

Volume Control Damper Figure

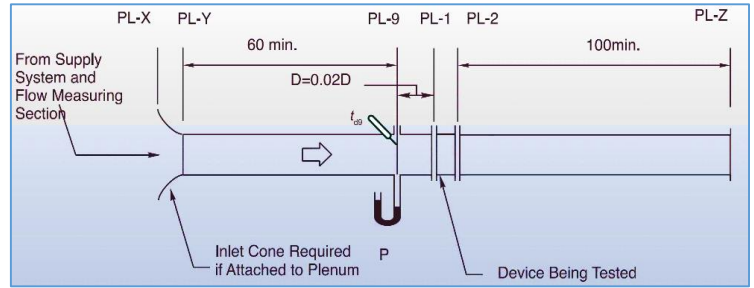


Figure 5.3 Pressure Drop

Noor AL Yemen Air Condition Cont. Co. LLC., certifies that the model NAY-P-A-AL-G-(F/S/P) shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

The maximum static pressure drop for specified air flow rate at standard air density

12" x 48" (305x1220)				12" x 12" (305x305)				24" x 24" (610x610)				36" x 36" (914x914)				48" x 12" (1220x305)			
Velocity		Pressure Drop		Velocity		Pressure Drop		Velocity		Pressure Drop		Velocity		Pressure Drop		Velocity		Pressure Drop	
Fpm	m/s	Inch w.g	pa	fpm	m/s	Inch w.g	pa	fpm	m/s	Inch w.g	pa	fpm	m/s	Inch w.g	pa	fpm	m/s	Inch w.g	pa
400	2	0.002	0.5	400	2	0.010	2.5	400	2	0.003	0.7	400	2	0.003	0.7	400	2	0.003	0.9
800	4	0.008	2	800	4	0.025	6.3	800	4	0.010	2.4	800	4	0.010	2.7	800	4	0.016	4.1
1200	6	0.015	3.8	1200	6	0.058	14.6	1200	6	0.020	5	1200	6	0.021	5.3	1200	6	0.040	10.2
1600	8	0.027	6.9	1600	8	0.108	27	1600	8	0.034	8.6	1600	8	0.036	9	1600	8	0.077	19.2
2000	10	0.044	11	2000	10	0.174	43.3	2000	10	0.056	14.1	2000	10	0.060	15	2000	10	0.121	30.3

Leakage Data:

Air leakage is based on operation between 0°C - 49°C (32°F - 120°F)
 Tested for air leakage in accordance with ANSI/AMCA Standard 500-D, Figure 5.4
 Tested for air performance in accordance with ANSI/AMCA Standard 500-D, Figure 5.3

Torque

Recorded data are based on a torque of 5.9 in.lbs./ft2 (6.8 N-m/m2) applied to close and seat the damper during the test.

Record Data:

Leakage Class 12 X 48			
1.5" W.G	2.0" W.G	3.0" W.G	4.0" W.G
Class III	Class III	Class III	Class III

Leakage Class 48 X 36			
1.5" W.G	2.0" W.G	3.0" W.G	4.0" W.G
Class III	Class III	Class III	Class III

Maximum Allowable Leakage, cfm/ft ²		
Pressure	4" W.G	8" W.G
Class		
A1	N/A	N/A
1	8	11
2	20	28
3	80	112

MODEL	:	NAY-P-A-AL-G-(F/S/P)
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NAYDUCT— NAY-P-A-AL-G-(F/S/P) low leakage Volume control dampers are most popular choice for use in low to medium velocity and pressure commercial HVAC systems. They are low cost, high quality dampers that meet the frequently specified leakage criteria of less than 8cfm per sq. ft. at 4" w.g. (148 M³/hr/M²).

Design features include durable steel construction, a sturdy 20-16 ga. galvanized steel hat channel frame with die-formed corner gussets providing superior structural strength equivalent to 13 ga. (2.4 mm) channel type frames, an interlocking vee groove blade design that maximizes strength and optimizes airflow, double bolted / riveted no slip blade axle connections with Brass /Nylon bearings, Silicon extruded blade seals and a no-maintenance concealed linkage located within the side frame out of the air stream for reduced pressure drop, air turbulence and noise. A variety of electric or pneumatic actuators are available for factory or field mounting along with a comprehensive selection of options to meet specific installation requirements and applications.

STANDARD CONSTRUCTION

Frame	: 20-16 ga. galvanized steel hat channel with die-formed corner gussets
Blades	: 6" (152) wide on 5 1/2" (140) centers. 18-16 ga. galvanized steel Vee groove design. Opposed / Parallel action.
Linkage	: Concealed type totally enclosed within the frame and out of the air stream (Plated steel).
Bearings	: 1/2" (12.5 mm) dia. Brass Bush (Standard),Nylon Bush (Optional)
Axles	: 1/2" (12.5 mm) dia. Galvanized Steel.
Blade Seals	: Silicon extruded Rubber Gasket (Optional).
Operation	: Manual Quadrant. Electric Honeywell / Belimo Actuator (24V / 230 V)

Models NAY-P-A-AL-G-(F/S/P)

Minimum		Maximum	
Single Section		Single Section	Multiple Section
Single Blade 4" x 4" (102 x 102)	Two Blades 8" x 10" (203 x 254)	48" x 48" (1219 x 1219)	Unlimited

Temperature Range : -50°F to 275°F (-46°C to 135°C)
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OPTIONAL CONSTRUCTION:

- Compression type Stainless steel jamb seal will be provided at the side of the damper for low leakage requirement.
- Stainless Steel constructions available.
- Concealed linkage cover on both side.
- S & C, Plain and Flange frames available.
- Heavier gauge frame construction for heavy duty application.
- Front, rear or double flange frame (with or without bolt holes).