

Medium Duty Backdraft Damper - Model SHM

Design Features – Medium duty backdraft damper designed for use in higher velocity applications.

PLEASE SPECIFY HORIZONTAL OR VERTICAL FLOW

STANDARD CONSTRUCTION

ALL MATERIAL – EXTRUDED ALUMINUM 6063-T5 (KB-45)

FRAME

3" (76) deep, .064" thk. extruded aluminum in style #2

BLADES

.064" tapers to .105" extruded aluminum, 4.25" wide @ 4" O.C.
(Blade profile tapers to leading edge)

BLADE AXLES & BEARINGS

AXLE – 3/16" dia. aluminum pin

BEARING – Brass sleeve

LINKAGE

Mounted at the center point of the width dimension on face of blades

BLADE BRACKET - .050" thick aluminum

LINKAGE BAR - .064" extruded aluminum

SEALS

Polyurethane foam blade edge

MAXIMUM TEMPERATURE

200° F

MAXIMUM SIZE

Unlimited, with mullions, structural bracing supplied by others

MAXIMUM FACTORY ASSEMBLY SIZE

36"W x 72"H

MINIMUM SIZE

6"W x 4"H

UNDERSIZED

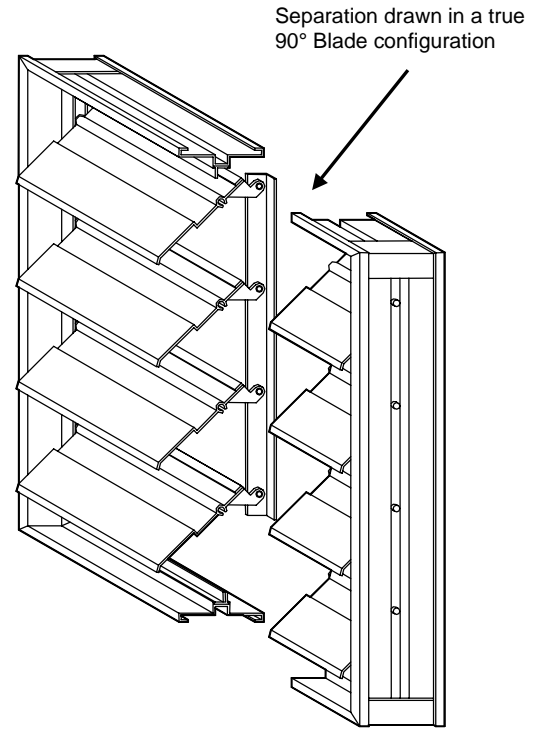
1/4" under ordered size unless specified Exact or Actual

FINISH

Mill

OPERATOR

None



OPTIONAL CONSTRUCTION

FLANGE FRAME – Standard flange, Reverse flange

COUNTER WEIGHT – Galvanized steel, .063" aluminum bracket,
(Must specify retard or assist on the order)

OPERATOR – Manual, Electric or Pneumatic

FINISH – Air-dry primer, polyurethane, epoxy, or enamel, baked epoxy
or enamel, Anodized, Kynar, or Powder coat.

SPECIAL PURPOSE CONSTRUCTION

Security bars

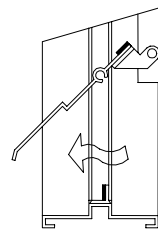
Horizontal mount up flow or down flow configurations

Filter racks

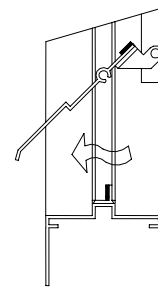
Sleeved for ductwork connection

Note: for fan discharge applications, the minimum distance between the damper and the fan must be equal to 2/3 of the fan diameter.

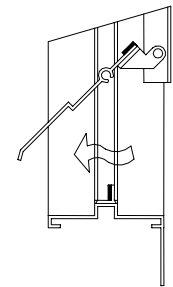
FRAME STYLES



#2-Channel



#1-Std. Flange
1-1/2"

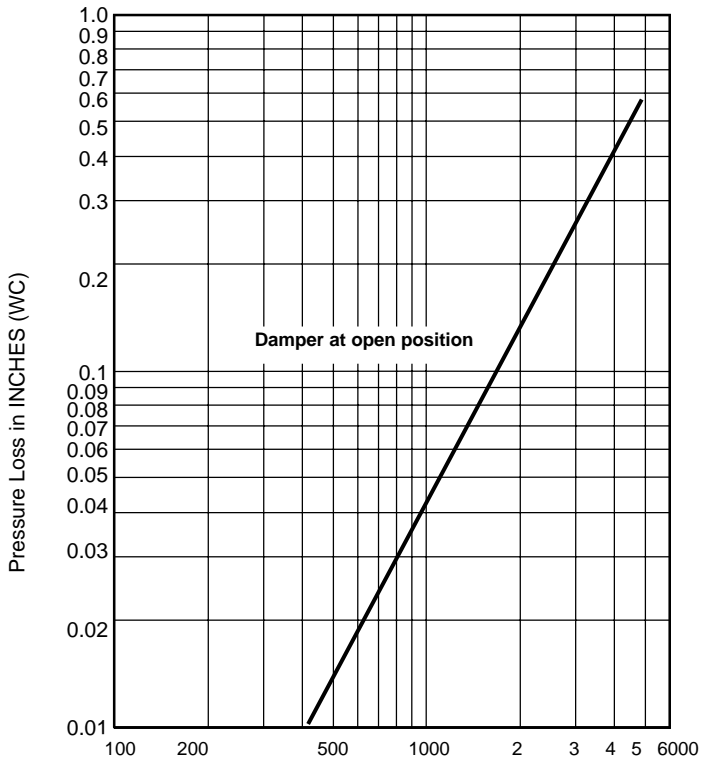


#5-Reverse Flange
1-1/2"

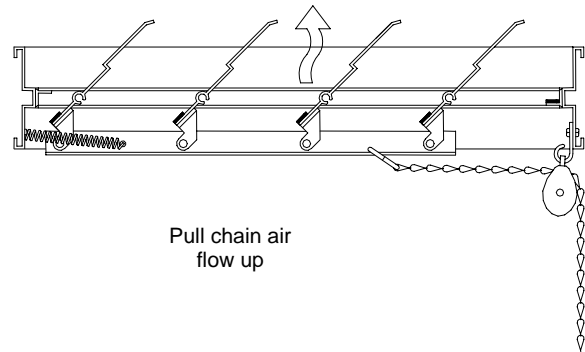
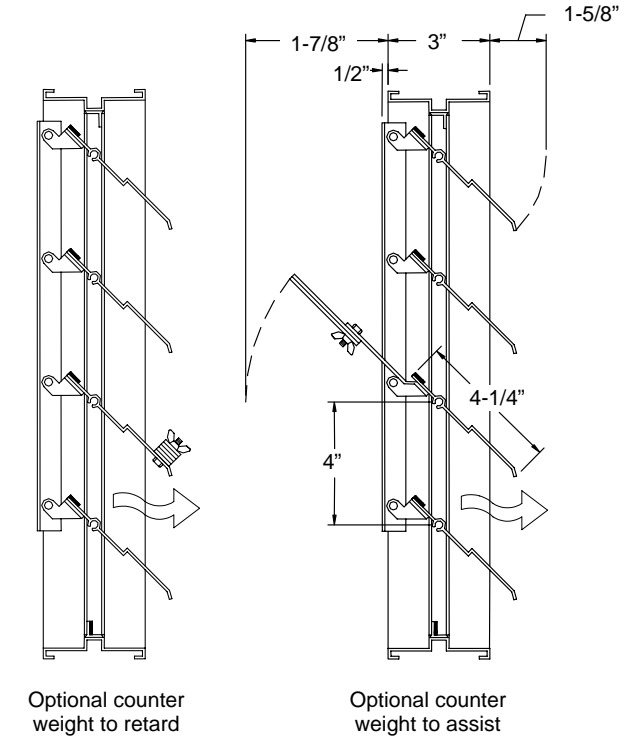
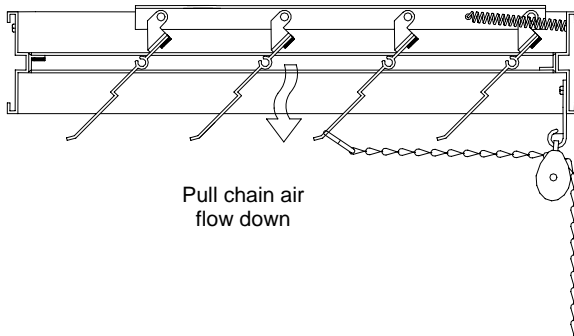
DATE	ARCHITECT			ENGINEER
PROJECT				
ITEM	QTY	W	H	DESCRIPTION

All tests performed at an independent laboratory and made in accordance with AMCA standard for air performance.

AIR PERFORMANCE



FACE AREA VELOCITY (fpm)
24 x 24 sample tested per AMCA Std. 500, Figure 5.5



Note:
Performance data shown are approximate numbers under intermittent conditions and are to be used only as reference under standard generic installation. Consult Safe Air for additional technical information.

FREE AREA CALCULATIONS (SQ. FT.)

		WIDTH						
		12	16	20	24	28	32	36
HEIGHT	12	0.66	0.91	1.15	1.40	1.65	1.90	2.14
	18	1.08	1.49	1.90	2.30	2.71	3.12	3.52
	24	1.48	2.04	2.60	3.16	3.72	4.28	4.84
	30	1.91	2.63	3.34	4.06	4.78	5.50	6.22
	36	2.31	3.18	4.05	4.92	5.79	6.66	7.53
	42	2.73	3.76	4.79	5.82	6.85	7.88	8.91
	48	3.13	4.32	5.50	6.68	7.86	9.05	10.23
	54	3.56	4.90	6.24	7.58	8.92	10.27	11.61
	60	3.96	5.45	6.95	8.44	9.94	11.43	12.92
66	4.38	6.04	7.69	9.34	11.00	12.65	14.30	
72	4.78	6.59	8.40	10.20	12.01	13.81	15.62	

LEAKAGE	
Pressure Differential	CFM per sq. ft.
1" wg.	30
.50" wg.	25

PERFORMANCE						
Width	Max. Velocity	Max. Pressure	without counter weight		CW to assist	
			Blade start to open	Blade fully open	Blade start to open	Blade fully open
36"	1000 fpm	2" wg.	.05" wg.	.30" wg.	.01" wg.	.10" wg.
24"	1200 fpm	3" wg.				
12"	1500 fpm	4" wg.				