



MODEL ACD-54 *AIRFOIL PARALLEL OR OPPOSED BLADE DAMPER* *LOW LEAKAGE: TESTED TO AMCA 500*

Standard Construction:

- Frame:** Extruded aluminum hat section, 5"w x 1"h (127 mm x 25 mm) heavy gauge 6063-T5
- Blades:** Extruded aluminum 4" (102 mm) wide airfoil profile, heavy gauge 6063-T5 extrusion.
- Bearings:** Nylon, press fit into frame.
- Axles:** Square plated steel.
- Linkage:** Galvanized steel linkage bar, concealed in frame.
- Extended Shaft:** Removable, 6" long x 1/2" dia. (152 mm x 12.7 mm) plated steel coupled to square axle.
- Blade Seals:** Inflatable, pressure sensitive.
- Jamb Seals:** Flexible metal, pressure sensitive.
- Finish:** Mill aluminum.
- Jackshaft:** 1/2" (12.7 mm) diameter standard on multi sections up to 96" x 72" (2438 mm x 1829 mm).
- Minimum Damper Size:** Single Blade: 6"w x 5"h (152 mm x 127 mm)
Multi Blade: 6"w x 8"h (152 mm x 203 mm)
- Maximum Damper Size:** Single Section: 60"w x 72"h (1524 mm x 1829 mm),
Multi Section: Unlimited.

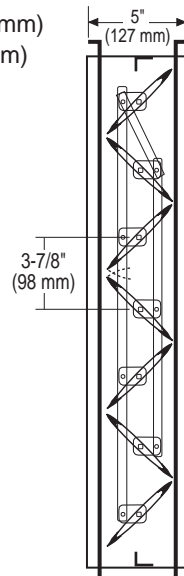
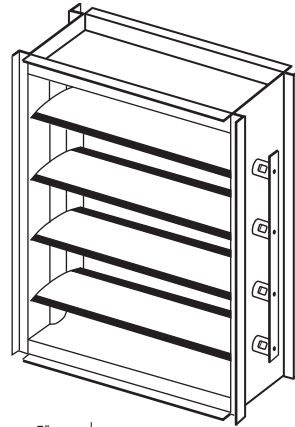
Options:

- Operators:** Motor mounting - Factory furnished or by others.
Manual quadrant or Chain operator
- Finish:** Painted Finishes
Clear Anodize - 204-R1 & 215-R1
Integral Color Anodize
- Face & Bypass:** Right angle and straight line face and bypass
- Jackshaft:** 3/4" (19 mm) Jackshaft reinforcement
- Bearings:** Bronze oilite bearings.

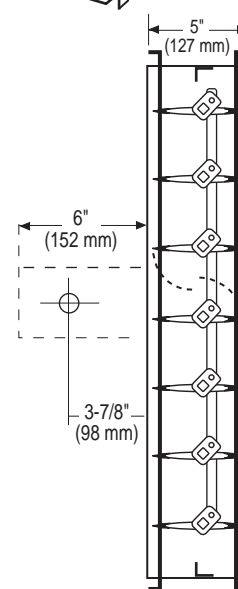
- Notes:**
 - Dampers fabricated 1/4" (6.4 mm) under opening size unless otherwise noted
 - All dimensions in () indicate millimeters
 - Specify parallel or opposed blade action.

Features

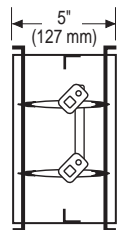
The ACD-54 series Control dampers have been designed and tested to provide the ultimate in performance features for sophisticated HVAC systems. Streamlined ("airfoil") blades provide reduced turbulence and noise. Inflatable blade edge and jamb seals allow extremely tight seating without unduly increasing torque requirements.



Opposed Blade



Parallel Blade



Low Profile
(Damper 16" High or Less)
(406 mm)

Suggested Specification

Low leakage Control dampers shall be Model: ACD-54 by NCA Manufacturing. Damper blades shall be of aluminum streamline ("airfoil") construction for minimum pressure drop. Both blade edge and jamb seals shall be of the pressure sensitive type for low leakage. Dampers shall be rated for leakage and pressure drop to AMCA Standard 500. Leakage through a 48" x 48" (1219 mm x 1219 mm) shall not exceed 3.7 cfm/sq. ft at 4.0" static pressure.

Specifications are correct at time of printing. However, as part of our 'continuous improvement program,' we reserve the right to make further improvements without notice.

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ACD-54 - 02-05

Project:

Contractor:

Location:

Address:

Architect:

P.O. Number:

Engineer:

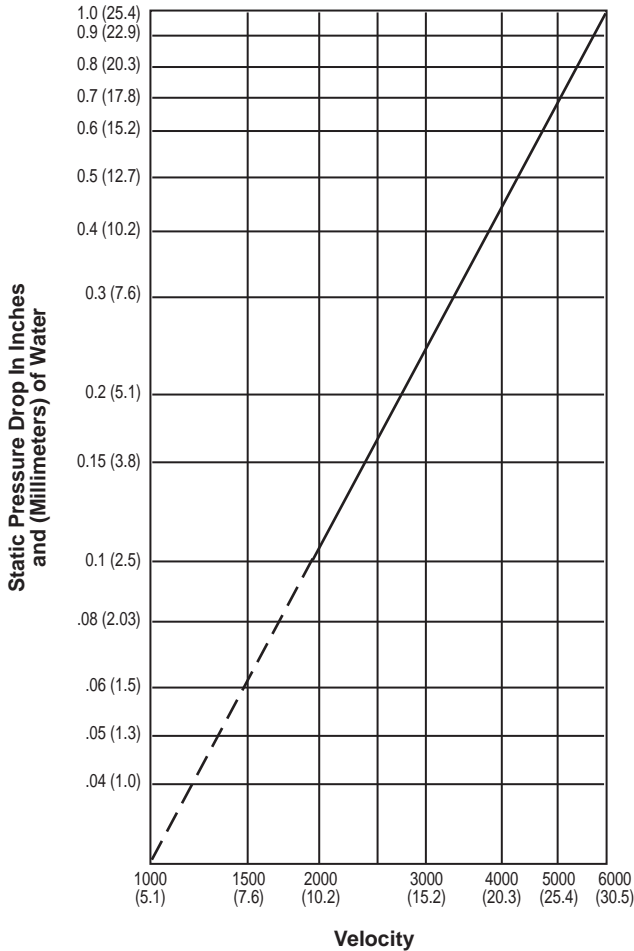
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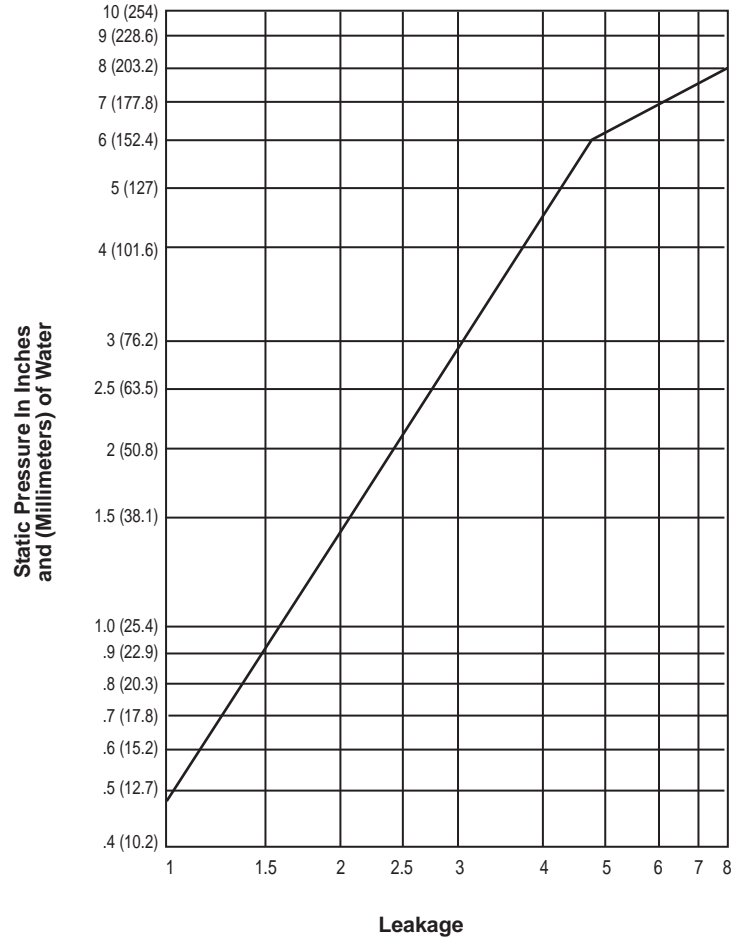
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Performance Data Graphs

Pressure Drop – Damper Open 24" x 24" (610 mm x 610 mm)



Air Leakage – Damper Closed 48" x 48" (1219 mm x 1219 mm)



Tested as per AMCA Std. 500, Fig. 5.3 – Air velocity shown in feet per minute and in () meters per second.

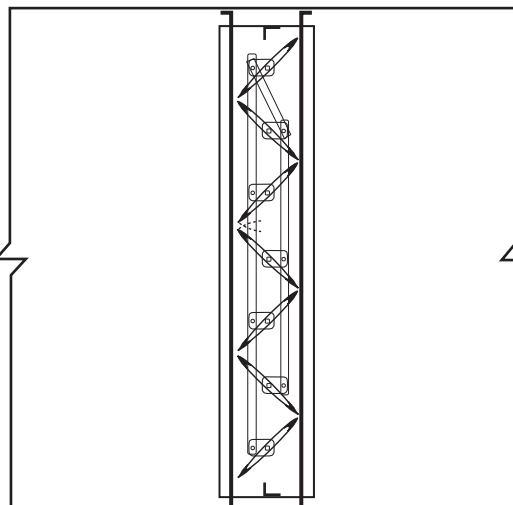
Tested as per AMCA Std. 500, Fig. 5.5 – leakage in CFM per sq. ft.

Typical Model ACD-54 Installation

The ACD-54 series is not recommended for vertical blades installation. Always connect motors to power blade and on linkage side.

The NCA frame is designed for easy installation into duct. Simply put sheet metal screws through the duct into the 1/2" (12.7 mm) wide mounting flanges approximately 18" (457 mm) on center.

NCA dampers are designed to be self supporting only in largest single section size. Larger size may require external bracing. Recommended bracing minimum of 8' (2438 mm). The amount and size will depend on unit size and system pressure.



The ACD-54 is suitable for applications with total pressures up to 4.0" w.g. It may be used in applications exceeding 4.0" w.g. by reducing the damper width. For correct damper sizing consult the factory when exceeding standard design limit of 4.0" w.g.