



# MODEL SCD-AF LOW LEAKAGE AIRFOIL CONTROL DAMPER LOW LEAKAGE: TESTED PER AMCA 500-D

## Standard Construction:

**Frame:** Roll-formed galvanized steel hat-section with staked corners with integral bracing.  
**Blades:** Airfoil-shaped, double skin galvanized steel of roll-formed construction. Mechanically joined to form construction equivalent to 14 ga. steel. Minimum 5" w (127 mm), maximum 7" w (177.8 mm)

**Bearings:** Nylon. Press-fit into frame.

**Axles:** Square, plated steel.

**Seals:** 450°F inflatable silicone blade edge seals and flexible metal jamb seals.

**Linkage:** Concealed in frame. Linkage bars are .125 (6.4 mm) thick plated steel.

**Finish:** Mill galvanized.

**Extended Shaft:** Removable, 6" long x 1/2" dia. (152 mm x 12.7 mm) plated steel coupled to square axle.

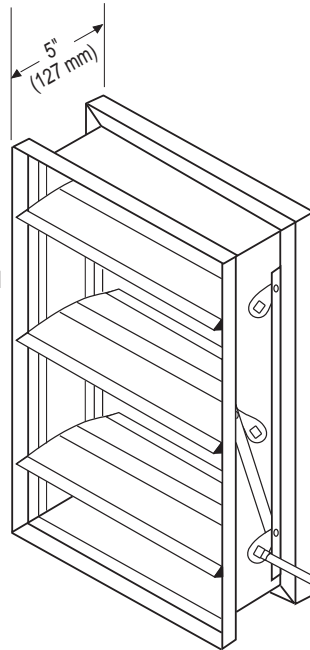
**Maximum Temperature:** 450°F

**Sizes:** Minimum size: 8" w x 8" h (203 mm x 203 mm)  
Maximum size: Single section - 60" w x 72" h (1524 mm x 1829 mm)  
Multiple section - size unlimited

### Options:

**Bearings:** Bearings: Bronze Oilite. Press fit into frame.

- Notes:**
- Dampers fabricated 1/4" (6.4 mm) under opening size unless otherwise noted
  - All dimensions in ( ) indicate millimeters
  - Not recommended with blades running vertically.
  - All dampers 32" and over are supplied with Jackshafting. (See Jackshafting & Enclosure submittal drawing for details).



## Features

- The SCD-AF 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 sealing without unduly increasing torque requirements.
- The SCD-AF series damper's rigid frame and integrally braced corners provide true damper alignment that greatly resists being installed out of square or out of flat. This insures on site performance equal to test results.
- The SCD-AF series dampers have been leakage tested per AMCA standard 500-D with the following results:

LEAKAGE	AT	AT	AT
cfm/SQ. FT.	1.0" w.g.	4.0" w.g.	8.0" w.g.
	3.1	5.6	10.7

- SCD-AF is available in either parallel or opposed blade models.
- SCD-AF is available as face and by-pass mixing dampers.
- Factory installed electric or pneumatic operators are available.

SCD-AF - 02-05

PATENT APPLIED FOR

## Suggested Specification

Low Leakage Control dampers shall be Model: SCD-AF by NCA Manufacturing. Damper blades shall be of galvanized steel streamlined ("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-D. Leakage shall not exceed 6.5 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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Project:

Contractor:

Location:

Address:

Architect:

P.O. Number:

Engineer:

Date:



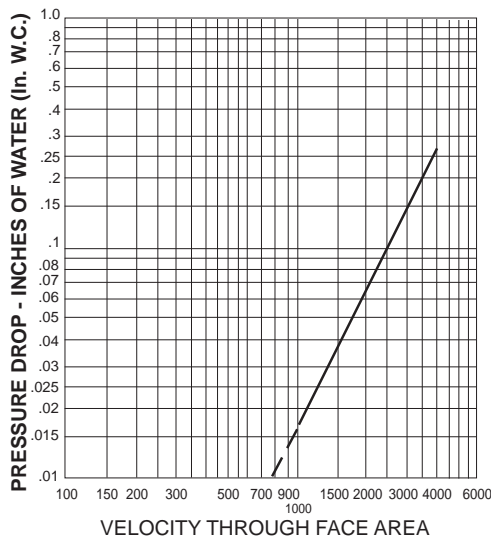
# *MODEL SCD-AF* *LOW LEAKAGE AIRFOIL CONTROL DAMPER* *LOW LEAKAGE: TESTED PER AMCA 500-D*

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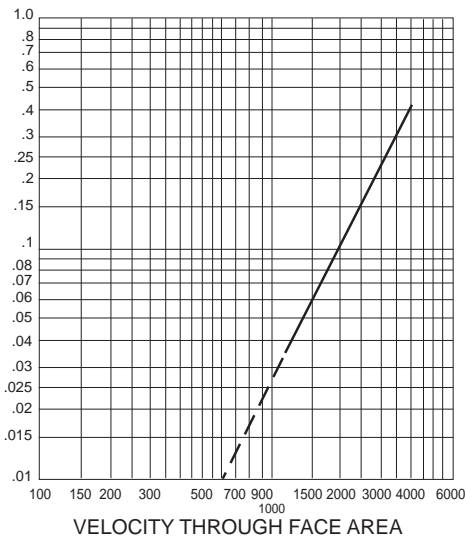
Pressure drop testing was conducted by an independent laboratory in accordance with the AMCA Standard 500-D, Fig. 5.3 ductwork upstream & downstream

## **PRESSURE DROP**

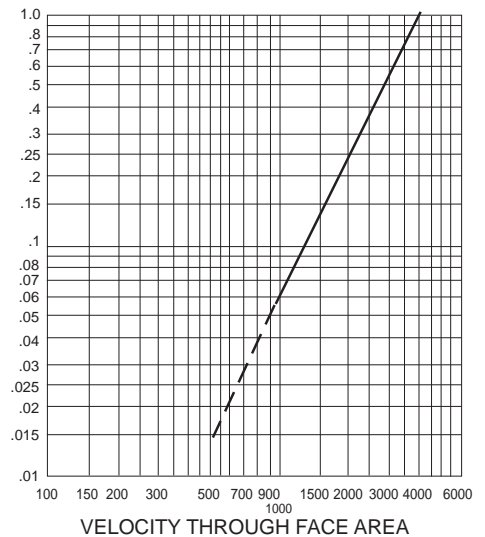
**DAMPER SIZE 36 x 36**



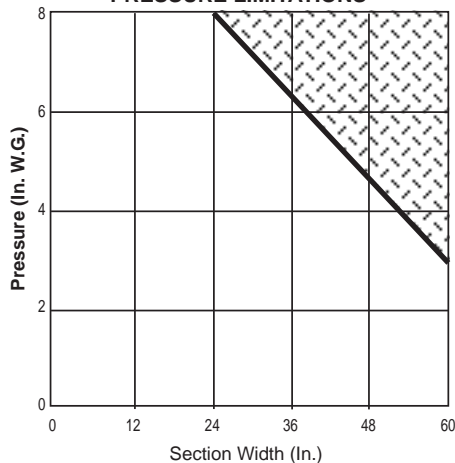
**DAMPER SIZE 24 x 24**



**DAMPER SIZE 12 x 12**



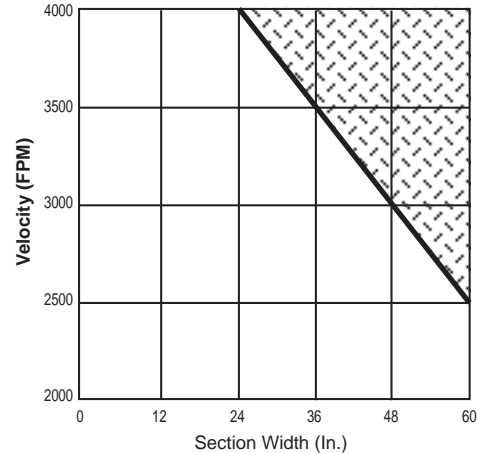
## **PRESSURE LIMITATIONS**



Pressure & Velocity Limitations presented in the adjoining graphs are conservative in order to avoid mis-applications.

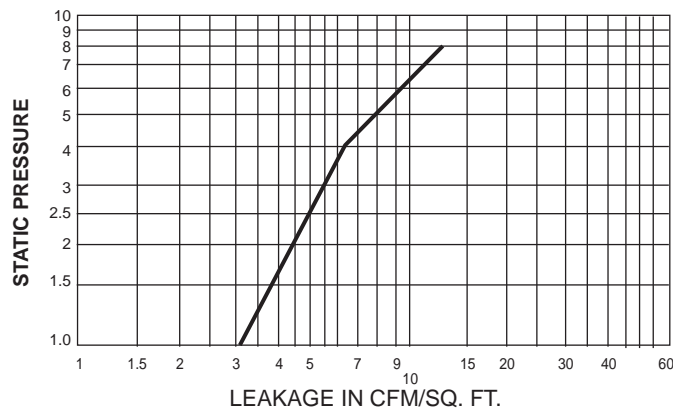
Please contact factory for application guidance if your requirements exceed published limitations.

## **VELOCITY LIMITATIONS**



## **LEAKAGE**

**DAMPER SIZE 36 x 48**



Leakage Performance test was conducted by an independent laboratory in accordance with AMCA Standard 500-D and is expressed as CFM/SQ. FT. of damper face area.

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