MODEL BAL

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

Standard Construction and Materials

FRAME: .080" thk. (nominal) extruded aluminum channel, ⅝" x 2" x ⅝".
BLADE: .032" thk. (nominal) aluminum, formed over a 3⁄16" dia. steel rod.
SEALS: Polyurethane foam at blade edges, none at jambs.
BEARINGS: Bronze Oilite.
LINKAGE: Aluminum chevron bracket with aluminum linkage bar.
FINISH: Mill.

Options

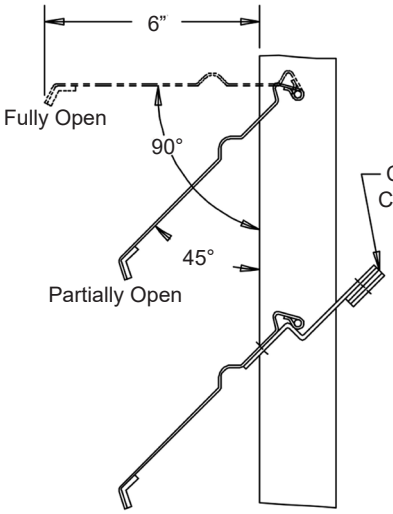
Flange Frame
No Blade to Blade Linkage
Bird or Insect Screen
Adjustable Counterbalance
(Specify to Assist or Resist Opening, Linkage Must be Used)

Notes

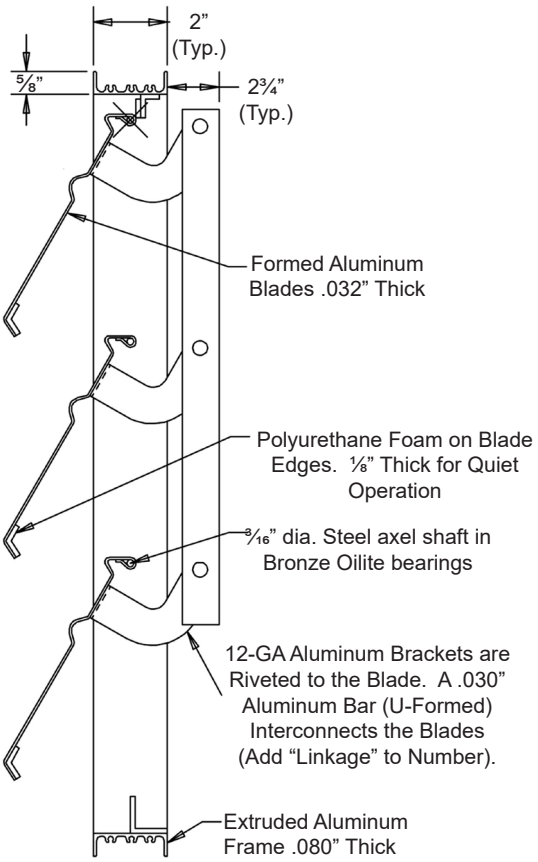
1. ¼" nominal deduction will be made to the opening size given.
2. Specify air flow as horizontal, vertical up, or vertical down.

Damper Sizes

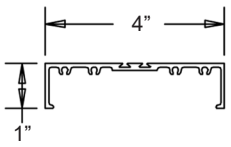
Min Panel	Max Single Panel
8"W x 8"H	48"W x 72"H



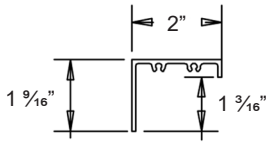
Clearance Dimensions



Damper Profile
Not to scale.



Frame Option 1
Channel Frame
4" or 6" Deep, .080" Thick



Frame Option 2
Flange Frame
2" or 4" Deep, .080" Thick

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

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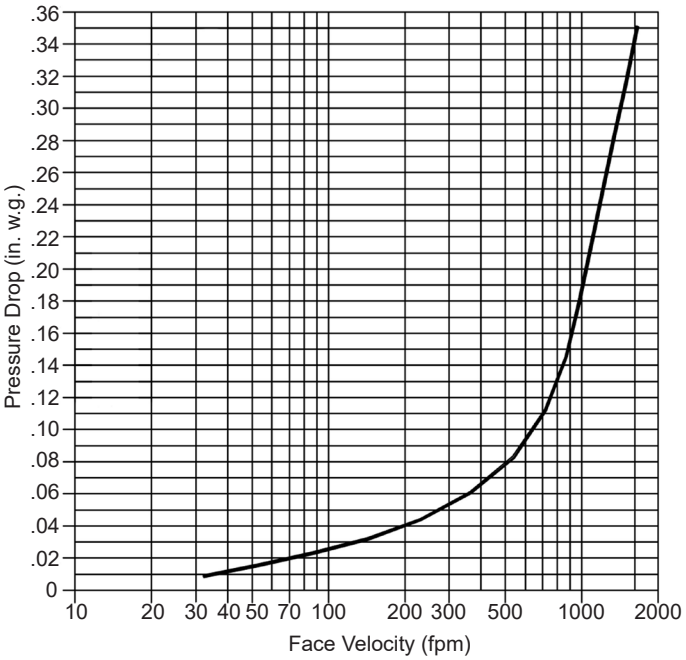
Pressure Drop Data

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

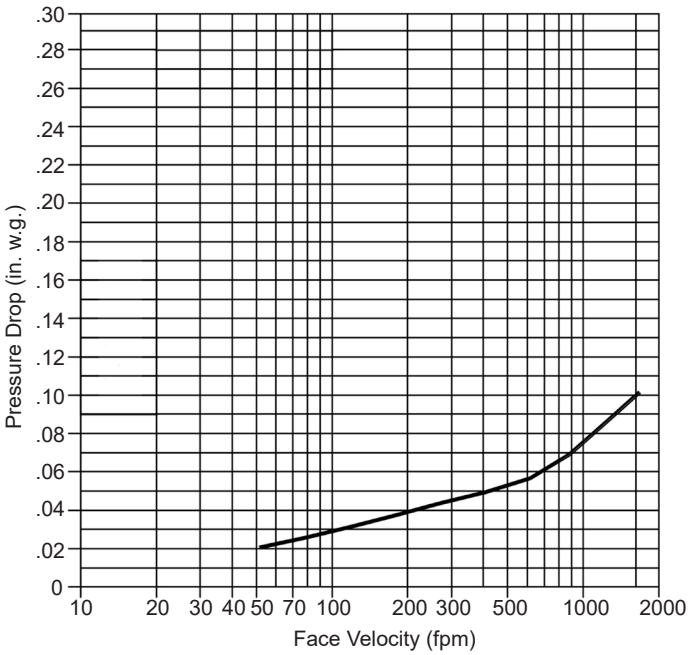
Without Ductwork

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

Height (in.) \ 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.

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