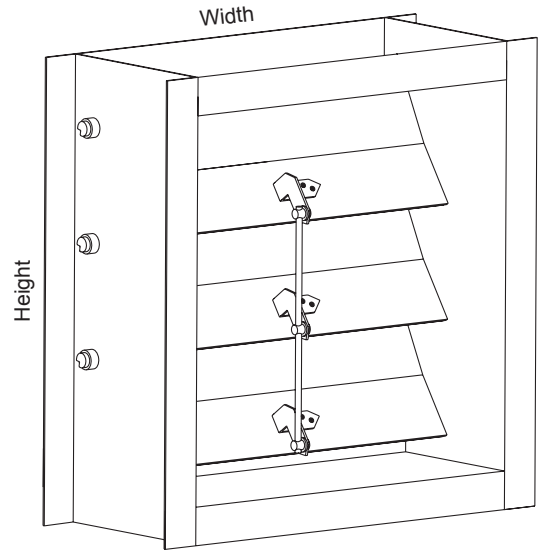


# MODEL BID9

10" Deep • "Tear Drop" Design Blade • -30°F to 190°F Temperature • Formed Steel Backdraft Damper

## STANDARD MATERIALS AND CONSTRUCTION

- FRAME:** 2" x 10" x 2" 12-GA galvanized steel formed channel
- BLADE:** .080" thick, extruded 6063-T52/T6 with groove inserts at blade edges for extruded silicone rubber seals
- BLADE SPACING:** 6" centers
- LINKAGE:** Standard is 1/8" thick plated steel bracket with 1/2" dia. plated steel pivot riding in a celcon sleeve bearing; Linkage rod is 5/16" dia. locked to pivot with a 1/4"-20 UNC plated steel set screw
- AXLES:** 3/4" dia. plated steel positively locked to blade, placed off-center in blade
- SEALS:** Extruded silicone rubber off-set leg at blade edges; None at jams
- BEARINGS:** Ball bearing pressed into frame
- COUNTERWEIGHTS:** Adjustable for a full range of opening pressures; Specify if airflow is horizontal, vertical-up, or vertical-down; Also specify to assist or resist opening
- FINISH:** Mill
- TEMP. LIMITS:** -30°F to 190°F



## OPTIONS

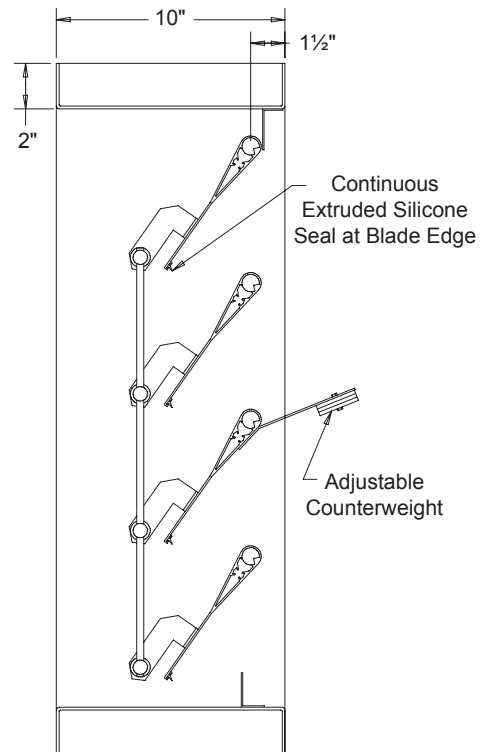
- Flange Frame (Airflow Must be Specified)
- Counterweights (Assist or Resist Must be Specified)
- Horizontal or Vertical Mount

## NOTES

1. "A" width and "B" height are opening dimensions. Dampers are provided by inside dimension.

## DAMPER SIZES

Panels	Min Panel (ID)	Max Single Panel (ID)
BID9	8"W x 8"H	60"W x 96"H

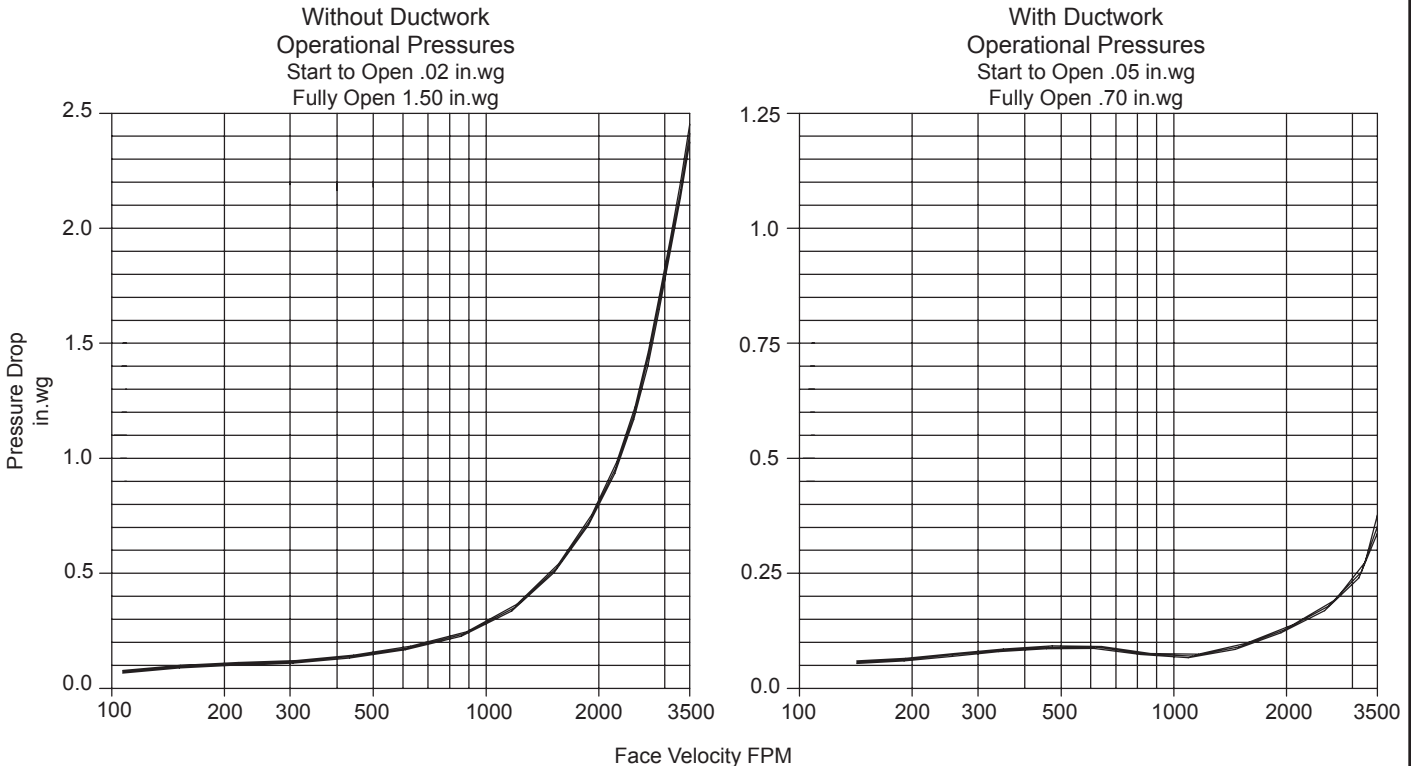


# MODEL BID9

10" Deep • "Tear Drop" Design Blade • -30°F to 190°F Temperature • Formed Steel Backdraft Damper

**Pressure Drop:**

Performance is based on AMCA Standard 500, Figure 5.4 (without ductwork) or Figure 5.3 (in-duct mount), operating temperatures below 190°F and a standard air density of 0.75 lb/ft³. Actual pressure drop performance will vary based on damper size and exact installation configuration. The curves shown below are furnished with counterweights to assist opening.



Typical performance for BID9 backdraft damper size tested 42"W x 42"H furnished with counterweight to assist opening.

**Air Leakage:**

Air leakage quantities shown in the chart are results of tests per AMCA Standard 500 and are shown at 1 in.wg differential pressure and corrected to 0.75 lb/cu.ft. air density. For determining leakage values greater than 1 in.wg to a maximum 10 in.wg use the multiplier correction chart.

Total CFM Air Leakage at 1 in.wg  
Differential Through Closed Damper

		Width								
		12	18	24	30	36	42	48	54	60
Height	12	5	12	16	20	24	28	32	36	40
	24	16	24	32	40	58	56	64	72	80
	36	24	36	48	60	72	84	96	108	120
	48	32	48	64	80	96	112	128	144	160
	60	40	60	80	100	120	140	150	180	200
	72	48	72	96	120	144	168	192	216	240
	84	56	84	112	140	168	196	224	252	280
	96	64	96	128	160	192	224	256	288	320

For determining leakage values greater than 1 in.wg to a maximum 8 in.wg use the multiplier correction chart below.

Static Pressure	2	3	4	5	6	7	8
Multiplier Correction Factor	1.5	1.9	2.3	2.5	2.9	3.0	3.1

\*Maximum panel size limit 60"W x 96"H for static pressure limits greater than 5 in.wg to 8 in.wg differential maximum panel size limit 48"W x 96"H.

Air leakage ratings are based on AMCA Standard 500 using test set up Fig 5.4 with damper in the closed position without the aid of a counterweight or other mechanical means to provide closing torque, for a size 42"W x 42"H damper with blade and jamb sealed.

