RUSKIN®

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CBS92 HEAVY DUTY COUNTERBALANCED BACKDRAFT DAMPER

STANDARD CONSTRUCTION

FRAME
9" (229) x 2" (51) x 12 (2.8) gage galvanized steel channel.

BLADES
7" (178) wide 6063T5 heavy gage extruded aluminum, airfoil-shaped blades approximately 6½ " (165) center to center.

AXLES
¾ " (19) diameter plated steel.

BEARINGS
Ball bearings pressed into frame.

LINKAGE
3/16" (5) x ¾" (19) bar heavy-duty face linkage exposed to air stream.

BLADE SEALS
Silicone rubber.

FINISH
Mill.

MAXIMUM VELOCITY
4000 fpm.

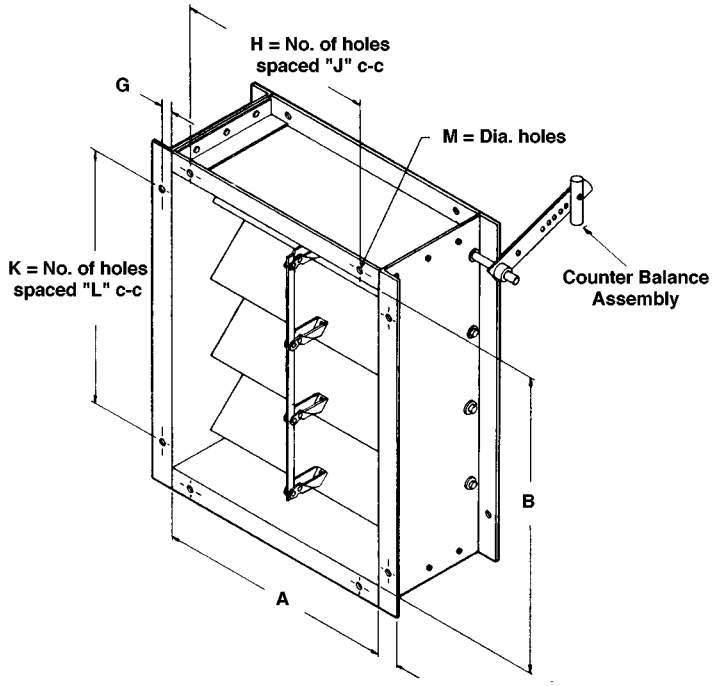
MINIMUM SIZE
6"w x 6"h (152 x 152).

MAXIMUM SIZE
60"w x 96"h (1524 x 2438).

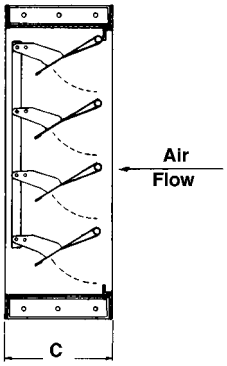
MAXIMUM TEMPERATURE
250°F.(121°C) Damper can be supplied for 250°F (121°C) to 300°F (149°C) temperatures by increasing clearance between blade and frame. Specify maximum operating temperature.

***NOTE:** Consult Ruskin if dampers are being used in fan discharge application. Units used in fan discharge applications will require special features at aditional cost.

Dimensions shown in parentheses ( ) indicate millimeters.



Illustrated with optional bolt holes in flanges.



VARIATIONS

Additional variations to those listed in table are available. Consult Ruskin for pricing.
- Special finishes
- Heavier Frames
- Pressure Relief Applications

FRAME		BLADE		AXLES		BEARINGS		LINKAGE		SEALS		ACCESSORIES (OPT)		
9" X 2" (229 X 51) 12 (2.8) GA. GALVANIZED		7" (178) WIDE .080" (2.1) THK. 6063T5 EXTRUDED ALUMINUM AIRFOIL	X	3/4" (19) DIA 'D' PLATED STEEL		BALLBEARING PRESSED INTO FRAME		FACE LINKAGE IN AIR STREAM (EXPOSED)		VINYL JAMB SEALS (OPT)		INTERNAL COUNTERWEIGHTS		
9" X 2" (229 X 51) 12 (2.8) 304SS				¾" (19) DIA. 'D' STN STL (OPT)		STN STL SLEEVE PRESSED INTO FRAME (OPT)		SIDE LINKAGE OUT OF AIR STREAM (EXTERNAL) (OPT)		SILICONE BLADE SEALS		BOLT HOLES ONE FLANGE		
9" X 2" (229 X 51) .125 (4) THICK FORMED ALUMINUM				¾" (19) DIA. 'D' ALUMINUM		RE-LUBE BALL BEARING BOLTED TO FRAME (OPT)						BOLT HOLES BOTH FLANGES		
						SS SLEEVE BRG IN CAST HOUSING-BOLTED TO FRAME* (OPT)						1½" (38) to 4" (102) FLANGES		

QTY.	DIMENSIONS									TEMP	TAG	COMMENTS
	A	B	F	G	H	J	K	L	M			

SUGGESTED SPECIFICATION

Furnish and install, at locations shown in plans or in accordance with schedules, industrial grade backdraft dampers meeting the following construction standards: Frame shall be minimum 9" deep x 2" (229 x 51) flanged 12 (2.8) gage galvanized steel channel. The blades shall be maximum 7" (178) wide, minimum .080 (2) thick, 6063T5 extruded aluminum airfoil shaped with integral structural reinforcing tube running full length of each blade. Damper blades shall be equipped with silicone rubber seals mechanically locked into extruded blade slots. Adhesive type seals are not acceptable. Axles shall be minimum 3/4" (19) diameter with machined edge to provide positive locking connection to blades. Full round axles are not acceptable. Bearings shall be ball style pressed into frame. Linkage shall be minimum 3/16" thick x 3/4" (5 x 19) bar located on face of blade in airstream. Submittal must include leakage, pressure drop, and maximum pressure data based on AMCA Publication 500 testing. Damper shall be Ruskin model CBS92 backdraft damper.

ADD TO SPECIFICATION IF REQUIRED:

Dampers shall be equipped with vinyl jamb seals for low leakage application. Wind stop type seals are not acceptable.

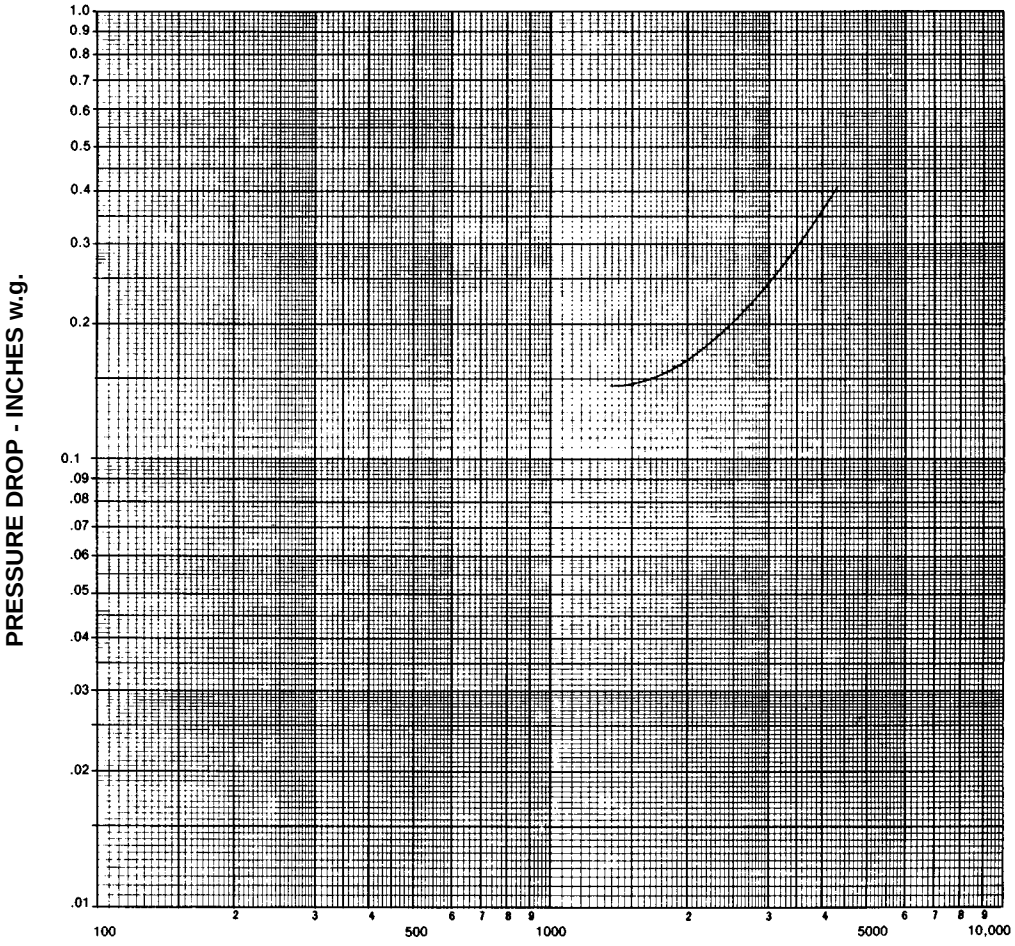
CBS92 PERFORMANCE DATA

Damper Width	Maximum System Pressure	Maximum System Velocity	Leakage with seals*		Leakage without seals*	
			% max. flow	CFM/ sq. ft.	% max. flow	CFM/ sq. ft.
60" (1524)	5.0" w.g.	4000 fpm	0.34	13.5	1.00	40
48" (1219)	8.0" w.g.	4000 fpm	0.34	13.5	1.00	40
36" (914)	10.0" w.g.	4000 fpm	0.34	13.5	1.25	50
24" (610)	12.0" w.g.	4000 fpm	0.39	15.5	1.50	60
12" (305)	14.0" w.g.	4000 fpm	0.45	18.0	2.50	100

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.

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

DAMPER PRESSURE DROP



TYPICAL CBS92 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).