

— AUTOMATIC BALANCING —
DAMPERS



ABV-4

ABV-5

ABV-6

MAINTAIN CONSTANT AIRFLOW VOLUME

— **RENEWAIRE EVERYWHERE** —

EVERY GEOGRAPHY, EVERY CLIMATE, EVERY HOME,
EVERY BUILDING AND EVERY APPLICATION

AUTOMATIC BALANCING DAMPERS

PRODUCT INFORMATION

Automatic balancing valve (ABV) dampers maintain a constant airflow volume in HVAC applications. The engineered damper blade is **calibrated to automatically adjust to varying pressures** using physics, not electricity, giving the dampers true pressure independence.

LAB-CALIBRATED

Every ABV features a unique, patent-pending, set-point adjustment arm that allows for easy adjustment of the airflow rate through each damper.

Each ridge of the set-point adjustment indicator has been lab-calibrated in accordance with ANSI/AMCA 500-D-12. Each ridge is lab-proven to deliver a flow rate within 10% of the set point from 0.2" up to 1.0" of water column.

ABV SIZES AVAILABLE & AIRFLOW RANGE

- ◆ Nominal 4" Diameter, 20-130 CFM
- ◆ Nominal 5" Diameter, 20-130 CFM
- ◆ Nominal 6" Diameter, 50-275 CFM

Note: Airflow range determined through +/- 10% of average airflow over 0.2" to 1" of water column (WC).



4" and 5" model set-points shown.

PROUDLY
MADE IN
THE USA



Classified by UL to UL 2043 for heat release rate and smoke optical density.

This product is covered by US Patent No. 10,203,703 and other pending applications.

FEATURES & BENEFITS

THEY WORK USING PHYSICS, NOT ELECTRICITY

Using physics, the automatic balancing dampers will constrain the airflow volume to precise factory-calibrated volumes as marked on the front of the dampers.



HOW IT WORKS

- 1 First the desired airflow is set by moving the set-point adjustment arm to the desired airflow in CFM (cubic feet per minute).
- 2 Then the fixed stator blade applies the exact amount of tension on the moving damper blade to hold the airflow at its target.
- 3 Lastly, the pressure differential across the moving damper blade gives the blade lift to automatically adjust to changes in static pressure and air velocity. This is what gives it "pressure independence."

ADAPTABILITY

Patented quick-connect adapter ring for easy use with field plates and boxes.

STERI-BALANCE™

Anti-microbial agent to prevent mold and bacteria.

SEALED TIGHT

Raised gasket for insertion into a round duct or flat rubber gasket for connection to adapter plate.

BI-DIRECTIONAL

By flipping the valve, it changes from exhaust to supply.

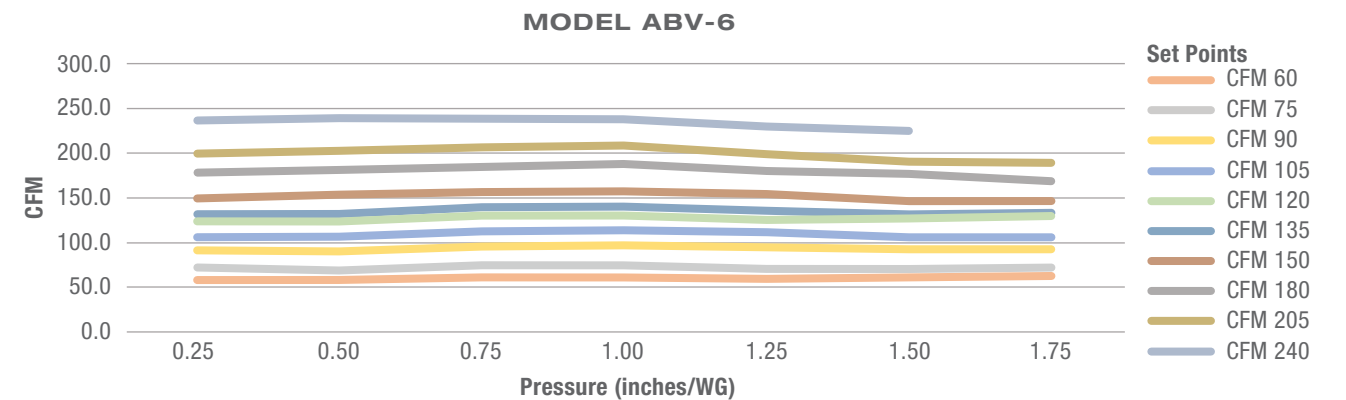
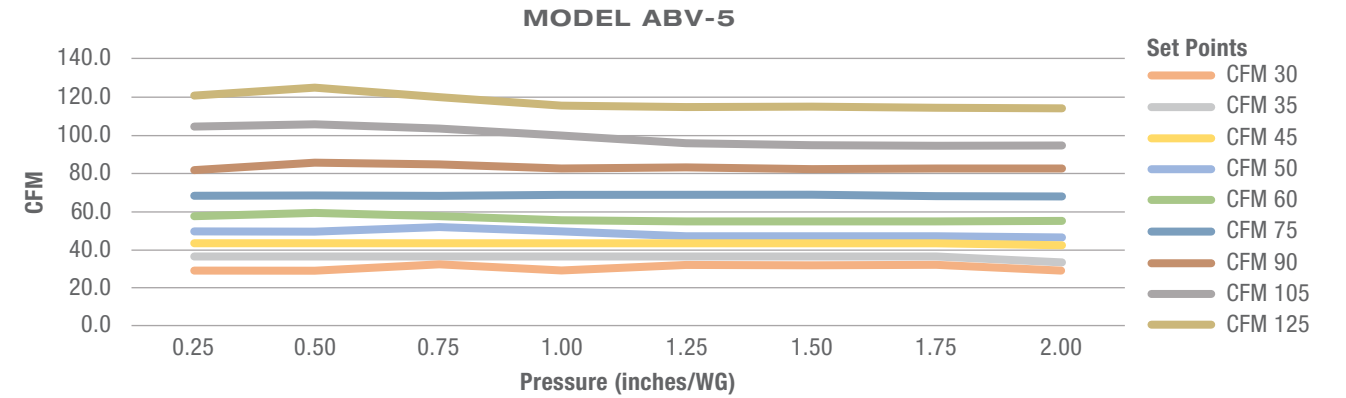
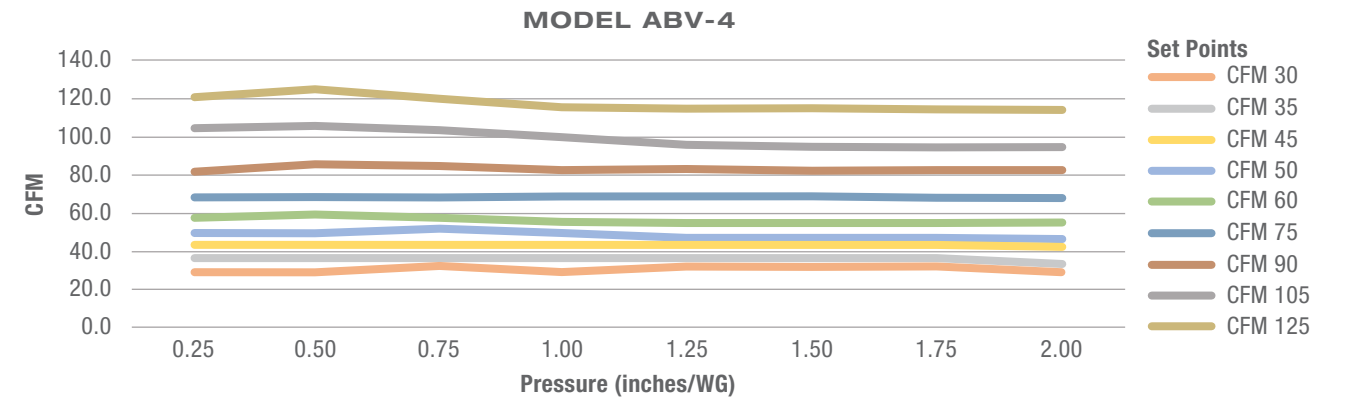
TOTAL CONTROL

20-24 set-points that can be viewed and adjusted through the grille.

UL CLASSIFIED

UL2043 tested and classified.

PERFORMANCE DATA*



*Units tested in accordance with AMCA 500-D-12.

ABV-4 and ABV-5 have 20 individual manual set-points. ABV-6 has 24 individual manual set-points. The most common ventilation flow rates are labeled on the products. The performance data for those set-points is reported here. Performance data for each individual manual set-point is available upon request.

APPLICATIONS

RESIDENTIAL, COMMERCIAL AND ORIGINAL EQUIPMENT MANUFACTURERS (OEM)

- ♦ Precise and automatic airflow regulation in supply or exhaust ventilation systems in any residential or commercial building.
- ♦ Automatic balancing of the supply grilles in forced-air heating and cooling systems in homes.
- ♦ Any HVAC applications with a static pressure between 0.2" and 2.0" WC.
- ♦ Controlled volume of make-up air.
- ♦ OEM applications such as chilled beams, fan coil units, PTAC units, centralized fan systems, fresh/make-up air systems and ERVs.
- ♦ Suitable for application in temperatures ranging from 25° to 150°F (-4° to 65°C).

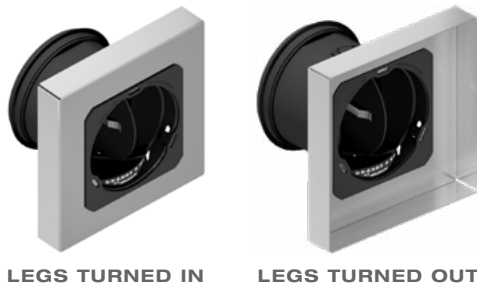
AUTOMATIC BALANCING DAMPER ASSEMBLIES

Automatic balancing dampers can be supplied as a part of several assemblies for numerous applications. They can be flipped around in all assemblies to go from exhaust to supply applications without any modification.

SQUARE/RECTANGULAR TRANSITION

Allows the damper to be inserted into square/rectangular ducts, plenum boxes or grille boxes*. The transition plate is intended to go inside the square/rectangular duct or plenum box, and can be used with legs turned in or out (for space gain).

4" model with 6" x 6" transition shown.



*Grilles provided by others.

GRILLE MOUNTS

The damper can be supplied with a grille mount box with or without a grille. The grille mount box is a flanged galvanized steel box that allows the insertion of a grille*.



WARRANTY

Every ABV product comes with a product replacement warranty to be free from manufacturing defects for a period of five years from the date of purchase. Semiannual cleaning is suggested to ensure the precise operation of the valve.