

Industrial Damper • 10" Deep • Single Thickness Blades • Channel Frame • Galvanized Steel • 250°F Max Temperature

For use up to 10 in. w.g. static pressure at 2500 FPM.

Standard Materials and Construction

FRAME: 2" x 10" x 2", 12 GA. galvanized steel formed channel frame, mechanically fastened together.

BLADE: 10 GA. galvanized steel, form pressed single thickness, to a maximum 48" length, welded to blade shaft. Blade width is a minimum 6¾" and a maximum of 9¾".

SHAFT: ¾" dia. plated cold-finished steel, corrosion resistant, for up to 48" in length. Drive blade to be continuous in length.

BEARINGS: Bronze oilite flanged sleeve, pressed into the frame.

LINKAGE: ½" thk. chevron-type formed steel bracket. Trunnion is a plated steel machined pivot with a 5/16" dia. rod.

FINISH: Mill.

TEMP. LIMIT: 250°F. Consult the factory for temperature limits over 250°F.

Options

Stuffing boxes and replaceable packing

Jamb Seals - Stainless steel

Blade Edge Seals - Neoprene

Flanges other than the standard 2" wide, up to 3½"

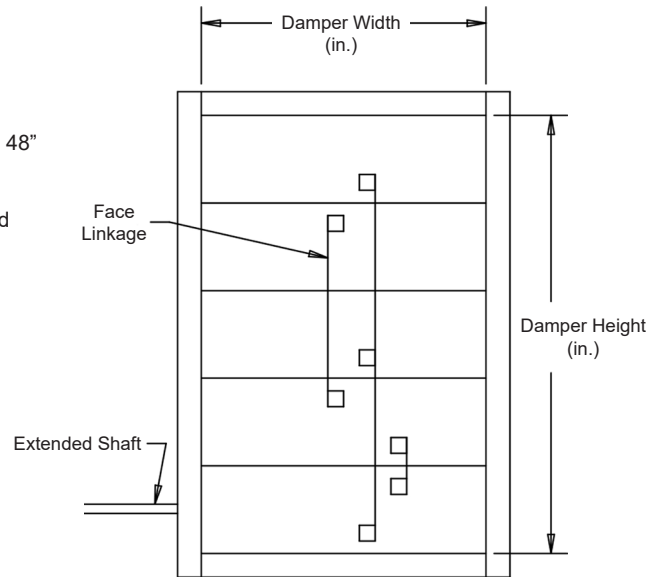
Finishes - Acrylic, baked enamel, etc.

Perimeter holes: one flange or two flanges

External linkage

Other types of bearings

Materials - Full stainless steel construction, extruded aluminum, galvanized steel, etc.

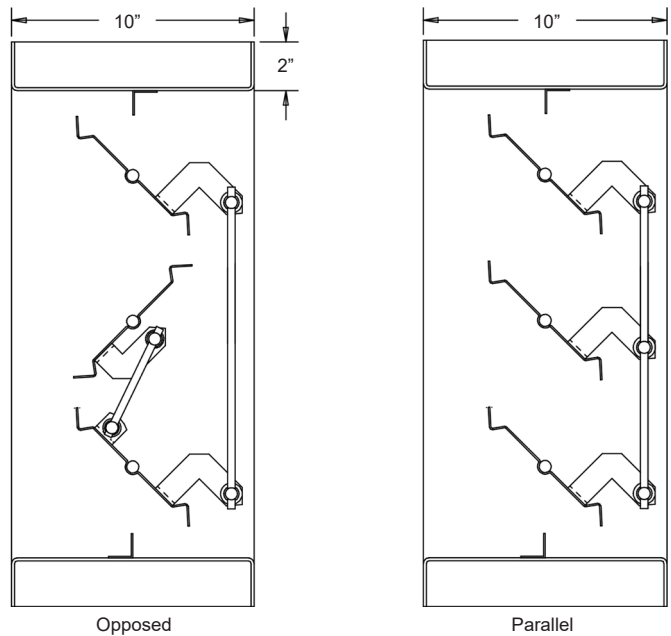


Notes

1. ¼" nominal deduction will be made to the opening size given.
2. Construction may be with other materials when required to meet special conditions, such as: temperature, pressure, velocity, system environment, or other specifications.
3. Velocities above 2500 FPM to 4000 FPM maximum shall require a double set of face linkages.
4. Approximate shipping weight is 18 lbs./sq.ft.

Damper Sizes

Min. Size	Max. Size
6"W x 6¾"H (Single Blade)	48"W x 72"H (w/ Seals)
6"W x 15"H (Opposed)	48"W x 96"H (w/o Seals)



Not to scale.



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Air Leakage Data

Air leakage quantities shown in the chart are results of tests per AMCA Standard 500 and are shown at 1 in. w.g. differential pressure and are corrected to .075 lb./cu.ft. air density.

Air Leakage (Total CFM)

		Damper Width (in.)						
		12"	18"	24"	30"	36"	42"	48"
Damper Height (in.)	12"	7	10	13	17	20	23	27
	24"	13	20	27	33	40	47	54
	36"	20	30	40	50	60	70	80
	48"	27	40	54	67	80	94	107
	60"	33	50	67	84	100	117	134
	72"	40	60	80	100	121	141	161

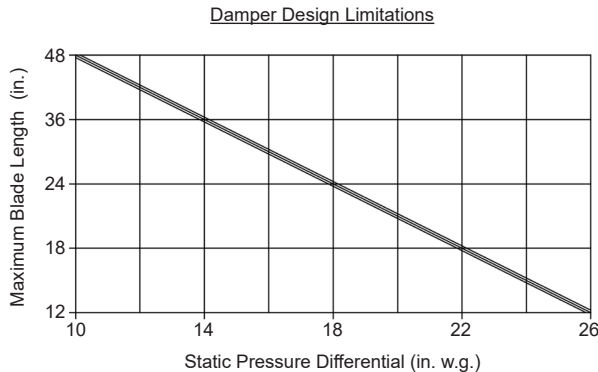
For determining leakage values greater than 1 in. w.g. to a maximum of 6 in. w.g., use the multiplier correction chart below.

Static Pressure (in.)	2	3	4	5	6
Multiplier Correction Factor	1.4	1.7	2.1	2.5	2.8

Air leakage ratings are based on AMCA Standard 500, using test set-up Fig. 5.4 with a damper closing torque applied to the damper of 30 in. lbs./sq.ft. of damper face area for a 48" x 72", with a minimum of 50 in. lbs./sq.ft. of a damper area for a size 48" x 6¾".

Damper air leakage shown is based upon publishing only the most conservative results for the Model 423 industrial damper for an entire range of damper sizes.

To ensure proper damper operation and air leakage performance for this damper design, the static pressure and blade length limits shown below provide the necessary information and show the relationship between a damper's costs and its applications.

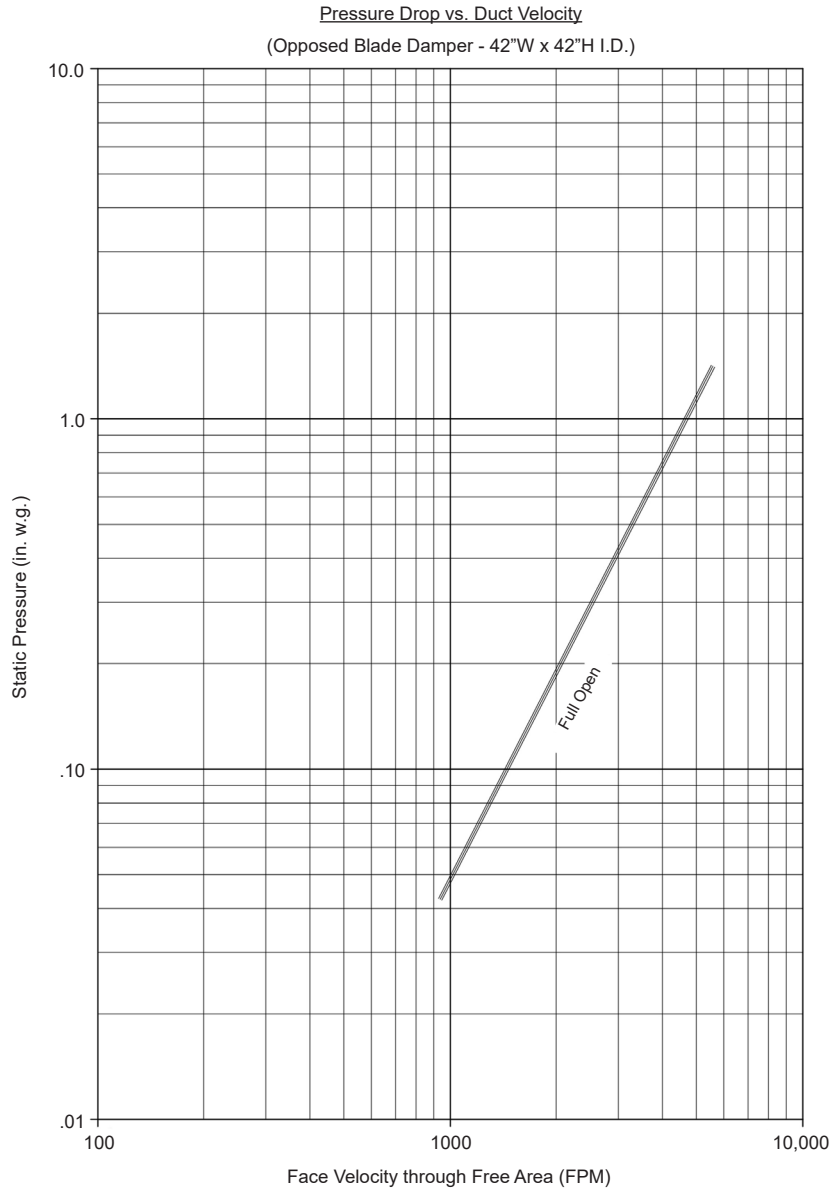


This damper's design at a blade length of 48" has a maximum allowable blade deflection of $L / 360$ for the static pressure indicated on the chart. At reduced blade lengths, higher static pressure limits can be attained without sacrificing damper operating performance characteristics.

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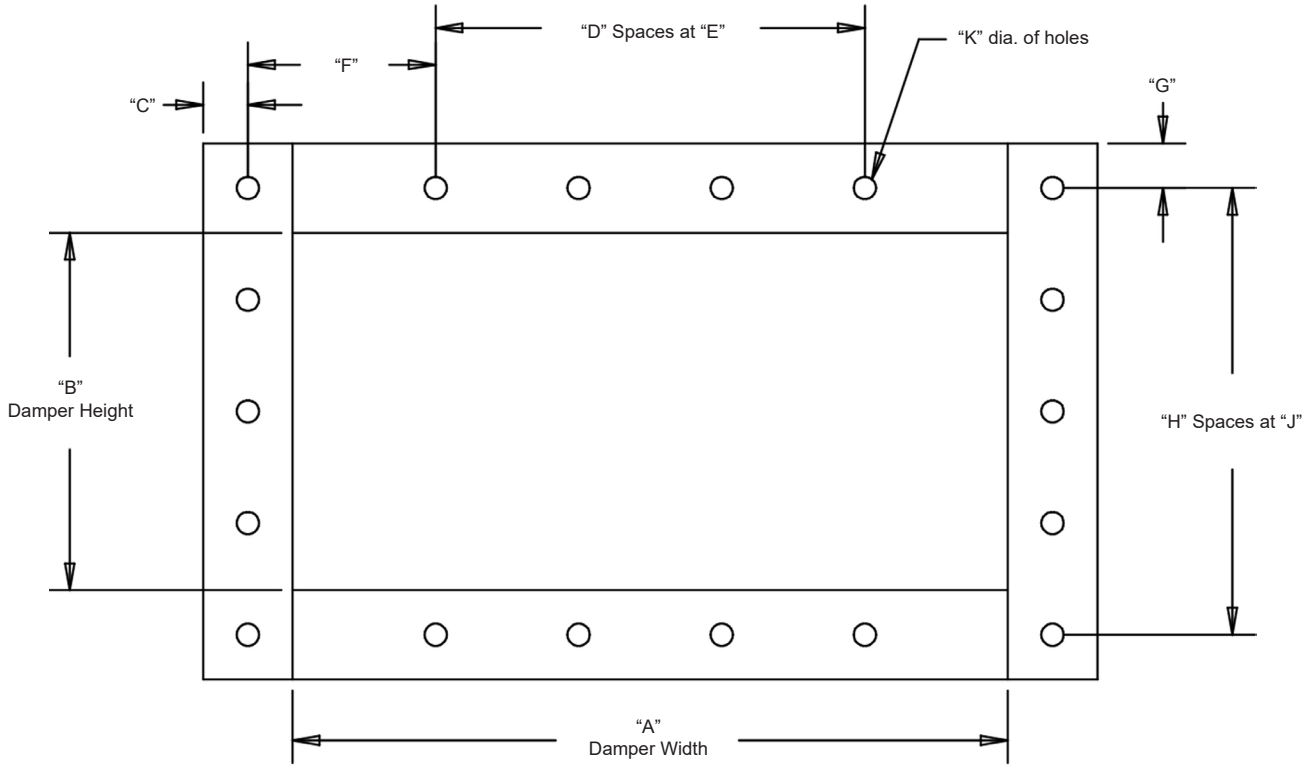
Pressure Drop Data


Pressure drop ratings are based on AMCA Standard 500, using test set-up figure 5.3 for a damper installed with duct upstream and downstream. Static pressures are corrected to .075 lb./cu.ft. air density.



MODEL 423

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Item #	Qty	"A" Width	"B" Height	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"M"	Para	Oppo	Hand Quad	Motor Lever Arm		
		Damper Size		Damper Specifics								Blade Position		Actuator		Union Made		
Arch. / Eng.:							EDR:					ECN:				Job:		
Contractor:																		
Project:							Date:					DWN:				DWG:		