

**HEAVY DUTY
 BACKDRAFT DAMPER**

Application and Design

The **HCB-700** Series is a vertically or horizontally mounted backdraft damper that is designed to allow vertical or horizontal airflow and prevent reverse airflow.

Ratings:

- Pressure:** 4 in. w.g. [996 Pa] - differential pressure
- Velocity:** 4000 fpm [20m/s]
- Temperature:** 180° F (82° C)

Standard Construction:

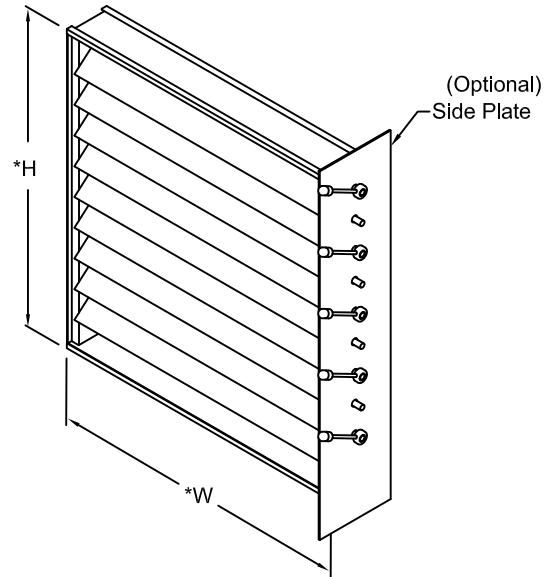
- Frame:** 0.081 [2mm] Extruded Aluminum 4-1/2" [114mm] deep
- Blade:** 6063-T5 Extruded Aluminum 0.125" [3mm] thickness
- Linkage:** Zinc plated concealed
- Axles:** 1/2" [13mm] diameter cast zinc & steel
- Blade Seals:** PVC (180°F) [82° C]
- Bearings:** Bronze Oilite

Size Limitations:

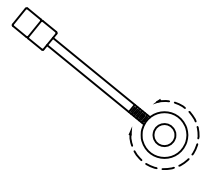
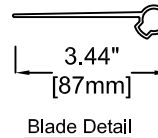
- Minimum Size:** 6" w x 6" h [152mm x 152mm]
- Maximum Single Section:** 48" w x 48" h [1219mm x 1219mm]
- Maximum Double Section:** 96" w x 96" h [2438mm x 2438mm]

Options and Accessories:

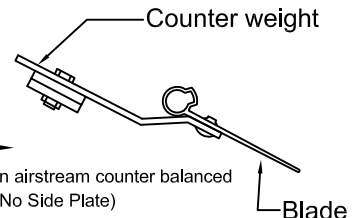
- 0.125" [3mm] Extruded Aluminum Frame (box frame)
- 1-1/2" [38mm] flanged frame- 0.125" [3mm] extruded aluminum (no side plate)
- In airstream counterbalanced weights (no side plate)
- Epoxy coated (powder coated @ 415°F [213° C])
- 450°F [232° C] Silicone blade seals
- Side Plate (20ga. galvanized steel) 6-1/4" w x (H+1") (159mm W x (H+25mm))



*W & H dimensions furnished approximately 1/4" [6mm] undersize
 Note: For discharge applications, see fan manufacturer's recommendation for minimum distance between damper and fan.



Precision Counter Balanced; both by rotation in hub or slide weight up or down the rod in addition to removal or adding weights.



Vertical mount with horizontal airflow shown



Optional: In airstream counter balanced (No Side Plate)

Quantity	Size		Other Options
	'W' Width	'H' Height	

Due to continuing research, United Energetech reserves the right to change specifications without notice.

Job Name:	<input type="checkbox"/> MODEL HCB-700 (4000 FPM)		
Location:			
Architect:	DRAWN BY:	DATE:	REV. DATE:
Engineer:	CLJ	12-03-99	6-6-16
Contractor:	REV. NO.	APPROVED BY:	DWG. NO.:
	30	BGT	F-10

HCB-700 PERFORMANCE DATA

DAMPER PERFORMANCE

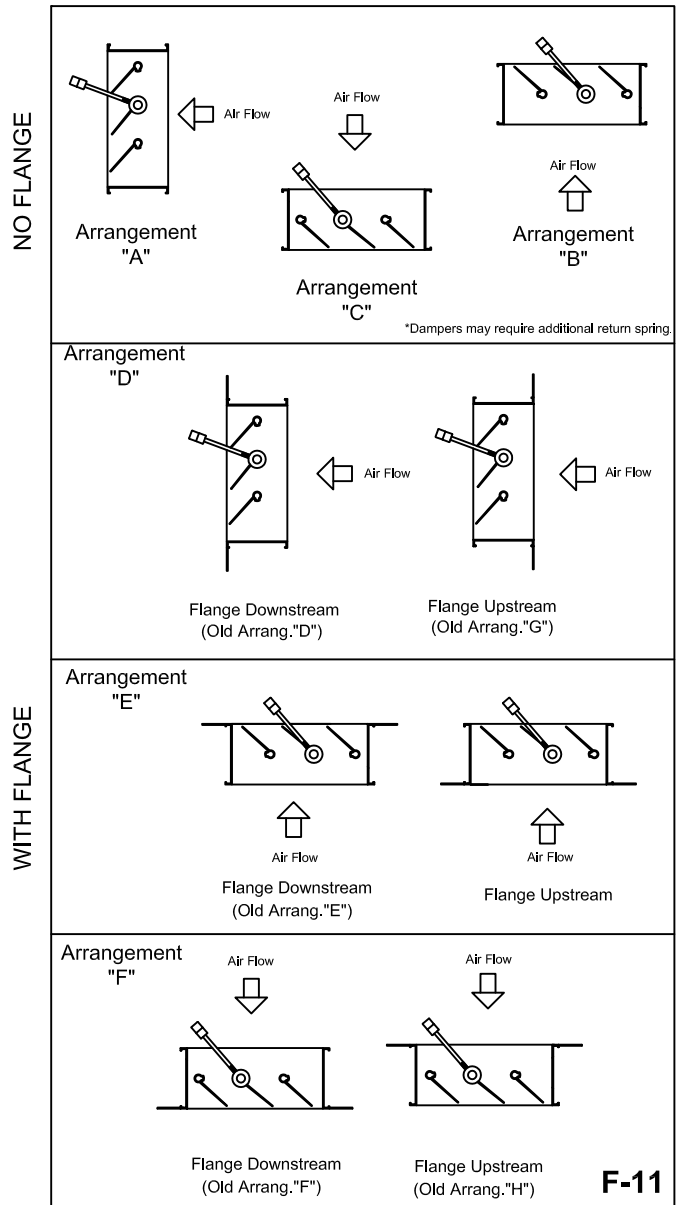
DAMPER WIDTH	MAXIMUM BACK PRESSURE	MAXIMUM SYSTEM VELOCITY	LEAKAGE*		BLADES START TO OPEN	BLADES FULLY OPEN
			Percent of Max. Flow	CFM/ Sq. Ft.		
48" (1219)	4.0" w.g. [996 Pa]	4000 FPM [20 m/s]	0.61	15	**.01" w.g.	**.05" w.g.
36" (914)	8.0" w.g. [1992 Pa]	4000 FPM [20 m/s]	0.6	15		
24" (610)	12.0" w.g. [2988 Pa]	4000 FPM [20 m/s]	0.72	18		
12" (305)	16.0" w.g. [3984 Pa]	4000 FPM [20 m/s]	1	24		

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

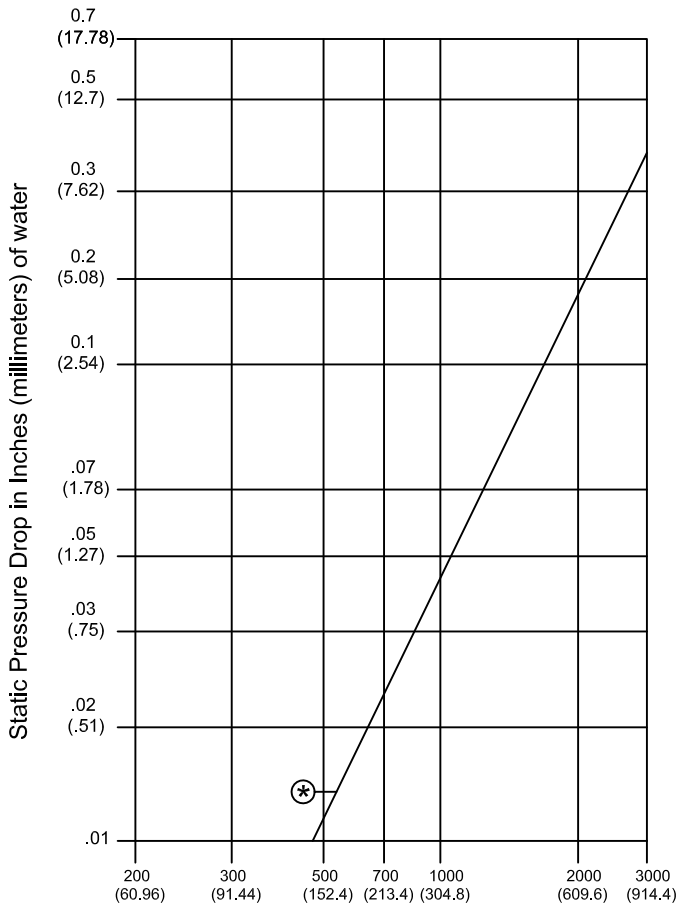
**set at least resistant to open

HCB-700 AIR FLOW ARRANGEMENTS

Standard weights at jamb
(assist to CLOSE)



DAMPER PRESSURE DROP
(24" X 24")



Air Velocity in FEET (meters) per minute through FACE AREA
Tested per AMCA Std. 500, Fig. 5.3, ductwork upstream and downstream.

(*) set at least resistant to open