

Air Flow Company, Inc.

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Model ACD-46 / ACD-45 Control Damper Extruded Aluminum 4" Air Foil Blade

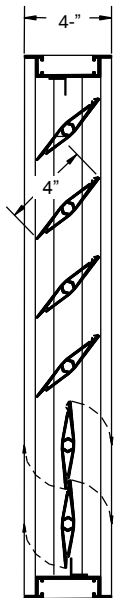
Project: _____

Contractor: _____

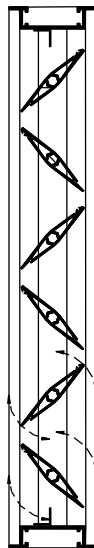
Arch / Engr: _____

Customer: _____

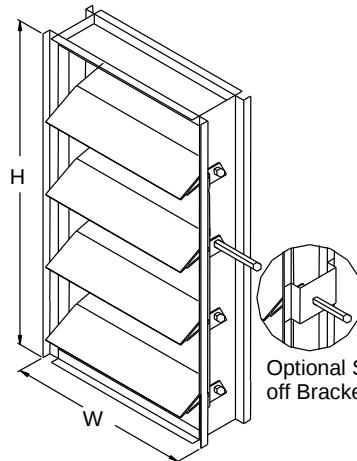
CONTROL DAMPER SCHEDULE								
Item	Qty	Opening Size (W x H)	Frame Style	Finish	Seals	Material gauge	Mullions	Notes



ACD-46
Parallel



ACD-45
Opposed



Optional Stand-off Bracket

STANDARD DAMPER CONSTRUCTION

Frames: 4" x .125" thk. extruded aluminum 6063-T5

Blades: 4" wide x .081" extruded aluminum 6063-T5

Bearings / Axles: 1/2" dia. bronze, 1/2" hex steel

Linkage: Steel plated hidden inside the jamb

Seals: Silicone blade and flexible metal jamb seals

Finish: Mill

Undersized: 1/4" under opening sizes

Operator: Extended shaft

Minimum size: 12" x 12"

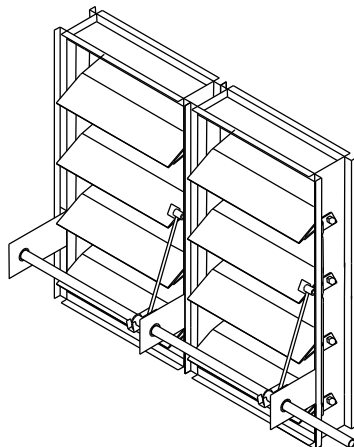
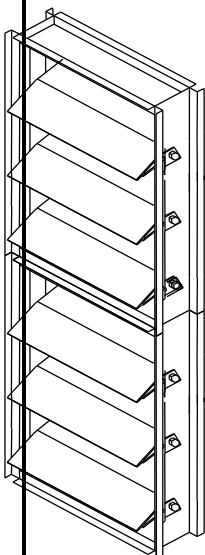
Maximum single section: 60" x 96"

OPTIONS:

- Linkage : Stainless steel
- Frame: 1-1/2" flange strip
- Operator: Manual, Electric, or Pneumatic
- Jamb Seals: Aluminum or stainless steel
- Jack-shafting for multiple sections
- Face and bypass sections
- Stand-off bracket for insulation
- Finish: Anodized or painted

Notes:

1. Unless specified all multiple sections up to 144" x 72" high will be shipped factory assembled. Units larger than the above will require field assembly of sections with hardware provided.
2. Specify motor operator mounting options: out of air stream or in the air stream.
3. All units less than 12" high will be single blade.
4. Factory mounted sleeve up to 36" deep with 8 gauge to 20 gauge galvanized steel.
5. Burglar bars or filter racks to be mounted in sleeve.
6. Consult factory if pressures exceeds 4" wg. or air velocity exceeds 2000 fpm.
7. Special blade wider than 6" or less may be required at the lower part of the damper depending on the required height.



Jack-shaft for multiples

Models ACD-46 & ACD-45

- Free Area
- Air Performance
- Air Leakage

Free Area Calculations (sq. ft.)

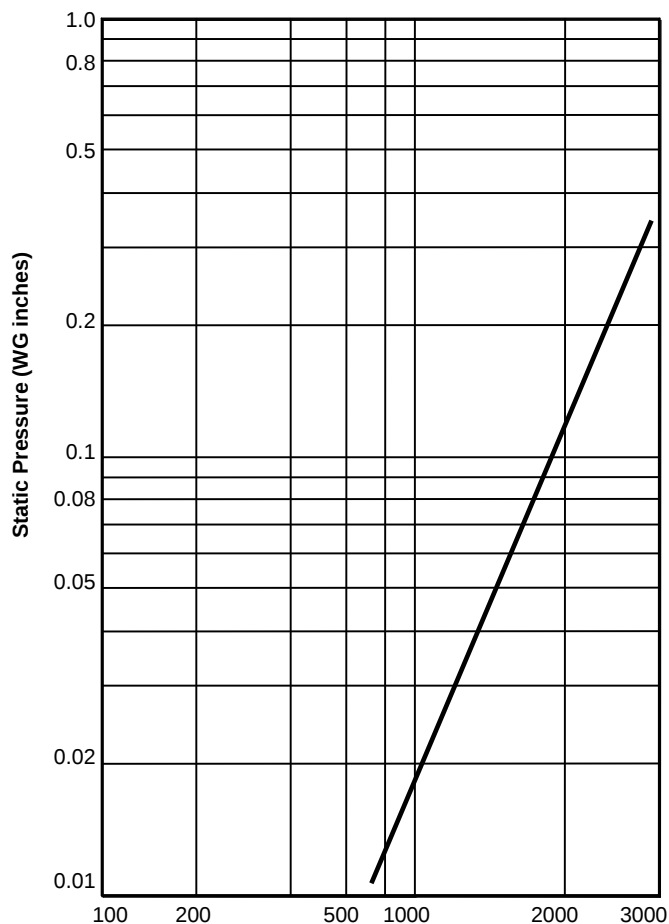
		W I D T H (inches)								
		12	18	24	30	36	42	48	54	60
H E I G H T (inches)	12	0.52	0.83	1.14	1.45	1.76	2.07	2.38	2.70	3.01
	18	0.90	1.43	1.97	2.50	3.04	3.57	4.11	4.65	5.18
	24	1.23	1.97	2.70	3.44	4.17	4.91	5.64	6.38	7.11
	30	1.61	2.57	3.53	4.49	5.45	6.41	7.37	8.33	9.29
	36	1.94	3.10	4.26	5.42	6.58	7.74	8.90	10.06	11.22
	42	2.31	3.70	5.08	6.47	7.86	9.24	10.63	12.01	13.40
	48	2.65	4.23	5.82	7.40	8.99	10.57	12.16	13.75	15.33
	54	3.02	4.83	6.64	8.45	10.26	12.07	13.88	15.70	17.51
	60	3.36	5.37	7.38	9.39	11.40	13.41	15.42	17.43	19.44
	66	3.73	5.97	8.20	10.44	12.67	14.91	17.14	19.38	21.61
	72	4.06	6.50	8.93	11.37	13.81	16.24	18.68	21.11	23.55
	78	4.44	7.10	9.76	12.42	15.08	17.74	20.40	23.06	25.72
	84	4.77	7.63	10.49	13.35	16.21	19.07	21.93	24.80	27.66
	90	5.15	8.23	11.32	14.40	17.49	20.57	23.66	26.75	29.83
	96	5.48	8.77	12.05	15.34	18.62	21.91	25.19	28.48	31.76

Notes:

1. Leakage information is based on damper with silicone blade and aluminum jamb seals.
2. Leakage is based on 1" w.g. pressure differential.
3. Leakage is based on 20# lbs. of torque applied to the operating shaft.
4. Pressure limitations based on I/180 blade deflection.

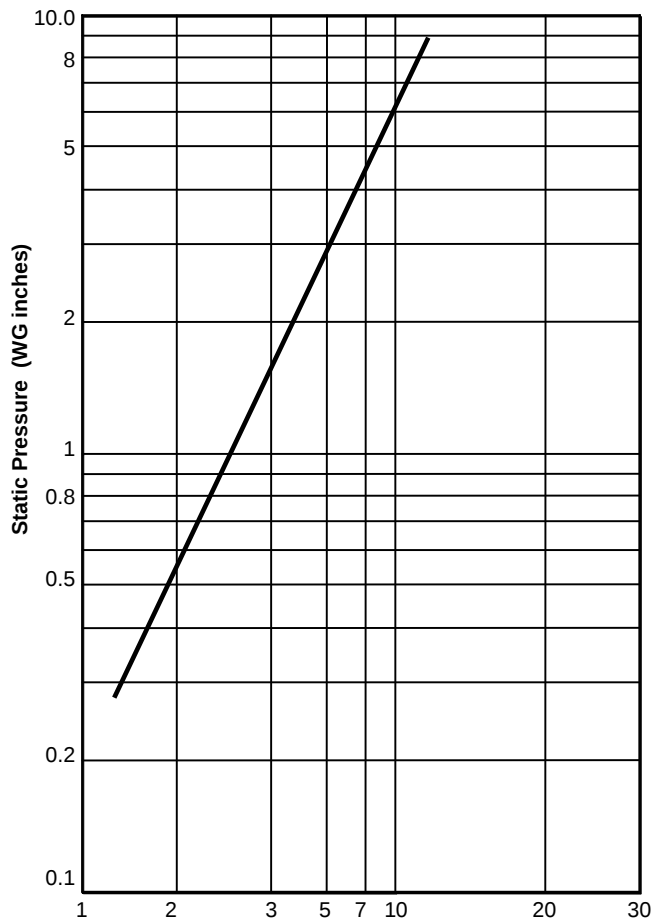
ACD-45 & ACD-46			
Damper Width	Max. Pressure	Max. Velocity	Leakage per SF.
60"	3" WG.	3000 FPM	2.8 CFM
48"	6" WG.	4000 FPM	3.0 CFM
36"	9" WG.	4000 FPM	3.5 CFM
24"	11" WG.	5000 FPM	3.5 CFM
12"	13" WG.	6000 FPM	5.0 CFM

Pressure Drop – Damper in Open Position



Air Velocity in FPM of face area
Per AMCA 500, Fig. 5.5 plenum mounted
24" x 24" unit test size

Air Leakage – Damper in Closed Position



Air Leakage in CFM/ sq. ft. of face area
Per AMCA 500, Fig. 5.5 plenum mounted
48" x 48" unit test size