

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

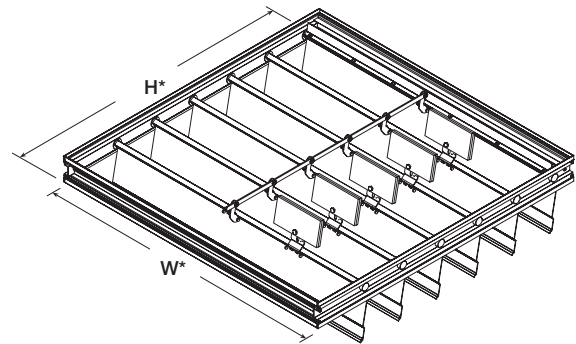
2500 to 3500 fpm (13 -18 m/s)

Temperature

180°F (82°C)



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



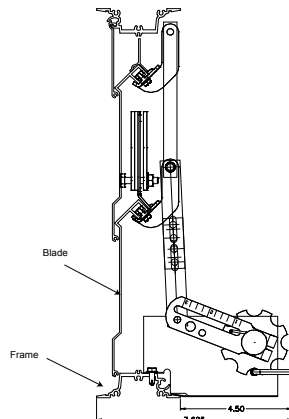
Construction

| Construction | Standard |
|-----------------|--------------------------------|
| Frame Material | 6063T5 Extruded Aluminum |
| Frame Thickness | .125 in. (3.2mm) |
| Blade Material | 6063T5 Extruded Aluminum |
| Blade Thickness | .070 in. (1.8mm) |
| Axle Linkage | 1/8 in. (3mm) plated steel |
| Bearings | Synthetic (acetal) sleeve type |
| Blade Seals | Vinyl |

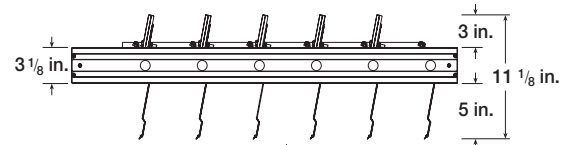
Options and Accessories

- 1 1/2 in. (38mm) flange on discharge: EM-41
- 1 1/2 in. (38mm) flange on intake: EM-42
- Sleeves
- APC (Adjustable Pressure Controller)
 - Allows field setting of relief pressure on all EM dampers. Use one per panel. Maximum recommended pressure set limitations are as follows:

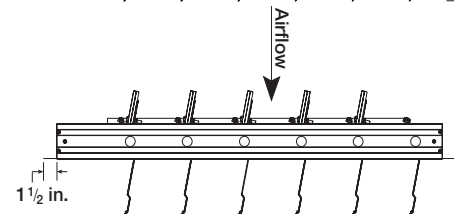
| Area ft ² (m ²) | Maximum Set Pressure in. wg (Pa) |
|---|-------------------------------------|
| 4 (.37) | .75 (187) |
| 6 (.56) | .50 (125) |
| 8 (100) | .40 (100) |
| 10 (.93) | .30 (75) |
| 15 (1.39) | .20 (50) |
| 20 (1.86) | .15 (37) |
| 24 (2.23) | .125 (31) |



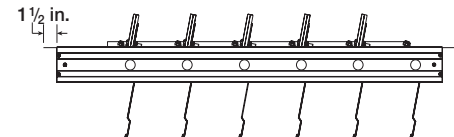
EM-40
No Flange



EM-41
Flange On Discharge



EM-42
Flange On Intake



| 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 |

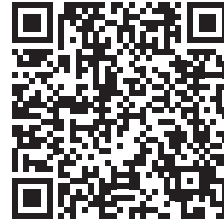
Sizes larger than maximum shown will be supplied as two or more equal size smaller dampers required to make up the size specified. These larger multiple damper assemblies require field assembly and may require additional reinforcement (not supplied by factory) to support the assembly.

Document Links

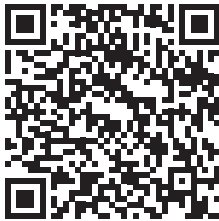
[Installation Instructions](#)



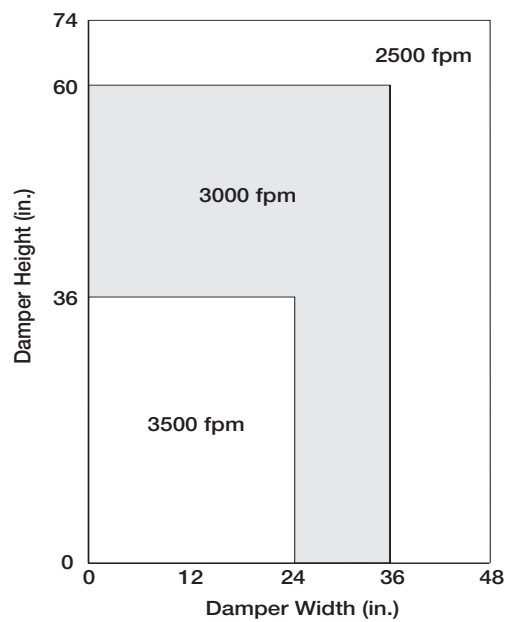
[Venco Product Catalog](#)



[Damper Warranty](#)



Velocity Limitations

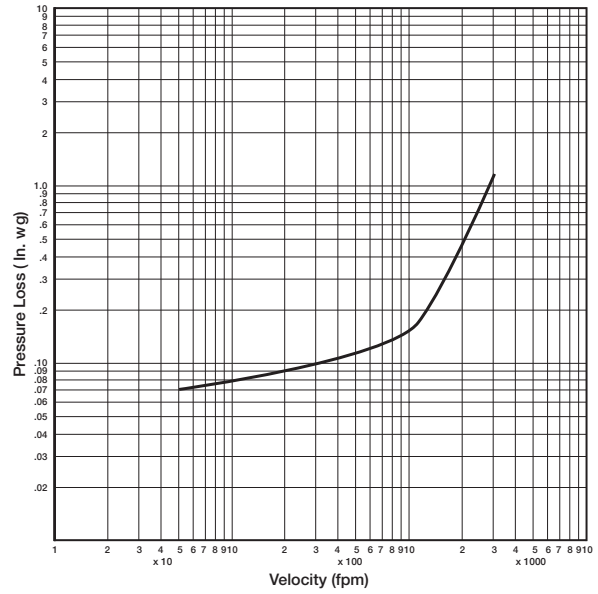


Performance Data

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/ft³ (1.201 kg/m³).

| Operational Data | | ΔP 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) |

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/ft³ (1.201 kg/m³).

Leakage

36 in. x 36 in. Damper

