

APPLICATION:

Model 4400CB is a heavy duty industrial counterbalanced backdraft damper designed to prevent the backflow of air while allowing for automatic air intake or exhaust in industrial HVAC or process air systems. Features include a rugged vee blade design, heavy duty Blade linkage and Sleeve bearings, that provide smooth, rattle-free operation at velocities of up to 3000 fpm (15 m/s). The counterweight is easily adjusted for desired opening pressure and the heavy-duty flanged frame, with optional bolt holes, connects easily to flanged duct for fast, secure installation.

STANDARD CONSTRUCTION

Frame: 8" x 2" x 14 ga. (203 x 51 x 2) galvanized steel channel.

Blade Thickness: 7" (178) wide maximum, 16 ga. (1.6) galvanized steel, vee blade design.

Linkage: Heavy duty linkage arms and plated steel tie bar, concealed out of the airstream.

Bearings: Sleeve Type Bearing pressed into frame.

Axles: 1/2" (13) dia. plated steel.

Standard Finish: Mill galvanized

Temperature Range: -40°F to +180°F (-40C to +82C)

Minimum Single Section: 6" x 6" (152 x 152)

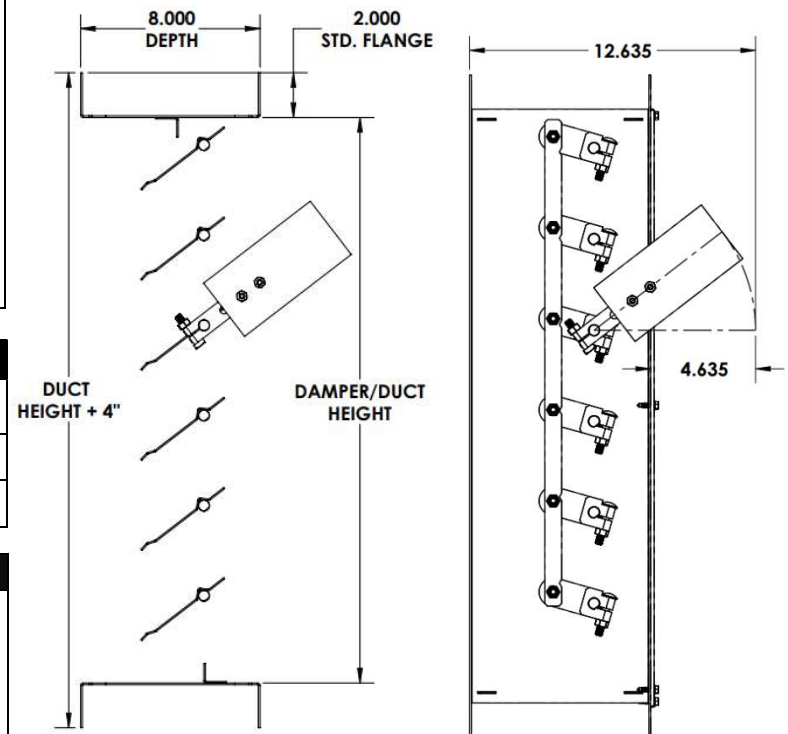
Maximum Single Section: 48" x 96" (1219 x 2438)

MODEL 4400CB – MAXIMUM PERFORMANCE RATING

Maximum Velocity	3000fpm (15m/s)
Maximum Pressure	10 in. w.g (2.5kPa)
Maximum Temperature	250°F (121°C)

OPTIONAL CONSTRUCTION

- Factory supplied actuators
- Type 304 Stainless Steel construction
- Type 316 Stainless Steel construction
- External Bolt-On Ball Bearings
- Stainless Steel Sleeve Bearings (Pressed in)
- EPDM Blade Seals (Max. 121° C / 250°F)
- Silicone Blade Seals (Max. 400°F [204°C])
- Custom Mounting Holes



Counterbalance Assembly can be configured to **Assist Open or Assist Close** the Damper.

The Model shown is Configured to Assist Open.

PERFORMANCE LIMITATIONS:

DAMPER WIDTH	Model 4400CB	
	Max. System Pressure	Max. System Velocity
12" (305)	10.0" w.g.	3000 fpm
24" (610)	8.0" w.g.	3000 fpm
36" (914)	6.0" w.g.	3000 fpm
48" (1219)	4.0" w.g.	3000 fpm
The standard construction maximum temperature is 250°F (121°C). Contact factory for higher temperatures.		

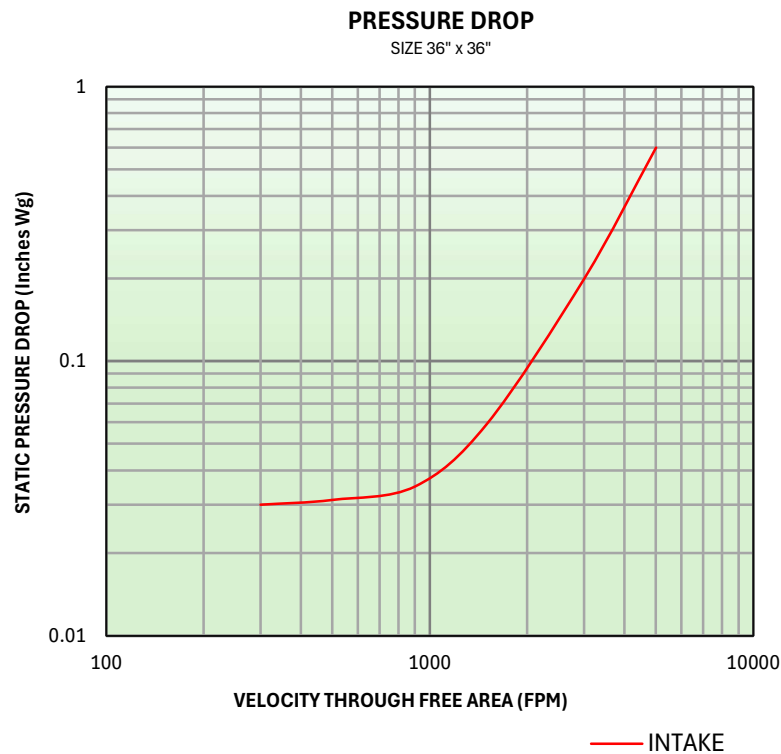
Pressure and velocity limitations shown above are conservative guidelines based on maximum blade deflection of L/360. Contact factory for applications above limitations shown in chart.

LEAKAGE:

DAMPER WIDTH	Model 4400CB			
	Leakage w/o Seals		Leakage with Seals	
	CFM/Ft ²	% Max. Flow	CFM/Ft ²	% Max. Flow
12" (305)	99.0	3.30	20.0	0.67
24" (610)	30.5	2.00	17.0	0.57
36" (914)	49.0	1.63	15.0	0.50
48" (1219)	39.0	1.30	14.0	0.46

Leakage Data is based upon a pressure differential of 1 in w.g., tested in accordance with AMCA Standard 500-D

PRESSURE DROP:



Tested per AMCA Standard 500-D using test set-up.

DWG. 4400CB INDUSTRIAL BACKDRAFT DAMPER - MARCH 2025