RUSKIN®

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CBS7 HEAVY DUTY COUNTERBALANCED BACKDRAFT DAMPER

STANDARD CONSTRUCTION

FRAME
8" (203) x 2" (51) x 14 (2) gage steel channel.

BLADES
Maximum width 7" (178), 16 gage (1.6) galvanized steel.

AXLES
1/2" (13) diameter plated steel.

BEARINGS
Ball bearings pressed into frame (stainless steel construction uses press-fit stainless sleeve bearings).

LINKAGE
3/16" (5) thick x 3/4" (19) plated steel tie bar with 16 ga. (1.6) linkage arms located in airstream.

FINISH
Mill galvanized.

MINIMUM SIZE
6"w x 6"h (152 x 152).

MAXIMUM SIZE
48"w x 96"h (1219 x 2438).

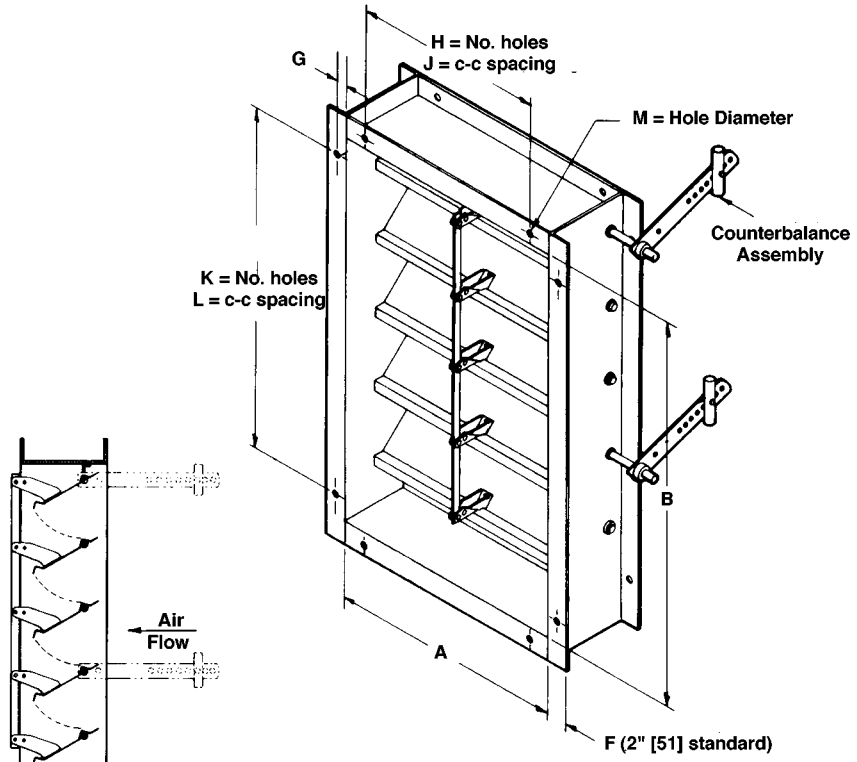
MAXIMUM TEMPERATURE
250°F (121°C).

VARIATIONS

Additional variations to those listed in table are available. Contact Ruskin for pricing.

- Heavier/Higher Temperature Construction
- Special Finishes
- Pressure Relief Applications

Dimensions shown in parentheses ( ) indicate millimeters.



Illustrated with optional bolt holes in flanges.

FRAME	BLADES	AXLES	BEARINGS	LINKAGE	SEALS (OPT)	ACCESSORIES (OPT)
14 GA (2) GALV STEEL CHANNEL	16 GA (1.6) GALV STEEL	1/2" (13) DIA. PLATED STEEL	BALL BRGS PRESSED INTO FRAME	FACE LINKAGE IN AIR STREAM (EXPOSED)	BLADE SEALS PVC 180°F (82°C) MAX	INTERNAL COUNTER WEIGHTS
14 GA (2) 304 SS CHANNEL (OPT)	16 GA (1.6) 304 SS (OPT)	1/2" (13) DIA. 304 SS (OPT)	SS SLEEVE PRESSED INTO FRAME (OPT)	SIDE LINKAGE OUT OF AIRSTREAM (OPT)	BLADE SEALS EPDM 250°F (121°C) MAX	BOLT HOLES ONE FLANGE
14 GA (2) 316 SS CHANNEL (OPT)	16 GA (1.6) 316 SS (OPT)	1/2" (13) DIA. 316 SS (OPT)	RE-LUBE BALL BRG BOLTED TO FRAME (OPT)		BLADE SEALS SILICONE 400°F (200°C) MAX	BOLT HOLES BOTH FLANGES
					NEOPRENE WIND STOPS 250°F (121°C) MAX	1 1/2" (38) TO 4" (102) FLANGES

QTY.	DIMENSIONS										VARIATIONS
	A	B	C	F	G	H	J	K	L	M	

JOB **LOCATION**

CONTRACTOR

SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans or in accordance with schedules, industrial grade counterbalanced backdraft dampers meeting the following construction standards: Frame shall be minimum 8" deep x 2" flanged 14 (203 x 51 x 2) gage galvanized steel channel. Frame shall be one piece construction. Sleeve or channel with innerframe is not acceptable. Damper blades shall be maximum 7" (178) wide, 16 (1.6) gage formed galvanized steel. Bearings shall be ball type pressed into frame. Axles shall be minimum 1/2" (13) diameter plated steel tack welded and clipped to blade. Linkage shall be minimum 3/16" (5) thick x 3/4" (19) plated steel tie bar with minimum 16 (1.6) gage galvanized linkage arms located on face of blades in the airstream. Pivot pins in linkage shall be stainless steel. Bronze pins or bushings are not acceptable. Submittal shall include leakage, pressure drop, and maximum pressure data based on AMCA Publication 500 testing. Damper shall be Ruskin model CBS7 heavy duty counterbalanced backdraft damper.

ADD TO SPECIFICATION IF REQUIRED:

Dampers shall be equipped with blade and jamb seals for low leakage application. Blade seal shall be rollformed PVC mechanically locked onto blade edge. Adhesive or clip on styles are not acceptable. Jambs shall be equipped with wind stops fitted with neoprene sponge seal located directly behind blade edge.

CBS7 PERFORMANCE DATA

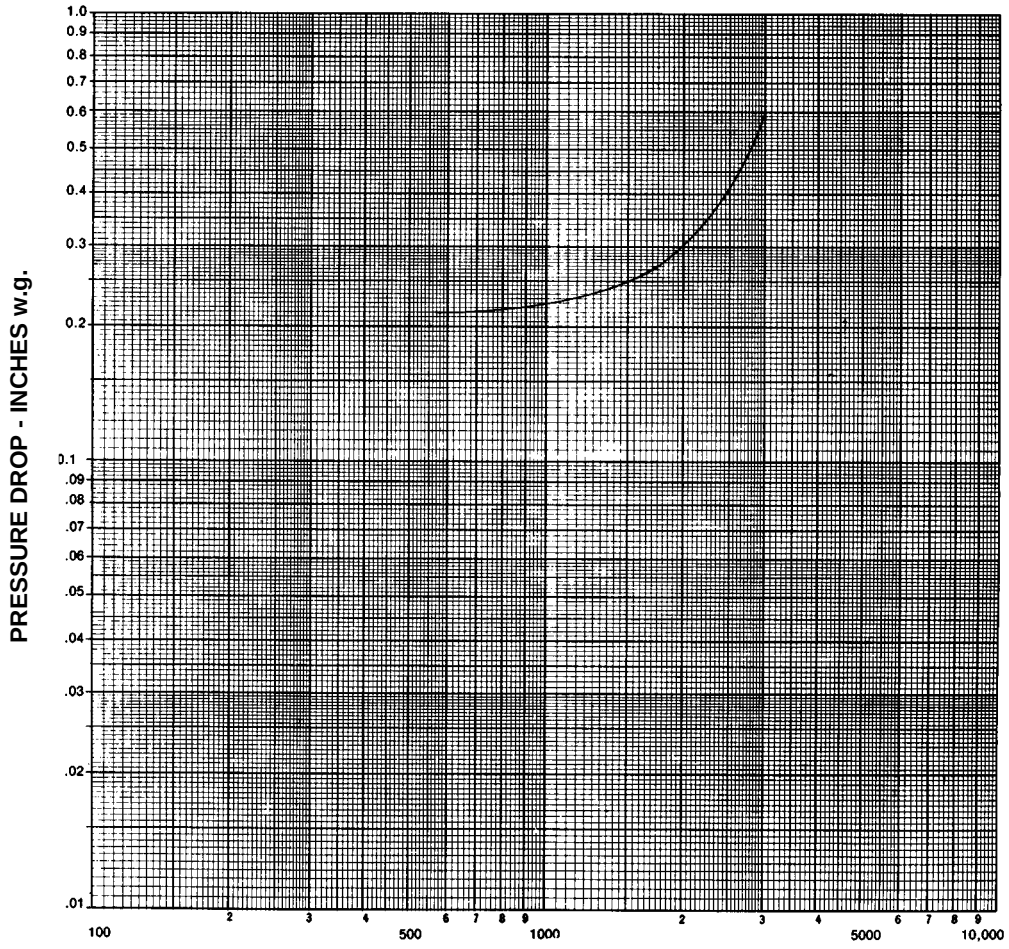
Damper Width	Maximum System Pressure	Maximum System Velocity	Leakage with seals*		Leakage without seals*	
			% of max. flow	CFM/ sq. ft.	% of max. flow	CFM/ sq. ft.
48"	4.0" w.g.	3000 fpm	0.50	15	1.33	40
36"	6.0"	3000	0.50	15	1.67	50
24"	8.0"	3000	0.57	17	2.00	60
12"	10.0"	3000	0.67	20	3.33	100

*Leakage information based on pressure differential of 1" w.g.

Dampers may tolerate higher pressures and velocities than shown. Conservative pressure and velocity ratings are presented intentionally in an effort to avoid misapplication. Consult Ruskin or your Ruskin representative when damper is to be applied in conditions exceeding recommended maximums.

NOTE: CBS7 is not designed for pressure relief applications.

DAMPER PRESSURE DROP



TYPICAL CBS7 PERFORMANCE

Based on testing of size 24" x 24" (610 x 610) per AMCA Standard 500 using Test Setup Apparatus figure 5.3 (damper is installed with duct upstream and downstream).