



# COUNTERBALANCED BACKDRAFT DAMPER

HIGH PERFORMANCE • HEAVY DUTY  
EXTRUDED ALUMINUM BLADES & FRAME  
MODEL: 1380CB

Model 1380CB 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 3000 fpm. Blade mounted counterweights are easily adjusted to desired opening pressure.

## STANDARD CONSTRUCTION:

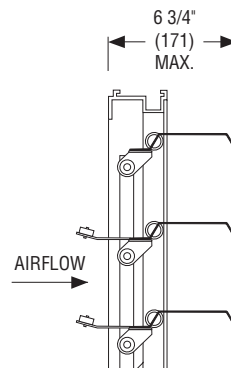
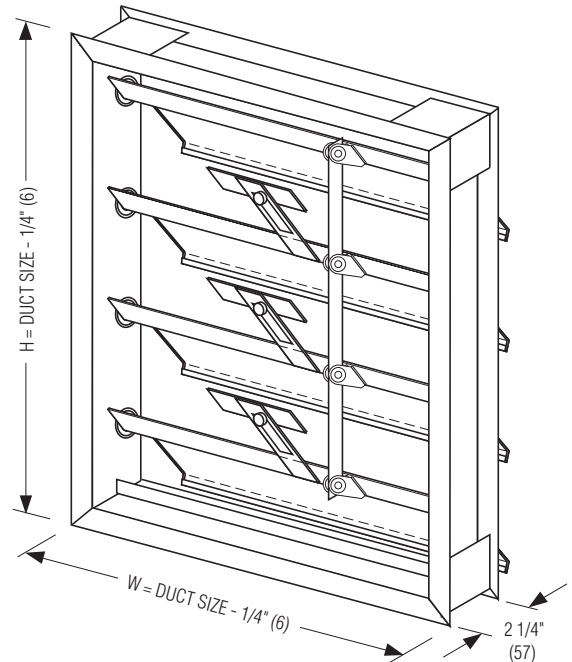
- Frame:** 2 1/4" (57) deep channel type, .125" (3.2) nominal wall thickness type 6063-T5 extruded aluminum. Corners are mitered.
- Blades:** .070" (1.8) nominal wall thickness type 6063-T5 extruded aluminum.
- Linkage:** Non-adjustable, face mounted on rear of blades.
- Bearings:** Synthetic, sleeve type.
- Blade Seals:** Extruded PVC.
- Counterbalance:** 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 72" (1219 x 1829).  
Multiple section: Unlimited.
- Maximum Temperature:** 200°F (93°C).
- Maximum Back Pressure:** 4 to 16 in. w.g. (see page 2).
- Max. System Velocity:** 3000 fpm (3500 fpm maximum spot velocity).

## MOUNTING:

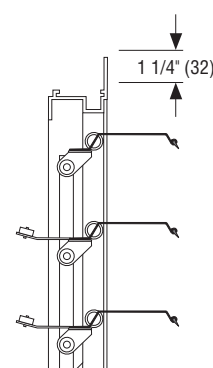
- ☐ **VM** Vertical mount (standard)
- ☐ **HMU** Horizontal mount (airflow up)
- ☐ **HMD** Horizontal mount (airflow down)

## OPTIONS:

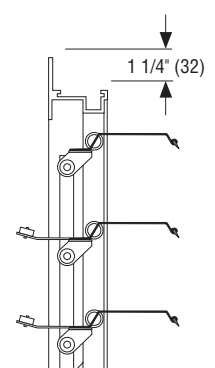
- ☐ **FF** Front flange
- ☐ **FFB** Front flange with bolt holes
- ☐ **FR** Rear flange
- ☐ **FRB** Rear flange with bolt holes
- ☐ Special features: \_\_\_\_\_



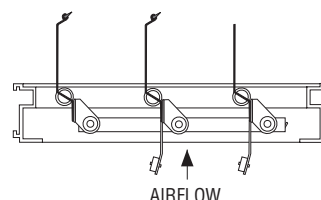
**Channel Frame  
(Duct Mount)  
(Standard CF)**



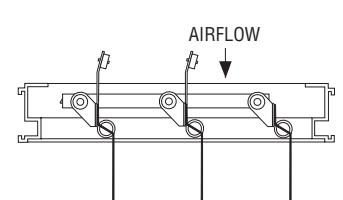
**Front Flange  
(on discharge side)  
(Option FF)**



**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:

Page 1 of 2  
Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

8 - 24 - 26

1300

6 - 15 - 26

1380CB



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**HIGH PERFORMANCE • HEAVY DUTY**  
**EXTRUDED ALUMINUM BLADES & FRAME**  
**PERFORMANCE DATA**  
**MODEL: 1380CB**

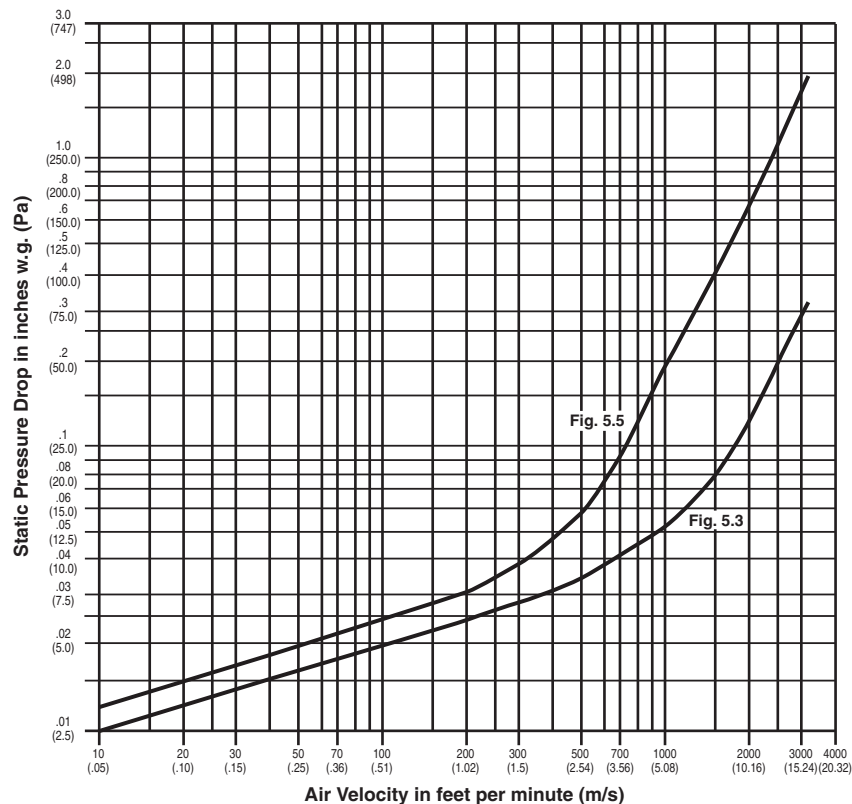
**PERFORMANCE LIMITATIONS AND LEAKAGE DATA:**

| Damper Width | Maximum Back Pressure | Maximum System Velocity | Operational Data      |                        | Leakage*     |                 |
|--------------|-----------------------|-------------------------|-----------------------|------------------------|--------------|-----------------|
|              |                       |                         | Blades Begin Opening  | Blades Fully Open      | % of Maximum | CFM per Sq. Ft. |
| 48" (1219)   | 4.0" w.g.             | 3000 fpm                | .01" w.g.<br>(2.5 Pa) | .05" w.g.<br>(12.4 Pa) | 0.60         | 15              |
| 36" (914)    | 8.0" w.g.             | 3000 fpm                |                       |                        | 0.60         | 15              |
| 24" (610)    | 12.0" w.g.            | 3000 fpm                |                       |                        | 0.72         | 18              |
| 12" (305)    | 16.0" w.g.            | 3000 fpm                |                       |                        | 1.00         | 25              |

Pressure and velocity limitations shown are guidelines for design purposes. Although ratings are on the conservative side, contact Nailor 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:**

**PROJECT:**

**ENGINEER:**

**CONTRACTOR:**

Page 2 of 2

Dimensions are in inches (mm).

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