

AEROV BACKDRAFT DAMPER (7400V SERIES)

DESIGNED FOR FAN ARRAY APPLICATIONS

The AeroV Backdraft Damper is engineered to optimize fan array performance while simplifying the installation as a vertical blade damper. The robust and lightweight design allows for the direct mounting without requiring an additional offset or sleeve. Its innovative design features self-contained blades that fit entirely within the frame, not only eliminating the need for sleeves but also saving space. The linkage-free design allows each blade to adjust independently to airflow, ensuring a quiet, maintenance-free operation. This design promotes self-closure from negative pressure or recirculating air without additional mechanical assistance. The AeroV simulates a near damper-free environment with a pressure drop of less than 0.01" w.g. resulting in increased energy efficiency and system performance.

ADVANTAGES

- The self-contained blades are completely enclosed within the damper frame, allowing direct installation without requiring offsets or sleeves.
- Linkage-free system, allows each blade to react individually to changes in pressure and airflow, improving overall efficiency.
- The blades function without mechanical assistance, closing automatically in response to negative pressure from backdrafts or recirculating air.
- When a fan of an array shuts off, the AeroV self-closes, preventing leakage during equipment downtime or failures.
- All-aluminum design provides a rust-free, long-lasting operation. The Celcon bearing, linkage-free design allows smooth, maintenance-free performance without the need for grease or lubricants.
- Designed for maximum energy efficiency, the AeroV produces a pressure drop of less than 0.01" w.g. reducing system energy use while maintaining optimal airflow.



DESIGN/CONSTRUCTION

- Extruded aluminum frame and blades.
- One-piece, aerodynamic flared frame and radius corners designed for center directional airflow.
- Blades are affixed with aluminum pivot axles for independent action.
- Bearing design is self-lubricating composed of Celcon bearing and aluminum pivot axles to eliminate metal-on-metal friction.
- Damper widths range from 12" to 48" in 2" increments and heights range from 12" to 48" in any denomination.
- Frame and blade seals are extruded silicone.
- Mounting holes are pre-drilled by request.
- Damper requires reverse airflow for closure.

PERFORMANCE

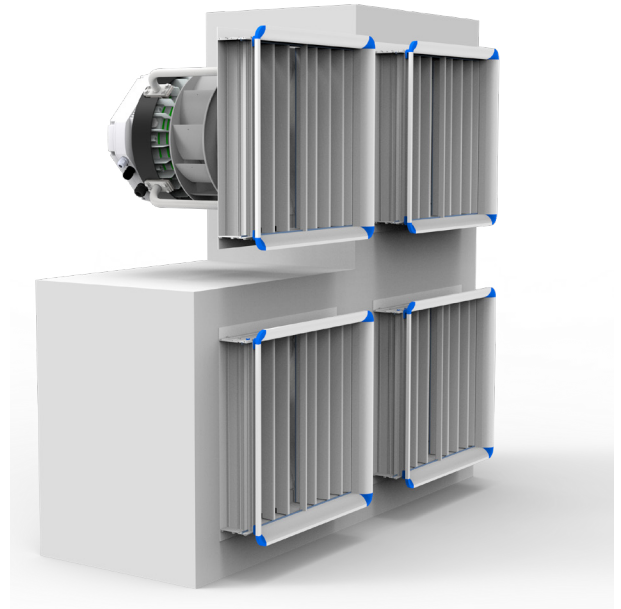
- Simulates near damperless environment.
- Pressure drop is less than 0.01" w.g.
- Withstands pressures up to 12" w.g.
- Blade rotation designed for laminar airflow.
- Inner blades rotate up to 85° and side blades up to 58°.
- Temperature range from -40°F (-40°C) to 212°F (100°C).

APPLICATIONS

- Fan array intakes
- Air Handling Units (AHUs)
- Wherever reverse airflow prevention is necessary.
- Retrofit or addition to an existing fan array.

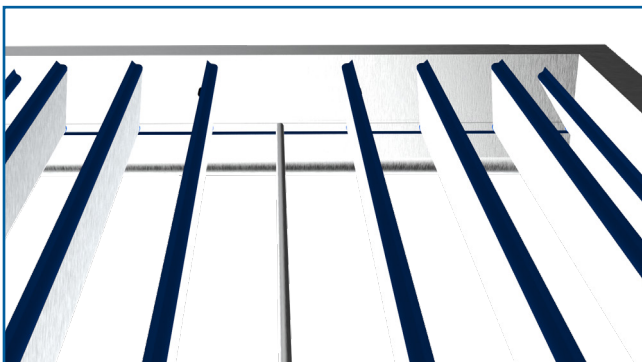
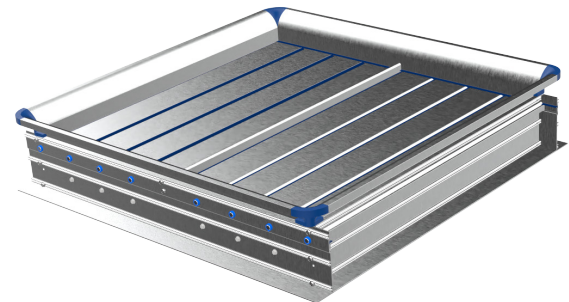
MAINTAIN SYSTEM PERFORMANCE

- In the event of a fan shutoff or failure, the AeroV self-closes in response to negative pressure, preventing airflow or pressure loss within the system. This damper will not close without reverse airflow.
- Low pressure drop performance contributes to greater overall system efficiency.
- Independent blade movement allows rapid responses to system changes and to varying airflows and pressures.
- Reduced noise operation due to minimized turbulence from the aerodynamic blade design.
- Durable, low-leakage performance under high static pressures.
- Prevents reverse airflow and recirculation into idle fans ensuring optimized system performance.



UPGRADE OPTIONS

- Salt Water Resistance (SW): Specifically designed for environments where there is salt spray or salt content in the air. Aluminum frame, blades, and axles are clear anodized to a minimum depth of 0.7 mil (18 microns). All zinc-plated steel hardware is replaced with stainless steel hardware.
- Silicone-free (SF): Blade seals are extruded EPDM and frame seals are extruded TPE.



The self-contained blades remain inside the frame profile simplifying installation and allowing direct unit mounting.



The linkage-free system utilizes a Celcon bearing and pivot axles that eliminate friction and allow for lubricant-free operation.

SPX ENGINEERED AIR MOVEMENT

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