SUBMITTAL DATA

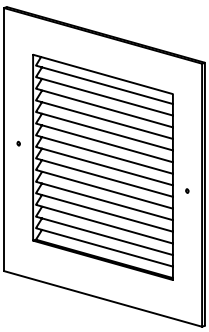
Precision/Flow™ SYSTEM CRB-10-E

Constant Volume Regulator (for exhaust or return applications)

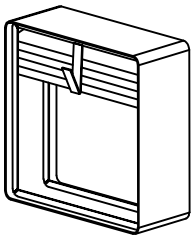
Application and Design:

Precision/Flow ™ System CRB-10-E is a factory set constant volume control damper composed of fire retardant plastics. It contains a self regulating airfoil damper blade and spring piston design to maintain a factory preset air volume flow. These dampers are designed to operate in a pressure range of 0.20" w.g. to 0.80" w.g. The regulators automatically adjust for variable duct pressures caused by building pressure, thermal stack effect, dust build-up, etc. This system also creates a very cost effective answer to balancing air systems for HVAC exhaust ventilation in high rise buildings, without the requirement for on-site balancing, electrical / pneumatic controls or sensors. System CRB-10-E requires no standard maintenence under normal conditions.

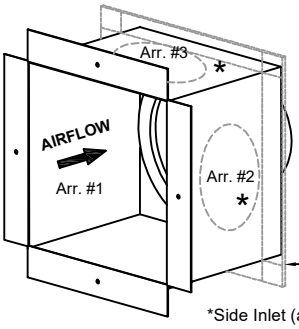
Optional
Exhaust Grille



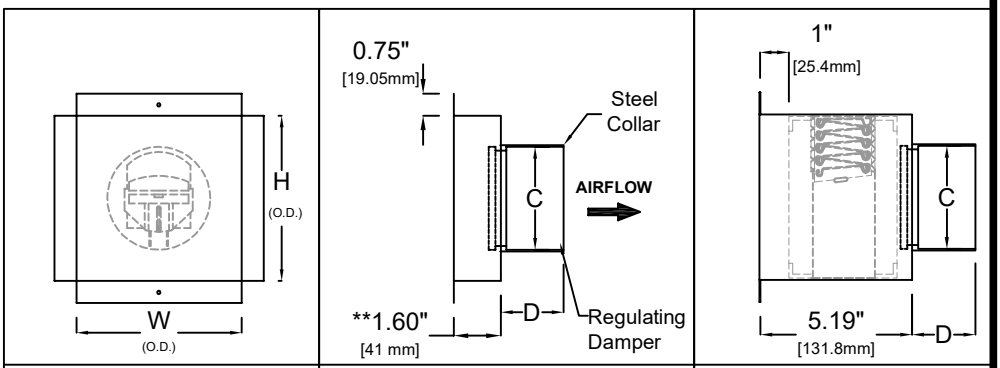
Optional
Fire Damper (not available for Arr.#2 & #3



Plenum Box & Regulator



*Side Inlet (arr. #2), Top Inlet (arr. #3) available.
Rear inlet (arr. #1 -std.)



FRONT VIEW | STANDARD | OPTIONAL FIRE DAMPER

STANDARD CONSTRUCTION:

CRB Plenum: 24 GA Galvanized Steel,
1.6" Deep
20 GA if Fire Damper Required
Regulating Damper: UL94V-0 ABS Plastic
UL 2043 classified, UL File #R38307

OPTIONS:

- ❑ Add Exhaust Grille
  - ❑ Removable Grille (No Screw Holes) Wedged in Via Stainless Spring Steel
- ❑ Grille and Box Powder Coated with Anti-Microbial Agent Added
- ❑ 1½ HR Fire Damper (5.19" Box Depth)
  - ❑ Static
  - ❑ Dynamic
- ❑ 3 HR Fire Damper
  - ❑ Static
  - ❑ Dynamic

Range of Operation Static Pressure	
Minimum	0.20" w.c.
Maximum	0.80" w.c.

- ❑ Optional Ceiling Damper (arr. #1 Only)
- ❑ Additional Box Depth
- ❑ Retaining Angles (For Backside of Box)
- ❑ Extra Low Pressure Systems (0.10" w.c.)
- ❑ Alternate inlet location (fire damper option not available)
  - ❑ Side (arr. #2)
  - ❑ Top (arr. #3)

**Arrangement #1 box depth shown
(Arrangements #2 & 3 = damper size +2.5")

Box Size	Damper (nominal)	W	H	C	D
6x4 (152.4x101.6)	4 (101.6)	6 (152.4)	4 (101.6)	3.8 (96.5)	2.4 (61)
6x6 (152.4x152.4)	4 (101.6)	6 (152.4)	6 (152.4)	3.8 (96.5)	2.4 (61)
6x6 (152.4x152.4)	5 (127)	6 (152.4)	6 (152.4)	4.5 (114.3)	3 (76.2)
8x8 (203.2x203.2)	4 (101.6)	8 (203.2)	8 (203.2)	3.8 (96.5)	2.4 (61)
8x8 (203.2x203.2)	5 (127)	8 (203.2)	8 (203.2)	4.5 (114.3)	3 (76.2)
8x8 (203.2x203.2)	6 (152.4)	8 (203.2)	8 (203.2)	5.5 (139.7)	3.2 (81.3)
10x10 (254x254)	6 (152.4)	10 (254)	10 (254)	5.5 (139.7)	3.2 (81.3)
10x10 (254x254)	8 (203.2)	10 (254)	10 (254)	7.2 (182.9)	3.2 (81.3)
12x12 (304.8x304.8)	8 (203.2)	12 (304.8)	12 (304.8)	7.2 (182.9)	3.2 (81.3)
12x12 (304.8x304.8)	10 (254)	12 (304.8)	12 (304.8)	8.9 (226.1)	4.6 (116.8)
14x14 (355.6x355.6)	10 (254)	14 (355.6)	14 (355.6)	8.9 (226.1)	4.6 (116.8)

Consult factory for sizes not shown — Sizes in inches (millimeters)

Job Name:

Location:

Architect:

Engineer:

Contractor:

❑ **Precision/Flow™ SYSTEM CRB-10-E**
(Constant Volume Regulator for Exhaust or Return Applications)
- ❑ **CRB-10-E-1 (arrangement #1, standard)**
- ❑ **CRB-10-E-2 (arrangement #2)**
- ❑ **CRB-10-E-3 (arrangement #3)**

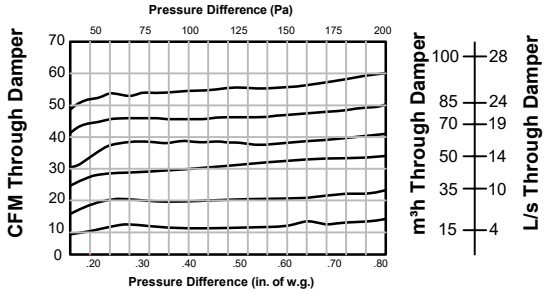
DRAWN BY:	DATE:	REV. DATE:	REV. NO.	APPROVED BY:	DWG. NO.:
VD	8-10-10	6-25-21	21	CLJ	**L-3**

SYSTEM CR PERFORMANCE DATA

The charts to the right, show the approximate constant volume airflow through the damper at a given pressure differential. The ideal pressure differential across the damper to provide the desired factory set constant airflow volume is between 0.2" w.g.(50 Pa) and 0.8"w.g. (200 Pa). As shown if the pressure across the damper falls below 0.2" w.g. (50 Pa) then the airflow volume will be reduced. Likewise if the pressure across the damper increases to over 0.8" w.g. (200 Pa), then the airflow volume will be increased. Please note that these dampers are factory set to the specific airflow. They cannot be field modified to another desired airflow. The graphs shown are averages and can vary by 5%. The maximum air temperature is 140°F (60° C). The charts shown are at 68°F (20°C) and 1 atmosphere pressure.

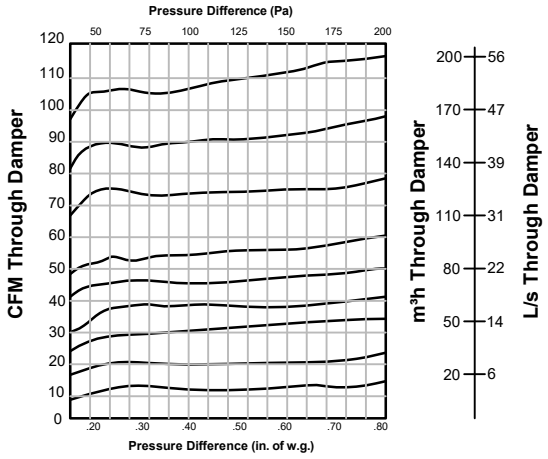
Range of Operation Static Pressure	
Minimum	.2" w.g.
Maximum	.8" w.g.

Damper size:
4" [101.6mm] nominal
(100m)



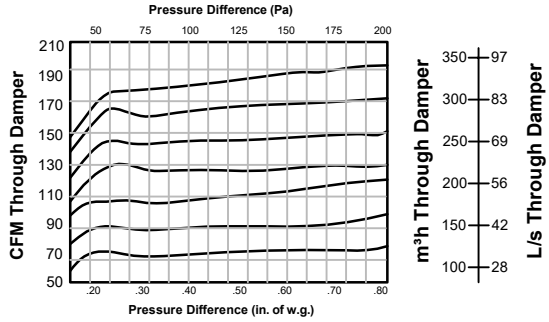
Note: Dampers are pre-set at the factory for the specified cfm

Damper size:
5" [127mm] nominal
(125 mm)



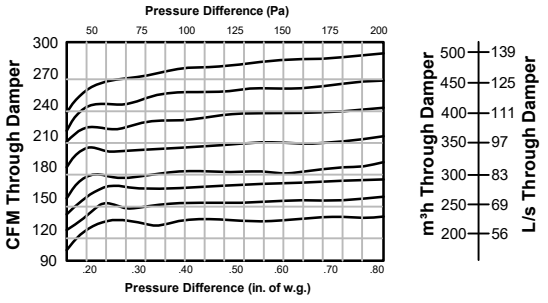
Note: Dampers are pre-set at the factory for the specified cfm

Damper size:
6" [152.4mm] nominal
(150 mm)



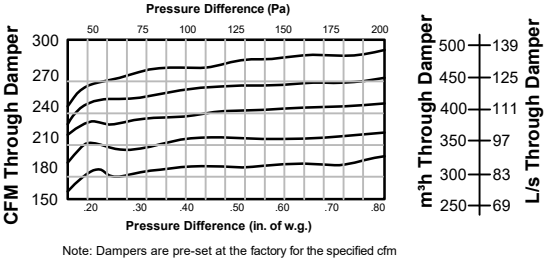
Note: Dampers are pre-set at the factory for the specified cfm

Damper size:
8" [203.2mm] nominal
(200 mm)



Note: Dampers are pre-set at the factory for the specified cfm

Damper size:
10" [254mm] nominal
(250 mm)



Note: Dampers are pre-set at the factory for the specified cfm

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BR/CLJ	11-26-14			CLJ