



COUNTERBALANCED BACKDRAFT DAMPER
HIGH PERFORMANCE • HEAVY DUTY
EXTRUDED ALUMINUM BLADES & FRAME
MODEL: SHM-80CB

Model SHM-80CB is a high performance counterbalanced backdraft damper designed to automatically prevent the backflow of air while allowing for automatic air intake or exhaust/pressure relief in medium to heavy duty commercial and light duty industrial HVAC applications. Corrosion-resistant extruded aluminum construction highlights the model's features which include a reinforced mitered corner frame that resists racking, and aerodynamic blades that overlap the jambs for maximum weather protection. Extruded PVC blade seals provide quiet closure as well as extra weather protection. Blade linkage is mounted out of view on the rear of the blades and provides smooth operation at system velocities of up to 2500 fpm. Blade mounted counterweights are easily adjusted to desired opening pressure.

STANDARD CONSTRUCTION:

- FRAME:** 2 1/4" (57) deep channel type, .125" (3.2) nominal wall thickness type 6063-T5 extruded aluminum. Corners are mitered.
- BLADES:** .070" (1.8) nominal wall thickness type 6063-T5 extruded aluminum.
- LINKAGE:** Non-adjustable, face mounted on rear of blades.
- BEARINGS:** Synthetic, sleeve type.
- BLADE SEALS:** Extruded PVC.
- COUNTER-BALANCE:** Adjustable, plated steel weights mounted internally (in the airstream).
- FINISH:** Mill.
- MINIMUM SIZE:** 6" x 10" (152 x 254).
- MAXIMUM SIZE:** Single Section: 48" x 52" (1219 x 1321). Multiple section: Unlimited.

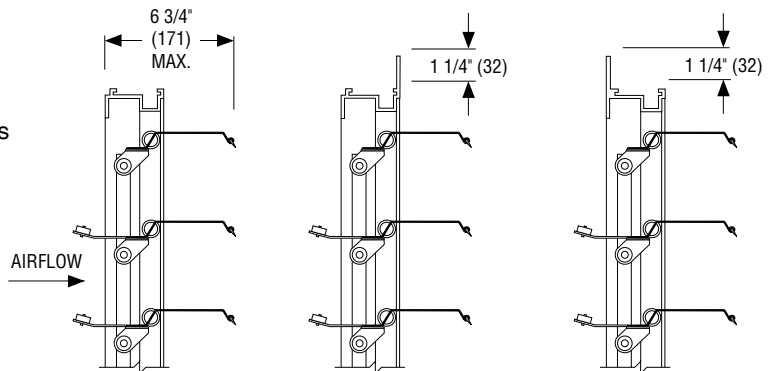
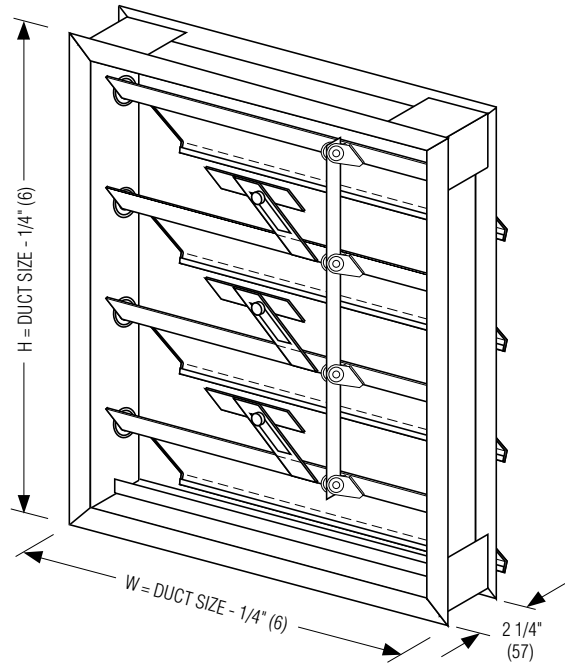
- MAXIMUM TEMPERATURE:** 200°F (93°C).
- MAXIMUM BACK PRESSURE:** 4 to 16 in. w.g. (see page 2).
- MAX. SYSTEM VELOCITY:** 2500 fpm (3500 fpm maximum spot velocity).

MOUNTING:

- VM Vertical mount (standard)
- HMU Horizontal mount (airflow up)
- HMD Horizontal mount (airflow down)

OPTIONS:

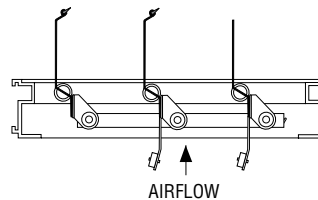
- FF Front flange
- FFB Front flange with bolt holes
- FR Rear flange
- FRB Rear flange with bolt holes
- Special features: _____ .



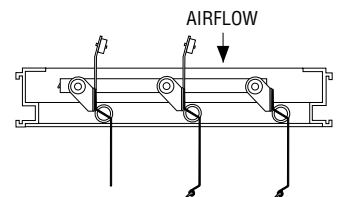
Channel Frame (Duct Mount) (Standard CF)

Front Flange (on discharge side) (Option FF)

Rear Flange (on intake side) (Option FR)



Horizontal Mount – Airflow up (Option HMU) (Available on all frame styles)



Horizontal Mount – Airflow down (Option HMD) (Available on all frame styles)

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

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 Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
1 - 24 - 25	SHM	NEW	SHM-80CB



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PERFORMANCE DATA
MODEL: SHM-80CB**

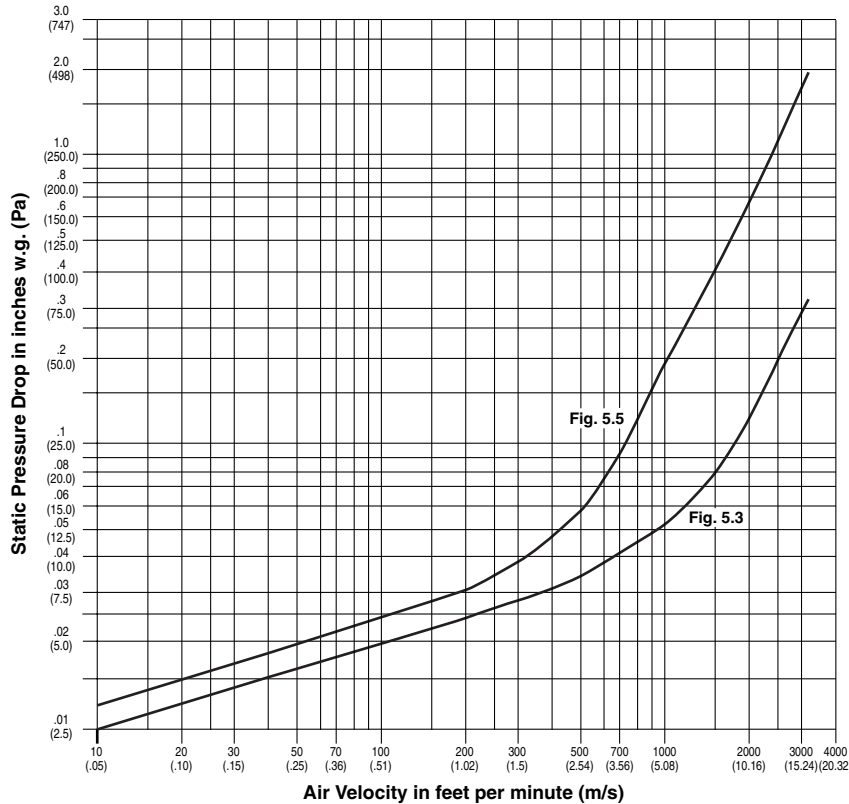
PERFORMANCE LIMITATIONS AND LEAKAGE DATA:

Damper Width	Maximum Back Pressure	Maximum System Velocity	Operational Data		Leakage8	
			Blades Begin Opening	Blades Fully Open	% of Maximum	CFM per Sq. Ft.
48" (1219)	4.0" w.g.	2500 fpm	.01" w.g. (2.5 Pa)	.05" w.g. (12.4 Pa)	0.60	15
36" (914)	8.0" w.g.	2500 fpm			0.60	15
24" (610)	12.0" w.g.	2500 fpm			0.72	18
12" (305)	16.0" w.g.	2500 fpm			1.00	25

Pressure and velocity limitations shown are guidelines for design purposes. Although ratings are on the conservative side, contact Safe-Air for requirements beyond limitations shown.

*Leakage data is based upon a pressure differential of 1 in. w.g., tested in accordance with AMCA Standard 500-D.

PRESSURE DROP: SIZE: 36" x 36" (914 x 914)



Tested per AMCA Standard 500-D using test set-up Figure 5.3, fully ducted and Figure 5.5, plenum mounted.

SCHEDULE TYPE:	Page 2 of 2 Dimensions are in inches (mm).			
PROJECT:				
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