

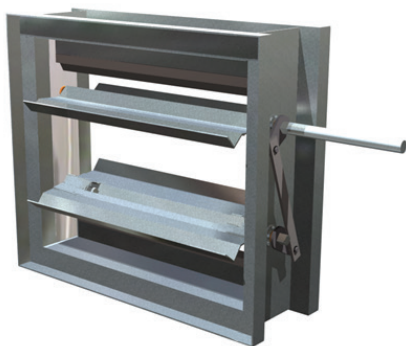
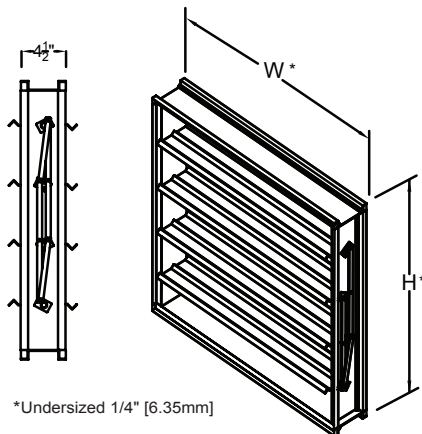
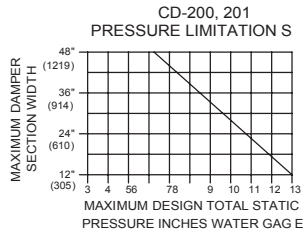
Model CD-200-HD & CD-201-HD Opposed Blade & Parallel Blade Damper

Ratings:

Pressure - up to 12" [305mm] w.g.
See pressure limit table

FPM Table

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



Min. Size	6" w x 8" h (152mm x 203mm)
	(single blade)
Max. Size	48" w x 60" h (1219mm x 1524mm)
	(single section)
Max. Multi-section:	unlimited

Suggested Specifications

Furnish and install at location shown on drawing, or in accordance with schedules, dampers meeting the following specifications: Rectangular damper shall have 16 gauge galvanized steel blades with galvanized steel frame. Damper to be equal to MAT's model CD-200-HD or CD-201-HD.

Standard Construction

- Frame: 4-1/2" (114mm) deep, 16ga. Formed Galv. Steel
- Blades: 6" (152mm) wide, 16ga. Formed Galv. Steel
- Bearing: Bronze Oilite
- Linkage: Concealed in frame
- Axles: Ø1/2" plated steel
- Control Shaft: Ø1/2" x 6" (13mm x 152mm) long shaft supplied with all single section dampers for field mounted actuators. Factory-installed jackshaft supplied with all multiple section dampers

Options

- Blade Seals PVC (180° F) (82° C)
- Compression Jamb Seals (stainless steel)
- Header Plates (end flange)
- Hand Quadrant
- Stand Off Bracket, 2" (51mm)
- Factory Installed Pneumatic or Electric Actuators
- Chain Operate
- Position Switch
- Heresite coated (air dry)
- Epoxy coated (powder coated)
- Stainless Steel bushings
- Single Flange
- Double Flange
 - Bolt holes in flange
- 304 Stainless Steel construction
- 304L Stainless Steel construction*
- 316 Stainless Steel construction*
- 316L Stainless Steel construction*
- 14ga. construction
- 12ga. construction
- 10ga. construction
- 6-1/2" (165mm) deep frame
- Face and Bypass Damper (*304 stainless steel linkage)



Model CD-200-HD (opposed) & CD-201-HD (parallel)

Represented by:

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Model CD-200-HD & CD-201-HD Opposed Blade & Parallel Blade Damper Performance Data

Imperial Units (Forward Flow)

Damper Width X Height	1 in. w.g. Class	4 in. w.g. Class	8 in. wg Class	*Torque (per sq. ft.)
12" X 48"	Class 1A	Class 1	Class 1	11.5 lbs-in
48" X 36"	Class 1A	Class 1	Class 1	11.33 lbs-in

Air leakage is based on operation between 50° F to 104° F. All data corrected to represent air density of 0.075 lbs/ft³.

Imperial Units (Reverse Flow)

Damper Width X Height	1 in. w.g. Class	4 in. w.g. Class	8 in. wg Class	*Torque (per sq. ft.)
12" X 48"	Class 1A	Class 1	Class 1	11.5 lbs-in
48" X 36"	Class 1A	Class 1	Class 2	11.33 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 (per sq. m.)
305 X 1220	Class 1A	Class 1	Class 1	13.97 N-m
1220 X 915	Class 1A	Class 1	Class 1	13.77 N-m

Air leakage is based on operation between 10° C to 40° C. All data corrected to represent air density of 1.201 kg/m³.

Standard International Units (Reverse Flow)

Damper Width X Height (mm)	250 Pa Class	1 KPa Class	2 KPa Class	*Torque (per sq. m.)
305 X 1220	Class 1A	Class 1	Class 1	13.97 N-m
1220 X 915	Class 1A	Class 1	Class 2	13.77 N-m

*Torque applied to hold damper in closed position

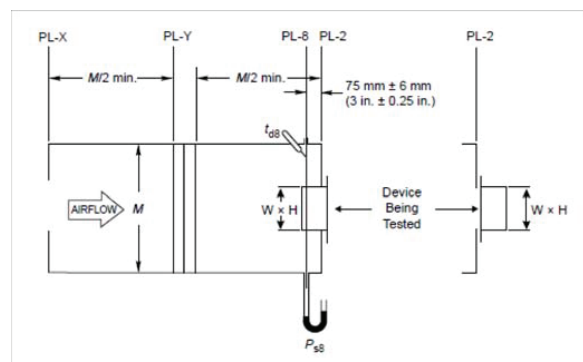


Metropolitan Air Technology certifies that the CD-200 & CD-201 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Rating Seal applies to Air Performance and Air Leakage ratings.

Pressure Class	Leakage, ft ³ /min /ft ²			
	Required Rating	Extended Ranges (optional)		
1A	3	n/a	n/a	n/a
1	4	8	11	14
2	10	20	28	35
3	40	80	112	140

All data corrected to represent standard air at a density of 0.075 lbs/ft³

Air leakage is based on operation between 50° F to 104° F. All data corrected to represent air density of 0.075 lbs/ft³. Tested per AMCA Standard 500-D (leakage), figure 5.4 Alternate.



AMCA Standard 500-D (leakage), figure 5.4 Alternate .

Model CD-200-HD & CD-201-HD Opposed Blade & Parallel Blade Damper Performance Data

12"x48" Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
607	3.10	0.02	5
802	4.09	0.03	8
1202	6.13	0.07	18
1605	8.19	0.14	34
2006	10.23	0.21	53

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

12"x12" Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
586	2.99	0.03	8
806	4.11	0.07	16
1206	6.15	0.15	38
1611	8.22	0.27	67
2025	10.33	0.43	106

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

24"x24" Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
598	3.05	0.02	5
802	4.09	0.04	9
1202	6.13	0.08	19
1594	8.13	0.14	34
2000	10.20	0.21	53

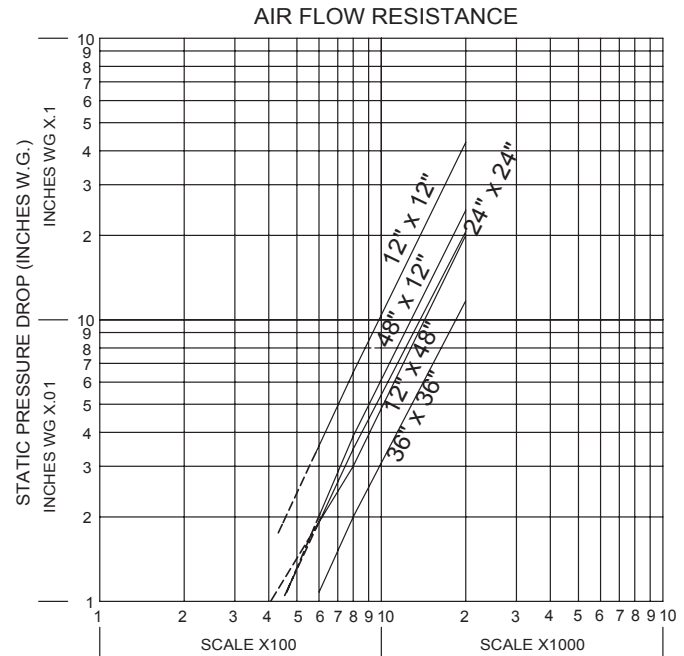
Pressure drop test per AMCA Standard 500-D, Figure 5.3.

36"x36" Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
592	3.02	0.01	3
794	4.05	0.02	5
1196	6.10	0.05	11
1598	8.15	0.08	20
2006	10.23	0.12	30

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

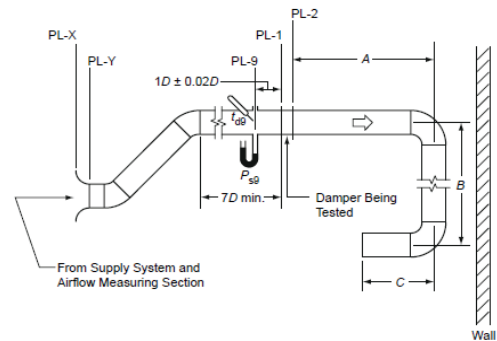
48"x12" Pressure Drop			
Face Velocity		Pressure Drop	
fpm	(m/s)	inches w.g.	(Pa)
601	3.07	0.02	5
804	4.10	0.04	9
1206	6.15	0.09	21
1605	8.19	0.15	38
2009	10.25	0.24	60

Pressure drop test per AMCA Standard 500-D, Figure 5.3.

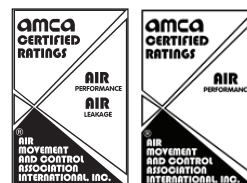


CD-120, 121 sizes: 12" x 12", 24" x 24", 48" x 12", 12" x 48", 36" x 36"
(305 x 305mm, 610 x 610mm, 1219 x 305mm, 305 x 1219mm, 914 x 914mm)
Data corrected to standard air density

Pressure drop test per AMCA Standard 500-D, Figure 5.3.



AMCA Figure 5.3 Pressure Drop



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