

Undersized 1/4"

Model FDCB and FDHB

Standard Specifications

Frame: .081 extruded aluminum

Blades: .125 extruded aluminum

Bearings: bronze oilite

Linkage: *concealed in frame

Axles: 1/2"Ø cast zinc with thrust bushing

Control Shaft: 1/2" x 6" long outboard support bearing supplied with all single section dampers for field mounted actuators. Factory-installed jackshaft supplied with all multi-section dampers.

Maximum Size: 52"w x 72"h (single section)

Multi-section unlimited.

Minimum Size: 5"w x 4"h. 8" and under single blade.

*Over 36" wide or 48" high, blade linkage will be modified.

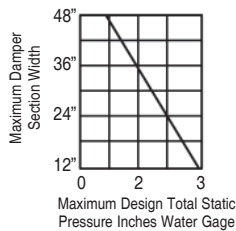
Pressure - up to 3" w.g. -
See pressure limit table

FPM Table

12" wide	-2600 FPM
24"	-2200
36"	-2000
48"	-1700
52"	-1600

Jackshafting provided over 52" wide

Pressure Limitations



Options

- .125 Extruded Aluminum Frame (box frame)
- 1-1/2" .125 Extruded Aluminum Flanged Frame
- Blade Seals PVC (175°F)
- Blade Seals Silicone (400°F & #304 stainless steel bushing)
- Compression Jamb Seals (stainless steel)
- Hand Quadrant
- Factory Installed Pneumatic or Electric Actuators
- Position Switch
- Face and By-pass Damper
- Chain Operator
- Heresite Coated (air dry)
- Epoxy Coated (powder coated at 415°)
- Explosion-proof Enclosure for Actuator

Size Tested: 36"w x 36"h and 12"w x 12"h

Tag	Qty.	Size		Frame	Variations
		Width	Height		

Project
Arch./Engr.
Representative

Location
Contractor
Date

Aluminum Low Leakage Volume Control Dampers

Model: FDCB and FDHB

Leakage Performance

Leakage - L/s/m² (ft³/min/ft²)

Damper Width x Height	1 in. w.g. Class	4 in. w.g. Class	8 in. w.g. Class
12" x 12"	3.6 (Class 1A)	7.6 (Class 1A)	10.3 (Class 1A)
36" x 36"	0.5 (Class 1A)	5.6 (Class 1A)	20.8 (Class 1A)

Note: At 1" w.g. 12" x 12" damper leaks 3.6 cfm per square foot.
 Note: At 1" w.g. 36" x 36" damper leaks 0.5 cfm per square foot.
 Note: Blade and jamb seals are required to meet the leakage rates shown above.

AMCA Standards

Class	Pressure	Leakage, ft ³ /min/ft ²			
		Required Rating		Extended Ranges (optional)	
		0.25 kPa (1")	1.0 kPa (4")	2.0 kPa (8")	3.0 kPa (12")
1A		15.2 (3)	40.6 (8)	55.9 (11)	71.1 (14)
1		20.3 (3)	40.6 (8)	55.9 (11)	71.1 (14)
2		50.8 (10)	102 (20)	142 (28)	178 (35)
3		203 (40)	406 (80)	569 (112)	711 (140)

Leakage Classification per AMCA publication 511-99.

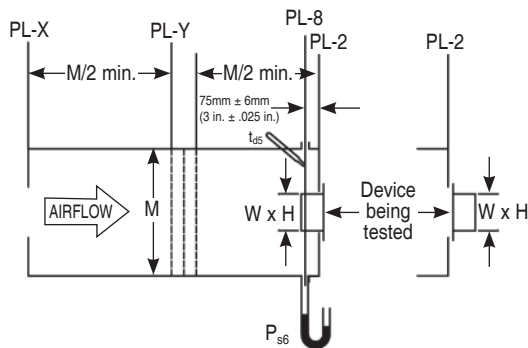


Figure 5.5 - Test Device Setup with Inlet Chamber

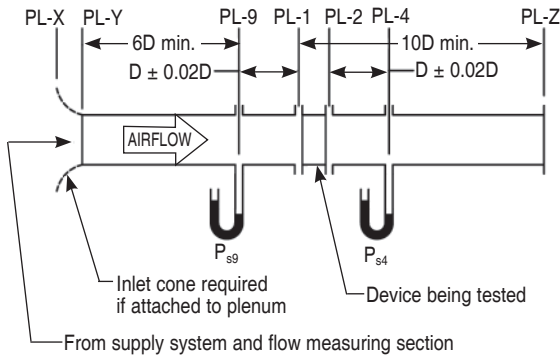
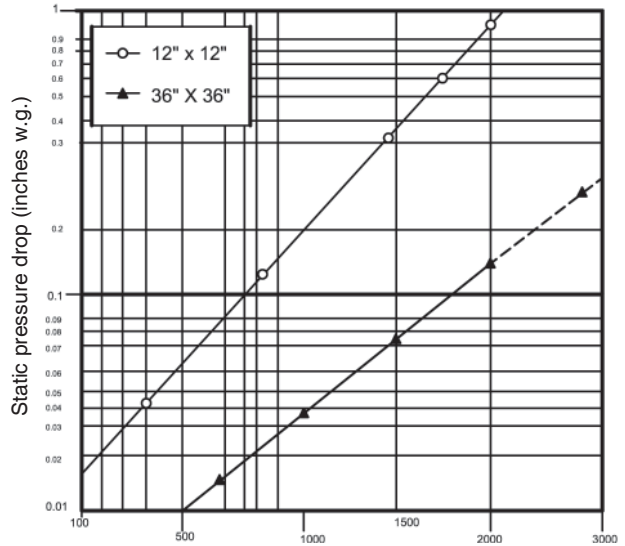


Figure 5.3 - Test Device Setup with Inlet and Outlet Ducts

Ratings shown are based on tests made in accordance with AMCA standard 500.

Pressure Drop



Free Area Velocity (ft/min)

Based on standard air - .075 lbs per cubic foot
 FDCB, FDHB size tested: 36 x 36

12" x 12" (305mm x 305mm)

Free Area Velocity ft/min (m/s)	Pressure drop w.g. (Pa)	CFM
407 (2.0)	.040 (1.24)	407
820 (4.1)	.150 (4.97)	820
1234 (6.3)	.340 (12.42)	1234
1641 (8.3)	.610 (22.35)	1641
2057 (10.4)	.950 (34.77)	2057

36" x 36" (914mm x 914mm)

Free Area Velocity ft/min (m/s)	Pressure drop w.g. (Pa)	CFM
392 (1.99)	.005 (1.24)	3528
789 (4.01)	.02 (4.97)	7100
1208 (6.14)	.05 (12.42)	10,877
1598 (8.12)	.09 (22.35)	14,382
2006 (10.19)	.14 (34.77)	18,061