

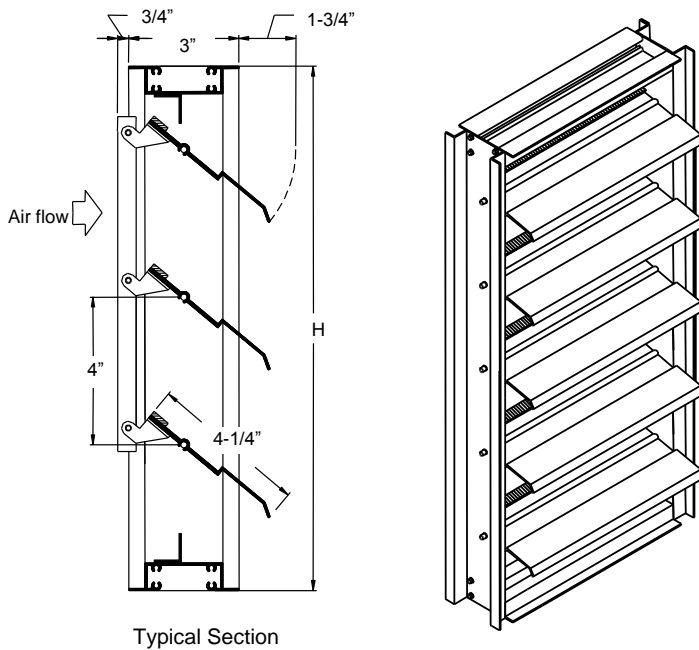
Air Flow Company, Inc.

850 W. Fullerton Ave. • Addison, IL 60101
 Tel (630) 628-1138 Fax (630) 628-1149

Model BDL - 300 Backdraft Damper Light / Medium Duty

Project: _____ Contractor: _____
 Arch / Engr: _____ Customer: _____

CONTROL DAMPER SCHEDULE								
Item	Qty	Opening Size (W x H)	Frame Style	Finish	Seals	Material gauge	Mullions	Notes



STANDARD DAMPER CONSTRUCTION

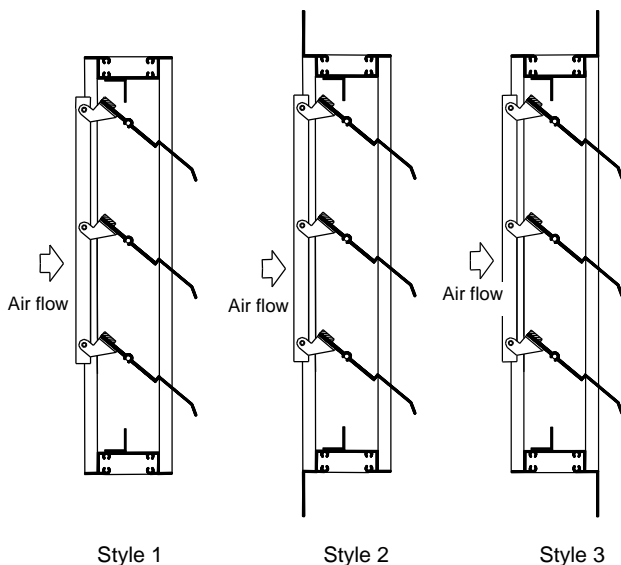
- Frames:** .063" x 3" deep extruded aluminum 6063-T5
- Blades:** .125" x 4.25 wide extruded aluminum 6063-T5
- Bearings:** Brass sleeve
- Axles:** 3/16" dia. Aluminum pin
- Linkage:** Aluminum face linkage
- Seals:** Polyurethane Foam
- Temperature Limits:** -40° to 200° F
- Max. Velocity & Back Pressure:** 2000 fpm @ 4" wg. (12" wide)
- Finish:** Mill
- Undersized:** 1/4" under opening sizes
- Minimum size:** 6" x 6"
- Maximum single section:** 36" x 72"

OPTIONS:

- Counter Weight: Adjustable Galvanized steel
- Frame: 1-1/2" flange
- Operator: Manual, Electric, or Pneumatic
- Blade Seals: Neoprene foam or extruded vinyl
- Jack-shafting for multiple sections
- Finish: Anodized or painted

Notes:

1. Dampers to be mounted horizontally specify air flow upward or air flow downward.
2. Unless specified all multiple sections up to 72" x 72" high will be shipped factory assembled. Units larger than the above will require field assembly of sections with hardware provided.
3. Specify motor operator mounting options: out of air stream or in the air stream.
4. When damper is supplied with counterweights final field adjustments will be necessary to obtain desired pressure.
5. Factory mounted sleeve up to 36" deep with 8 gauge to 20 gauge galvanized steel.
6. Burglar bars or filter racks to be mounted in sleeve.
7. Consult factory if pressures exceeds 4" wg. or air velocity exceeds 2000 fpm.
8. If to be used near a fan discharge, damper should be mounted no greater than 1/2 the wheel diameter of the fan discharge.
9. When joining multiple section assemblies, use #10 x 1/2" self-drilling screws at 12" oc.



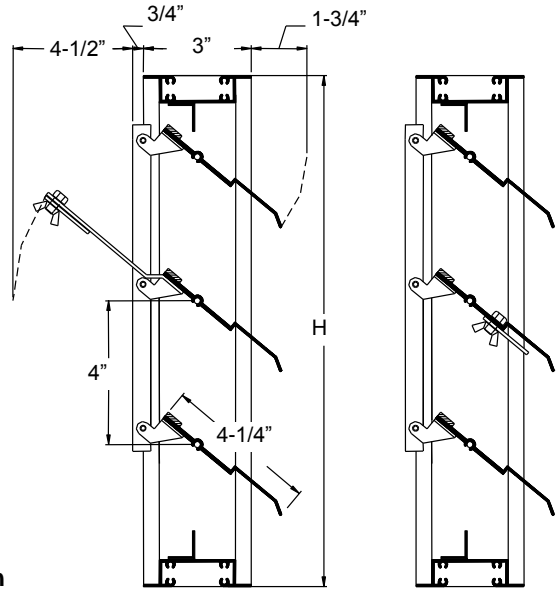
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Model BDL 300

- Free Area
- Air Performance
- Air Leakage

Free Area Calculations (sq. ft.)

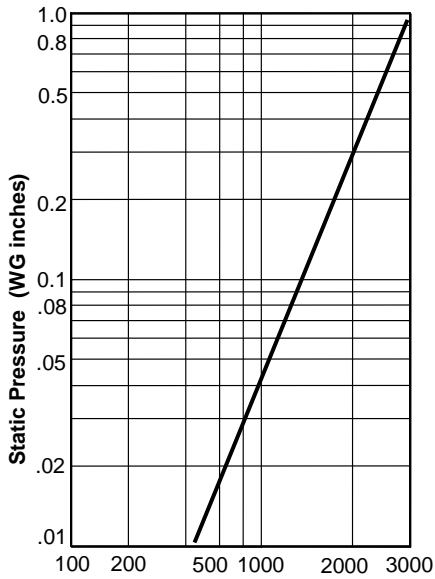
HEIGHT (inches)	WIDTH (inches)							
	8	12	16	20	24	28	32	36
8	0.23	0.36	0.49	0.62	0.75	0.88	1.01	1.14
12	0.39	0.62	0.85	1.08	1.31	1.53	1.76	1.99
16	0.56	0.88	1.21	1.54	1.86	2.19	2.52	2.84
20	0.72	1.15	1.57	1.99	2.42	2.84	3.27	3.69
24	0.89	1.41	1.93	2.45	2.98	3.50	4.02	4.54
28	1.05	1.67	2.29	2.91	3.53	4.15	4.77	5.40
32	1.22	1.94	2.65	3.37	4.09	4.81	5.53	6.25
36	1.38	2.20	3.02	3.83	4.65	5.46	6.28	7.10
40	1.55	2.46	3.38	4.29	5.21	6.12	7.03	7.95
44	1.71	2.73	3.74	4.75	5.76	6.78	7.79	8.80
48	1.88	2.99	4.10	5.21	6.32	7.43	8.54	9.65
52	2.04	3.25	4.46	5.67	6.88	8.09	9.29	10.50
56	2.21	3.52	4.82	6.13	7.43	8.74	10.05	11.35
60	2.37	3.78	5.18	6.59	7.99	9.40	10.80	12.20
64	2.54	4.04	5.54	7.05	8.55	10.05	11.55	13.06
68	2.71	4.31	5.91	7.51	9.11	10.71	12.31	13.91
72	2.87	4.57	6.27	7.96	9.66	11.36	13.06	14.76



Counterweight to assist

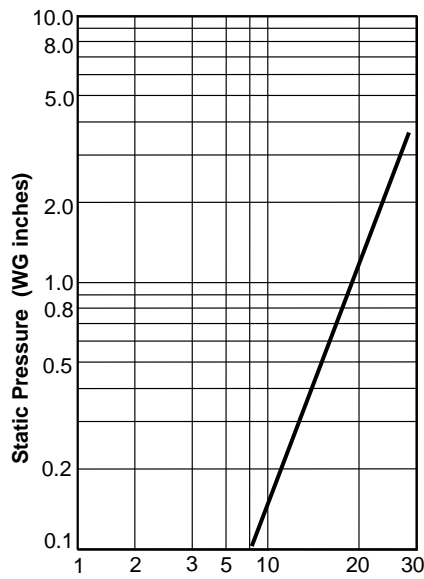
Counterweight to retard

Pressure Drop – Damper in Open Position



Air Velocity in FPM of face area
Per AMCA 500, Fig. 5.5 plenum mounted

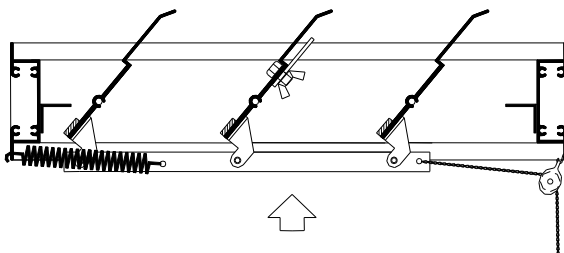
Air Leakage – Damper in Closed Position



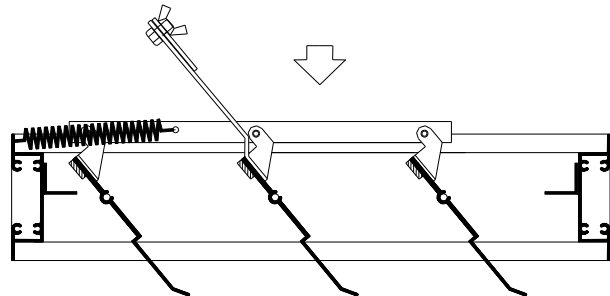
Air Leakage in CFM/ sq. ft. of face area
Per AMCA 500, Fig. 5.5 plenum mounted

Vertical Installation (in. wg.)		
Counterweight	Blades start to open	Blades fully open
No counterweight	0.05	0.3
Counterweight to assist	0.03	0.15

Performance			
Damper Width	Maximum Pressure	Maximum Velocity	Leakage per S. F.
12"	4" wg.	2000 FPM	30 CFM
24"	3" wg.	1800 FPM	27 CFM
36"	2" wg.	1500 FPM	25 CFM



Horizontal mount
with air flow up



Horizontal mount
with air flow down