

Application

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 internal counterbalance to assist opening.

Ratings

Pressure

Up to 2.5 in. wg (.62 kPa) - differential pressure

Velocity

2000 fpm (10.2 m/s)

Temperature

180°F (82°C)



*W & H dimensions furnished approximately 1/4 in. (6mm) undersize.

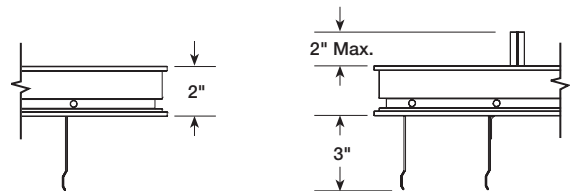
Construction

Construction	Standard
Frame Material	6063T5 Extruded Aluminum
Frame Thickness	.063 in. (1.6mm)
Blade Material	6063T5 Extruded Aluminum
Blade Thickness	.050 in. (1.3mm)
Axle Linkage	1/8 in. (3mm) aluminum
Bearings	Synthetic polycarbonate sleeve type
Blade Seals	Vinyl

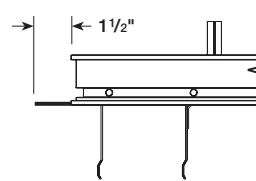
W x H	Minimum Size	Maximum Single Section Size
Inches	6 x 8 (with weights)	40 x 52
mm	152 x 203 (with weights)	1016 x 1321

Options and Accessories

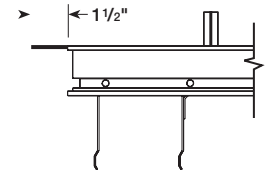
- 1 1/2 in. (38mm) flange on discharge: ES-41
- 1 1/2 in. (38mm) flange on intake: ES-42



ES-40
No Flange



ES-41
Flange on Discharge



ES-42
Flange on Intake

Performance Data

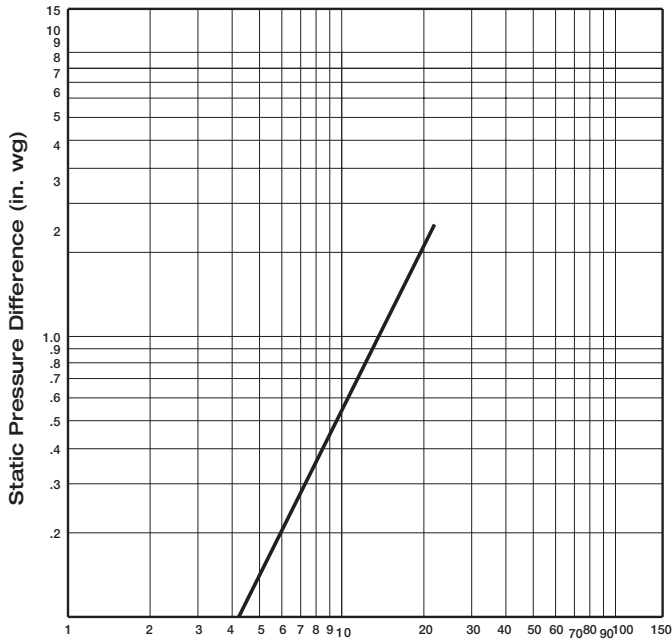
Leakage

Leakage testing was conducted in accordance with AMCA Standard 500-D 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 (1.201 kg/m³).

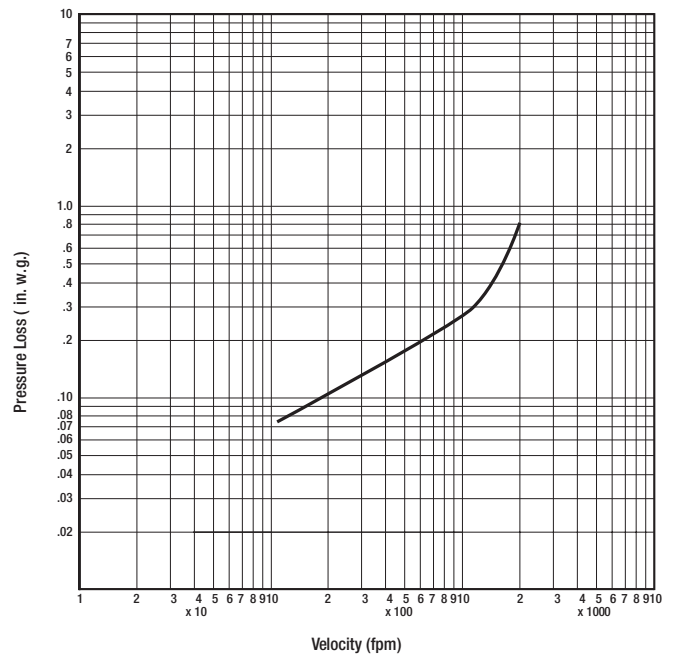
Pressure Drop

Performance data results from testing a 36 in. x 36 in. (914mm x 914mm) damper in accordance with AMCA Standard 500-D using Figure 5.7A (no duct either side). All data has been corrected to represent standard air at 0.075 lb/ft³ (1.201 kg/m³).

Leakage
36 in. x 36 in. damper



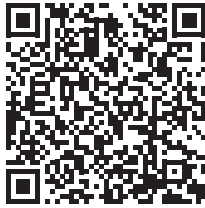
Pressure Drop
36 in. x 36 in. damper



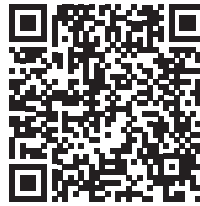
Operational Data	ΔEP in. wg (Pa)	Velocity fpm (m/s)
Blades start to open	0.075 (18.7)	110 (0.56)
Blades fully open	0.30 (74.7)	1150 (5.8)

Document Links

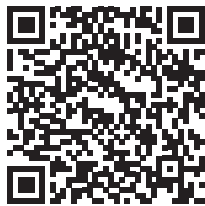
[Installation Instructions](#)



[Catalog](#)



[Damper Warranty](#)



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 in. [1.6mm] thick) with 2 in. (51mm) depth; blades from 0.050 in. (1.3mm) 6063T5 extruded aluminum; synthetic polycarbonate axle bearings; damper shall be equipped with extruded vinyl blade seals; and internal 1/8 in. (3mm) 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 in. wg (.62 kPa), velocities to 2000 fpm (10.2m/s) and temperatures to 180°F (82°C). Testing and ratings to be in accordance with AMCA Standard 500-D.

Basis of design is model ES-40.

