

# MODEL 500B

Backdraft Damper • 2" Deep • Single Thickness Blades • Light Duty • Extruded Aluminum

### Standard Materials and Construction

- FRAME:** .080" thk. (nominal) extruded aluminum channel, 5/8" x 2" x 5/8".
- BLADE:** .032" thk. (nominal) aluminum, formed over a 3/16" dia. steel rod.
- SEALS:** Polyurethane foam at blade edges, none at jamba.
- BEARINGS:** Bronze Oilite.
- LINKAGE:** Aluminum chevron bracket with aluminum linkage bar.
- FINISH:** Mill.

### Options

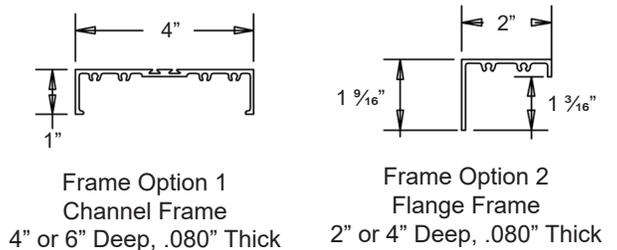
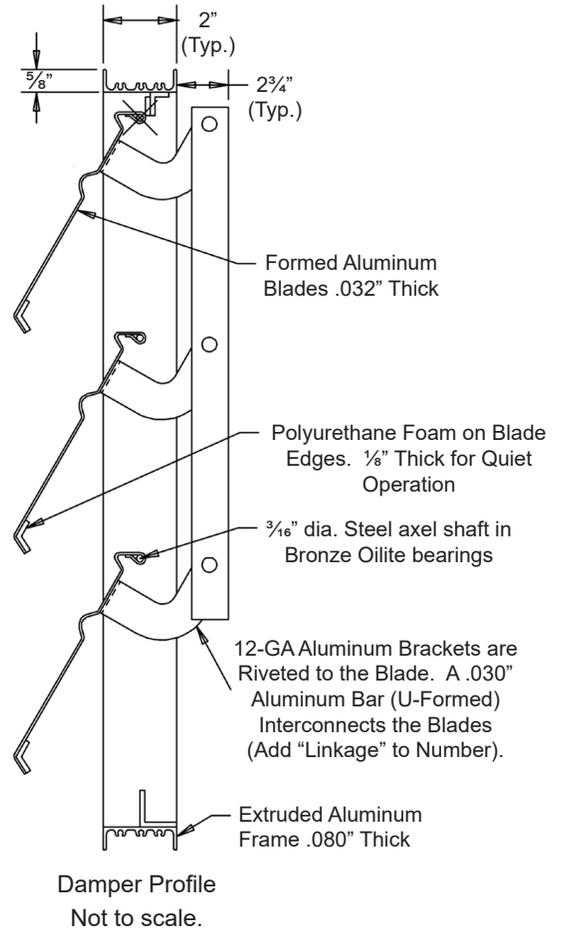
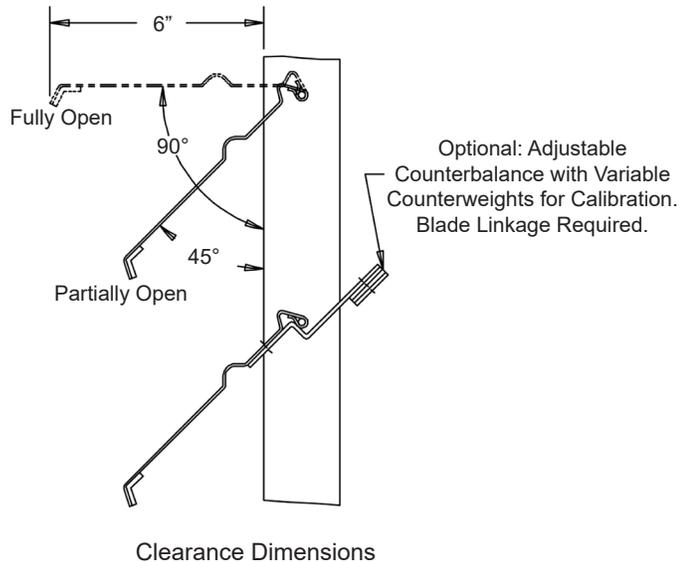
- Flange Frame
- No Blade to Blade Linkage
- Bird or Insect Screen
- Adjustable Counterbalance
- (Specify to Assist or Resist Opening, Linkage Must be Used)

### Notes

1. 1/4" nominal deduction will be made to the opening size given.
2. Specify air flow as horizontal, vertical up, or vertical down.

### Damper Sizes

Min Panel	Max Single Panel
8"W x 8"H	48"W x 72"H



Item #	Qty	Width	Height	Width	Height	Mullion	Counter Balance	Air Flow (Direction)	Union Made
		Opening Size		Damper Size					
Arch. / Eng.:						EDR:	ECN:	Job:	
Contractor:									
Project:						Date:	DWN:	DWG:	



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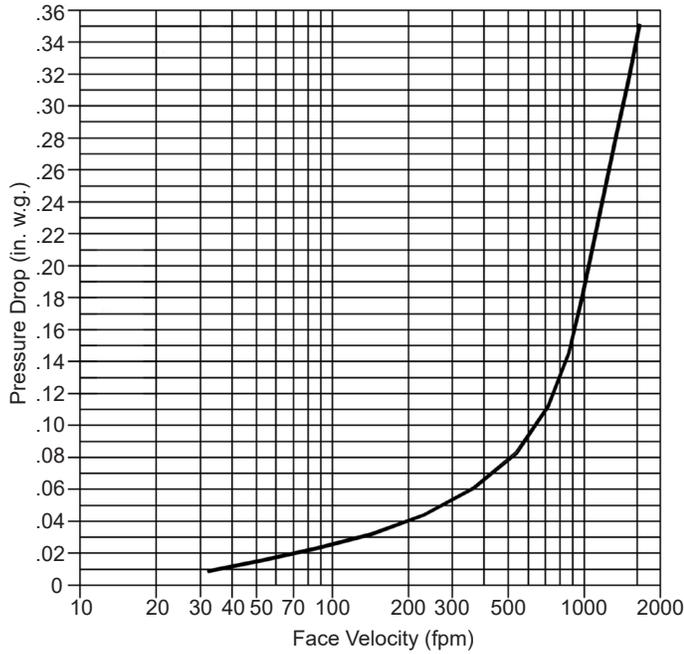
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## Pressure Drop Data

Typical performance for model 500B backdraft damper size tested 42"W x 42"H, furnished with counterweight to assist opening.

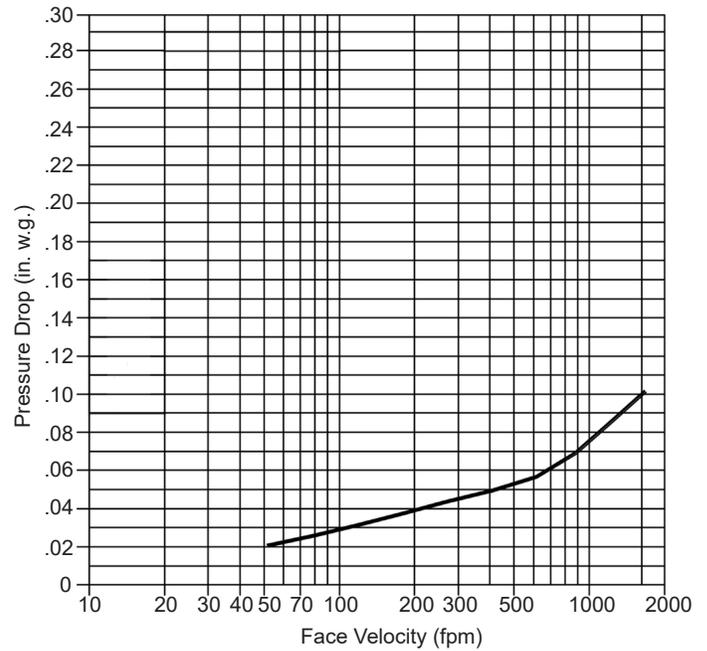
### Without Ductwork

Dampers installed per AMCA 500 Fig. 5.4  
(Face Mounted to a Plenum)  
Pressure is Corrected to .075 lb./cu.ft. Air Density  
Operational Pressure  
Start to Open - .01 in. w.g.  
Fully Open - .35 in. w.g.



### With Ductwork

Dampers installed per AMCA 500 Fig. 5.3  
(Ductwork Installed Upstream and Downstream of Damper)  
Pressure is Corrected to .075 lb./cu.ft. Air Density  
Operational Pressure  
Start to Open - .01 in. w.g.  
Fully Open - .06 in. w.g.



## Air Leakage Data

Air leakage quantities shown in the chart are results of tests per AMCA standard 500 and are shown at .10 in. w.g. differential pressure and corrected to .075 lbs/cu.ft. air density.

Total CFM Air Leakage at .10" Static Pressure Differential Through Closed Damper Width (in.)

	12"	18"	24"	30"	36"	42"	48"
12"	6.6	9.9	13.2	16.5	19.8	23.1	26.4
24"	13.2	19.8	26.4	33.0	39.6	46.2	52.8
36"	19.8	29.7	39.6	49.5	59.4	69.3	79.2
48"	26.4	39.6	52.8	66.0	79.2	92.4	105.6
60"	33.0	49.5	66.0	82.5	99.0	115.5	132.0
72"	39.6	59.4	79.2	99.0	118.8	138.6	158.4

For determining leakage values greater than .10 in. w.g. to a maximum 2 in. w.g. use the multiplier correction chart below.

Static Pressure	.2	.3	.4	.5	1.0	1.5	2.0
Multiplier Correction Factor	1.07	1.12	1.19	1.24	1.66	1.92	2.10

Air leakage ratings are based on AMCA Standard 500 using test set up Fig. 5.4 with damper in the closed position without the aid of a counterweight or other mechanical means to provide closing torque, for a size 42"W x 42"H damper with blade and jamb seals.