SPECIFICATION SHEET

Galvanized 3V Blade Control Damper/Zone Damper
Model FDNB - Opposed Blade, Model FDQB - Parallel Blade

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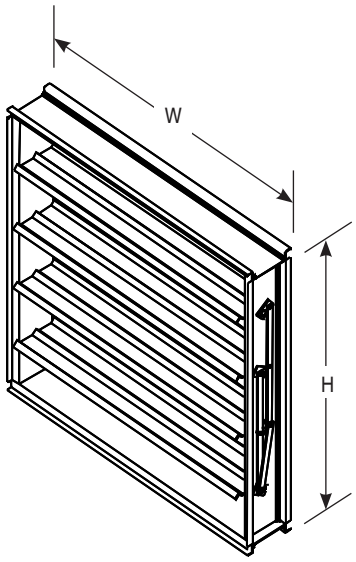
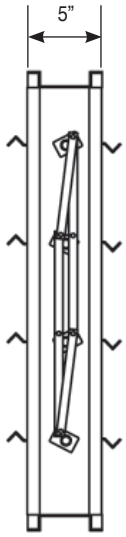
Model FDNB & FDQB

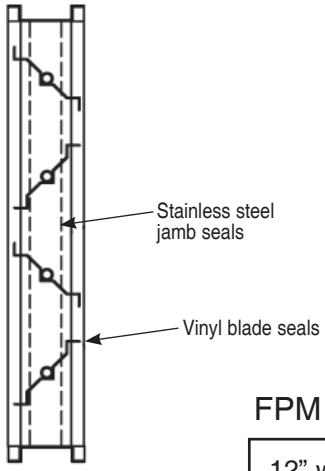
Standard Specifications

Frame: roll formed galvanized steel
Blades: 4" - 7" wide, 16 gauge galvanized steel
Bearings: nylon
Linkage: concealed in frame
Axles: 3/8" square plated steel
Control Shaft: Ø1/2" x 4-1/2" long shaft supplied with all single section dampers for field mounted actuators. Factory-installed jackshaft supplied with all multiple section dampers.
Maximum Panel Size: 48"w x 60"h (single section)
Maximum multi-section: unlimited
Minimum Panel Size: 6"w x 6"h
9"h and under - single blade





Options
- Vinyl Blade Seals
- Compression Jamb Seals (stainless steel)
- Header Plates (end flange)
- Hand Quadrant
- Factory Installed Actuators
- Position Switch
- Face and By-pass Damper
- Chain Operator
- Single Flange
- Double Flange
- Bolt Holes in Flange
- Stainless Steel Bushings
- Heresite Coated (air dry)
- Epoxy Coated (powder coated)
- Stand Off Bracket, 2"



Optional

FPM Table

12" wide	-3500 FPM
24"	-2800
36"	-2300
48"	-2100

Tag	Qty.	Size		Frame	Variations
		Width	Height		

Project **Location**
Arch./Engr. **Contractor**
Representative **Date**

Model FDNB & FDQB Performance Data

Imperial Units (Forward Flow)

Damper Width x Height	1 in. w.g. Class	4 in. w.g. Class	8 in. w.g. Class	*Torque (per sq. ft.)
36" x 36"	Class III	Class III	Class III	5.55 lbs-in

*Torque applied to hold damper in closed position.

Air leakage is based on operation between 50°F to 104°F. All data corrected to represent air density of 0.075 lbs/ft.^{3}

Imperial Units (Back Flow)

Damper Width x Height	1 in. w.g. Class	4 in. w.g. Class	8 in. w.g. Class	*Torque (per sq. ft.)
36" x 36"	Class III	Class III	Class III	5.55 lbs-in

*Torque applied to hold damper in closed position.

Standard International Units (Forward Flow)

Damper Width x Height (mm)	250 Pa Class	1 kPa Class	2 kPa Class	*Torque
915 x 915	Class III	Class III	Class III	6,394 grams-cm

*Torque applied to hold damper in closed position.

Air leakage is based on operation between 10°C to 40°C. All data corrected to represent air density of 1.201 kg/m.^{3}

Standard International Units (Back Flow)

Damper Width x Height (mm)	250 Pa Class	1 kPa Class	2 kPa Class	*Torque
915 x 915	Class III	Class III	Class III	6,394 grams-cm

*Torque applied to hold damper in closed position.

	Leakage, ft.^{3}/min/ft.^{2}			
	Required Rating		Extended Ranges (optional)	
Class \ Pressure	1"	4"	8"	12"
I	4	8	11	14
II	10	20	28	35
III	40	80	112	140

All data corrected to represent standard air at a density of 0.075 lbs/ft.^{3}

	Leakage, L/s/m.^{3}			
	Required Rating		Extended Ranges (optional)	
Class \ Pressure	0.25 kPa	1.0 kPa	2.0 kPa	3.0 kPa
I	20.3	40.6	55.9	71.1
II	50.8	102	142	178
III	203	406	569	711

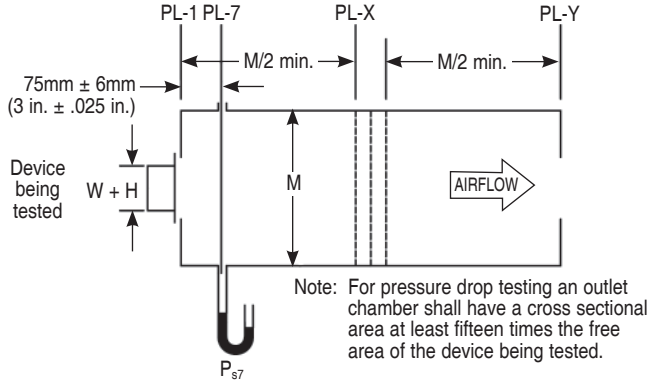


Figure 5.4 - Test Device Setup with Outlet Chamber

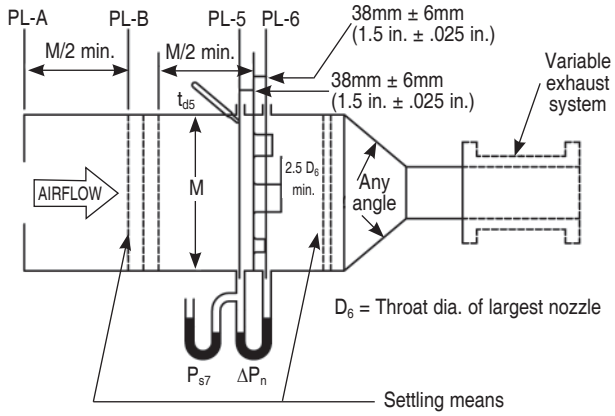
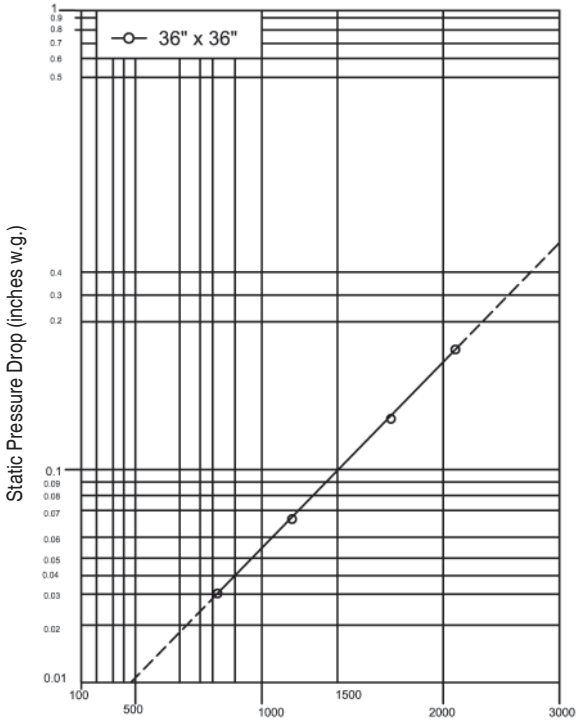


Figure 6.3 - Airflow Rate Measurement Setup - Multiple Nozzle Chamber on Fan Inlet

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

Pressure Drop



36 x 36

Free Area Velocity ft/min (m/s)	Pressure Drop in w.g. (Pa)
1000 (5.08)	0.055
1500 (7.62)	0.100
2000 (10.16)	0.175

FREE AREA VELOCITY (FT/MIN)

Standard air - .075 lbs per cu ft

Ratings do not include the effects of a wire birdscreen

Test based on a 48” x 48” test size, 15 min test duration

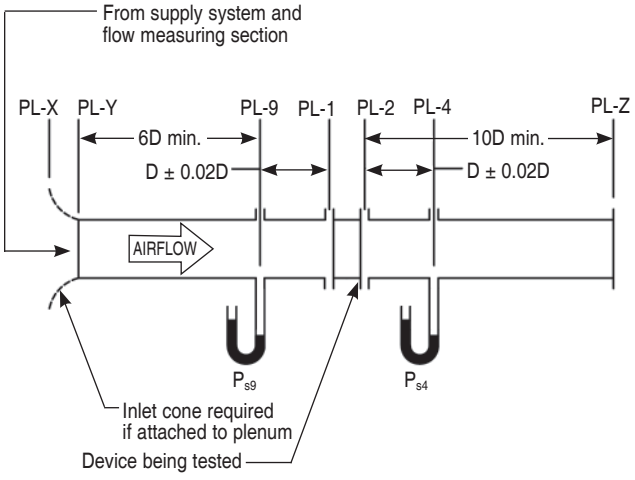


Figure 5.3 - Test Device Setup with Inlet and Outlet Ducts

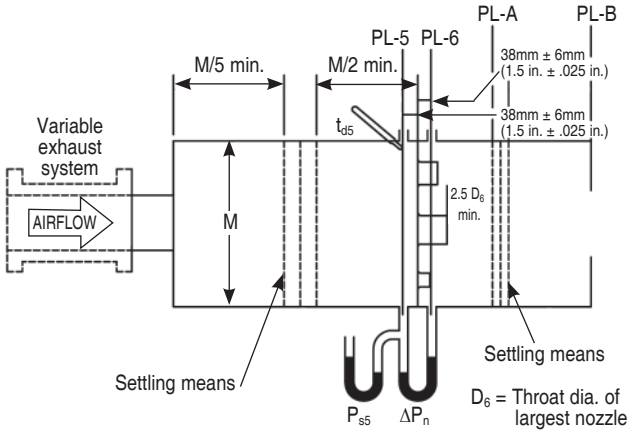


Figure 6.5 - Airflow Rate Measurement Setup - Multiple Nozzle Chamber on Fan Inlet