EM-40 Series

Extruded Backdraft Damper
Horizontal Mount/Vertical Airflow Down

Application

The EM-40 series is a horizontally mounted backdraft damper that is designed to allow vertical airflow 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

Pressure

Up to 10.0 in. wg (2.5 kPa) differential pressure. For pressures over 10 in. wg, (2.5 kPa), consult factory

Velocity

2500 to 3500 fpm (13 -18 m/s)

Temperature

180°F (82°C)

Construction

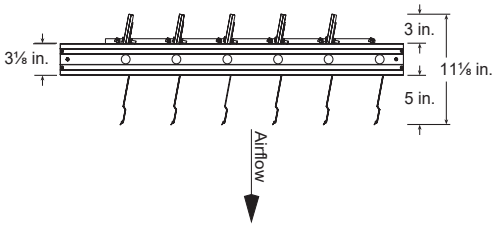
Construction	Standard	Optional
Frame Material	6063T5 Extruded Aluminum	
Frame Thickness	.125 in. (3.2mm)	
Blade Material	6063T5 Extruded Aluminum	
Blade Thickness	.070 in. (1.8mm)	
Axle Linkage	⅛ in. (3mm) plated steel	304SS
Bearings	Synthetic (acetal) sleeve type	
Blade Seals	Vinyl	
Operation	Counterbalanced	

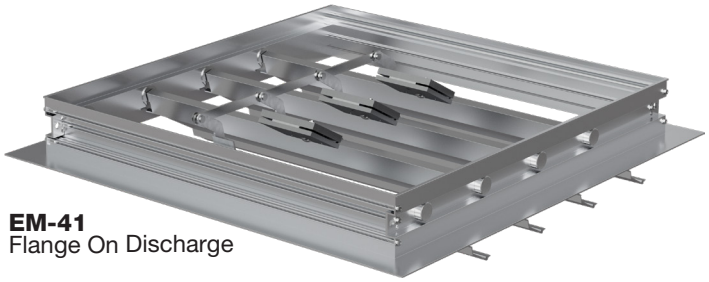
W x H	Minimum Size	Maximum Single Section Size	Maximum Multi Section Size
Inches	8 x 11	48 x 74	144 x 148
mm	203 x 279	1219 x 1880	3658 x 3759

Sizes larger than maximum shown will be supplied as two or more equal size smaller dampers required to make up the size specified. These larger multiple damper assemblies require field assembly and may require additional reinforcement (not supplied by factory) to support the assembly.

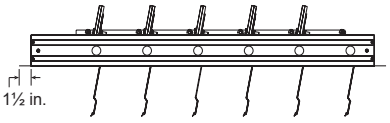
Note: Counterbalance weights may require field adjustment. Instructions are availalble at www.greenheck.com.

EM-40
No Flange

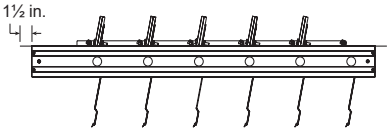




EM-41
Flange On Discharge



EM-42
Flange On Intake



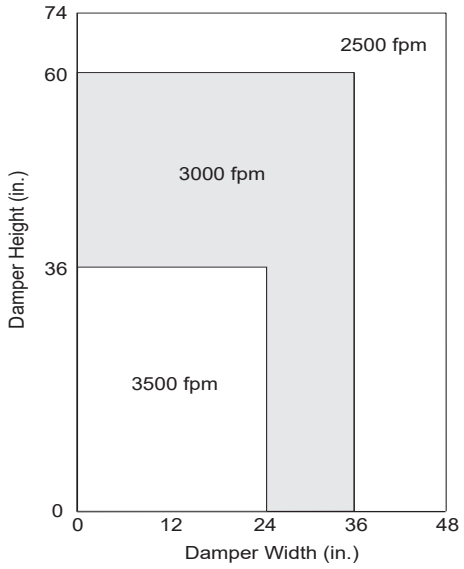
*W & H dimensions furnished approximately ¼ in. (6mm) under size.

Adjustable Pressure Controller (APC)

The APC allows field setting of relief pressure on all EM dampers. If more than a single section, an APC will be required for each section. Maximum pressure set limitiations are as follows:

Area ft^2 (m^2)	Maximum Set Pressure in. wg (Pa)
4 (.37)	.75 (187)
6 (.56)	.50 (125)
8 (100)	.40 (100)
10 (.93)	.30 (75)
15 (1.39)	.20 (50)
20 (1.86)	.15 (37)
24 (2.23)	.125 (31)

Velocity Limitations



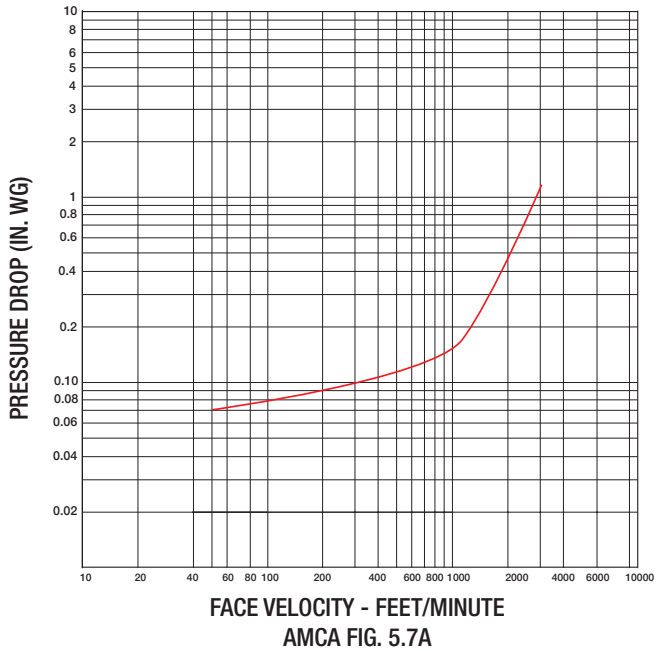
Operational Data

Operational Data		ÆP in. wg (Pa)	Velocity fpm (m/s)
Dampers with standard bearings	Blades start to open	0.07 (17)	50 (.254)
	Blades fully open	0.20 (50)	1200 (6.2)

Performance Data

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 (unducted). All data has been corrected to represent standard air at 0.075 lb/ft^3 (1.201 kg/m^3).

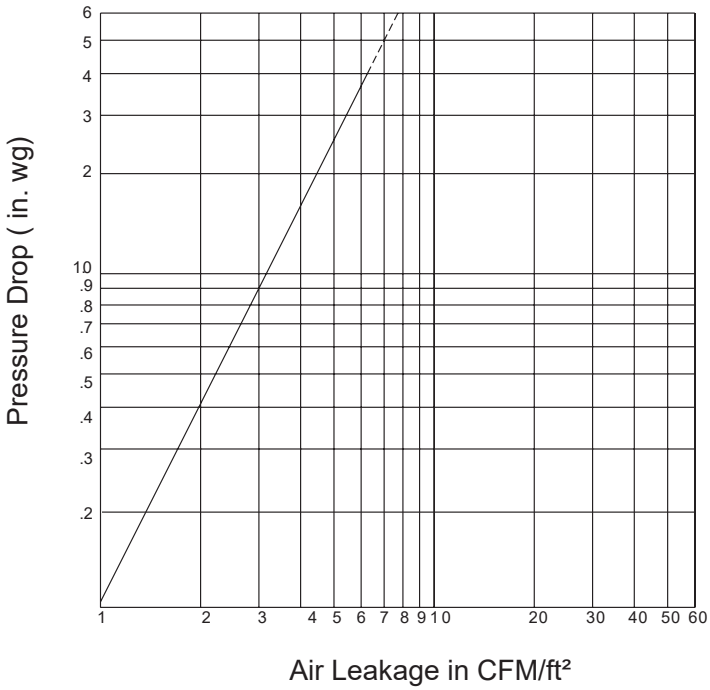
Pressure Drop



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/ft^3 (1.201 kg/m^3).

Leakage

36 in. x 36 in. Damper



Document Links

INSTALLATION

CATALOG

DAMPER SELECTION GUIDE

APC INSTALLATION

WARRANTY

SPECIFICATIONS

GREENHECK
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EM-40 Series, R15, April 2025
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