

EMV-11

Horizontal Mount Vertical Airflow Up

Application and Design

The EMV-11 is a horizontally mounted backdraft damper that is designed to allow vertical airflow up and prevent reverse airflow. The damper is opened by air pressure differential and closed by gravity. Standard models include adjustable counterbalance to assist opening.

Ratings (See page 2 for specific limitations)

Pressure: 4.0 - 10.0 in. wg (996 Pa - 2491 Pa) differential pressure

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

Temperature: 180°F (82°C)

Standard Construction

Frame: Heavy gauge 6063T5 extruded aluminum (0.125 in. thickness [3.2mm])

Blades: Heavy gauge 6063T5 extruded aluminum (0.070 in. thickness [1.8mm])

Axles: 1/2 in. (13mm) dia. stainless steel

Bearings: Oil impregnated stainless steel sleeve type

Linkage: 1/8 in. (3mm) stainless steel

Blade Seals: Vinyl.

Paint Finish: Hi Pro Poyester

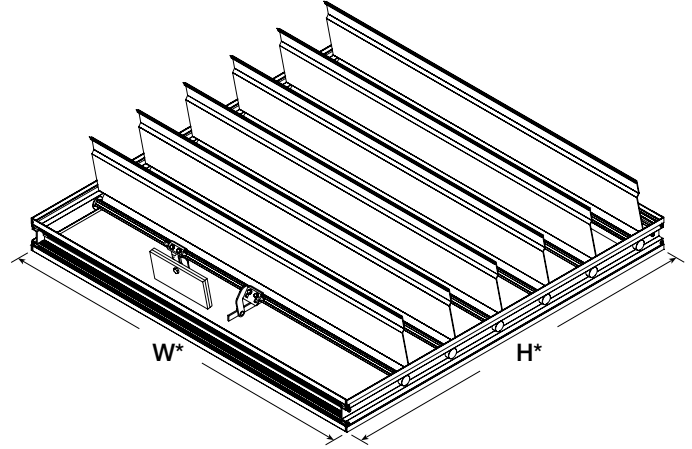
Counterbalance

weight material: Stainless steel

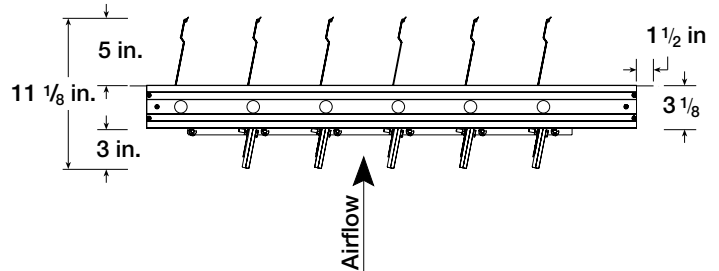
Size Limitations

Minimum Size: 8 in. W x 11 in. H (203mm x 279mm)

Maximum Panel Size: 48 in. W x 74 in. H (1219mm x 1880mm)



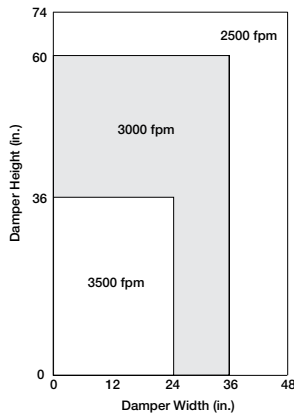
*W & H dimensions furnished approximately 1/4 in. (6mm) under size.



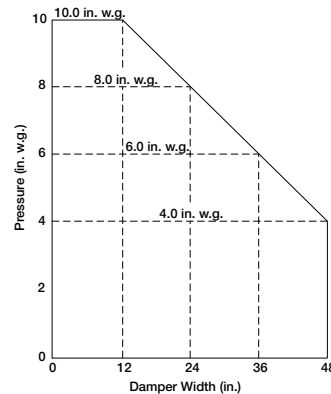
EMV-11
Flange On
Discharge

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 Greenheck) to support the assembly.

Velocity Limitations



Pressure Limitations



Performance Data

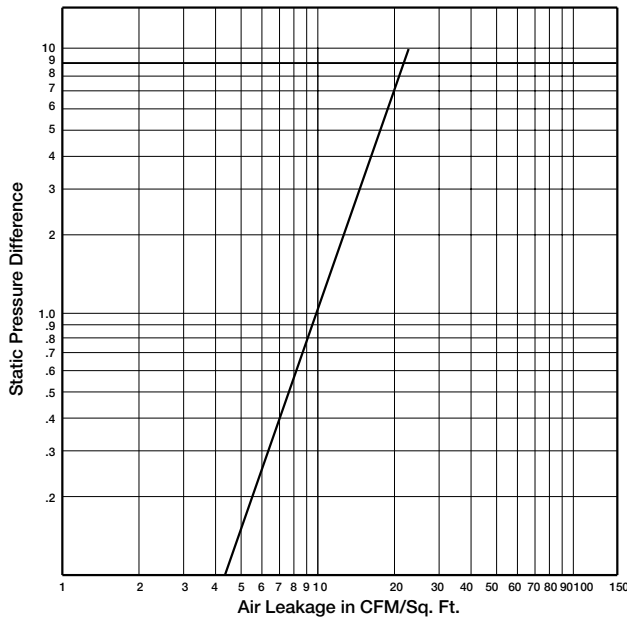
EMV-11

Performance data results from testing a 36 in. x 36 in. (914mm x 914mm) damper in accordance with AMCA Standard 500-D using Figure 5.7B (unducted). All data has been corrected to represent standard air at 0.075 lb/ft³ (1.201 kg/m³).

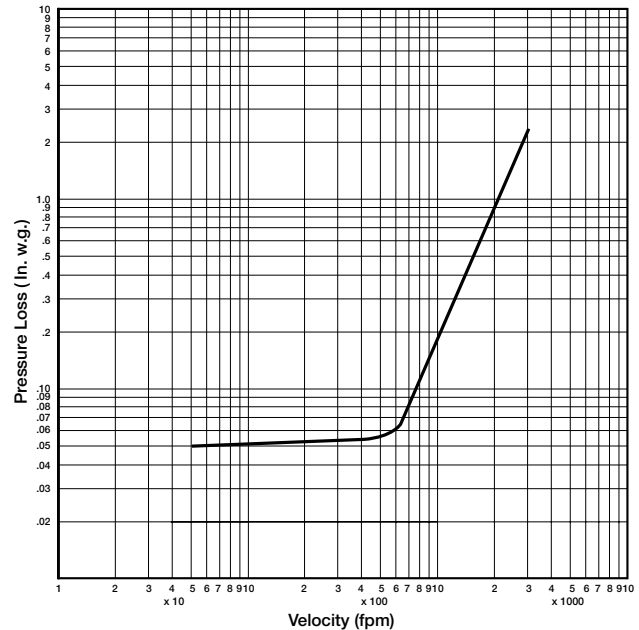
| Operational Data | | ΔEP in. wg (Pa) | Velocity fpm (m/s) |
|----------------------------------|----------------------|--------------------|-----------------------|
| Damper with Standard Bearings | Blades Start to Open | 0.05 (12) | 55 (.28) |
| | Blades Fully Open | 0.06 (15) | 680 (3.5) |

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



Pressure Drop



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: heavy gauge 6063T5 extruded aluminum channel frame (0.125 in. [3.2mm] thick) with 31/8 in. (79mm) depth; blades from 0.070 in. (1.8mm) 6063T5 extruded aluminum; 1/2 in. (13mm) dia. stainless steel axles turning in oil impregnated stainless steel sleeve type bearings; damper shall be equipped with extruded vinyl blade seals; and internal 1/8 in. (3mm) stainless steel

blade-to-blade linkage with counterbalance weights. 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 10 in. wg (2491 Pa), velocities to 3500 fpm (18 m/s) and temperatures to 180°F (82°C). Testing and ratings to be in accordance with AMCA Standard 500-D.

Basis of design is Greenheck model EMV-11.

