RUSKIN®

3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

CBD6 COUNTERBALANCED BACKDRAFT DAMPER

STANDARD CONSTRUCTION

FRAME
6063T5 extruded aluminum .125" (3.2) wall thickness.

BLADES
6063T5 extruded aluminum .070" (1.8) wall thickness with extruded vinyl edge seals.

BEARINGS
Zytel.

LINKAGE
1/8 " x 1/2 " (3 x 13) aluminum tiebars.

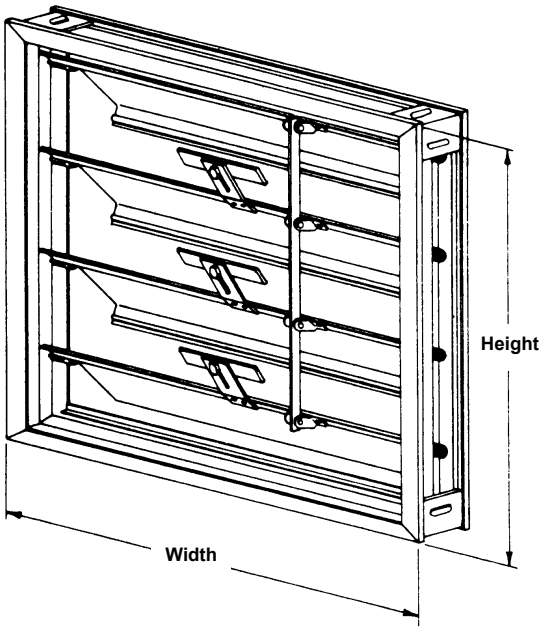
COUNTERBALANCE
Zinc plated bar on blades (except top blade). Adjustable for final "on the job" setting.

FINISH
Mill.

MAXIMUM SIZE
Single section – 48"w x 52"h (1219 x 1321).
Assembly of sections – unlimited.

MINIMUM SIZE
6" w x 10"h (152 x 254)

TEMPERATURE LIMITS
-40°F (-40°C) minimum and +200°F (93°C) maximum.



VARIATIONS

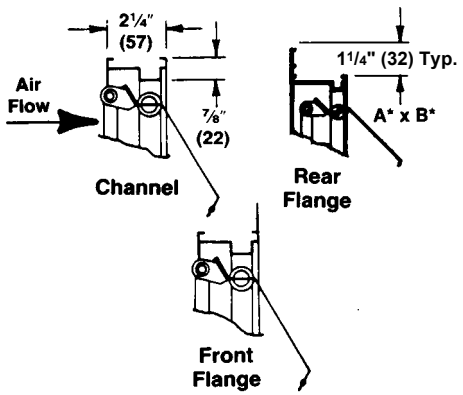
The following variations to the CBD6 are available at additional cost:

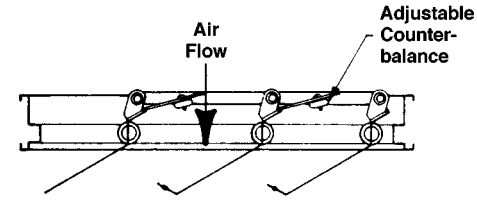
- Special finishes
- Bird or insect screens

NOTES

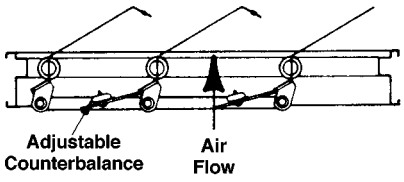
1. Unit furnished approx. 1/4" (6) smaller than given opening dimensions.
2. Dimensions shown in parentheses ( ) indicate millimeters.

FRAME CONSTRUCTION

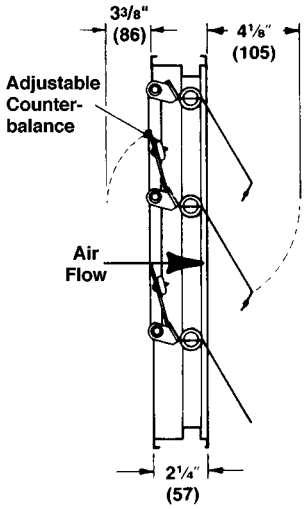




HORIZONTAL MOUNT — AIR FLOW DOWN



HORIZONTAL MOUNT –
AIR FLOW UP



VERTICAL MOUNT –
HORIZONTAL AIR FLOW

SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or in accordance with schedules, heavy duty backdraft dampers that meet the following minimum construction standards: Frame shall be .125" (3.2) wall thickness 6063T5 extruded aluminum with 12 gage (2.8) galvanized steel structural brace at each corner. Blades shall be .070" (1.8) wall thickness 6063T5 extruded aluminum with extruded vinyl blade edge seals mechanically locked into blade edge. Adhesive or clip on type seals are unacceptable. Bearings shall be corrosion resistant, long life synthetic type for quiet operation. Linkage shall be 1/2" (13) wide tiebar connected to stainless steel pivot pins. Dampers shall be designed for maximum 3500 fpm spot velocities and minimum 4 inches w.g. back pressure depending on damper size. Dampers shall be in all respects equivalent to Ruskin model CBD6.

INSTALLATION

1. When used in fan discharge applications, damper should be located at least one-half the fan diameter away from the fan.

2. For proper operation, damper must be installed square and free from racking.

3. Bracing of multiple section assemblies:
   The CBD6 is intended to be self supporting only in the largest single section size. Multiple section damper assemblies may require bracing to support the weight of the assembly and to hold against system pressure. Ruskin recommends appropriate bracing to support the damper horizontally at least once for every 8 feet of damper width. Vertical assemblies and higher system pressures may require more bracing.

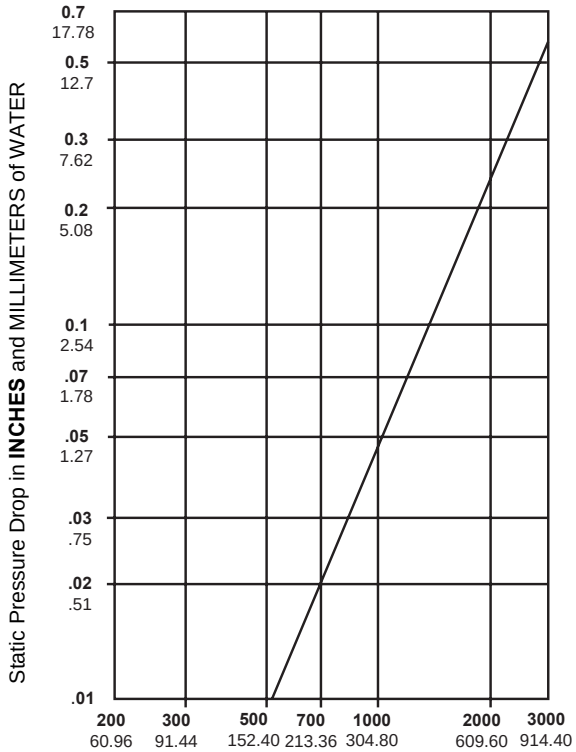
PERFORMANCE DATA

DAMPER PERFORMANCE

DAMPER WIDTH	MAXIMUM BACK PRESSURE	MAXIMUM SYSTEM VELOCITY	LEAKAGE*		BLADES START TO OPEN	BLADES FULLY OPEN
			Percent of Max. Flow	CFM/ Sq. Ft.		
48" (1219)	4.0" w.g.	2500 FPM	.6%	15		
36" (914)	8.0" w.g.	2500 FPM	.6%	15	.01" w.g.	.05" w.g.
24" (610)	12.0" w.g.	2500 FPM	.7%	17.5		
12" (305)	16.0" w.g.	2500 PFM	1%	25		

*Leakage information based on pressure differential of 1" w.g. tested per AMCA Std. 500.

DAMPER PRESSURE DROP
(24" x 24")



Air Velocity in **FEET** and METERS per minute through FACE AREA.

Tested per AMCA Std. 500, Fig. 5.3, ductwork upstream and downstream.