

OPPOSED BLADE - PARALLEL BLADE DAMPER

Suggested Specifications:

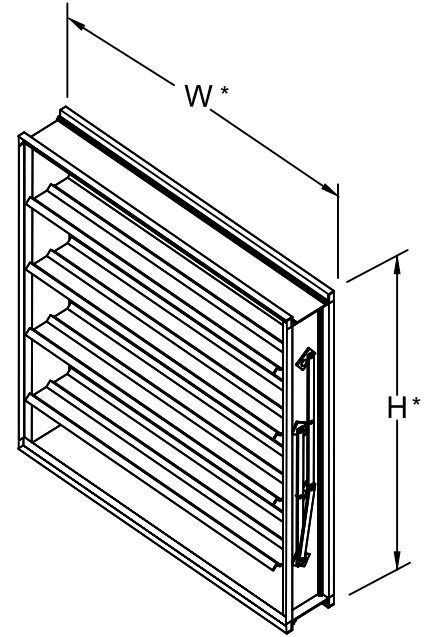
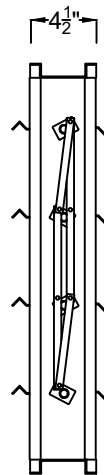
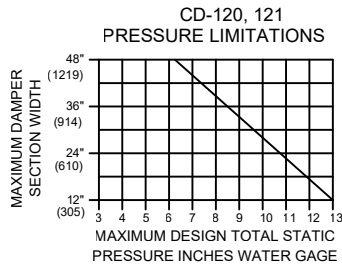
Furnish and install at location shown on drawing or in accordance with schedules dampers meeting the following specifications: Rectangular damper shall have 18 gauge galvanized steel blades with galvanized steel frame.

Damper to be equal to S&P Air Control MODEL CD-120 or CD-121.

Ratings:

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

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



Standard Features:

Frame: 4-1/2" [114mm] deep, 18ga. Formed Galv. Steel

Blades: 6" [152mm] wide, 18ga. Formed Galv. Steel

Bearing: Bronze Oilite

Linkage: Concealed in frame

Axles: Ø1/2" [13mm] 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



*Undersized 1/4" [6.35mm]

Minimum Size: 6"w x 8"h [152mm x 203mm] (single blade)

Minimum Size: 6"w x 13"h [152mm x 330mm] (multiple blades)

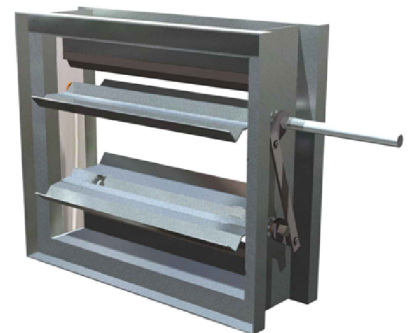
Maximum Size: 48"w x 60"h [1219mm x 1524mm] (single section)

Maximum multi-section: unlimited

Options:

- ☐ Blade Seals PVC (180° F) [82°C]
- ☐ Compression Jamb Seals (stainless steel)
- ☐ Hand Quadrant
- ☐ Chain Operate
- ☐ Factory Installed Pneumatic or Electric Actuators (see cat. sheet K-1)
- ☐ Stand Off Bracket, 2" [51mm]
- ☐ Header Plates (end flange)
- ☐ Position Switch
- ☐ Single Flange
- ☐ Double Flange
 - ☐ Bolt holes in flange
- ☐ Heresite coated (air dry)
- ☐ Epoxy coated (powder coated)
- ☐ Stainless Steel Bushings

- ☐ 304 stainless steel construction
- ☐ 304L stainless steel construction*
- ☐ 316 stainless steel construction*
- ☐ 316L stainless steel construction*
- ☐ 16ga. construction
- ☐ 14ga. construction
- ☐ 12ga. construction
- ☐ 10ga. construction
- ☐ 7-1/2" [191mm] deep frame
- ☐ Face and Bypass Damper (*304 stainless steel linkage)



Job Name:

Location:

Architect:

Engineer:

Contractor:



☐ **MODEL CD-120 (Opposed)**

☐ **MODEL CD-121 (Parallel)**

DRAWN BY:
CLJ

DATE:
August 2008

REV. DATE:
May 2026

REV. NO.
10

APPROVED BY:

DWG. NO.:

A-6

MODEL CD-120 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

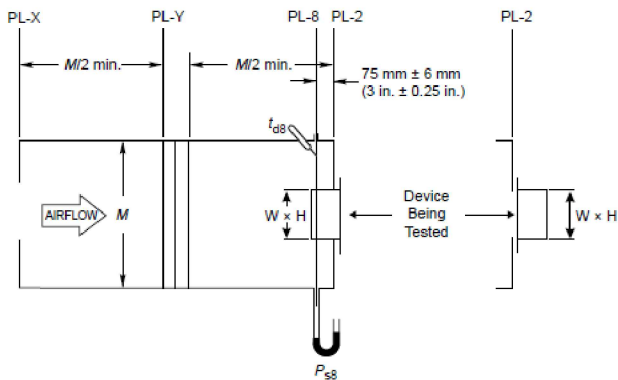
Air leakage is based on operation between 10° C to 40° C. All data corrected to represent air density of 1.201 kg/m³.

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

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.



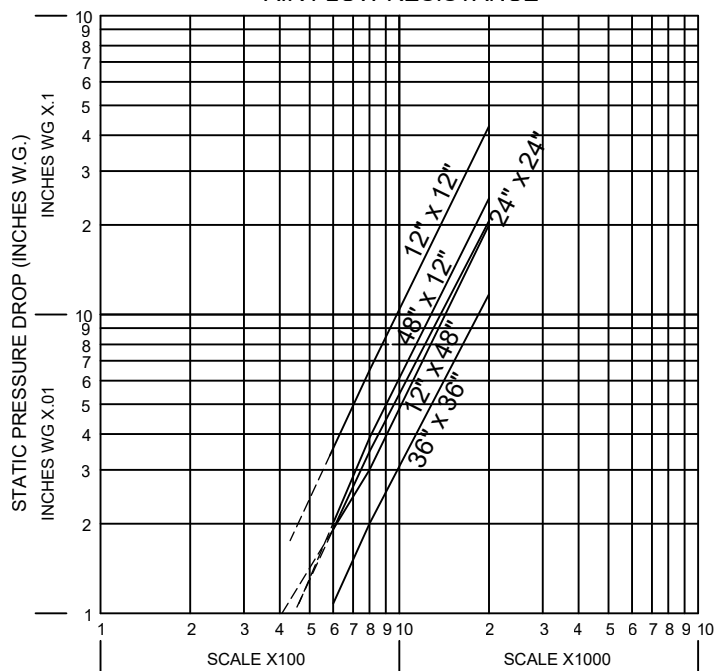
S&P Air Control certifies that the CD-120 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Rating Seal applies to Air Performance and Air Leakage ratings.

		Leakage, ft ³ /min /ft ²			
		Required Rating		Extended Ranges (optional)	
Pressure Class		1"	4"	8"	12"
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

MODEL CD-120, 121 PERFORMANCE DATA

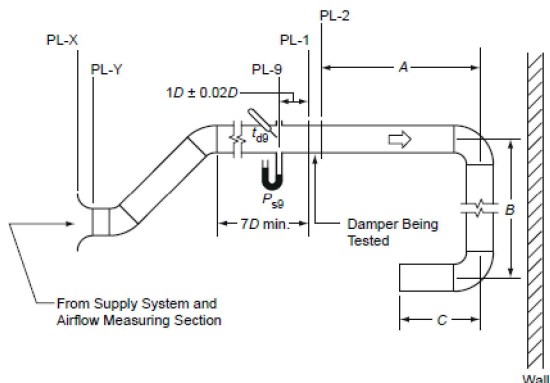
AIR FLOW RESISTANCE



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



S&P Air Control certifies that the CD-120 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.



S&P Air Control certifies that the CD-121 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 ratings only.

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.