

ES-40 SERIES

Horizontal Mount Vertical Airflow Down

Application and Design

The ES-40 series is a horizontally mounted backdraft damper that is designed to allow vertical airflow down and prevent reverse airflow. The damper is opened by air pressure differential and closed by gravity. Standard models include adjustable counterbalance weights to assist closing.

Ratings (See page 2 for specific limitations)

Pressure: 2.5 in. w.g. - differential pressure.

Velocity: 2000 fpm.

Temperature: 180°F.

Standard Construction

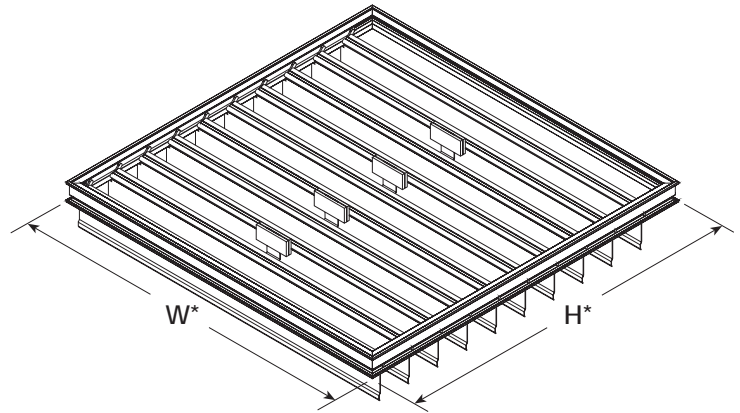
Frame: 6063T5 extruded aluminum.
(0.063" thickness).

Blades: 6063T5 extruded aluminum.
(0.050" thickness).

Axle Bearings: Synthetic polycarbonate sleeve type.

Linkage: 1/8" aluminum.

Blade Seals: Vinyl.



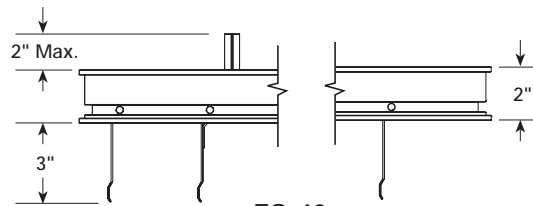
Size Limitations

Minimum Size: 6" W x 8" H

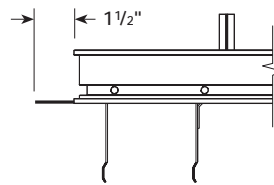
Maximum Size: 40" W x 52" H

Options and Accessories

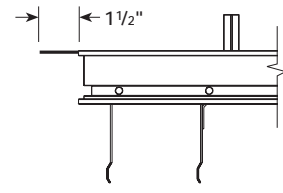
- 1 1/2" flange on discharge: ES-41
- 1 1/2" flange on intake: ES-42
- Pull Chain Actuator
- Wing Nut Actuator



ES-40
No Flange



ES-41
Flange On Discharge



ES-42
Flange On Intake

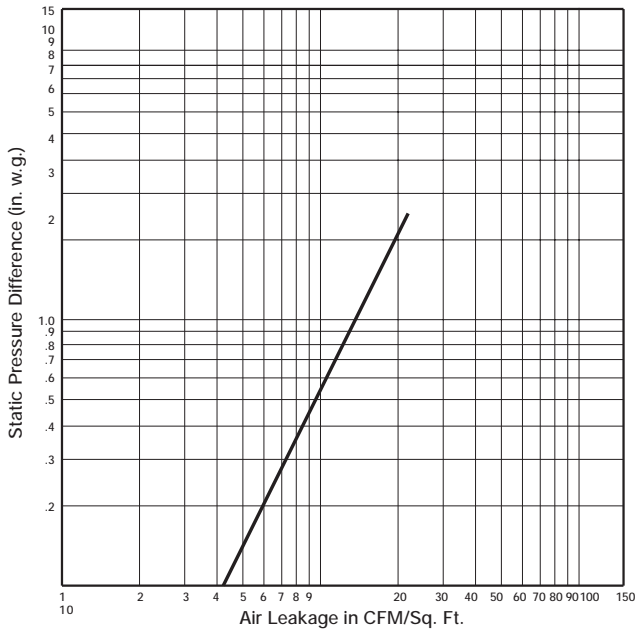
*W & H dimensions furnished approximately 1/4" under size.

Quantity	Model	Size		
		W Width	H Height	
Project		Location		
Contractor		Design Specifier		

Leakage

Leakage testing was conducted in accordance with AMCA Standard 500 and is expressed as CFM per sq. ft. of damper face area. All data has been corrected to represent standard air at 0.075 lb/ft³.

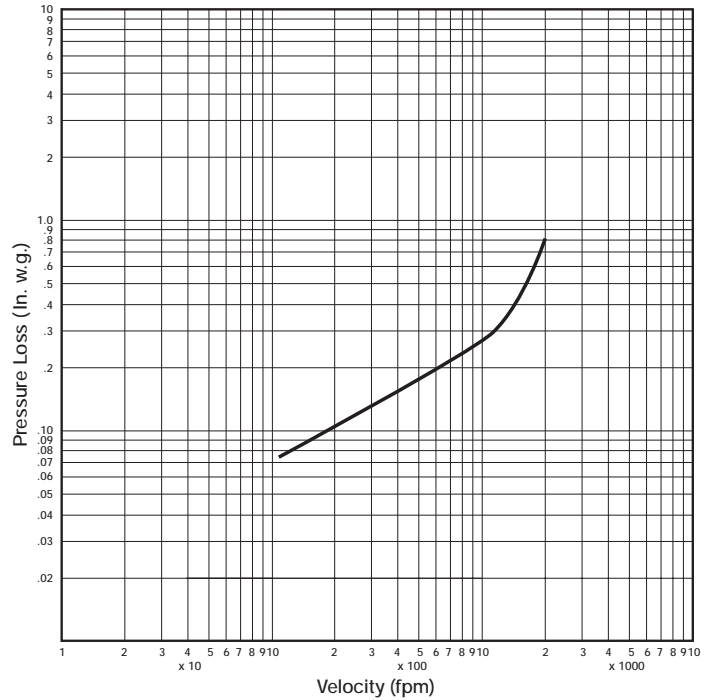
Leakage
36" x 36" Damper



Pressure Drop

Performance data results from testing a 36" x 36" damper in accordance with AMCA Standard 500 using Figure 5.7A (no duct either side). All data has been corrected to represent standard air at 0.075 lb/ft³.

Pressure Drop
36" x 36" Damper



Operational Data	ΔP in. w.g.	Velocity fpm
Blades Start to Open	0.075	110
Blades Fully Open	0.30	1150

Specifications

Backdraft dampers meeting the following specifications shall be furnished and installed where shown on plans and/or as described in schedules. Dampers shall consist of: 6063T5 extruded aluminum channel frame (0.063" thick) with 2" depth; blades from 0.050" 6063T5 extruded aluminum; synthetic polycarbonate axle bearings; damper shall be equipped with extruded vinyl blade seals; and internal 1/8" aluminum linkage.

Damper manufacturer's printed application and performance data including pressure, velocity and temperature limitations shall be submitted for approval showing damper suitable for pressures to 2.5" w.g., velocities to 2000 fpm and temperatures to 180°F. Testing and ratings to be in accordance with AMCA Standard 500. Basis of design is Greenheck model ES-40.