## General Damper Description

The NS1 series are low leak galvanized steel dampers for the commercial heating and air conditioning industry. The NS1 is typically used in an air economizer application, and meet most energy codes including California's Title 24, IECC 2015, and ASHRAE 90.1 requirements.

The dampers leak less than 3 cfm/sq. ft. at 1" w.g. (static pressure), and are AMCA licensed as a Class 1A damper at 1" w.g.

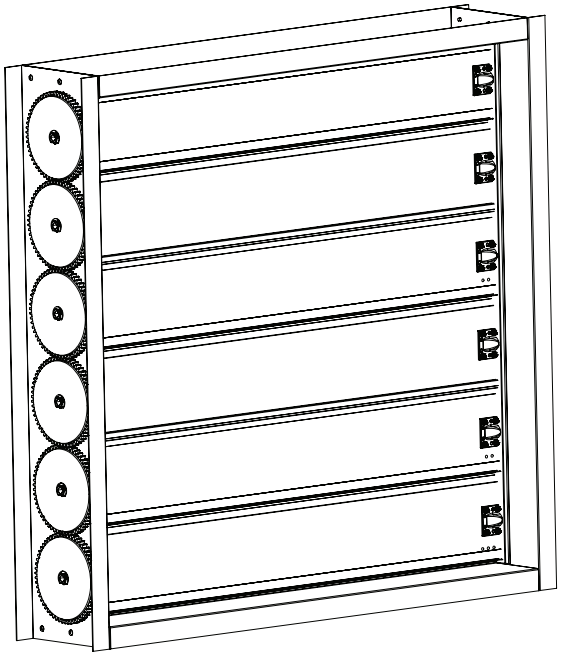
NS1 damper information can be found at www.micrometl.com

## Damper Features

The NS1 dampers are opposed blade action type, and are driven by 6" diameter external gears. Blades and frame are constructed of heavy gage galvanized steel.

Blades are attached to gears by a metal blade bracket at the end of each blade. The bracket rides in a bushing to ensure long life and usage.

Damper sides include stainless steel spring-action seals to ensure minimal leakage at blade ends. Blade edges include flex-seals for blade-to-blade and blade to frame seal.



**NS1 Damper**

## Damper Sizes:

**Minimum damper width:** 12.00" (305mm)
**Minimum damper height:** 6.25" (159mm)

**Maximum damper width:** 45" (1143mm)
**Maximum damper height:** 36" (914.4mm)

*Note: Damper blades 38" wide and less are constructed of 18 gage galvanized steel. Blade widths greater than 38" and up to 45" are 16 gage.*

## NS1 SERIES DAMPER LEAKAGE DATA

Leakage testing conducted in accordance with AMCA Standard 500-D. Data are based on a torque of 0.68 N*m (6 in-lb/ft2) applied to close and seat the damper during the tests. Tested to AMCA Figure 5.4 and 5.6A. Air leakage is based on operation between 0° C – 49° C (32° F – 120° F).

| Max Allowable Leakage cfm/ft2 | | |
|---|---|---|
| **Class** | **at 1" w.g** | **at 4" w.g** |
| 1A | 3 | N/A |
| 1 | 4 | 8 |
| 2 | 10 | 20 |
| 3 | 40 | 80 |

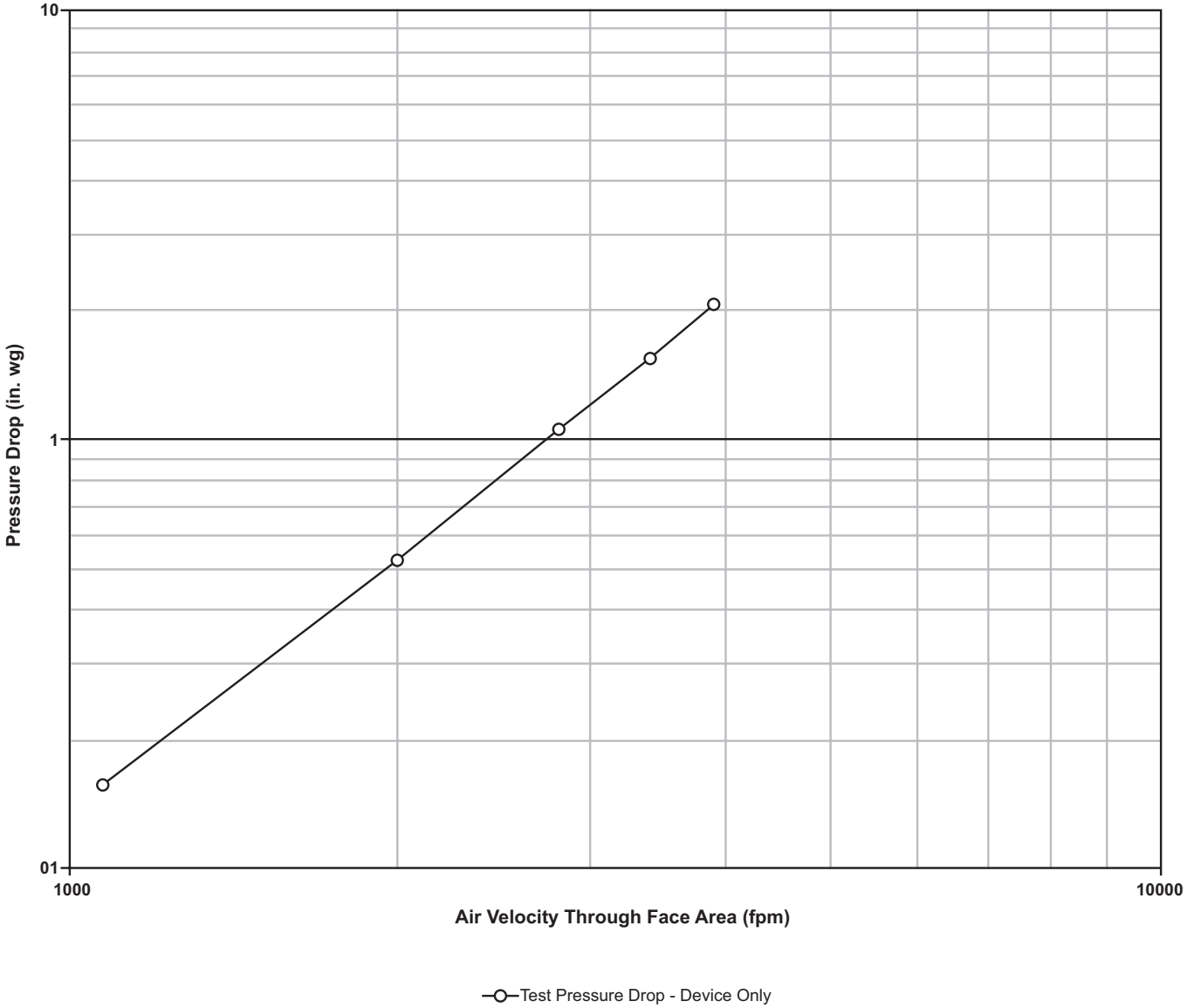
MicroMetl's NS1 Series Dampers are AMCA licensed at Class 1A at 1" w.g. and leakage is beyond Class 3 at 4" w.g. HVAC economizers in this size range are generally well under 1" w.g.

**MicroMetl Corporation certifies that the model NS1 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.**

## DAMPER PRESSURE DROP DATA

Pressure drop tests were conducted in accordance with AMCA Standard 500-D using AMCA Figure 5.5. All data has been corrected to represent standard air at a density of .075 lb/ft2 (1,201 kg/m3)

The test results below are for a 12”w x 12”h NS1 volume damper.




Contact MicroMetl for specific economizer damper sizes and models available or visit us at www.micrometl.com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