

# Backdraft Damper

**PR66**

4" Deep • Single Thickness Blade • Steel Backdraft Damper

**STANDARD CONSTRUCTION**

- FRAME:** 16-GA galvanized steel, hat-shaped channel frame
- BLADES:** 16-GA galvanized steel
- BLADE SPACING:** 8"
- SHAFTS:** 1/2" dia. plated steel stub 6" long, mono-bolted to blade
- BLADE SEALS:** oil impregnated sintered bronze, flanged sleeve
- BEARINGS:** 3/16" thick polyurethane foam
- LINKAGE:** 1/8" thick plated steel bracket with 1/2" dia. steel pivot in a celcon sleeve bearing; Linkage rod is 5/16" dia. aluminum, locked to pivot with 1/4-20 UNC plated steel set screw
- FINISH:** Mill
- TEMP. LIMITS:** -30°F to 180°F

**OPTIONS**

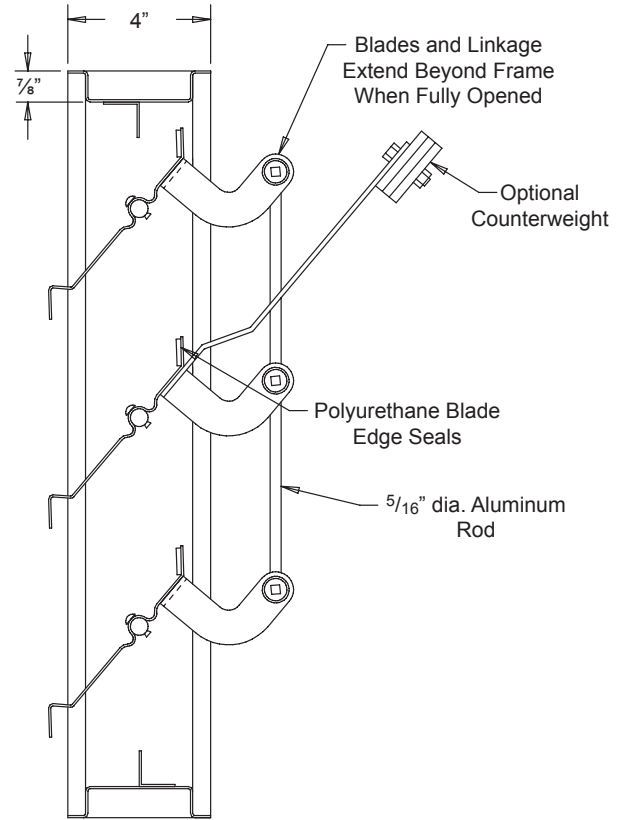
- Stainless Steel, Other Steel Gauges (to 10-GA)
- Shafts to 1" diameter
- Aluminum Blades and shafts
- Neoprene Blade Edge Seals
- Polyurethane or Neoprene Jamb Seals
- Stainless Steel Shafts, or Linkage
- Adjustable Counterweights to Assist or Resist Opening
- Adjustable Counterweights for External Application on Extended Shaft
- Bearings in Nylon, Ball, Sintered, or Stainless Steel

**NOTES**

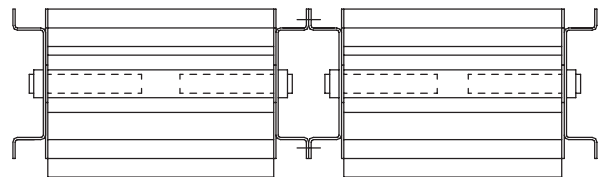
1. "A" width and "B" height are opening dimensions. Dampers are provided 1/4" undercut.
2. When a non-symmetrical frame cross section is specified (example: flange frame) specify the flange/airflow orientation - horizontal, vertical-up, or vertical down.
3. Approximate damper weight is 6 1/2 lbs./sq.ft.

**DAMPER SIZE**

Panels	Min Panel	Max Single Panel
PR66	8"W x 11"H	48"W x 72"H



Section View



Mullion Detail (typ)

Top View

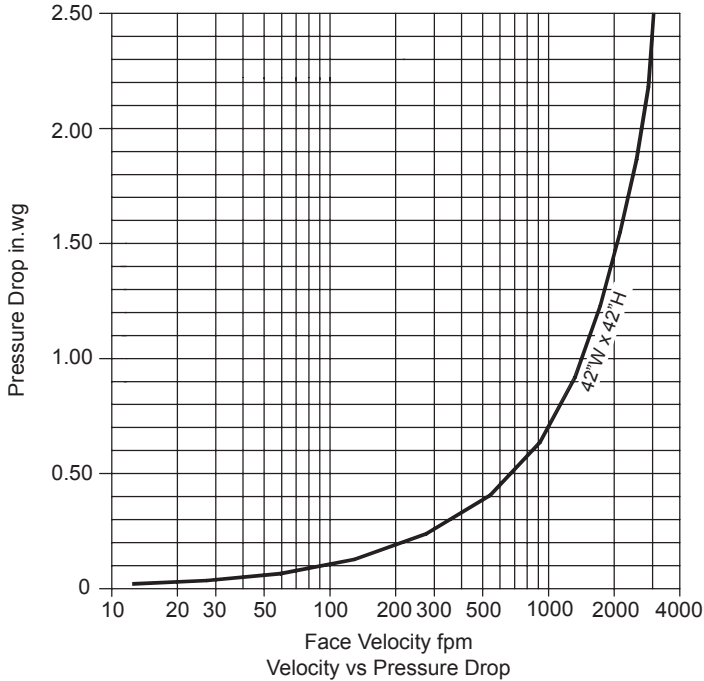
4" Deep • Single Thickness Blade • Steel Backdraft Damper

Typical performance for model PR66 backdraft damper. Size tested 42"W x 42"H, furnished with counterweight to assist opening.

### Without Ductwork

Damper installed per AMCA 500 Fig. 5.4 (Face Mounted to a Plenum). Pressure is corrected to .075 lb./cu.ft air density.

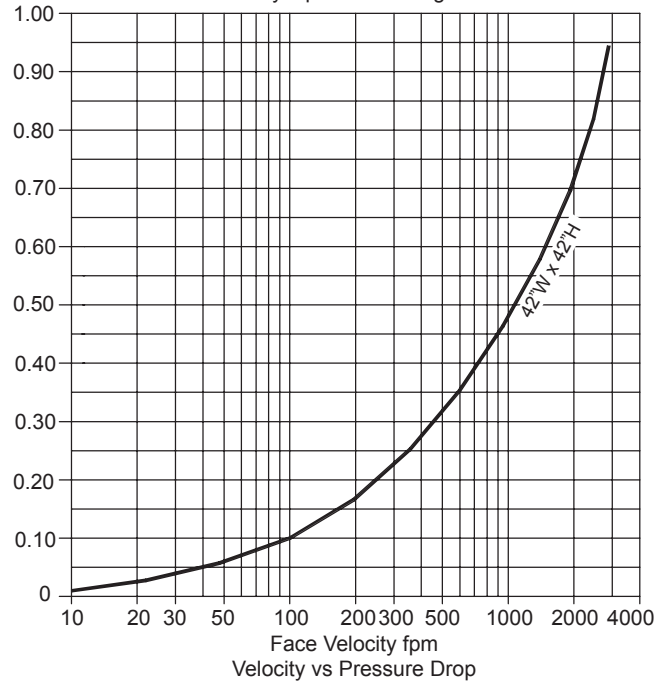
Operational Pressures  
Start to Open - .01 in.wg  
Fully Open - 2.5 in.wg



### With Ductwork

Damper installed per AMCA 500 Fig. 5.3 (Ductwork installed upstream and downstream of damper). Pressure is corrected to .075 lb./cu.ft. air density.

Operational Pressures  
Start to Open - .01 in.wg  
Fully Open - .96 in.wg



### Air Leakage:

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

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

		Width						
		12	18	24	30	36	42	48
Height	12	8.3	12.5	16.6	20.8	24.9	29.0	33.2
	24	16.6	24.9	33.2	41.5	49.8	58.1	66.4
	36	24.9	37.4	49.8	62.3	74.7	87.2	99.6
	48	33.2	49.8	66.4	83.0	99.6	116.2	132.8
	60	41.5	62.3	83.0	103.8	124.5	145.3	166.0
	72	49.8	74.7	99.6	124.5	149.4	174.3	199.2

For determining leakage values greater than 1 in.wg to a maximum 4 in.wg use the multiplier correction chart below.

Static Pressure (in)	2	3	4
Multiple Correction Factor	1.22	1.63	1.99

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 seals.