm



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